

2016

Drives and controls
for intelligent building technology



2016

Drives and controls

for intelligent building technology

Tubular drives
 Venetian blind drives
 Speciality drives

Home automation
 Controls
 Sensors

Door drives
 Door controls

Accessories





1964 In der Elektronik-Werkel und Reparaturwerkstatt Prader entstand die Idee, den Rolladengurt durch einen Motor zu ersetzen.

→ elero - elektrisch rollen

The idea to replace the roller shutter belt by a motor was hatched in the Prader electric motor wiring and repair shop.

→ elero - electric rolling

Es folgt ein komplettes Motorenprogramm für Rollläden, Markisen und Rolltore.
A complete range of motors for roller shutters, awnings and rolling doors follows.

1970 Erster elektrischer Garagentor-Antrieb mit Funkfernsteuerung.
First electric garage door drive with a radio remote control.



1964 1967 1970 1971 1972 1974 19

50

turn your life, since 1964.

www.elero.com

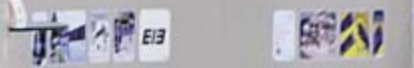


elero

elero

elero

77 Produktbegrenzung
...
78 von 100 Jahren für große Roll- und Geländewagen
...
79 Erste Abdeckvorrichtung, Antipark-Abstellhilfe und eine integrierte Schaltung
...
80 ...
81 ...



1976 1980 1984 1985 1987

1997 1998 1999 2000 2002 2005 2006 2007

50
www.elero.com

Pioneer

Becoming a global player with a simple idea

Never again raising roller shutters by hand – this simple thought marked the start for elero in 1964. Since then the company name has been synonymous with a mission: making roller shutters, awnings, venetian blinds and rolling doors roll electrically at the push of a button. The workshop from back then has become a global player that regularly sets new standards in home automation, whether in 1984 with the first electronic timer or in 1992 with the automatic controller that follows the yearly course of the sun. In 2009 elero presented the “ProLine 2”, the first bidirectional radio system with routing function. Centero has enabled the simple and convenient control of building services by smartphone or tablet PC since 2013. Today, over 50 years after the establishment of the company, elero employs over 450 staff with branches all over the world and is still as innovative as it was on the very first day.

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Colours

Tubular drives RevoLine S + M + L



Tubular drives Type 9 + 11



Venetian blind drives



Speciality drives



Home automation, radio control units and sensors



Hardwired control units and -sensors



Door drives



Door controls



Drive adapter profiles and lifting capacity tables



RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio controls, radio sensors

Hardwired controls sensors

Door drives

Door controls

Adapter profiles Lifting capacity tables



Quality of life

Greater living comfort at the push of a button

It's the little details that constitute perfect living comfort: never again having to pull or wind your sun protection by hand. Roller shutters that automatically open and close. An awning controller that gently stretches the cloth taut in the sunshine and retracts the sun protection system in wind and rain. And all of this maintenance-free, noiseless and comfortable in operation, at the push of a button, by radio remote control or app from anywhere in the world. Tenants as well as house and flat owners soon realise that products and solutions from elero save time, lower energy costs and thus quickly pay off in the truest sense of the words. However, elero offers even more that cannot be measured in euros and cents: an undreamt-of high degree of living comfort and a new quality of life.



Innovation

Highest demands on design, technology and quality

Noble and plain on the outside, high-end technology on the inside. We have been the leaders in innovation in building automation since 1964 and have shaped the market with new and visionary products. With our high product quality and innovative force, we are the only supplier that still develops and produces entirely in Germany. Our product development focuses on our customers with their requests and requirements. Hence, we develop user-friendly products with intuitive operation and high comfort and find the best solution even for special requirements. The result: internationally award-winning innovations, the Centro app for the simple mobile operation of the building services. And delighted customers worldwide.







Colleg Orange

For your success

Specialist know-how and good service are important for your sales success – which is why our seminars and workshops are exactly the right thing for you!

The seminar for successful product consulting and sales is ideal for all those who wish to provide the best-possible advice for their customers while at the same time refreshing their basic knowledge. At the end of the day the participants are familiar with all sales arguments and the beneficial aspects of automation solutions. For installation engineers, service technicians, certified electricians and craftsmen with prior knowledge there are half-day workshops on drive technology and control technology, which – depending on the event location – may be combined with one another.

In the new seminar “Building automation with smartphone and tablet” we look at the various control possibilities with a smartphone and tablet, and provide answers to widely differing customer requirements.



Our future

Drive on the job

Therefore, in order to meet its needs for qualified and dedicated skilled workers, elero has trained its own apprentices for many years. Great importance is attached to well-trained employees. It is the individual employees that lead a company to success. They make the company strong for the future. Those who begin their career at elero thus receive a great deal of input in theory and practice. In addition, special projects in the team provide for work enjoyment and solidarity.

e l e r o
turn your life



Made in Germany

More than a half century of company history – with all its highs and lows, many innovations and constant “German-made” quality. The customer is the central generator of ideas and each employee is an important part of the works. Long-standing relationships with customers are decisive for success. Since its establishment, elero has catered to the interests of building owners, craftsmen, architects and system manufacturers. Hence, it provides a good service and develops tailor-made and innovative products that are really needed.



Highest quality

elero venetian blind drives are optimally tailored to the specific requirements of venetian blinds. The drives are equipped with integrated thermal protection and an easily adjustable limit stop. The indestructible, maintenance-free planetary gears, the splash-proof motor housing and the standard use of high-precision individual parts maintain the quality of these drives. The accurately functioning latching limit stops, whose adjustment is both simple and easily accessible for both directions of rotation, offer further advantages.

Gentle technology

Modern drives fulfil a variety of requirements. They should be robust, durable and reliable, but at the same time work quietly and be maintenance-free. The RevoLine roller shutter drives from elero move the shutters smoothly and precisely. The drives have an integrated slow speed which ensures a smooth stop travel. That especially protects the roller shutters and considerably reduces noise development.



Automation

Control the awning from your deck chair or the light and the roller shutters from the bed without having to juggle with lots of different remote controls – who has never wanted to be able to do that? With the Centero automation solution from elero, building services can be controlled by smartphones and tablet PCs. Additional living comfort is offered by the Unio-868 radio power socket, via which the Centero can be linked with further devices.





Your direct line

International service

We have developed into a leading, globally operative brand in the field of drives and controllers for intelligent, sustainable home automation and industrial applications. For elero, everything revolves around the customer. And customer satisfaction is a measure of success. This is expressed in expert advice, short delivery times and intensive customer service. Almost worldwide. How else would we have so many satisfied regular customers?



Drives

	Page	Electronic limits with Soft Stop on end position approach	Mechanical limit switches	Uni-directional radio system	Bi-directional radio system	Noiseless soft brake *	Integrated slow drive **	Torque control	Manual override	Parallel connection possible	Roller shutter	Sonro roller shutter	Awning	Blind and screen	Dual screen	Roller shutter with louvre function	ZIP Screen	Venetian blind	Rolling doors	Folding shutter drive
RevoLine S																				
RolTop S-868	30	•		•	•	•	•	•			•			•						
RolTop S	32	•				•	•	•		•				•						
RolTop D+ S-868	34	•		•	•	•	•	•			•									
RolTop D+ S	36	•				•	•	•		•										
RolTop/T S-868	38	•		•	•	•	•	•						•						
SunTop S-868	40	•		•	•	•	•	•				•	•							
SunTop S	42	•				•	•	•		•		•	•							
VariEco S-868	44		•	•	•	•					•	•	•							
VariEco S	46		•			•					•	•	•							
RevoLine M																				
RolTop M-868 /K /RH /SH	58	•		•	•	•	•	•			•			•						
RolTop M-868 Fast run.vers. /RH	60	•		•	•	•	•	•						•						
RolTop M /K /RH /SH	62	•				•	•	•		•				•						
RolTop M Fast run.vers. /RH	64	•				•	•	•		•				•						
RolSmart M10-K	66	•				•	•	•			•			•						
RolSmart M20	66	•				•	•	•			•			•						
RolTop/D+ M-868 /SH	68	•		•	•	•	•	•			•			•						
RolTop/D+ M /SH	70	•				•	•	•		•				•						
RolTop Sonro M-868	72	•		•	•	•	•	•				•								
RolTop Sonro M	74	•				•	•	•		•		•								
RolTop/J M-868	76	•		•	•	•	•	•							•					
RolTop/J M	78	•				•	•	•		•					•					
SunTop M-868 /RH /SH	80	•		•	•	•	•	•				•	•							
SunTop M /RH /SH	82	•				•	•	•		•		•	•							
SunTop/Z-868 RH	84	•				•	•	•									•			
SunTop/Z RH	86	•				•	•	•		•							•			
VariEco M-868	88		•	•	•	•					•	•	•							
VariEco+ M-868	88		•	•	•	•					•	•	•							
VariEco M	90		•			•					•	•	•							
VariEco+ M	90		•			•					•	•	•							
RevoLine L																				
RolTop L-868	102	•		•	•			•			•			•						
RolTop L	104	•						•		•				•						
SunTop L-868	106	•		•	•			•				•	•							
SunTop L	108	•						•		•		•	•							
VariEco L-868	110		•	•	•						•	•	•							
VariEco L	112		•								•	•	•							

	Page	Electronic limits with Soft Stop on end position approach	Mechanical limit switches	Uni-directional radio system	Bi-directional radio system	Noiseless soft brake *	Integrated slow drive **	Torque control	Manual override	Parallel connection possible	Roller shutter	Sonro roller shutter	Awning	Blind and screen	Dual screen	Roller shutter with louvre function	ZIP Screen	Venetian blind	Rolling doors	Folding shutter drive	
Type 11																					
Type 11 CSM-868	120	•		•				•					•	•							
Type 11 CSM-F-868	120	•		•				•					•	•							
Type 11 CSM-E	122	•						•		•			•	•							
Type 11	124		•								•		•	•							
Type 9 NHK / Type 11 NHK																					
Type 9 NHK	130		•						•		•		•	•						•	
Type 11 NHK	132		•						•		•		•	•						•	
Type 15																					
Type 15	252		•								•		•							•	
Type 15 NMA	254		•						•		•		•							•	
Venetian blind drives																					
JA	144		•																	•	
JA Soft	144		•			•														•	
JAR	146		•																	•	
JAR Soft	146		•			•														•	
JA NHK	148		•						•											•	
Speciality drives																					
Box 5	156		•						•			•								•	
Folding shutter drive	158	•						•		•											•
Door drives																					
DFM NHK	260		•						•											•	
DFM SHK	262		•						•											•	
DKM NHK	264		•						•											•	
DKM SHK	266		•						•											•	
DFM pole reversible	268		•						•											•	
WFM NHK/SHK	270		•						•											•	
WKM NHK/SHK	270		•						•											•	

* Noiseless soft brake: Serie S up to 8 Nm including; Serie M up to 20 Nm including

** Integrated slow drive: only in combination with soft brake

Possible limit switch modes

	Page	Programmable end limits combinations				Mechanically adjustable end limits		Self learning limits	
		Upper limit switch		Lower limit switch		Upper limit switch	Lower limit switch	Upper limit switch	Lower limit switch
		on limit stop	freely programmable	on limit stop	freely programmable	freely programmable	freely programmable	on limit stop	on limit stop
RevoLine S									
RolTop S-868	30	•		•					
RolTop S	32	•			•				
			•	•					
			•		•				
RolTop/D+ S-868	34							•	•
RolTop/D+ S	36								
RolTop/T S-868	38	•		•					
		•			•				
			•	•					
			•		•				
SunTop S-868	40	•		•					
SunTop S	42	•			•				
			•	•					
			•		•				
VariEco S-868	44					•	•		
VariEco S	46								
RevoLine M									
RolTop M-868 /K /RH /SH	58	•		•					
RolTop M-868 f. run. v. /RH	60	•			•				
RolTop M /K /RH /SH	62		•	•					
RolTop M f. run. v. /RH	64		•		•				
RolSmart M10-K	66	•		•					
RolSmart M20	66	•			•				
			•	•					
RolTop/D+ M-868 /SH	68							•	•
RolTop/D+ M /SH	70								
RolTop Sonro M-868	72	•		•					
RolTop Sonro M	74	•			•				
			•	•					
			•		•				
RolTop/J M-868	76	•		•					
RolTop/J M	78	•			•				
			•	•					
			•		•				
SunTop M-868 /RH /SH	80	•		•					
SunTop M /RH /SH	82	•			•				
			•	•					
			•		•				
SunTop/Z M-868 /RH	84	•		•					
SunTop/Z M /RH	86	•			•				
			•	•					
			•		•				
VariEco M-868	88					•	•		
VariEco M	90								

		Programmable end limits combinations				Mechanically adjustable end limits		Self learning limits	
		Upper limit switch		Lower limit switch		Upper limit switch	Lower limit switch	Upper limit switch	Lower limit switch
		on limit stop	freely programmable	on limit stop	freely programmable	freely programmable	freely programmable	on limit stop	on limit stop
		Page							
RevoLine L									
RolTop L-868	102	•		•					
RolTop L	104	•			•				
			•	•					
			•		•				
SunTop L-868	106	•		•					
SunTop L	108	•			•				
			•	•					
			•		•				
VariEco L-868	110					•	•		
VariEco L	112								
Type 11									
Type 11 CSM-868	120	•			•				
			•	•					
Type 11 CSM-F-868	120		•		•				
Type 11 CSM-E	122	•			•				
			•	•					
Type 11	124					•	•		
Type 9 NHK / Type 11 NHK									
Type 9 NHK	130					•	•		
Type 11 NHK	132								
Type 15									
Type 15	252					•	•		
Type 15 NMA	254								
Venetian blind drives									
JA	144					•	•		
JA Soft	144								
JAR	146					•	•		
JAR Soft	146								
JA NHK	148					•	•		
Speciality drives									
Box 5	156					•	•		
Folding shutter drive	158							•	•

Control units

	Page	Roller shutters/ Interior shading	Awnings/External shading	Venetian blinds	Switching lights	Heating	Switching of mains voltage (230V)	Switching of low voltage (<6V)	Radio transmitter, number of channels	Radio receiver	Requires 230V connection	External inputs/Building automation system/Audio visual system integration	Manual/automatic sliding switch	Integrated operation buttons	24-hour and 7-day basic timer	Astro, sun set timer (or weekly timer)	Astro, sun rise timer (or weekly timer)	Astro shift (user adjustable)	City selection (156 locations)	Longitude/latitude degree adjustable	Time adjustable
Control units																					
Centro	162	•	•	•	•	•			15 ¹		•		•	•	•	•	•	•	•	•	•
MultiTec Touch-868	166	•	•	•	•	•			20		•		•	•		•	•	•	•	•	•
TempoTel 2 *	168	•	◦	•	•	◦			10				•	•		•	•	•	•	•	•
MultiTel 2	170	•	•	•	•	•			15				•	•							
VarioTel 2	170	•	•	•	•	•			5				•	•							
LumeroTel 2	172	•	•	•	•	•			1				•	•							
MonoTel 2	172	•	◦	◦	•	•			1					•							
SoloTel 2	172	•	◦	◦	•	•			1					•							
AstroTec-868 /bidi	174	•	◦	•	•	◦			1				•	•	•	•	•	•	•	•	•
MemoTec-868	176	•	◦	•	•	◦			1				•	•	•						
UniTec-868	178	•	•	•	•	•			1				•	•							
Invio-868	180	•	◦	◦	•	•			1		•	•									
VarioTec-868	182	•	•	•			•	•		•	•	•	•	•							
AeroControl-868	184		•	•			•			•	•	•									
Revio-868	186	•	•	•			•			•	•	•									
Revio-868 P	186	•	•	•			•	•		•	•										
Revio-868 SW	186	•	•	•	•		•	•		•	•	•									
Unio-868	188				•	•	•			•	•			•							
Combio-868 JA	190			•			•			•	•										
Combio-868 JA Pulse	190			•			•			•	•										
Combio-868 RM	190	•	•				•			•	•										
Combio-868 HE	192					•	•			•	•										
Combio-868 LI	192				•		•			•	•										
Combio-868 SW	192				•		•			•	•										
Sensero-868 AC/ Sensero-868 AC Plus	194	◦	•	•					1		•			•							
Aero-868	196		•						1					•							
Aero-868 Plus	196		•	•					1					•							
Aero-868 AC	196		•	•					1	•				•							
Ventero-868	196		•						1					•							
Protero-868	198		•						1					•							
Lumero-868	200	•	•	•					1					•							
Lumo-868	202	•	◦	◦					1				◦	•							
AeroTec	206	◦	•	•			•	•		•	•	•	•	•							
AstroTec	208	•	◦	•	•		•	•		•	•	•	•	•		•	•	•	•	•	•
TempoTec	208	•	◦	•			•			•		•	•	•		•		•	•	•	•
MemoTec	210	•	◦	◦			•			•		•	•	•	•						
VarioTec	212	•	•	•			•	•		•	•	•	•	•							
MonoTec	214	•	•	•				•						•							
TimeTec	216	•					•			•		•	•								

◦ With restrictions/Partially suitable channels

• Yes/Suitable

¹ up to 150 expandable

	Page	Use as weekly timer (1x up and 1x down each day)	2nd weekly timer (1x up and 1x down each day)	Offset (offset command, based on first set timer)	Light sensor input/twilight function	Light sensor function	Glass brake sensor function	Wind sensor input/function	Multi pre-set languages	Intermediate position & ventilation position	Tilting position/fabric tight	Holiday (intelligent randomiser)	Travel position assignment down	Travel position assignment up	Automatic summer/winter time adjustment	Running time setting	Disable group/master inputs	Disable (Wind) alarm signal	Non erasable memory for automatic date of installation, relay activation counter, motor running time	Storage dimm value	Fixed dimm value	Transmitter/receiver for bidirectional mode °	Transmitter/receiver for unidirectional mode
Control units																							
Centero	162	•	•						•	•	•		•	•	•							•	
MultiTec Touch-868	166	•	◦						•	•	•	•	•	•	•							•	
TempoTel 2 *	168	•	◦						•	•	•	•	•	•	•							•	•
MultiTel 2	170								•	•	•											•	
VarioTel 2	170																					•	•
LumeroTel 2	172																					•	•
MonoTel 2	172																					•	•
SoloTel 2	172																					•	•
AstroTec-868 /bidi	174	•	•	•	•	•			•	•	•	•	•		•	•			◦			+	"
MemoTec-868	176																						•
UniTec-868	178																					•	•
Invio-868	180																						•
VarioTec-868	182									•	•							•					•
AeroControl-868	184				•	•	•		•	•													•
Revio-868	186								•	•												•	•
Revio-868 P	186								•	•												•	•
Revio-868 SW	186								•	•												•	•
Unio-868	188																					•	•
Combio-868 JA	190								•	•												•	•
Combio-868 JA Pulse	190								•	•												•	•
Combio-868 RM	190								•	•												•	•
Combio-868 HE	192																			•		•	•
Combio-868 LI	192																		•				•
Combio-868 SW	192																						•
Sensero-868 AC/ Sensero-868 AC Plus	194				•	•	•															•	•
Aero-868	196					•	•															•	•
Aero-868 Plus	196					•	•															•	•
Aero-868 AC	196					•	•															•	•
Ventero-868	196						•															•	•
Protero-868	198						•															•	•
Lumero-868	200				•	•																•	•
Lumo-868	202				•	•	•															•	•
AeroTec	206	•			•	•	•	•	•	•	•		•		•	•	•		•				
AstroTec	208	•	•	•	•	•			•	•	•	•	•		•	•	•	•	•				
TempoTec	208	•							•	•	•	•	•		•								•
MemoTec	210									•	•												
VarioTec	212									•	•							•					
MonoTec	214																						
TimeTec	216	•																					

◦ With restrictions/Partially suitable • Yes/Suitable * Times of 2 Groups + Central + AstroTec-868 bidi only " nur AstroTec-868 ° incl. routing

Status LED display of the ProLine 2 transmitter

Colour and frequency	Meaning
Flashing orange (2 Hz)	Channel is empty or not yet programmed
Flickering orange (20 Hz)	Channel is in bidirectional programming mode (at least one bidirectional receiver is also in programming mode)
Orange and then green	Channel is bidirectionally programmed and the receiver has received the signal
Orange and then red	Channel is bidirectionally programmed and one of the receivers has not received the signal
Red and then green	Channel is bidirectionally programmed and the receiver has received the signal. Batteries are low!
Red and then red	Channel is bidirectionally programmed and one of the receivers has not received the signal. Batteries are low!
Green	Channel is in unidirectional mode
Orange and green alternating, then red	Channel (transmitter) is deleted
Red flashing	Batteries are low!



Wissen was läuft!
Knowing what's up!



ProLine 2 – bidirectional transmitter programming

Function	Buttons to press	Procedure	Condition/prerequisite
Interrupt supply voltage: Switch circuit breaker off/on			
Start preparation to programming mode (time: 5 min.)		Press for approx. 3 sec.	Transmitter already programmed
		Press for approx. 6 sec. → until LED lights up red	Transmitter already programmed (all receivers that know the transmitter are now deleted)
Start preparation to synchronous programming mode (time: 5 min.)		Press for approx. 3 sec. → until LED lights up orange	Transmitter already programmed
Start (synchronous*) programming mode (progr. time: 2 min.)		Press for approx 1 sec. → until LED lights up orange	Receiver in (synchronous) programming mode
Stop programming mode (in transmitter + receiver)		Press for approx. 6 sec. → until LED flashes orange	Programming mode was started with this transmitter
Stop programming mode		Tap	Transmitter already programmed
Programme transmitter	1. 2.	Briefly press the UP button immediately (< 1 sec.) after the start of any 'upward movement' and briefly press the DOWN button after the start of any 'downward movement'. This is acknowledged by the drive briefly stopping	The drive is in programming mode and the blind constantly drives UP and DOWN for a short distance for 3 min!
Delete an individual transmitter/channel from the receiver		Press for approx. 6 sec. → until LED lights up red	Transmitter already programmed
Delete EVERYTHING from the receiver		Press for approx. 6 sec. → until LED lights up red	Transmitter already programmed
Programme intermediate position	1. 2.	Press and hold the DOWN button until the desired position is reached, then <u>additionally</u> press the STOP button briefly	Transmitter already programmed
Delete intermediate position		Press for approx. 3 sec. → until LED goes off briefly	Transmitter already programmed
Drive to intermediate position	2x	Quickly push DOWN button 2x	Intermediate position already programmed
Programme ventilation or tilting position	1. 2.	Press and hold the UP button until the desired position is reached, then <u>additionally</u> press the STOP button briefly	Transmitter already programmed
Delete ventilation or tilting position		Press for approx. 3 sec. → until LED goes off briefly	Transmitter already programmed
Drive to tilting position	2x	Quickly push UP button 2x	Tilting position already programmed

Explanation of the push buttons on the example of the LumeroTel 2 hand-held transmitter



* The UP and DOWN drives of the receiver (from date of manufacture 06/05) start synchronously. The simultaneous programming of a transmitter on several blinds is thus possible.



RevoLine S

– Little big drive!



The tubular motors in the S series are available in the versions RoITop, SunTop and VariEco, and with or without an integrated radio system. Thus elero offers a wide and varied product range to cover a diversity of applications. With a diameter of 35 mm the drives are ideal for space-saving systems. Depending on the application and the drive type these are available with 1.5 to 12 Nm and, depending on the version, 17 to 70 rpm. For environments in which noise is particularly disturbing it is possible to deploy drives (max. 8 Nm) with a noiseless “soft” brake. All the drives may be installed and set up quickly and easily.



RolTop S-868

Radio tubular drives for roller shutters and sun protection systems

RolTop S-868 (230 V/50 Hz)

Application: Roller shutter and textile sun protection (Blinds)*

- Limit switch: Electronic limits with Soft Stop on end position approach on motors with soft brake
- Highlights: Smart force measurement
Application protection in up and down direction and reversion on obstacle
Limits can be adjusted via radio remote control or installation lead
Plug-able cable
- Shaft size: From $\varnothing = 38$ mm
- Features: Noiseless soft brake up to 8 Nm
- Radio system: Bi-directional 868 MHz radio including routing

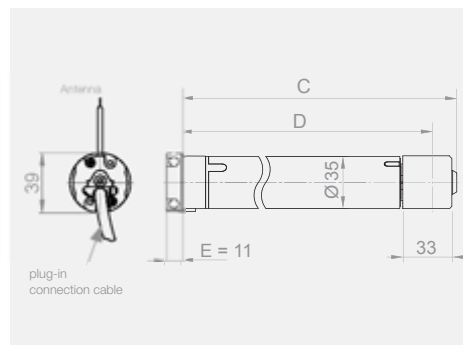
* Drive might stop on heavy wind load to protect drive

Possible limit switch modes

Upper limit switch	Lower limit switch
On limit stop	Freely programmable
Freely programmable	On limit stop
On limit stop	On limit stop
Freely programmable	Freely programmable

RolTop S-868

with white and black motor head



Technical data and dimensions

Type	RolTop S1.5/70-868	RolTop S3/30-868	RolTop S5/30-868	RolTop S5-868	RolTop S8-868	RolTop S12-868
Max. torque (Nm)	1.5	3	5	5	8	12
Speed (rpm)	70	30			17	
Roller shutter	-		•			
Blinds	•		-			
Operating Voltage (V)	1 ~ 230					
Frequency (Hz)	50					
Noiseless soft brake			•		-	
Fast-running version	•		-			
Current (A)	0.55		0.73	0.55		0.73
Power (W)	130		168	130		168
Shaft Ø (mm)	38					
Ingress protection (IP)	44					
Max. limit switch range in Revolutions of the shaft	160		80		40	
Operating mode (KB in min.)	5		4	5		4
Length C (mm)	534					
Length D (mm)	517.5					
Length E (mm)	= 11					
Weight (kg)	1.3	1.2	1.3	1.2	1.3	1.4
Temperature range (°C)	-20 to +60					
Conformity						
Connecting cable, pluggable (m)	2.0					
White motor head	•		-			
Accessories included	-		On request included (only on 17 rpm drives): "T"-head for motor to suit older Type 8 (restores backwards compatibility to Type 8 motors). RevoLine head for motor (item no. 99 000.7501) (enables use of RevoLine brackets).			

	RolTop S1.5/70-868	RolTop S3/30-868	RolTop S5/30-868			
	Item Number	30 222.0006	30 212.0006	30 232.0006		

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

				RolTop S5-868	RolTop S8-868	RolTop S12-868
	Item Number			30 234.0006	30 254.0006	30 814.0006

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

	Cables Page 48		Brackets (M) Page 50		Brackets (S) in comb. with RevoLine head for motor Page 41
	Radio control units from page 161		Bracket adapters Page 51		L-brackets and bearings Page 52
	Drive adapter sets Page 49		Radio sensors from page 194		



RolTop S

Tubular drives for roller blinds and sun protection systems

RolTop S (230V/50 Hz)

Application: Roller shutter and textile sun protection (Blinds)*

Limit switch: Mechanical limit switches with Soft Stop on end position
Highlights: Smart force measurement
 Application protection in up and down direction and reversion on obstacle
 Parallel connection possible
 Limits can be adjusted via installation lead, plug-able cable
Shaft size: From $\varnothing = 38$ mm
Features: Noiseless soft brake up to 8 Nm

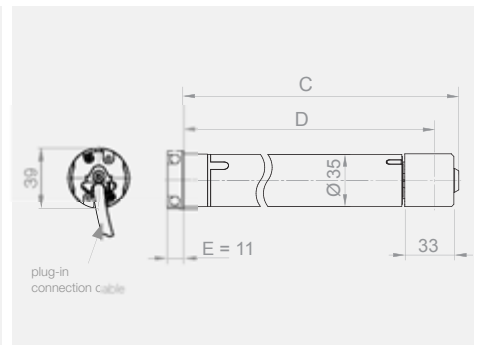
* Drive might stop on heavy wind load to protect drive

Possible limit switch modes

Upper limit switch	Lower limit switch
On limit stop	Freely programmable
Freely programmable	On limit stop
On limit stop	On limit stop
Freely programmable	Freely programmable

RolTop S

with white and black motor head



Technical data and dimensions

Type	RoTop S1.5/70	RoTop S3/30	RoTop S5/30	RoTop S5	RoTop S8	RoTop S12
Max. torque (Nm)	1.5	3	5		8	12
Speed (rpm)	70	30			17	
Roller shutter	-				•	
Blinds		•			-	
Operating Voltage (V)	1 ~ 230					
Frequency (Hz)	50					
Noiseless soft brake			•			-
Fast-running version		•			-	
Current (A)	0.55		0.73	0.55		0.73
Power (W)	130		168	130		168
Shaft Ø (mm)	38					
Ingress protection (IP)	44					
Max. limit switch range in Revolutions of the shaft	160		80		40	
Operating mode (KB in min.)	5		4	5		4
Length C (mm)	534					
Length D (mm)	517.5					
Length E (mm)	= 11					
Weight (kg)	1.3		1.2			1.3
Temperature range (°C)	-20 to +60					
Conformity						
Connecting cable pluggable (m)	2.0					
White motor head		•			-	
Accessories included		-			On request included (only on 17 rpm drives): "T"-head for motor to suit older Type 8 (restores backwards compatibility to Type 8 motors). RevoLine head for motor (item no. 99 000.7501) (enables use of RevoLine brackets).	

	RoTop S1.5/70	RoTop S3/30	RoTop S5/30			
Item Number	30 221.0001	30 211.0001	30 231.0001			

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

				RoTop S5	RoTop S8	RoTop S12
Item Number				30 233.0001	30 253.0001	30 813.0001

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

Cables Page 48	Brackets (M) Page 50	Brackets (S) in comb. with RevoLine head for motor Page 51
ProLine control units from page 205	Bracket adapters Page 51	L-brackets and bearings Page 52
Radio receivers from page 186	Sensors from page 229	Drive adapter sets Page 49



RoITop/D+ S-868

Radio tubular drives for roller shutters and sun protection systems. Torque mode only motor

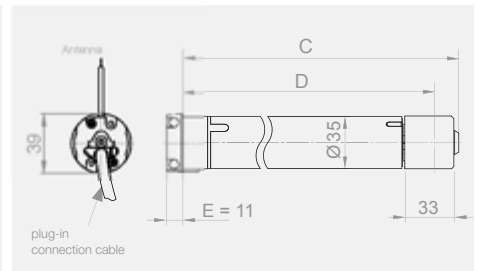
No limit setting required!
(requires torque stop in both directions)

RoITop/D+ S-868 (230V/50 Hz)

Application:	Roller shutter and sun protection system
Limit switch:	Electronic limits with Soft Stop on end position approach
Highlights:	Smart force measurement Application protection in up and down direction and reversion on obstacle End limits are self-learning Plug-able cable
Shaft size:	From $\varnothing = 38$ mm
Features:	Noiseless soft brake up to 8 Nm Only possible to use with torque stops in both directions!
Radio system:	Bi-directional 868 MHz radio including routing

Possible limit switch modes

Upper limit switch	Lower limit switch
On limit stop	On limit stop



Technical data and dimensions

Type	RolTop/D+ S5-868	RolTop/D+ S8-868	RolTop/D+ S12-868
Max. torque (Nm)	5	8	12
Speed (rpm)		17	
Operating Voltage (V)	1 ~ 230		
Frequency (Hz)	50		
Noiseless soft brake	•		–
Fast-running version	–		
Current (A)	0.55		0.73
Power (W)	130		168
Shaft Ø (mm)	38		
Ingress protection (IP)	44		
Max. limit switch range in Revolutions of the shaft	40		
Operating mode (KB in min.)	5		4
Length C (mm)	534		
Length D (mm)	517.5		
Length E (mm)	= 11		
Weight (kg)	1.3		
Temperature range (°C)	–20 to +60		
Conformity			
Connecting cable pluggable (m)	2.0		
Accessories included	On request included (only on 17 rpm drives): "T"-head for motor to suit older Type 8 (restores backwards compatibility to Type 8 motors). RevoLine head for motor (item no. 99 000.7501) (enables use of RevoLine brackets)		

		RolTop/D+ S5-868	RolTop/D+ S8-868	RolTop/D+ S12-868
	Item Number	30 238.0006	30 258.0006	30 818.0006

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

	Cables Page 48		Brackets (M) Page 50		Brackets (S) in comb. with RevoLine head for motor Page 51
	Radio control units from page 161		Radio sensors from page 194		Drive adapter sets Page 49



RoI Top/D+ S

Tubular drives for roller shutters and sun protection systems
Torque mode only motor

No limit setting required!
 (requires torque stop in both directions)

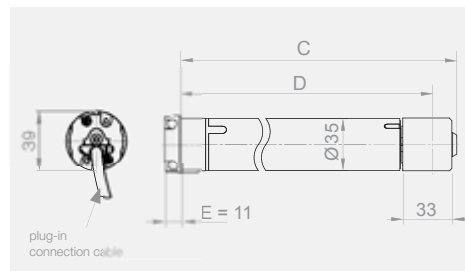
RoI Top/D+ S (230V/50 Hz)

Application: Roller shutter and sun protection system





- Limit switch: Electronic limits with Soft Stop on end position approach
- Highlights: Smart force measurement
 Application protection in up and down direction and reversion on obstacle
 End limits are self-learning
 Plug-able cable
- Shaft size: From $\varnothing = 38$ mm
- Features: Noiseless soft brake up to 8 Nm


Possible limit switch modes

Upper limit switch	Lower limit switch
On limit stop	On limit stop







Technical data and dimensions

Type	RolTop/D+ S5	RolTop/D+ S8	RolTop/D+ S12
Max. torque (Nm)	5	8	12
Speed (rpm)		17	
Operating Voltage (V)	1 ~ 230		
Frequency (Hz)	50		
Noiseless soft brake	•		-
Fast-running version	-		
Current (A)	0.55		0.73
Power (W)	130		168
Shaft Ø (mm)	38		
Ingress protection (IP)	44		
Max. limit switch range in Revolutions of the shaft	40		
Operating mode (KB in min.)	5		4
Length C (mm)	534		
Length D (mm)	517.5		
Length E (mm)	 = 11		
Weight (kg)	1.2		1.3
Temperature range (°C)	-20 to +60		
Conformity	  		
Connecting cable pluggable (m)	2,0		
Accessories included	On request included (only on 17 rpm drives): "T"-head for motor to suit older Type 8 (restores backwards compatibility to Type 8 motors). RevoLine head for motor (item no. 99 000.7501) (enables use of RevoLine brackets)		

		RolTop/D+ S5	RolTop/D+ S8	RolTop/D+ S12
	Item Number	30 237.0001	30 257.0001	30 817.0001

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

	Cables Page 48		Brackets (M) Page 50		Brackets (S) in comb. with RevoLine head for motor Page 51
	ProLine control units from page 205		Sensors from page 229		Drive adapter sets Page 49
	Radio receivers from page 186				



RoITop/T S-868

Radio tubular drives for Dual Screen

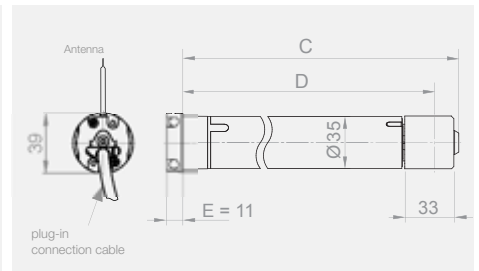
RoITop/T S-868 (230V/50 Hz)

Application: Dual Screen

Limit switch: Electronic limits with Soft Stop on end position approach
 Highlights: Initial momentary mode with latching mode after 2 seconds
 Smart force measurement
 Application protection in up and down direction and reversion on obstacle
 Limits can be adjusted via radio remote control or installation lead
 Shaft size: From $\varnothing = 38$ mm
 Features: Noiseless soft brake
 Radio system: Bi-directional 868 MHz radio including routing


Possible limit switch modes

Upper limit switch	Lower limit switch
On limit stop	Freely programmable
Freely programmable	On limit stop
On limit stop	On limit stop
Freely programmable	Freely programmable



Technical data and dimensions

Type	RoITop/T S1.5/70-868	RoITop/T S3/30-868	RoITop/T S5/30-868
Max. torque (Nm)	1.5	3	5
Speed (rpm)	70	30	
Operating Voltage (V)	1 ~ 230		
Frequency (Hz)	50		
Noiseless soft brake	•		
Fast-running version	•		
Current (A)	0.55	0.73	
Power (W)	130	168	
Shaft Ø (mm)	38		
Ingress protection (IP)	44		
Max. limit switch range in Revolutions of the shaft	160	80	
Operating mode (KB in min.)	5	4	
Length C (mm)	534		
Length D (mm)	517.5		
Length E (mm)	= 11		
Weight (kg)	1.3	1.2	1.3
Temperature range (°C)	-20 to +60		
Conformity	CE		
Connecting cable pluggable (m)	2.0		

	RoITop/T S1.5/70-868	RoITop/T S3/30-868	RoITop/T S5/30-868
 Item Number	30 226.0006	30 216.0006	30 236.0006

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

 Cables Page 48	 Brackets (M) Page 50	 Brackets (S) in comb. with RevoLine head for motor Page 51
 Radio control units from page 161	 Radio sensors from page 194	 Drive adapter sets Page 49
 Bracket adapters Page 51	 L-brackets and bearings Page 52	



SunTop S-868

Radio tubular drives for awnings

SunTop S-868 (230V/50 Hz)

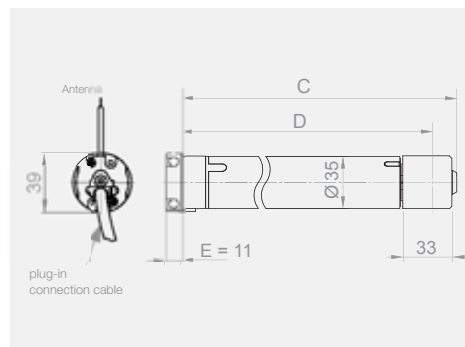
Application: Awnings

Limit switch: Electronic limits with Soft Stop on end position approach
 Highlights: Smart force measurement
 Blockage detection Up/Down
 Limits can be adjusted via radio remote control or installation lead
 Plug-able cable
 Shaft size: From $\varnothing = 38$ mm
 Features: Noiseless soft brake up to 5 Nm
 Radio system: Bi-directional 868 MHz radio including routing

Possible limit switch modes


Upper limit switch	Lower limit switch
On limit stop	Freely programmable
Freely programmable	On limit stop
On limit stop	On limit stop
Freely programmable	Freely programmable

SunTop S-868
with white and black motor head



Technical data and dimensions

Type	SunTop S5/30-868	SunTop S7/30-868 FL
Max. torque (Nm)	5	7
Speed (rpm)	30	
Operating Voltage (V)	1 ~ 230	
Frequency (Hz)	50	
Noiseless soft brake	•	–
Fast-running version	•	
Current (A)	0.73	
Power (W)	168	
Shaft Ø (mm)	38	
Ingress protection (IP)	44	
Max. limit switch range in Revolutions of the shaft	80	40
Operating mode (KB in min.)	4	
Length C (mm)	534	
Length D (mm)	517.5	
Length E (mm)		
Weight (kg)	1.3	1.4
Temperature range (°C)	–20 to +60	
Conformity		
White motor head	•	–
Connecting cable pluggable (m)	2.0	

	SunTop S5/30-868	
	Item Number	30 732.0006

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

	SunTop S7/30-868 FL	
	Item Number	30 752.0006

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

	Cables Page 48		Brackets (M) Page 50		Brackets (S) in comb. with RevoLine head for motor Page 51
	Radio control units from page 161		Radio sensors from page 194		Drive adapter sets Page 49
	Bracket adapters Page 51		L-brackets and bearings Page 52		



SunTop S

Tubular drives for awnings

SunTop S (230V/50 Hz)

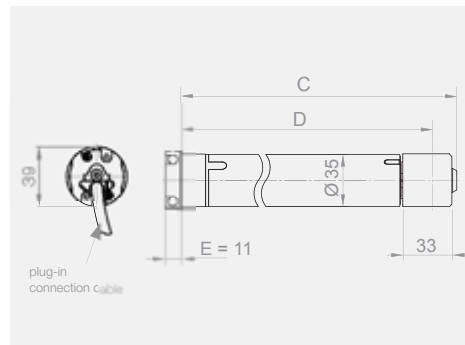
Application: Awnings

Limit switch: Electronic limits with Soft Stop on end position approach
 Highlights: Smart force measurement
 Blockage detection Up/Down
 Parallel connection possible
 Limits can be adjusted via installation lead
 Plug-able cable
 Shaft size: From $\varnothing = 38$ mm
 Features: Noiseless soft brake up to 5 Nm


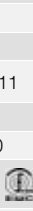
Possible limit switch modes


Upper limit switch	Lower limit switch
On limit stop	Freely programmable
Freely programmable	On limit stop
On limit stop	On limit stop
Freely programmable	Freely programmable

SunTop S
with white and black motor head



Technical data and dimensions

Type	SunTop S5/30	SunTop S7/30 FL
Max. torque (Nm)	5	7
Speed (rpm)	30	
Operating Voltage (V)	1 ~ 230	
Frequency (Hz)	50	
Noiseless soft brake	•	–
Fast-running version	•	
Current (A)	0.73	0.55
Power (W)	168	130
Shaft Ø (mm)	38	
Ingress protection (IP)	44	
Max. limit switch range in Revolutions of the shaft	80	40
Operating mode (KB in min.)	4	5
Length C (mm)	534	
Length D (mm)	517.5	
Length E (mm)	 = 11	
Weight (kg)	1.2	1.3
Temperature range (°C)	–20 to +60	
Conformity		
White motor head	•	–
Connecting cable pluggable (m)	2.0	










	SunTop S5/30	
	Item Number	30 731.0001

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

	SunTop S7/30 FL	
	Item Number	30 751.0001

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

 Cables Page 48	 Brackets (M) Page 50	 Brackets (S) in comb. with RevoluLine head for motor Page 51
 ProLine control units from page 205	 Sensors from page 229	 Drive adapter sets Page 49
 Radio receivers from page 186	 Bracket adapters Page 51	 L-brackets and bearings Page 52



VariEco S-868

Radio tubular drives for roller shutters and sun protection systems

VariEco S-868 (230V/50 Hz)

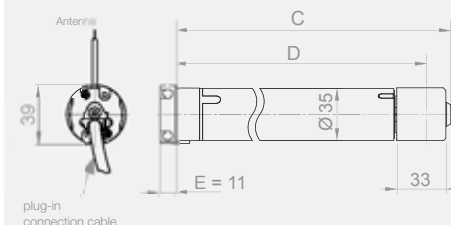
Application: Roller shutter and textile sun protection

Limit switch: Mechanical limit switches
 Shaft size: From $\varnothing = 38$ mm
 Features: Noiseless soft brake up to 8 Nm
 Radio system: Bi-directional 868 MHz radio including routing

Possible limit switch modes

Upper limit switch	Lower limit switch
Freely programmable	Freely programmable

VariEco S-868
with white and black motor head



Technical data and dimensions

Type	VariEco S1.5/70-868	VariEco S3/30-868	VariEco S5/30-868	VariEco S5-868 FL	VariEco S8-868	VariEco S8-868 FL	VariEco S12-868 FL
Max. torque (Nm)	1.5	3	5		8		12
Speed (rpm)	70	30			17		
Roller shutter	-				•		
Textile sun protection					•		
Operating Voltage (V)	1 ~ 230						
Frequency (Hz)	50						
Noiseless soft brake		•		-	•		-
Fast-running version		•				-	
Current (A)	0.55		0.73	0.60	0.73	0.60	0.73
Power (W)	130		168	140	168	140	168
Shaft Ø (mm)	38						
Ingress protection (IP)	44						
Max. limit switch range in Revolutions of the shaft	42						
Operating mode (KB in min.)	5			4			
Length C (mm)	534			514	534	514	534
Length D (mm)	517.5			497.5	517.5	497.5	517.5
Length E (mm)	= 11						
Weight (kg)	1.3						1.4
Temperature range (°C)	-20 to +60						
Conformity							
Connecting cable pluggable (m)	2.0						
White motor head	•			-			
Accessories included	-			On request included (only on 17 rpm drives): "T"-head for motor to suit older Type 8 (restores backwards compatibility to Type 8 motors). RevoLine head for motor (item no. 99 000.7501) (enables use of RevoLine brackets)			

	VariEco S1.5/70-868	VariEco S3/30-868	VariEco S5/30-868				
Item Number	30 922.0106	30 912.0106	30 932.0106				

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

				VariEco S5-868 FL	VariEco S8-868	VariEco S8-868 FL	VariEco S12-868 FL
Item Number				30 844.0106	30 954.0106	30 854.0106	30 864.0106

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

	Cables Page 48		Brackets (M) Page 50		Brackets (S) in comb. with RevoLine head for motor Page 51
	Radio control units from page 161		Radio sensors from page 194		Drive adapter sets Page 49
	Bracket adapters Page 51		L-brackets and bearings Page 52		Adjustment aid Page 48



VariEco S

Tubular drives for roller shutters and sun protection systems

VariEco S (230V/50 Hz)

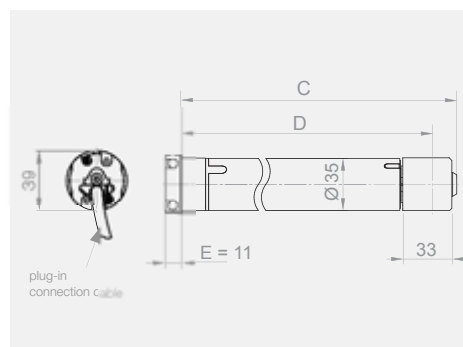
Application: Roller shutter and textile sun protection

Limit switch: Mechanical limit switches
 Shaft size: From $\varnothing = 38$ mm
 Features: Noiseless soft brake up to 8 Nm

Possible limit switch modes

Upper limit switch	Lower limit switch
Freely programmable	Freely programmable

VariEco S
 with white and black motor head



Technical data and dimensions

Type	VariEco S1.5/70	VariEco S3/30	VariEco S5/30	VariEco S5/30 FL	VariEco S5 FL	VariEco S8	VariEco S8 FL	VariEco S12 FL	
Max. torque (Nm)	1.5	3	5		8		12		
Speed (rpm)	70	30		17					
Roller shutter	-				•				
Textile sun protection					•				
Operating Voltage (V)					1 ~ 230				
Frequency (Hz)					50				
Noiseless soft brake	•				-		•		-
Fast-running version			•				-		
Current (A)	0.55		0.73		0.60		0.73	0.60	0.73
Power (W)	130		168		140		168	140	168
Shaft Ø (mm)					38				
Ingress protection (IP)					44				
Max. limit switch range in Revolutions of the shaft					42				
Operating mode (KB in min.)	5						4		
Length C (mm)			534				514		534
Length D (mm)			517.5				497.5		517.5
Length E (mm)					= 11				
Weight (kg)	1.3				1.2				1.4
Temperature range (°C)					-20 to +60				
Conformity									
Connecting cable pluggable (m)					2.0				
White motor head			•				-		
Accessories included			-				On request included (only on 17 rpm drives): "T"-head for motor to suit older Type 8 (restores backwards compatibility to Type 8 motors). RevoLine head for motor (item no. 99 000.7501) (enables use of RevoLine brackets)		

	VariEco S1.5/70	VariEco S3/30	VariEco S5/30	VariEco S5/30 FL				
Item Number	30 921.0101	30 911.0101	30 931.0101	30 831.0101				

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

					VariEco S5 FL	VariEco S8	VariEco S8 FL	VariEco S12 FL
Item Number					30 843.0101	30 953.0101	30 853.0101	30 863.0101

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

	Cables Page 48		Brackets (M) Page 50		Brackets (S) in comb. with RevoLine head for motor Page 51
	ProLine control units from page 205		Sensors from page 229		Drive adapter sets Page 49
	Radio receivers from page 186		L-brackets and bearings Page 52		Adjustment aid Page 48
	Bracket adapters Page 51				

Tubular drives RevoLine S – Accessories

Cables and accessories

It is not possible to return connecting cables.



Special cable lengths in combination with the drive (standard 2.0 m), **white**

Item Number	Type/Item Description
99 000.4101	2.0 m plug-in connecting cable (comes with drive as standard)
99 000.4201	3.0 m plug-in connecting cable
99 000.4301	5.0 m plug-in connecting cable
99 000.4401	10.0 m plug-in connecting cable
99 000.4801	20.0 m plug-in connecting cable
99 000.4501	0.4 m plug-in connecting cable with Hirschmann plug
99 000.7001	2.0 m plug-in connecting cable with Hirschmann plug
99 000.4601	3.0 m plug-in connecting cable universal push button (middle) and earthed plug

Special cable lengths in combination with the drive (standard 2.0 m), **black**

Item Number	Type/Item Description
99 000.5101	2.0 m plug-in connecting cable
99 000.5201	3.0 m plug-in connecting cable
99 000.5301	5.0 m plug-in connecting cable
99 000.5401	10.0 m plug-in connecting cable
99 000.5501	0.4 m plug-in connecting cable with Hirschmann plug
99 000.7701	2.0 m plug-in connecting cable with Hirschmann plug

Connecting cables without drive, **white**

23 395.0201	2.0 m plug-in connecting cable
23 395.0301	3.0 m plug-in connecting cable
23 395.0401	5.0 m plug-in connecting cable
23 395.0501	10.0 m plug-in connecting cable
23 395.0601	20.0 m plug-in connecting cable
23 395.0101	0.4 m plug-in connecting cable with Hirschmann plug
23 395.0801	2.0 m plug-in connecting cable with Hirschmann plug
23 395.0701	3.0 m plug-in connecting cable with universal push button (centred) and earthed plug

Connecting cables without drive, **black**

23 395.2201	2.0 m plug-in connecting cable
23 395.2301	3.0 m plug-in connecting cable
23 395.2401	5.0 m plug-in connecting cable
23 395.2501	10.0 m plug-in connecting cable
23 395.2101	0.4 m RevoLine cable with Hirschmann plug
23 395.2901	2.0 m plug-able with Hirschmann plug

Installation-, connecting cables and accessories

23 243.0002	Installation cable
23 246.0001	Installation cable with Hirschmann plug Stak 3
13 709.7301	5 pole connecting clip for installation cable 23 243.0002
23 395.2701	QuickConnect, the fast connection system, IP 65
23 395.4701	QuickConnect, set of 10
23 395.2601	QuickConnect with MiniPlug, IP 65 cable length 0.25 m
23 846.0001	Stas 3 with clip (motor side)
13 701.5301	Stak 3 (power supply side)
13 308.0001	Flexible adjustment aid



Assembly and disassembly only in the de-energised state!
The connections to the 230V mains must be made by authorised specialist personnel.

Adapter sets

Profiles of the drive adapter sets in 1:1 scale on page 304.



Item Number	Type/Item Description	Notch tubes	Round tubes	Profile tubes
22 017.0001	Ø 52 x 1.5 mm	•		
22 004.0001	Ø 63 x 1.0 mm	•		
22 011.0001	Ø 40 x 1.0 mm		•	
22 009.0001	Ø 40 x 1.5 mm		•	
13 119.0601	Ø 40 x 2.0 mm (only coupling) Ø 38 x 1.0 mm		•	
22 015.0001	Ø 42 x 1.0 mm		•	
22 071.0001	Ø 50 x 1.5 mm		•	
22 016.0001	Ø 50 x 2.0 mm, Italy		•	
22 010.0001	Octagonal a/f 40, Alu tube, Selve			•
23 097.0001	Ø 42 mm Aluminium, Silentgliss			•
22 013.0001	Ø 42 x 2.0 mm, Bautex, Sundrape			•
22 018.0001	Ø 43.5 mm, Tecnolight/Acmeda, Ø 44 mm, Garattoni			•
22 014.0001	Ø 45 mm, Zurflüh-Feller ZF 45			•
22 068.0001	Ø 47 mm			•
22 002.0001	AXE Ø 48 mm, Griesser-Hüppe			•
22 006.0001	Octagonal a/f 50, Selve			•
22 007.0001	Ø 50 x 1.5 mm, Siral			•
22 012.0001	Ø 50 mm, Alu			•
22 008.0001	54 x 0.5 mm, Zurflüh-Feller			•
22 005.0001	60 mm octagonal tube, Selve, Döhner			•
22 054.0001	Ø 50 mm, Alu, Latin America			•
13 101.5301	White limit switch crown only, Round tube 40x1.5mm (in combination with 22 009.0001)		•	
13 121.3001	Adapter for S motor to use M Series drive adapter			
23 028.0001	Adapter for Somfy adapter set			

RevoLine motor adapter plate

99 000.7501



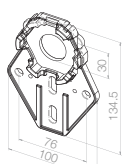
Utilize to use S drive in RevoLine brackets below. Order by this Item number if you want the Item mounted on the motor you order.

22 145.0001



Same as 99 00.7501 if you need a spare or for retrofitting an existing drive.

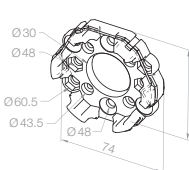
RevoLine motor bearings in combination with mounting plate



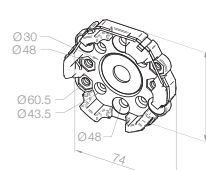
23 004.0001
Universal wall bracket (plastic)
max. 50 Nm



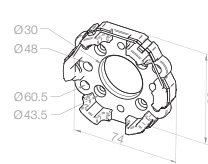
23 615.4401
Disengageable
max. 30 Nm



23 003.0001
48/60 mm centres (Alloy)

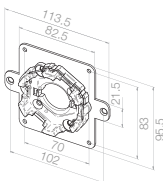


23 003.0201
Motor bearing 48/60 mm centres (Alloy) with nuts 4 x M6 and 12.5 mm hole in plastic center ring



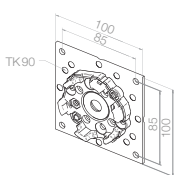
23 003.0301
Motor bearing with 48/60 mm centres (Alloy) with M6/M8 thread

SKS



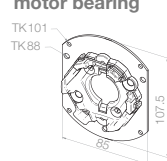
23 004.0101
max. 50 Nm

Base plate

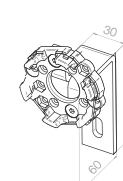


23 615.9901
With motor bearing (e.g. for VEKA Variant elements)

Mounting plate with motor bearing

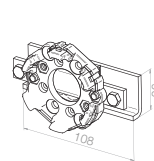


23 615.7101
Plastic max. 30 Nm (Thyssen, Schüco, Veka, Home)



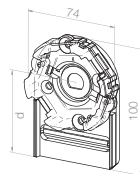
23 615.9101
60 mm offset for replacing manual roller shutter belt max. 50 Nm

Clamp bearing



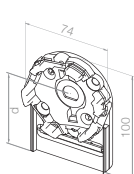
23 615.7201
For roller bearing bracket max. 30 Nm

screwless left



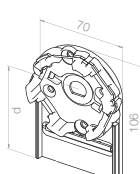
23 615.8201
For built-on roller shutters, size 137 mm
d = 64 – 65.5 mm, up to max. 30 Nm

screwless right



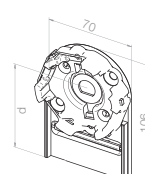
23 615.9201
For built-on roller shutters, size 137 mm
d = 64 – 65.5 mm, up to max. 30 Nm

screwless left



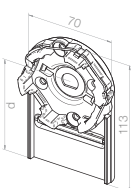
23 615.8301
For built-on roller shutters, size 150 mm
d = 70.7 mm, up to max. 30 Nm

screwless right



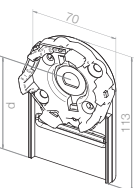
23 615.9301
For built-on roller shutters, size 150 mm
d = 70.7 mm, up to max. 30 Nm

screwless left



23 615.8401
For built-on roller shutters, size 165 mm
d = 78.2 – 79.7 mm, up to max. 30 Nm

screwless right



23 615.9401
For built-on roller shutters, size 165 mm
d = 78.2 – 79.7 mm, up to max. 30 Nm

screwless left



23 003.1501
For Heroal elements FMR/FME/FMB size 125–205 mm

screwless right



23 003.1401
For Heroal elements FMR/FME/FMB size 125–205 mm

screwless left + right



23 003.1601
For Heroal elements FMR/FME/FMB size 125–205 mm up to max. 30 Nm

Type 8 Motor adapter plate

99 000.7401



Utilize to use S drive in RevoLine brackets below. Order by this Item number if you want the item mounted on the motor you order.

22 141.0001



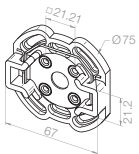
Same as 99 00.7401 if you need a spare or for retrofitting an existing drive.

22 144.0001

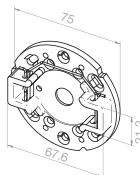


Same as 99 00.7401, white. If you need a spare or for retrofitting an existing drive.

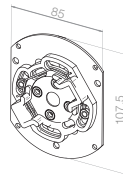
Type 8 motor bracket



23 322.0001
T-head motor bearing
48/60 mm centres



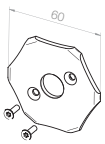
23 108.0001
T-head motor bearing
48/60 mm centres



23 277.0001
T-head motor bearing
(Thyssen, Schüco, Brüggmann)

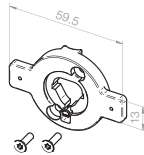
T-motor head, mounting- and adapter plates

Adapter plate kit

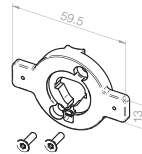


22 145.0001
Motor head add-on for use of S motors in RevoLine wall brackets

Adapter plates



22 141.0001
T-motor head add-on orange, complete, including mounting accessories



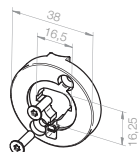
22 144.0001
T-motor head add-on white, complete, including mounting accessories



22 140.0001
Round motor head add-on without wings, orange, complete, including mounting accessories

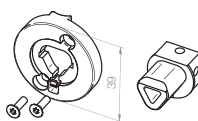


22 042.0001
Round motor head add-on white, complete, including mounting accessories

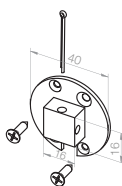


22 042.0101
Round motor head add-on white, complete, including mounting accessories

Kit square bolt

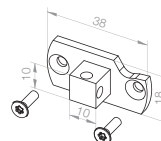


22 143.0001
Round motor head add-on incl. 16 x 16 mm motor bolt, max. 5 Nm

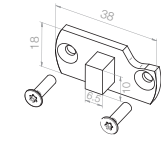


23 367.0001
Motor head add-on with bolt 16 x 16 mm including fixing screws

Motor bolt add ons

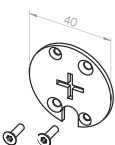


22 040.0001
10 x 10 mm, complete, including mounting accessories

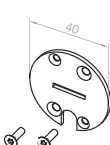


23 099.0001
With bolt 10 x 6.5 mm (11 mm high), including fixing screws

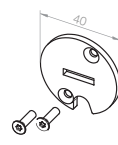
Mounting plates



22 064.0001
Cross slot = 13 mm complete, including mounting accessories



22 065.0001
Slot = 16.4 mm complete, including mounting accessories

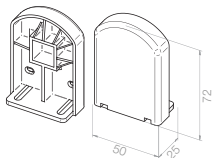


22 080.0001
(Slot 15 x 3 mm), Benthin including mounting accessories

Blinds accessories – bearings

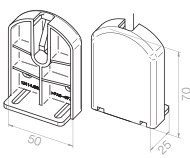
Only while stocks last!

Drive bearing

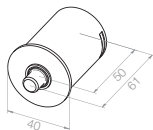


13 114.9001
Alpine white
for 16 x 16 mm bolts
max. 5 Nm
shaft height 42 mm

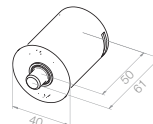
Idler bearing



13 114.8901
Alpine white
for bolts Ø 10 mm
shaft height 42 mm



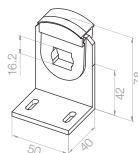
23 013.0002
For 40 x 2.0 mm tube or
Limit switch, crown with
spring loaded, 10 mm bolt



23 013.0001
With movable bolt
Ø 10 mm for tube
40 x 1.0 mm

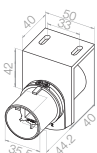
Blinds accessories – shaft height 42 mm

Motor bearings complete



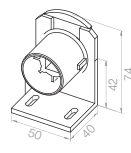
23 095.0001
With square 16 x 16 mm
standard version 42 mm

Intermediate fixing supports



23 203.0001
Complete up to 5 Nm
standard version 42 mm

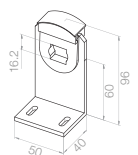
Shaft bearings complete



23 096.0001
With outer Ø 35.5 mm
standard version 42 mm

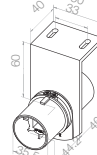
Blinds accessories – shaft height 60 mm

Motor bearings complete



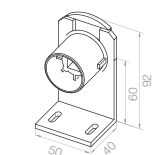
23 095.0101
With square 16 x 16 mm
extended version 60 mm

Intermediate fixing supports



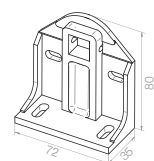
23 203.0101
Complete up to 5 Nm
extended version 60 mm

Shaft bearings complete

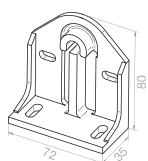


23 096.0101
With outer Ø 35.5 mm
extended version 60 mm

Bearing brackets



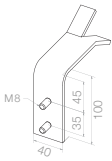
13 109.1701
Plastic
Motor side, max. 20 Nm
with square 16 x 16 mm
shaft height 60 mm



13 109.1801
Plastic
Ø 10 mm,
opposite side
shaft height 60 mm

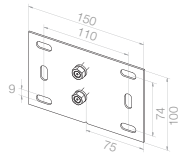
Mounting plates and mounting accessories

Plaster-in bracket

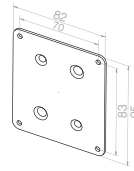


13 300.9202
max. 80 Nm
For plastering into wall

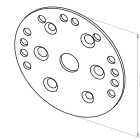
Mounting plate



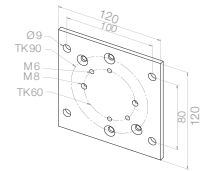
24 554.0001
For wall bracket
(23 004.0001 and
23 615.4401)



13 302.2601
For Motor bearing
(Stakusit)

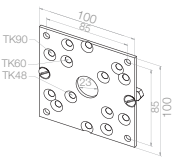


13 302.7801
48/60/78 mm centres
for Weru

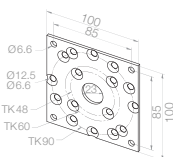


23 457.0001
Universal adapter plate
for Shutter side plate

Universal adapter plate set

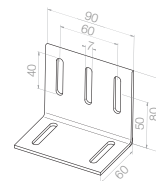


23 687.0501
With 2 countersunk
screws M6 x 16 and nuts

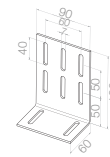


13 109.2902
48/60/85/90 mm centres

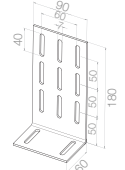
Angle brackets



13 110.5001
80 mm high

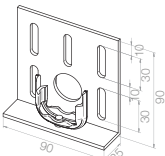


13 110.5101
130 mm high



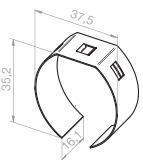
13 110.5201
180 mm high

Roller bearing holder brackets

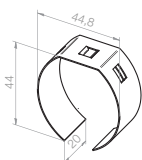


23 852.0001
90 mm wide

Spring clips



13 301.8201
For 40 mm octagonal
tube to support roller
shutter fixing spring



13 301.8501
For 50 mm octagonal tube
to support roller shutter
fixing spring

Rigid shaft fastener MiniClick and MaxiClick

Universal for octagonal tubes, 40, 50, 60 and 70 mm



MiniClick, with twist lock

For mini profiles and octagonal shafts size SW 40, 50 (0.6 and 0.8 mm) and SW 60 (0.6 and 0.9 mm)

Item Number	Type/Item Description
13 309.0001	MiniClick, 1 section
13 309.0101	MiniClick, 2 sections
13 309.0201	MiniClick, 3 sections
13 309.0301	MiniClick, 4 sections
13 309.0401	MiniClick profile insert
13 309.0501	MiniClick profile spacer insert

MaxiClick, with twist lock

For standard profiles and octagonal shaft size SW 60 (0.9 mm) and SW 70 (1.0 / 1.2 and 1.5 mm)

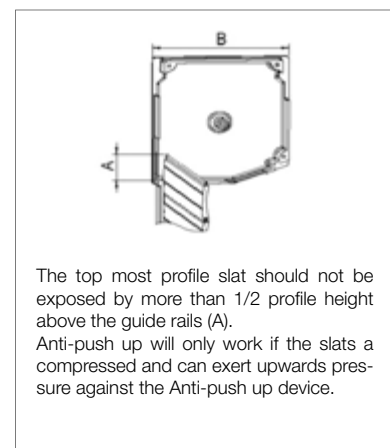
Item Number	Type/Item Description
13 309.1001	MaxiClick, 1 section
13 309.1101	MaxiClick, 2 sections
13 309.1201	MaxiClick, 3 sections
13 309.1401	MaxiClick profile insert
13 309.1501	MaxiClick profile spacer insert

MiniClick selection table

Shaft fastener	By box depth B ¹ (mm)	Number/shutter	Shutter weight (kg)	Application range
1 section	115 – 150	Use minimum 1 fastener every 60 cm or 4 Nm drive torque	max. 8 / shaft fastener	Mini- / Maxi-Profil ¹
2 sections	155 – 180			
3 sections	185 – 210			
4 sections	215 – 240			

MaxiClick selection table

Shaft fastener	By box depth B ¹ (mm)	Number/shutter	Shutter weight (kg)	Application range
1 section	125 – 160	Use minimum 1 fastener every 60 cm or 6 Nm drive torque.	max. 12 / shaft fastener	Mini- / Maxi-Profil ¹
2 sections	160 – 200			
3 sections	200 – 250			

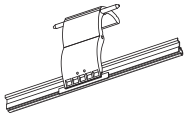


The top most profile slat should not be exposed by more than 1/2 profile height above the guide rails (A). Anti-push up will only work if the slats a compressed and can exert upwards pressure against the Anti-push up device.

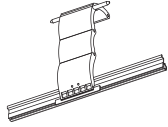
¹ Select MiniClick or MaxiClick by Shaft size.

Anti push-up devices

Anti push-up device mini profile

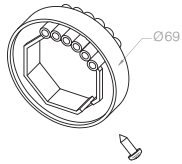


13 301.8901
2 sections

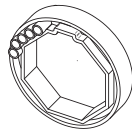


13 301.9101
3 sections

Fixing rings



13 301.9401
for 40 mm
octagonal shaft



13 302.1501
for 50 mm
octagonal shaft



RevoLine M

– Powerful drives!



The tubular motors in the M series are available in the versions RoITop, SunTop and VariEco, and with or without an integrated radio system. Thus elero offers a wide and varied product range to cover a diversity of applications. With a diameter of 45 mm and lengths of 405 mm upwards (K version) the drives are ideal for space-saving systems. Depending on the application and the drive type these are available with 2.5 to 50 Nm and, depending on the version, 14 to 90 rpm. For environments in which noise is particularly disturbing it is possible to deploy drives (max. 20 Nm) with a noiseless “soft” brake. All the drives may be installed and set up quickly and easily. With the RH and SH tubular motors the area of application for the M series has been expanded. The main feature of the RH drives is the fact that the round motor head may be mounted within the shutter, thus reducing the amount of space required at the side considerably. Drives from the SH series fit the motor mountings of various third-party providers.



RoITop M-868 /-K

Radio tubular drives for roller shutters

RoITop M-868 /-K

Application: Roller shutter*

- Limit switch: Electronic limits with Soft Stop on end position approach (on motors with soft brake)
- Highlights: Smart force measurement
Application protection in up and down direction and reversion on obstacle
Limits can be adjusted via radio remote control or installation lead
Plug-able cable
- Shaft size: From $\varnothing = 50$ mm
- Features: Noiseless soft brake up to 20 Nm
- Radio system: Bi-directional 868 MHz radio including routing

* Drive might stop on heavy wind load to protect drive.

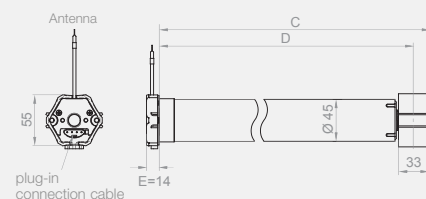
Possible limit switch modes

Upper limit switch	Lower limit switch
On limit stop	Freely programmable
Freely programmable	On limit stop
On limit stop	On limit stop
Freely programmable	Freely programmable

RoITop M-868



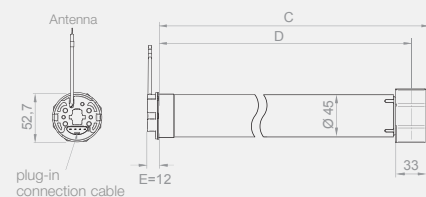
- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets



RoITop M-868 RH



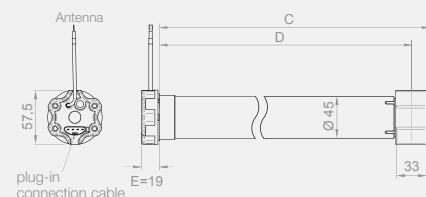
- Elero round head
- Can be over wound
- Minimal side gap
- Very versatile



RoITop M-868 SH



- Somfy star head design
- Same side gap like Somfy



Technical data and dimensions

Type	RoTop M6-868	RoTop M7/23-868	RoTop M10-868	RoTop M10-868-K	RoTop M12/23-868	RoTop M20-868	RoTop M30-868	RoTop M40-868	RoTop M50-868
Max. torque (Nm)	6	7	10		12	20	30	40	50
Speed (rpm)	14	23	14		23	14			
Operating Voltage (V)	1 ~ 230	230 – 240 V ~			1 ~ 230				
Frequency (Hz)	50								
Noiseless soft brake	•								
Fast-running version	-								
Current (A)	0.52	0.6	0.6		•	0.9	1.2		1.3
Power (W)	118	140			200		270	300	
Shaft Ø (mm)	50								
Ingress protection (IP)	44								
Max. limit switch range in Revolutions of the shaft	40								
Operating mode (KB in min.)	4	5	4		5	4	5	4	
Length C (mm)	445	466	391		526	516	546		
Length D (mm)	428.5	449	374.5		509.5	499.5	529.5		
Length E (mm)	= 14 = 12 = 19								
Weight (kg)	1.6	1.7	1.5		1.9	2.1	2.2	2.6	3.1
Temperature range (°C)	-20 to +60								
Conformity									
Connecting cable pluggable (m)	2.0								

	RoTop M6-868	RoTop M7/23-868	RoTop M10-868	RoTop M10-868-K	RoTop M12/23-868	RoTop M20-868	RoTop M30-868	RoTop M40-868	RoTop M50-868
Item Number	34 302.0006	34 226.0006	34 222.0006	34 112.0006	34 236.0006	34 232.0006	34 242.0006	34 252.0006	34 262.0006

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

	RoTop M7/23-868 RH	RoTop M10-868 RH	RoTop M10-868-K RH	RoTop M12/23-868 RH	RoTop M20-868 RH	RoTop M30-868 RH
Item Number	38 226.0006	38 222.0006	38 112.0006	38 236.0006	38 232.0006	38 242.0006

Mounting explanation on page 96!

	RoTop M6-868 SH	RoTop M10-868 SH	RoTop M20-868 SH	RoTop M30-868 SH	RoTop M40-868 SH	RoTop M50-868 SH
Item Number	39 302.0006	39 222.0006	39 232.0006	39 242.0006	39 252.0006	39 262.0006

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

Cables Page 9	Drive adapter sets Page 93	Brackets Pages 94 and 97
Radio control units from page 161	Radio sensors from page 194	Rigid shaft fastener Page 98
Bolt for RH drives Page 96		



RolTop M-868 fast running versions

Radio tubular drives with softstart for roller shutters, blinds, insect screens

RolTop M-868 fast running version

Application: Roller shutter, blinds, insect protection and screens*

Limit switch: Electronic limits with Soft Stop on end position approach
Highlights: Smart force measurement
 Application protection in up and down direction and reversion on obstacle
 Optional torque release programmable on torque limit position(s)
 Limits can be adjusted via radio remote control or installation lead

Shaft size: From $\varnothing = 50$ mm

Features: Noiseless soft brake up to 20 Nm

Radio system: Bi-directional 868 MHz radio including routing

* Drive might stop on heavy wind load to protect drive.

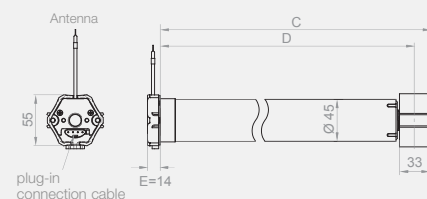
Possible limit switch modes

Upper limit switch	Lower limit switch
On limit stop	Freely programmable
Freely programmable	On limit stop
On limit stop	On limit stop
Freely programmable	Freely programmable

RolTop M-868 fast running version



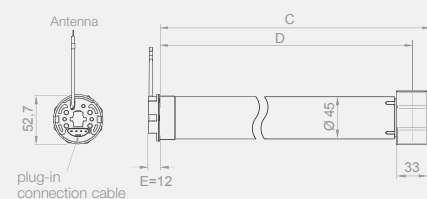
- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets



RolTop M-868 RH fast running version



- Elero round head
- Can be over wound
- Minimal side gap
- Very versatile



Technical data and dimensions

Type	RoTop M2.5/90-868	RoTop M4/60-868	RoTop M6/35-866	RoTop M7/23-868	RoTop M9/35-868	RoTop M12/23-868
Max. torque (Nm)	2.5	4	6	7	9	12
Speed (rpm)	90	60	35	23	35	23
Operating Voltage (V)	1 ~ 230			230 – 240 V ~	1 ~ 230	
Frequency (Hz)	50					
Noiseless soft brake	•			-		•
Fast-running version	•					
Current (A)	0.9		0.6		0.9	
Power (W)	200		140		200	
Shaft Ø (mm)	50					
Ingress protection (IP)	44					
Max. limit switch range in Revolutions of the shaft	40					
Operating mode (KB in min.)	5					
Length C (mm)	526		466		516	526
Length D (mm)	509		449.5		499.5	509
Length E (mm)	= 14 = 12					
Weight (kg)	1.9		1.8		2.0	1.9
Temperature range (°C)	-20 to +60					
Conformity						
Connecting cable pluggable (m)	2.0					

	RoTop M2.5/90-868	RoTop M4/60-868	RoTop M6/35-866	RoTop M7/23-868	RoTop M9/35-868	RoTop M12/23-868
Item Number	34 160.0006		34 238.0006	34 226.0006	34 248.0006	34 236.0006

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

	RoTop M2.5/90-868 RH	RoTop M4/60-868 RH	RoTop M6/35-866 RH	RoTop M7/23-868 RH	RoTop M9/35-868 RH	RoTop M12/23-868 RH
Item Number	38 160.0006	38 460.0006	38 438.0006	38 226.0006	38 448.0006	38 236.0006

Mounting explanation on page 96!

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

	Cables Page 92		Drive adapter sets Page 93		Brackets Page 94
	Radio control units from page 161		Radio sensors from page 194		Rigid shaft fastener Page 98
	Bolt for RH drives Page 96				



RolTop M /-K

Tubular drives for roller shutters

RolTop M /-K

Application: Roller shutter*

Limit switch: Electronic limits with Soft Stop on end position approach (on motors with soft brake)

Highlights: Smart force measurement
Application protection in up and down direction and reversion on obstacle (excl. RolTop M10-K)
Limits can be adjusted via installation lead

Plug-able cable
Parallel connection possible

Shaft size: From $\varnothing = 50$ mm

Features: Noiseless soft brake up to 20 Nm

* Drive might stop on heavy wind load to protect drive.

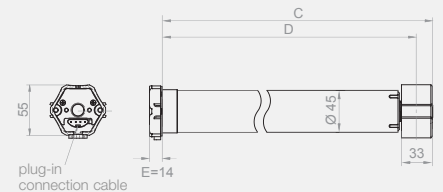
Possible limit switch modes

Upper limit switch	Lower limit switch
On limit stop	Freely programmable
Freely programmable	On limit stop
On limit stop	On limit stop
Freely programmable	Freely programmable

RolTop M



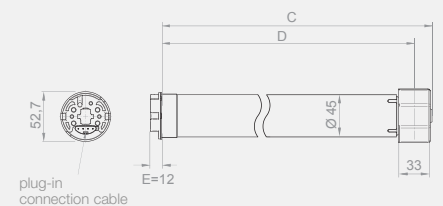
- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets



RolTop M RH



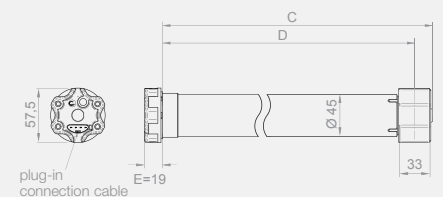
- Elero round head
- Can be over wound
- Minimal side gap
- Very versatile



RolTop M SH



- Somfy star head design
- Same side gap like Somfy



Technical data and dimensions

Type	RoTop M6	RoTop M7/23	RoTop M10	RoTop M10-K	RoTop M12/23	RoTop M20	RoTop M30	RoTop M40	RoTop M50	
Max. torque (Nm)	6	7	10		12	20	30	40	50	
Speed (rpm)	14	23	14		23	14				
Operating Voltage (V)	1 ~ 230	230 – 240 V ~			1 ~ 230					
Frequency (Hz)	50									
Noiseless soft brake	•									
Fast-running version	-									
Current (A)	0.52	0.6			0.9		1.2	1.3		
Power (W)	118	140			200		270	300		
Shaft Ø (mm)	50									
Ingress protection (IP)	44									
Max. limit switch range in Revolutions of the shaft	40									
Operating mode (KB in min.)	5			4				5	4	
Length C (mm)	446	466	391		526	516	546			
Length D (mm)	429.5	449.5		374.5	509.5	499.5		529.5		
Length E (mm)	= 14 = 12 = 19									
Weight (kg)	1.6	1.7	1.9		2.2	2.3	2.5	3.1		
Temperature range (°C)	-20 to +60									
Conformity										
Connecting cable pluggable (m)	2.0									

	RoTop M6	RoTop M7/23	RoTop M10	RoTop M10-K	RoTop M12/23	RoTop M20	RoTop M30	RoTop M40	RoTop M50
Item Number	34 301.0001	34 225.0001	34 221.0001	34 111.0001	34 235.0001	34 231.0001	34 241.0001	34 251.0001	34 261.0001

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

	RoTop M7/23 RH	RoTop M10 RH	RoTop M10-K RH	RoTop M12/23 RH	RoTop M20 RH	RoTop M30 RH
Item Number	38 225.0001	38 221.0001	38 111.0001	38 235.0001	38 231.0001	38 241.0001

Mounting explanation on page 96!

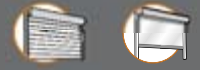
All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

	RoTop M6 SH	RoTop M10 SH	RoTop M20 SH	RoTop M30 SH	RoTop M40 SH	RoTop M50 SH
Item Number	39 301.0001	39 221.0001	39 231.0001	39 241.0001	39 251.0001	39 261.0001

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

	Cables Page 92		Drive adapter sets Page 93		Brackets Pages 94 and 97
	ProLine control units from page 205		Sensors from page 194		Rigid shaft fastener Page 98
	Radio receivers from page 186		Bolt for RH drives Page 96		



RolTop M fast running versions

Tubular drives with soft start for blinds and insect screens

RolTop M fast running version

Application: Roller shutter, blinds and insect screens

Limit switch: Electronic limits with Soft Stop on end position approach (on motors with soft brake)

Highlights: Soft start
Smart force measurement
Application protection in up and down direction and reversion on obstacle
Limits can be adjusted via installation lead
Plug-able cable
Parallel connection possible

Shaft size: From $\varnothing = 50$ mm

Features: Noiseless soft brake (excl. RolTop M12/23)

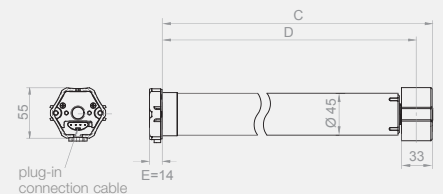
Possible limit switch modes

Upper limit switch	Lower limit switch
On limit stop	Freely programmable
Freely programmable	On limit stop
On limit stop	On limit stop
Freely programmable	Freely programmable

RolTop M fast running version



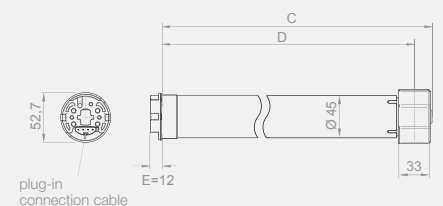
- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets



RolTop M RH fast running version



- Elero round head
- Can be over wound
- Minimal side gap
- Very versatile



Technical data and dimensions

Type	RoI Top M2.5/90	RoI Top M4/60	RoI Top M6/35	RoI Top M7/23	RoI Top M9/35	RoI Top M12/23
Max. torque (Nm)	2.5	4	6	7	9	12
Speed (rpm)	90	60	35	23	35	23
Operating Voltage (V)	1 ~ 230			230 – 240 V ~	1 ~ 230	
Frequency (Hz)	50					
Noiseless soft brake	•			-		•
Fast-running version	•					
Current (A)	0,9		0,6		0,9	
Power (W)	200		140		200	
Shaft Ø (mm)	50					
Ingress protection (IP)	44					
Max. limit switch range in Revolutions of the shaft	40					
Operating mode (KB in min.)	5					
Length C (mm)	526			466	516	526
Length D (mm)	509			449.5	499	509
Length E (mm)	= 14 = 12					
Weight (kg)	1.9		1.7		2.0	
Temperature range (°C)	-20 to +60					
Conformity						
Connecting cable pluggable (m)	2.0					

	RoI Top M2.5/90	RoI Top M6/35	RoI Top M7/23	RoI Top M9/35	RoI Top M12/23
Item Number	34 169.0001	34 237.0001	34 225.0001	34 247.0001	34 235.0001

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

	RoI Top M2.5/90 RH	RoI Top M4/60 RH	RoI Top M7/23 RH	RoI Top M12/23 RH
Item Number	38 169.0001	38 469.0001	38 225.0001	38 235.0001

Mounting explanation on page 96!

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

Cables Page 92	Drive adapter sets Page 93	Brackets Page 94
ProLine control units from page 205	Sensors from page 229	Rigid shaft fastener Page 98
Radio receivers from page 186	Bolt for RH drives Page 96	



RolSmart M /-K

Tubular drives for roller shutters K-Version as short model

RolSmart M /-K (230V/50 Hz)

Application: Roller shutter

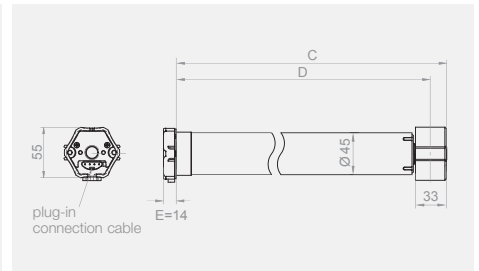
Limit switch: Electronic limits with Soft Stop on end position approach
 Highlights: Smart force measurement
 Application protection in up and down direction
 Limits can be adjusted via installation lead
 Plug-able cable
 Shaft size: From $\varnothing = 50$ mm
 Features: Noiseless soft brake
 Parallel connection impossible
 Requires at least one torque stop

Possible limit switch modes





Upper limit switch	Lower limit switch
On limit stop	Freely programmable
Freely programmable	On limit stop
On limit stop	On limit stop




- elero standard RevoLine motor head
- Minimal side gap
- Suitable for all elero RevoLine wall brackets










Technical data and dimensions

Type	RoISmart M10-K	RoISmart M20
Max. torque (Nm)	10	20
Speed (rpm)	14	
Operating Voltage (V)	1 ~ 230	
Frequency (Hz)	50	
Noiseless soft brake	•	
Current (A)	0.6	0.9
Power (W)	140	200
Shaft Ø (mm)	50	
Ingress protection (IP)	44	
Max. limit switch range in Revolutions of the shaft	40	
Operating mode (KB in min.)	4	
Length C (mm)	391	526
Length D (mm)	374.5	509
Length E (mm)	 = 14	
Weight (kg)	1.6	1.9
Temperature range (°C)	-20 to +60	
Conformity	  	
Connecting cable pluggable (m)	2.0	

		RoISmart M10-K	RoISmart M20
Item Number		34 011.0001	34 131.0002

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

	Cables Page 92		Drive adapter sets Page 93		Brackets Page 94
	ProLine control units from page 205		Sensors from page 229		Rigid shaft fastener Page 98
	Radio receivers from page 186				



RoITop/D+ M-868

Tubular drives for roller shutters – torque mode only motor

No limit setting required!
(requires torque stop in both directions)

RoITop/D+ M-868

Application: Roller shutter

Limit switch: Electronic limits with Soft Stop on end position approach
 Highlights: Smart force measurement
 Application protection in up and down direction and reversion on obstacle
 End limits are self-learning
 Plug-able cable

Features: Noiseless soft brake up to 20 Nm
 Radio system: Bi-directional 868 MHz radio including routing
 Limitations: Only possible to use with torque stops in both directions

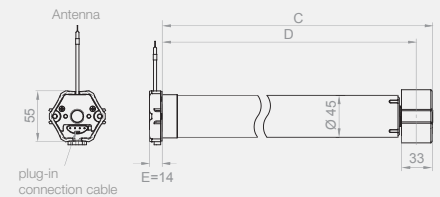
Possible limit switch modes

Upper limit switch	Lower limit switch
On limit stop	On limit stop

RoITop/D+ M-868



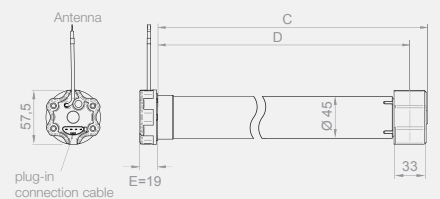
- elero standard RevoluLine motor head
- Small side gap
- Suitable for all elero RevoluLine wall brackets



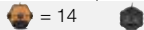




RoITop/D+ M-868 SH




- Somfy star head design
- Same side gap like Somfy




Technical data and dimensions

Type	RoTop D+ M6-868	RoTop D+ M10-868	RoTop D+ M20-868	RoTop D+ M30-868
Max. torque (Nm)	6	10	20	30
Speed (rpm)	14			
Operating Voltage (V)	1 ~ 230	230 – 240 V ~	1 ~ 230	
Frequency (Hz)	50			
Noiseless soft brake	•		–	
Fast-running version	–			
Current (A)	0.52	0.6	0.9	
Power (W)	118	140	200	
Shaft Ø (mm)	50			
Ingress protection (IP)	44			
Max. limit switch range in Revolutions of the shaft	40			
Operating mode (KB in min.)	4	5	4	
Length C (mm)	446	466	526	516
Length D (mm)	429,5	449,5	509,5	499,5
Length E (mm)	 = 14  = 19			
Weight (kg)	1.4	1.8	2.2	2.3
Temperature range (°C)	–20 to +60			
Conformity	  			
Connecting cable pluggable (m)	2.0			







		RoTop D+ M6-868	RoTop D+ M10-868	RoTop D+ M20-868	RoTop D+ M30-868
Item Number		34 014.0006	34 024.0006	34 034.0006	34 044.0006

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

		RoTop D+ M10-868 SH	RoTop D+ M20-868 SH	RoTop D+ M30-868 SH
Item Number		39 024.0006	39 034.0006	39 044.0006

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

 Cables Page 92	 Drive adapter sets Page 93	 Brackets Pages 94 and 97
 Radio control units from page 161	 Radio sensors from page 194	 Rigid shaft fastener Page 98



RolTop/D+ M

Tubular drives for roller shutters – torque mode only motor

No limit setting required!
(requires torque stop in both directions)

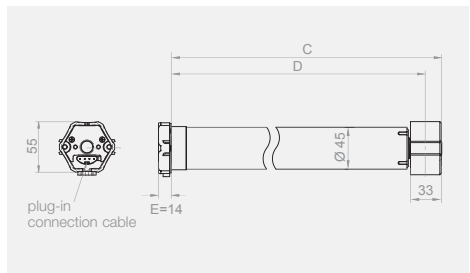
RolTop/D+ M	
Application:	Roller shutter
Limit switch:	Electronic limits with Soft Stop on end position approach
Highlights:	Smart force measurement Application protection in up and down direction and reversion on obstacle Parallel connection possible End limits are self-learning Plug-able cable
Shaft size:	From $\varnothing = 50$ mm
Features:	Noiseless soft brake up to 20 Nm
Limitations:	Only possible to use with torque stops in both directions

Possible limit switch modes	
Upper limit switch	Lower limit switch
On limit stop	On limit stop



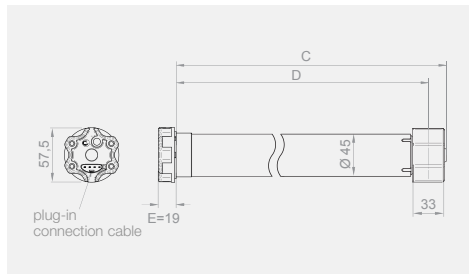
RolTop/D+ M

- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets









RolTop/D+ M SH

- Somfy star head design
- Same side gap like Somfy




Technical data and dimensions

Type	RolTop/D+ M6	RolTop/D+ M10	RolTop/D+ M20	RolTop/D+ M30
Max. torque (Nm)	6	10	20	30
Speed (rpm)	14			
Operating Voltage (V)	1 ~ 230	230 – 240 V ~	1 ~ 230	
Frequency (Hz)	50			
Noiseless soft brake	•		–	
Fast-running version	–			
Current (A)	0.52	0.6	0.9	
Power (W)	118	140	200	
Shaft Ø (mm)	50			
Ingress protection (IP)	44			
Max. limit switch range in Revolutions of the shaft	40			
Operating mode (KB in min.)	4	5	4	
Length C (mm)	446	466	526	516
Length D (mm)	429.5	449.5	509.5	499.5
Length E (mm)	 = 14  = 19			
Weight (kg)	1.4	1.9		
Temperature range (°C)	–20 to +60			
Conformity	  			
Connecting cable pluggable (m)	2.0			








		RolTop/D+ M6	RolTop/D+ M10	RolTop/D+ M20	RolTop/D+ M30
Item Number		34 013.0001	34 023.0001	34 033.0001	34 043.0001

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

		RolTop/D+ M10 SH	RolTop/D+ M20 SH	RolTop/D+ M30 SH
Item Number		39 023.0001	39 033.0001	39 043.0001

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

 Cables Page 92	 Drive adapter sets Page 93	 Brackets Page 94 and 97
 ProLine control units from page 205	 Radio receivers from page 186	 Rigid shaft fastener Page 98
 Sensors from page 229		



RolTop Sonro M-868

Radio tubular drives with soft stop downwards for S_onro roller shutters

RolTop Sonro M-868

Application: Roller shutter

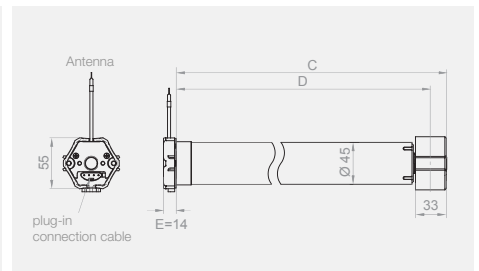
Limit switch: Electronic limits with Soft Stop on end down position
 Highlights: Smart force measurement
 Blockage detection Up/Down
 Limits can be adjusted via radio remote control or installation lead
 Plug-able cable
 Shaft size: From $\varnothing = 50$ mm
 Features: Soft stop downwards
 Noiseless soft brake
 Radio system: Bi-directional 868 MHz radio including routing

Possible limit switch modes





Upper limit switch	Lower limit switch
On limit stop	Freely programmable
Freely programmable	On limit stop
On limit stop	On limit stop
Freely programmable	Freely programmable




- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets









Technical data and dimensions

Type	RolTop Sonro M10-868	RolTop Sonro M20-868
Max. torque (Nm)	10	20
Speed (rpm)	14	
Operating Voltage (V)	230 – 240 V~	1 ~ 230
Frequency (Hz)	50	
Noiseless soft brake	•	
Current (A)	0.6	0.9
Power (W)	140	200
Shaft Ø (mm)	50	
Ingress protection (IP)	44	
Max. limit switch range in Revolutions of the shaft	40	
Operating mode (KB in min.)	5	4
Length C (mm)	466	526
Length D (mm)	449.5	509.5
Length E (mm)	 = 14	
Weight (kg)	1.9	2.2
Temperature range (°C)	-20 to +60	
Conformity	  	
Connecting cable pluggable (m)	2.0	

		RolTop Sonro M10-868	RolTop Sonro M20-868
	Item Number		34 222.5606

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

	Cables Page 92		Drive adapter sets Page 93		Brackets Page 94
	Radio control units from page 161		Radio sensors from page 194		Rigid shaft fastener Page 98



RolTop Sonro M

Tubular drives with soft stop downwards for S_onro roller shutters

RolTop Sonro M

Application: Roller shutter

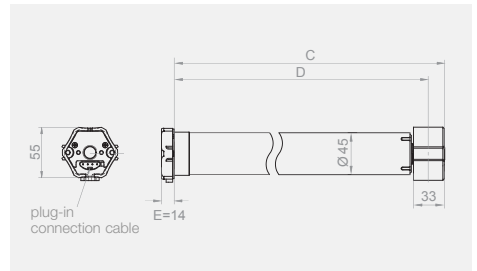
Limit switch: Electronic limits with Soft Stop on end down position
 Highlights: Smart force measurement
 Blockage detection Up/Down
 Limits can be adjusted via or installation lead
 Plug-able cable
 Parallel connection possible
 Shaft size: From $\varnothing = 50$ mm
 Features: Soft stop downwards
 Noiseless soft brake

Possible limit switch modes





Upper limit switch	Lower limit switch
On limit stop	Freely programmable
Freely programmable	On limit stop
On limit stop	On limit stop
Freely programmable	Freely programmable




- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets









Technical data and dimensions

Type	RolTop Sonro M10	RolTop Sonro M20
Max. torque (Nm)	10	20
Speed (rpm)	14	
Operating Voltage (V)	230 – 240 V~	1 ~ 230
Frequency (Hz)	50	
Noiseless soft brake	•	
Current (A)	0.6	0.9
Power (W)	140	200
Shaft Ø (mm)	50	
Ingress protection (IP)	44	
Max. limit switch range in Revolutions of the shaft	40	
Operating mode (KB in min.)	5	4
Length C (mm)	466	526
Length D (mm)	449.5	509.5
Length E (mm)	 = 14	
Weight (kg)	1.9	2.2
Temperature range (°C)	-20 to +60	
Conformity	  	
Connecting cable pluggable (m)	2.0	

		RolTop Sonro M10	RolTop Sonro M20
Item Number		34 221.5601	34 231.5601

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

	Cables Page 92		Drive adapter sets Page 93		Brackets Page 94
	ProLine control units from page 205		Rigid shaft fastener Page 98		
	Radio receivers from page 186				



RoTop/J M-868

Radio tubular drives for special roller shutters with louvre function

RoTop/J M-868

Application: Roller shutter with louvre function

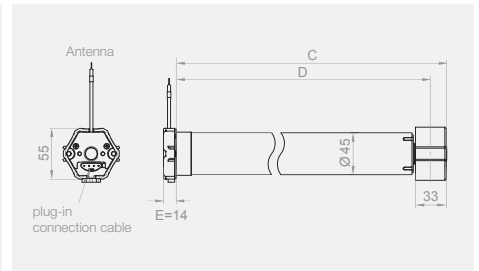
Limit switch: Electronic limits with Soft Stop on end position approach
 Highlights: Smart force measurement
 Application protection in up and down direction and reversion on obstacle
 Limits can be adjusted via radio remote control or installation lead
 Plug-able cable
 Shaft size: From $\varnothing = 50$ mm
 Features: Noiseless soft brake up to 20 Nm
 Drive suitable for tilt-able roller shutters
 Includes special 2nd lower end position for opening shutter to tilt position
 Radio system: Bi-directional 868 MHz radio including routing

Possible limit switch modes

Upper limit switch	Lower limit switch
On limit stop	Freely programmable
Freely programmable	On limit stop
On limit stop	On limit stop
Freely programmable	Freely programmable



- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets



Technical data and dimensions

Type	RoTop/J M10-868	RoTop/J M20-868	RoTop/J M30-868	RoTop/J M40-868	RoTop/J M50-868
Max. torque (Nm)	10	20	30	40	50
Speed (rpm)	14				
Operating Voltage (V)	230 – 240 V ~		1 – 230		
Frequency (Hz)	50				
Noiseless soft brake	•		–		
Current (A)	0,6	0,9	1,2	1,3	1,3
Power (W)	140	200	270	300	300
Shaft Ø (mm)	50				
Ingress protection (IP)	44				
Max. limit switch range in Revolutions of the shaft	40				
Operating mode (KB in min.)	5	4	5	4	4
Length C (mm)	466	526	516	546	546
Length D (mm)	449.5	509.5	499.5	529.5	529.5
Length E (mm)	= 14				
Weight (kg)	1.8	1.9	2.2	2.6	3.1
Temperature range (°C)	–20 to +60				
Conformity					
Connecting cable pluggable (m)	2.0				

	RoTop/J M10-868	RoTop/J M20-868	RoTop/J M30-868	RoTop/J M40-868	RoTop/J M50-868
Item Number	34 224.0006	34 234.0006	34 244.0006	34 254.0006	34 264.0006

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

Cables Page 92	Drive adapter sets Page 93	Brackets Page 94
Radio control units from page 161	Radio sensors from page 194	Rigid shaft fastener Page 98



RolTop/J M

Tubular drives for special roller shutters with louvre function

RolTop/J M

Application: Roller shutter with louvre function

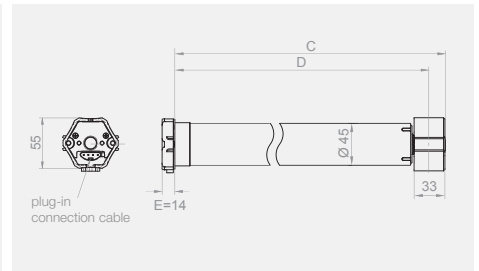
Limit switch: Electronic limits with Soft Stop on end position approach
 Highlights: Smart force measurement
 Application protection in up and down direction and reversion on obstacle
 Limits can be adjusted via installation lead
 Plug-able cable
 Parallel connection possible
 Shaft size: From $\varnothing = 50$ mm
 Features: Noiseless soft brake up to 20 Nm
 Drive suitable for tilt-able roller shutters
 Includes special 2nd lower end position for opening shutter to tilt position

Possible limit switch modes

Upper limit switch	Lower limit switch
On limit stop	Freely programmable
Freely programmable	On limit stop
On limit stop	On limit stop
Freely programmable	Freely programmable



- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets



Technical data and dimensions

Type	RoTop/J M10	RoTop/J M20	RoTop/J M30	RoTop/J M40	RoTop/J M50
Max. torque (Nm)	10	20	30	40	50
Speed (rpm)	14				
Operating Voltage (V)	230 – 240 V ~		1 – 230		
Frequency (Hz)	50				
Noiseless soft brake	•		–		
Current (A)	0.6	0.9		1.2	1.3
Power (W)	140	200		270	300
Shaft Ø (mm)	50				
Ingress protection (IP)	44				
Max. limit switch range in Revolutions of the shaft	40				
Operating mode (KB in min.)	5	4		5	4
Length C (mm)	466	526	516	546	
Length D (mm)	449.5	509.5	499.5	529.5	
Length E (mm)	= 14				
Weight (kg)	1.8	2.1	2.3	2.5	3.1
Temperature range (°C)	–20 to +60				
Conformity					
Connecting cable pluggable (m)	2.0				

	RoTop/J M10	RoTop/J M20	RoTop/J M30	RoTop/J M40	RoTop/J M50
Item Number	34 223.0001	34 233.0001	34 243.0001	34 253.0001	34 263.0001

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

	Cables Page 92		Drive adapter sets Page 93		Brackets Page 94
	ProLine control units from page 205		Rigid shaft fastener Page 98		
	Radio receivers from page 186				



SunTop M-868

Radio tubular drives for sun protection systems

SunTop M-868

Application: Textile sun protection

Limit switch: Electronic limits with Soft Stop on end position approach
 Highlights: Smart force measurement
 Blockage detection Up/Down
 Limits can be adjusted via radio remote control or installation lead
 Plug-able cable
 Shaft size: From $\varnothing = 50$ mm
 Features: Noiseless soft brake up to 20 Nm
 Radio system: Bi-directional 868 MHz radio including routing

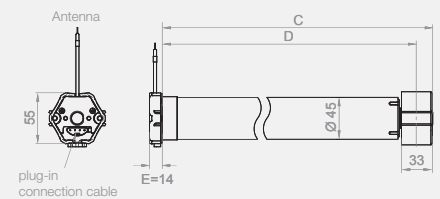
Possible limit switch modes

Upper limit switch	Lower limit switch
On limit stop	Freely programmable
Freely programmable	On limit stop
On limit stop	On limit stop
Freely programmable	Freely programmable

SunTop M-868



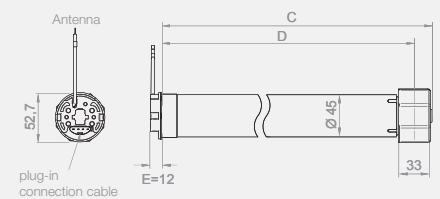
- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets



SunTop M-868 RH



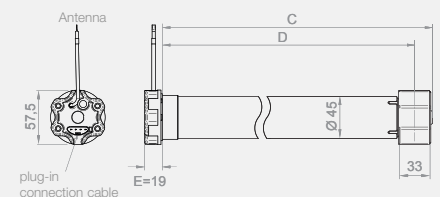
- elero round head
- Can be over wound
- Minimal side gap
- Very versatile



SunTop M-868 SH



- Somfy star head design
- Same side gap like Somfy



Technical data and dimensions

Type	SunTop M7/23-868	SunTop M10-868	SunTop M12/23-868	SunTop M20-868	SunTop M30-868	SunTop M40-868	SunTop M50-868		
Max. torque (Nm)	7	10	12	20	30	40	50		
Speed (rpm)	23	14	23	14					
Operating Voltage (V)	230 – 240 V ~			1 ~ 230					
Frequency (Hz)	50								
Noiseless soft brake	•			-					
Fast-running version	•	-	•	-					
Current (A)	0.6		0.9		1.2		1.3		
Power (W)	140		200		270		300		
Shaft Ø (mm)	50								
Ingress protection (IP)	44								
Max. limit switch range in Revolutions of the shaft	40								
Operating mode (KB in min.)	5			4		5		4	
Length C (mm)	466		526		516		546		
Length D (mm)	449.5		509.5		499.5		529.5		
Length E (mm)	= 14 = 12 = 19								
Weight (kg)	1.7		2.1		2.2		2.3	2.5	3.1
Temperature range (°C)	-20 to +60								
Conformity									
Connecting cable pluggable (m)	2.0								

	SunTop M7/23-868	SunTop M10-868	SunTop M12/23-868	SunTop M20-868	SunTop M30-868	SunTop M40-868	SunTop M50-868
Item Number	34 726.0006	34 722.0006	34 736.0006	34 732.0006	34 742.0006	34 752.0006	34 762.0006

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

	SunTop M10-868 RH	SunTop M20-868 RH	SunTop M30-868 RH	SunTop M40-868 RH	SunTop M50-868 RH
Item Number	38 722.0006	38 732.0006	38 742.0006	38 752.0006	38 762.0006

Mounting explanation on page 96!

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

	SunTop M10-868 SH	SunTop M20-868 SH	SunTop M30-868 SH	SunTop M40-868 SH	SunTop M50-868 SH
Item Number	39 722.0006	39 732.0006	39 742.0006	39 752.0006	39 762.0006

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

Cables Page 92	Drive adapter sets Page 93	Brackets Pages 94 and 97
Radio control units from page 161	Radio sensors from page 194	Bolt for RH drives Page 96



SunTop M

Tubular drives for sun protection systems

SunTop M

Application: Textile sun protection

Limit switch: Electronic limits with Soft Stop on end position approach
 Highlights: Smart force measurement
 Blockage detection Up/Down
 Limits can be adjusted via installation lead
 Plug-able cable
 Parallel connection possible
 Shaft size: From $\varnothing = 50$ mm
 Features: Noiseless soft brake up to 20 Nm

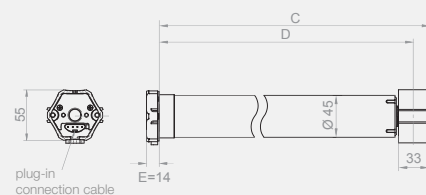
Possible limit switch modes

Upper limit switch	Lower limit switch
On limit stop	Freely programmable
Freely programmable	On limit stop
On limit stop	On limit stop
Freely programmable	Freely programmable

SunTop M



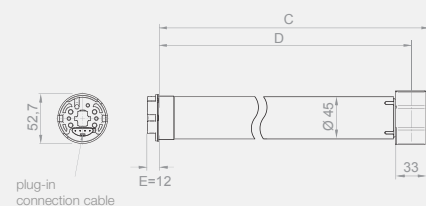
- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets



SunTop M RH



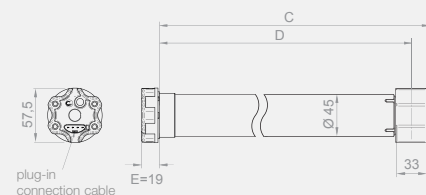
- elero round head
- Can be over wound
- Minimal side gap
- Very versatile



SunTop M SH



- Somfy star head design
- Same side gap like Somfy



Technical data and dimensions

Type	SunTop M7/23	SunTop M10	SunTop M12/23	SunTop M20	SunTop M30	SunTop M40	SunTop M50
Max. torque (Nm)	7	10	12	20	30	40	50
Speed (rpm)	23	14	23	14			
Operating Voltage (V)	230 – 240 V ~			1 ~ 230			
Frequency (Hz)	50						
Noiseless soft brake	•			-			
Fast-running version	•			-			
Current (A)	0.6			0.9		1.2	1.3
Power (W)	140			200		270	300
Shaft Ø (mm)	50						
Ingress protection (IP)	44						
Max. limit switch range in Revolutions of the shaft	40						
Operating mode (KB in min.)	5			4		5	4
Length C (mm)	466		526		516	546	
Length D (mm)	449.5		509.5		499.5	529.5	
Length E (mm)	= 14 = 12 = 19						
Weight (kg)	1.7		2.2	2.1	2.2	2.5	2.7
Temperature range (°C)	-20 to +60						
Conformity							
Connecting cable pluggable (m)	2.0						

	SunTop M7/23	SunTop M10	SunTop M12/23	SunTop M20	SunTop M30	SunTop M40	SunTop M50
Item Number	34 725.0001	34 721.0001	34 735.0001	34 731.0001	34 741.0001	34 751.0001	34 761.0001

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

	SunTop M7/23 RH	SunTop M10 RH	SunTop M12/23 RH	SunTop M20 RH	SunTop M30 RH	SunTop M40 RH	SunTop M50 RH
Item Number	38 725.0001	38 721.0001		38 731.0001	38 741.0001	38 751.0001	38 761.0001

Mounting explanation on page 96!

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

	SunTop M10 SH	SunTop M20 SH	SunTop M30 SH	SunTop M40 SH	SunTop M50 SH
Item Number	39 721.0001	39 731.0001	39 741.0001	39 751.0001	39 761.0001

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

Cables Page 92	Drive adapter sets Page 93	Brackets Pages 94 and 97
ProLine control units from page 205	Sensors from page 229	Bolt for RH drives Page 96
Radio receivers from page 186		

Revoline M
Type 9 + 11
Venetian blind drives
Speciality drives
Hausautomation, radio controls, radio sensors
Hardwired controls sensors
Door drives
Door controls
Adapter profiles
Lifting capacity tables



SunTop/Z M-868 RH

Radio tubular drives for textile sun protection

SunTop/Z M-868 RH

Application: Textile sun protection

Limit switch: Electronic limits with Soft Stop on end position approach
 Highlights: Smart force measurement
 Stand still detection in up direction
 Obstacle detection and fabric protection in down direction
 Will re-try once and move in top position if obstacle remains on second try
 Optional torque release programmable on torque limit position(s)
 Limits can be adjusted via installation lead

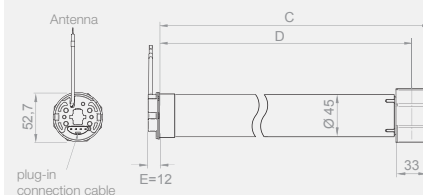
Shaft size: From $\varnothing = 50$ mm
 Features: Noiseless soft brake up to 20 Nm

Possible limit switch modes

Upper limit switch	Lower limit switch
On limit stop	Freely programmable
Freely programmable	On limit stop
On limit stop	On limit stop
Freely programmable	Freely programmable



- elero round head
- Can be over wound
- Minimal side gap
- Very versatile



Technical data and dimensions

Type	SunTop/Z M2.5/90-868 RH	SunTop/Z M4/60-868 RH	SunTop/Z M7/23-868 RH	SunTop/Z M10-868 RH	SunTop/Z M12/23-868 RH	SunTop/Z M20-868 RH	SunTop/Z M30-868 RH
Max. torque (Nm)	2.5	4	7	10	12	20	30
Speed (rpm)	90	60	23	14	23	14	
Operating Voltage (V)	1 ~ 230		230 – 240 V~		1 ~ 230		
Frequency (Hz)	50						
Noiseless soft brake			•		-		
Fast-running version	•		-		•		
Current (A)	0.9		0.6		0.9		
Power (W)	200		140		200		
Shaft Ø (mm)	50						
Ingress protection (IP)	44						
Max. limit switch range in Revolutions of the shaft	40						
Operating mode (KB in min.)			5			4	
Length C (mm)	527	526	466		516	527	516
Length D (mm)	510.5	509.5	449.5		499.5	510.5	499.5
Length E (mm)	= 12						
Weight (kg)	1.8	2	1.8		2.2		
Temperature range (°C)	-20 to +60						
Conformity							
Connecting cable pluggable (m)	2.0						

	SunTop/Z M2.5/90-868 RH	SunTop/Z M4/60-868 RH	SunTop/Z M7/23-868 RH	SunTop/Z M10-868 RH	SunTop/Z M12/23-868 RH	SunTop/Z M20-868 RH	SunTop/Z M30-868 RH
Item Number	38 660.0006	38 670.0006	38 624.0006	38 632.0006	38 634.0006	38 642.0006	38 652.0006

Mounting explanation on page 96!

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

Cables Page 92	Drive adapter sets Page 93	Brackets Pages 96
Radio control units from page 161	Radio sensors from page 194	Bolt for RH drives Page 96

RevLine M
Type 9 + 11
Venetian blind drives
Speciality drives
Hausautomation, radio controls, radio sensors
Hardwired controls sensors
Door drives
Door controls
Adapter profiles
Lifting capacity tables



SunTop/Z M RH

Tubular drives for textile sun protection

SunTop/Z M RH

Application: Textile sun protection

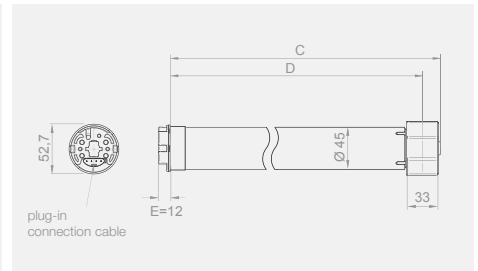
Limit switch: Electronic limits with Soft Stop on end position approach
 Highlights: Smart force measurement
 Stand still detection in up direction
 Obstacle detection and fabric protection in down direction
 Will re-try once and move in top position if obstacle remains on second try
 Optional torque release programmable on torque limit position(s)
 Limits can be adjusted via installation lead
 Parallel connection possible
 Shaft size: From $\varnothing = 50$ mm
 Features: Noiseless soft brake up to 20 Nm

Possible limit switch modes

Upper limit switch	Lower limit switch
On limit stop	Freely programmable
Freely programmable	On limit stop
On limit stop	On limit stop
Freely programmable	Freely programmable



- elero round head
- Can be over wound
- Minimal side gap
- Very versatile



Technical data and dimensions

Type	SunTop/Z M2.5/90 RH	SunTop/Z M4/60 RH	SunTop/Z M7/23 RH	SunTop/Z M10 RH	SunTop/Z M12/23 RH	SunTop/Z M20 RH	SunTop/Z M30 RH
Max. torque (Nm)	2.5	4	7	10	12	20	30
Speed (rpm)	90	60	23	14	23	14	
Operating Voltage (V)	1 ~ 230		230 ~ 240 V ~		1 ~ 230		
Frequency (Hz)	50						
Noiseless soft brake				•			-
Fast-running version	•		-		•	-	
Current (A)	0.9		0.6		0.9		
Power (W)	200		140		200		
Shaft Ø (mm)	50						
Ingress protection (IP)	44						
Max. limit switch range in Revolutions of the shaft	40						
Operating mode (KB in min.)	5				4		
Length C (mm)	527	526	466		516	527	516
Length D (mm)	510.5	509.5	449.5		499.5	510.5	499.5
Length E (mm)	= 12						
Weight (kg)	1.9				2.2		
Temperature range (°C)	-20 to +60						
Conformity							
Connecting cable pluggable (m)	2.0						

	SunTop/Z M2.5/90 RH	SunTop/Z M4/60 RH	SunTop/Z M7/23 RH	SunTop/Z M10 RH	SunTop/Z M12/23 RH	SunTop/Z M20 RH	SunTop/Z M30 RH
Item Number	38 669.0001	38 679.0001	38 623.0001	38 631.0001	38 633.0001	38 641.0001	38 651.0001

Mounting explanation on page 96!

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

	Cables Page 92		Drive adapter sets Page 93		Brackets Page 96
	ProLine control units from page 205		Sensors from page 229		Bolt for RH drives Page 96
	Radio receivers from page 186				



VariEco M-868 / VariEco+ M-868

Radio tubular drives for roller shutters and sun protection systems

VariEco M-868 / VariEco+ M-868

Application: Roller shutter and textile sun protection

Limit switch: Mechanical limit switches
 VariEco+ with quick set limit adjustments

Shaft size: From $\varnothing = 50$ mm

Features: Noiseless soft brake up to 20 Nm

Radio system: Bi-directional 868 MHz radio including routing

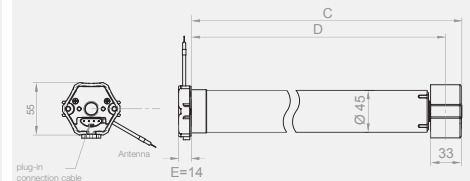
Possible limit switch modes

Upper limit switch	Lower limit switch
Freely programmable	Freely programmable

VariEco M-868



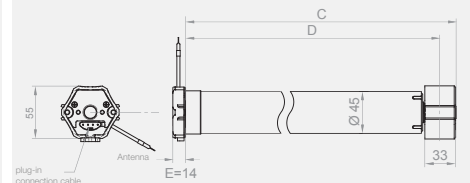
- elero Standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets



VariEco+ M-868



- Quick set limit adjustments
- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets



Technical data and dimensions

Type	VariEco M6/35-868	VariEco M7/23-868	VariEco M9/35-868	VariEco M10-868	VariEco M12/23-868	VariEco M20-868	VariEco M30-868	VariEco M40-868	VariEco M50-868
Max. torque (Nm)	6	7	9	10	12	20	30	40	50
Speed (rpm)	35	23	35	14	23	14			
Operating Voltage (V)	1 ~ 230	230 – 240 V ~	1 ~ 230	230 – 240 V ~	1 ~ 230				
Frequency (Hz)	50								
Noiseless soft brake	•	•	–	–	•	–			
Fast-running version	•								
Current (A)	0.9	0.6	0.9	0.6	0.9		1.2	1.3	
Power (W)	200	140	200	140	200		270	300	
Shaft Ø (mm)	50								
Ingress protection (IP)	44								
Max. limit switch range in Revolutions of the shaft	35								
Operating mode (KB in min.)	5			4	5	4	5	4	
Length C (mm)	537	477	527	477	537	527	557		
Length D (mm)	520.5	460.5	510.5	460.5	520.5	510.5	540.5		
Length E (mm)	= 14								
Weight (kg)	1.9					2.4			
Temperature range (°C)	–20 to +60								
Conformity									
Connecting cable pluggable (m)	2.0								

	VariEco M6/35-868	VariEco M7/23-868	VariEco M9/35-868	VariEco M10-868	v VariEco M12/23-868	VariEco M20-868	VariEco M30-868	VariEco M40-868	VariEco M50-868
Item Number	34 938.0106	34 926.0106	34 948.0106	34 922.0106	34 936.0106	34 932.0106	34 942.0106	34 952.0106	34 962.0106

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

	VariEco+ M6/35-868	VariEco+ M7/23-868	VariEco+ M9/35-868	VariEco+ M12/23-868					
Item Number	34 938.0006	34 926.0006	34 948.0006	34 936.0006					

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

Cables Page 92	Drive adapter sets Page 93	Brackets Page 94
Radio control units from page 161	Radio sensors from page 194	Rigid shaft fastener Page 98
Adjustment aid Page 92		



VariEco M / VariEco+ M

Tubular drives for roller shutters and sun protection systems

VariEco M / VariEco+ M

Application: Roller shutter and textile sun protection

Limit switch: Mechanical limit switches
 VariEco+ with quick set limit adjustments

Shaft size: From $\varnothing = 50$ mm

Features: Noiseless soft brake up to 20 Nm

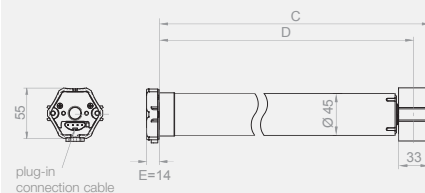
Possible limit switch modes

Upper limit switch	Lower limit switch
Freely programmable	Freely programmable

VariEco M



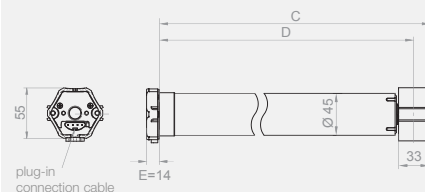
- elero Standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets



VariEco+ M



- Quick set limit adjustments
- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets



Technical data and dimensions

Type	VarioEco M6/35	VarioEco M7/23	VarioEco M9/35	VarioEco M10	VarioEco M12/23	VarioEco M20	VarioEco M30/10	VarioEco M30	VarioEco M40	VarioEco M50
Max. torque (Nm)	6	7	9	10	12	20	30		40	50
Speed (rpm)	35	23	35	14	23	14	10	14		
Operating Voltage (V)	1 ~ 230	230-240 V~	1 ~ 230	230-240 V~	1 ~ 230					
Frequency (Hz)	50									
Noiseless soft brake	• • • • • • • • • • • •									
Fast-running version	• • • • • • • • • • • •									
Current (A)	0.9	0.6	0.9	0.6	0.9			1.2	1.3	
Power (W)	200	140	200	140	200			270	300	
Shaft Ø (mm)	50									
Ingress protection (IP)	44									
Max. limit switch range in Revolutions of the shaft	35									
Operating mode (KB in min.)	5			4			5			4
Length C (mm)	537	477	527	477	537	527		557		
Length D (mm)	520.5	460.5	510.5	460.5	520.5	510.5		540.5		
Length E (mm)	= 14									
Weight (kg)	1.9			2.3			2.6			
Temperature range (°C)	-20 to +60									
Conformity										
Connecting cable pluggable (m)	2.0									

	VarioEco M6/35	VarioEco M7/23	VarioEco M9/35	VarioEco M10	VarioEco M12/23	VarioEco M20	VarioEco M30/10	VarioEco M30	VarioEco M40	VarioEco M50
Item Number	34 937.0101	34 925.0101		34 921.0101	34 935.0101	34 931.0101	34 943.0101	34 941.0101	34 951.0101	34 961.0101

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

	VarioEco+ M6/35	VarioEco+ M7/23	VarioEco+ M9/35	VarioEco+ M10	VarioEco+ M12/23	VarioEco+ M20	VarioEco+ M30/10	VarioEco+ M30	VarioEco+ M40	VarioEco+ M50
Item Number	34 937.0001	34 925.0001	34 947.0001	34 921.0001	34 935.0001	34 931.0001	34 943.0001	34 941.0001	34 951.0001	34 961.0001

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

	Cables Page 92		Drive adapter sets Page 93		Brackets Page 94
	ProLine control units from page 205		Sensors from page 229		Rigid shaft fastener Page 98
	Radio receivers from page 186		Adjustment aid Page 92		

Tubular drives RevoLine M – Accessories

Cables and accessories

It is not possible to return connecting cables.



Special cable lengths in combination with the drive (standard 2.0 m), **white**

Item Number	Type/Item Description
99 000.4101	2.0 m plug-in connecting cable (comes with drive as standard)
99 000.4201	3.0 m plug-in connecting cable
99 000.4301	5.0 m plug-in connecting cable
99 000.4401	10.0 m plug-in connecting cable
99 000.4801	20.0 m plug-in connecting cable
99 000.4501	0.4 m plug-in connecting cable with Hirschmann plug
99 000.7001	2.0 m plug-in connecting cable with Hirschmann plug
99 000.4601	3.0 m plug-in connecting cable universal push button (middle) and earthed plug

Special cable lengths in combination with the drive (standard 2.0 m), **black**

Item Number	Type/Item Description
99 000.5101	2.0 m plug-in connecting cable
99 000.5201	3.0 m plug-in connecting cable
99 000.5301	5.0 m plug-in connecting cable
99 000.5401	10.0 m plug-in connecting cable
99 000.5501	0.4 m plug-in connecting cable with Hirschmann plug
99 000.7701	2.0 m plug-in connecting cable with Hirschmann plug

Connecting cables without drive, **white**

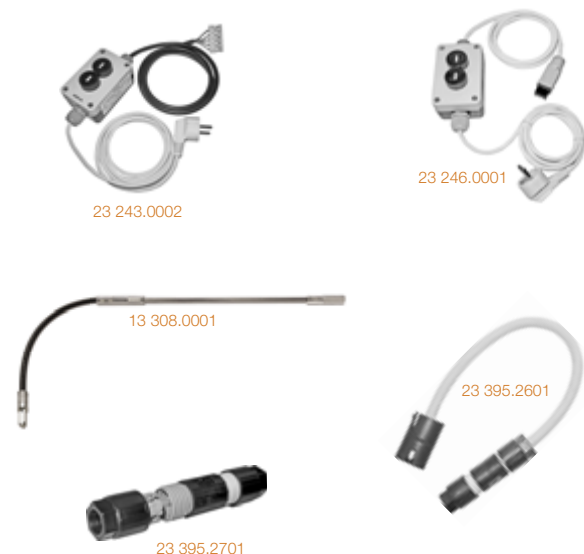
23 395.0201	2.0 m plug-in connecting cable
23 395.0301	3.0 m plug-in connecting cable
23 395.0401	5.0 m plug-in connecting cable
23 395.0501	10.0 m plug-in connecting cable
23 395.0601	20.0 m plug-in connecting cable
23 395.0101	0.4 m plug-in connecting cable with Hirschmann plug
23 395.0801	2.0 m plug-in connecting cable with Hirschmann plug
23 395.0701	3.0 m plug-in connecting cable with universal push button (centred) and earthed plug
23 615.2401	0.2 m Adapter cable Type 9/RevoLine

Connecting cables without drive, **black**

23 395.2201	2.0 m plug-in connecting cable
23 395.2301	3.0 m plug-in connecting cable
23 395.2401	5.0 m plug-in connecting cable
23 395.2501	10.0 m plug-in connecting cable
23 395.2101	0.4 m RevoLine cable with Hirschmann plug
23 395.2901	2.0 m RevoLine cable with Hirschmann plug

Installation-, connecting cables and Accessories

23 243.0002	Installation cable
23 246.0001	Installation cable with Hirschmann plug Stak 3
13 709.7301	5 pole connecting clip for installation cable 23 243.0002
23 395.2701	QuickConnect, the fast connection system, IP 65
23 395.4701	QuickConnect, set of 10
23 395.2601	QuickConnect with MiniPlug, IP 65 cable length 0.25 m
23 846.0001	Stas 3 with clip (motor side)
13 701.5301	Stak 3 (power supply side)
13 308.0001	Flexible adjustment aid



Assembly and disassembly only in the de-energised state!
The connections to the 230V mains must be made by authorised specialist personnel.

Adapter sets

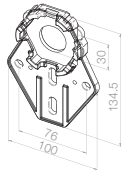
Profiles of the drive adapter sets in 1:1 scale on page 316.



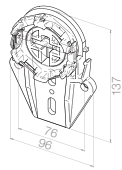
Item Number	Type/Item Description	Notch tubes	Round tubes	Profile tubes
23 041.0001	Ø 57 mm, Ates, MHZ	•		
23 055.0001	Ø 60 mm, AXE, Griesser, Hüppe	•		
23 042.0001	Ø 62 x 0.6 mm, DEPRAT F2000	•		
23 031.0001	Ø 63 x 1.0 mm	•		
22 019.0001	Ø 63 mm, deep notch	•		
23 018.0001	Ø 70 mm, IMBAC, Ahlquist, round notch	•		
23 020.0001	Ø 70 mm, flat notch, Welser, Griesser	•		
23 065.0001	Ø 70 mm	•		
23 054.0001	Ø 71 x 1.5 mm, Hassinger	•		
23 015.0001	Ø 78 x 1.0 mm 78 x 1.25 mm, for flat- and round notch, MHZ	•		
22 129.0001	Ø 78 x 1.0 mm, flat- and round notch Welser for ZIP installations	•		
23 026.0001	Ø 78 x 1.0 mm Rau	•		
22 088.0001	Ø 80 x 1.0 mm and Ø 80 x 1.25 mm, Welser	•		
23 017.0001	Ø 85 x 1.0 mm	•		
23 048.0001	Ø 85 x 1.2 mm, Imbac-NEW, Griesser	•		
23 053.0001	Ø 90 mm, Le Profil, Ø 89 mm DEPRAT	•		
23 058.0001	Ø 90.5 x 1.25 mm, MHZ	•		
13 116.2901	Ø 50 x 1.5 mm		•	
13 116.9901	Ø 50 x 1.5 mm, Siral		•	
23 044.0001	Ø 60 x 1.5 mm and Ø 62 x 2.0 mm		•	
23 045.0001	Ø 63 x 1.5 mm		•	
23 046.0001	Ø 70 x 1.5 mm		•	
23 093.0001	Ø 83 x 1.5 mm (with profile)		•	
23 052.0001	Ø 98 x 2.0 mm and Ø 102 x 3.5 mm		•	
23 051.0001	Ø 102 x 1.5 mm and Ø 102 x 2.0 mm		•	
13 117.8501	Ø 50 mm, Soprofen			•
13 121.9301	Ø 50 mm, with ribs			•
23 012.0001	Octagonal, SW 50 Selve			•
23 091.0001	Ø 53 mm, Deprat			•
13 116.1001	Ø 54 mm, Zurflüh-Feller			•
23 039.0001	Ø 55 mm, elero			•
23 050.0001	Ø 58 mm Alu, Termo Perco			•
23 036.0001	Octagonal, SW 60, IMBAC			•
23 379.0001	Octagonal, SW 60, Selve, Döhner Eckermann			•
23 056.0001	Octagonal, 60 mm, Bonfante			•
23 047.0001	Hexagonal, Ø 60 x 0.7 mm, Butzbach, Mäule			•
23 049.0001	Ø 60 mm Alu-Plast, Kittelberger, Ø 63 x 1.5 mm			•
23 043.0001	Ø 62 mm, Le-Profil, Krülland			•
23 380.0001	Ø 64 mm, Zurflüh-Feller			•
23 032.0001	Ø 65 mm, IMBAC, Eckermann, Metallpress			•
23 033.0001	Ø 65 mm, Hoos			•
23 057.0001	Ø 67 x 1.5 mm, MHZ			•
23 011.0001	70 mm octagonal, Selve, Döhner, Eckermann			•
23 059.0001	75 mm hexagonal, Butzbach, Mäule			•
23 034.0001	Ø 76 x 1.2 mm, Kittelberger, Wiral			•
23 090.0001	78 mm pentagonal, Meimo			•
23 040.0001	78x1 / 78x1.25 mm profile tube Döhner, Has. 58			•
23 382.0001	Ø 80 mm, Zurflüh-Feller			•
23 028.0001	Adapter for Somfy adapter set			

Tubular drives RevoLine M – Accessories

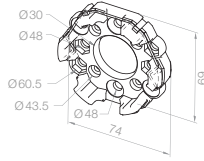
Motor bearings



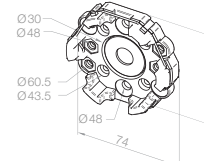
23 004.0001
Universal wall bracket
(plastic) max. 50 Nm



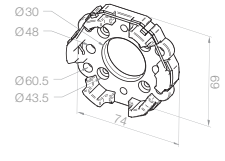
23 615.4401
Disengageable
max. 30 Nm



23 003.0001
48/60 mm centres (Alloy)

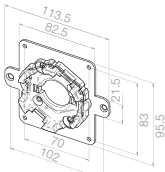


23 003.0201
Motor bearing 48/60 mm
centres (Alloy) with nuts
4 x M6 and 12.5 mm hole
in plastic center ring



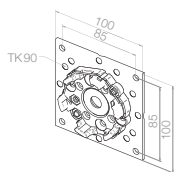
23 003.0301
Motor bearing with
48/60 mm centres
(Alloy) with M6/M8
thread

SKS



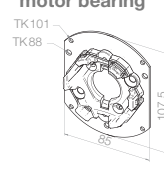
23 004.0101
max. 50 Nm

Base plate

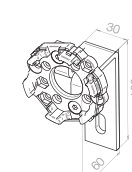


23 615.9901
With motor bearing
(e.g. for VEKA Variant
elements)

Mounting plate with motor bearing

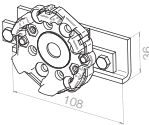


23 615.7101
Plastic max. 30 Nm
(Thyssen, Schüco, Veka, Home)



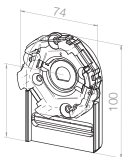
23 615.9101
60 mm offset for replacing
manual roller shutter belt
max. 50 Nm

Clamp bearing



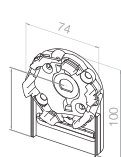
23 615.7201
For roller bearing bracket
max. 30 Nm

screwless left



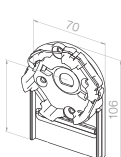
23 615.8201
For built-on roller shutters,
size 137 mm
d = 64 – 65.5 mm,
up to max. 30 Nm

screwless right



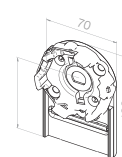
23 615.9201
For built-on roller shutters,
size 137 mm
d = 64 – 65.5 mm,
up to max. 30 Nm

screwless left



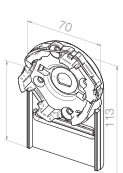
23 615.8301
For built-on roller shutters,
size 150 mm
d = 70.7 mm,
up to max. 30 Nm

screwless right



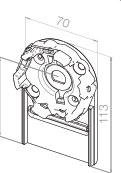
23 615.9301
For built-on roller shutters,
size 150 mm
d = 70.7 mm,
up to max. 30 Nm

screwless left



23 615.8401
For built-on roller shutters,
size 165 mm
d = 78.2 – 79.7 mm,
up to max. 30 Nm

screwless right



23 615.9401
For built-on roller shutters,
size 165 mm
d = 78.2 – 79.7 mm,
up to max. 30 Nm

screwless left



23 003.1501
For Heroal elements
FMR/FME/FMB
size 125 – 205 mm

screwless right



23 003.1401
For Heroal elements
FMR/FME/FMB
size 125 – 205 mm

screwless left + right

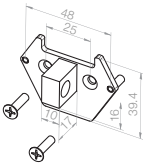


23 003.1601
For Heroal elements
FMR/FME/FMB
size 125 – 205 mm
up to max. 30 Nm

Mounting- and adapter plates for elero head

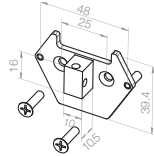


Adapter plates



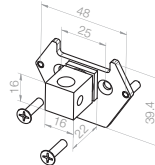
23 374.1501

Motor head add-on with motor bolt 10 x 16 mm, pin 17 mm long (max. 50 Nm)



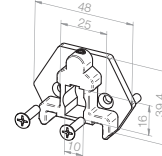
23 374.1401

10 x 16, short pin 10.5 mm (up to 50 Nm)



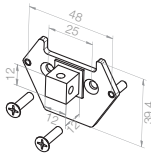
23 374.2501

Motor head add-on with motor bolt 16 x 16 mm, pin 22 mm



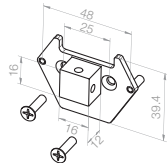
23 374.6801

For Type 9 (up to 50 Nm)



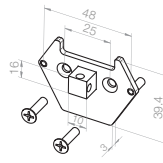
23 374.3301

Motor head add-on with motor bolt 12 x 12 mm, height: 12.0 mm



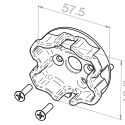
23 374.2101

Motor head add-on with motor bolt 16 x 16 mm, pin 12 mm



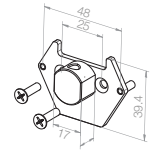
23 374.1601

Motor head add-on with motor bolt 10 x 10 mm, pin 9.5 mm (max. 30 Nm)



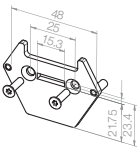
23 374.9401

SH Adapter (max. 50 Nm)



23 374.9801

Adapter plate with bolt Ø 19,5 mm



23 374.7301

Adapter plate with slot 3 x 15 mm

Revolution M

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio controls, radio sensors

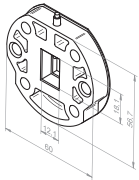
Hardwired controls sensors

Door drives

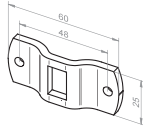
Door controls

Adapter profiles Lifting capacity tables

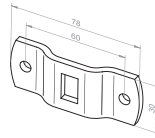
Motor bearings combined with bolt 23 374.7901 (RH drives) or elero head combined with adapter plate 23 374.1401



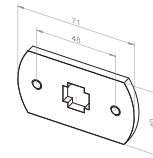
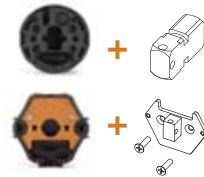
23 986.0001
Wall bracket,
limbus 48 mm



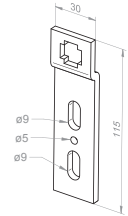
13 300.0801
Wall bracket,
limbus \varnothing 48 mm



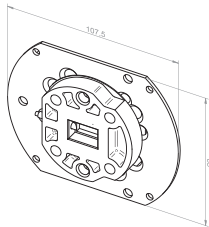
13 106.1701
Wall bracket, limbus
 \varnothing 60 mm M8 thread



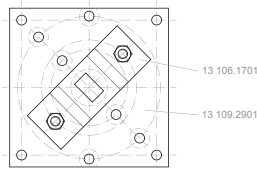
13 301.7001
Flat wall bracket,
limbus \varnothing 48 mm



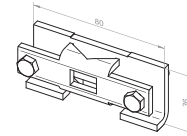
13 301.4601
Wall bracket cross,
closed



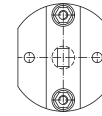
23 276.0001
Mounting plate for motor bearing
(Thyssen, Schüco, Veka, Home)



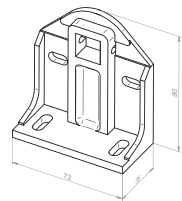
23 832.0001
Base plate with
motor bearing



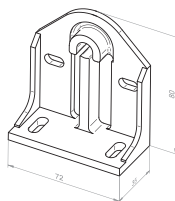
23 965.0003
For roller bearing bracket
or for plaster-in brackets



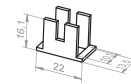
23 985.0001
Metal wall bracket
with rubber damper



13 109.1701
Motor side bearing
bracket up to 20 Nm



13 109.1801
Bearing bracket opposite side \varnothing
10 mm to 20 Nm

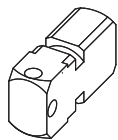


13 108.0201
Adapter suitable for
13 109.1701

Bolt for RH drive head



Bolt





23 374.7901
10 x 16 RH
incl. grub screw



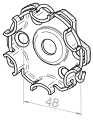
23 375.0601
10 x 10 mm RH
incl. grub screw
max. 30 Nm

Direct mounting RH head

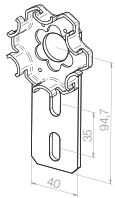
	up to max. 20 Nm	up to max. 50 Nm
Screws	2*	4**
Max. mounting torque (Nm)	2.0	5.5
Screw holes for mounting (orange)		

* Countersunk bolts 3.5x12 Remform F Torx15 (Item no. 10101.0947)
** PT screws K 5.0 x 16 Torx 20 (Item no. 10101.3623)

Motor bearings for SH drives



23 003.1701
With safety clip
(small pulling), TK 48



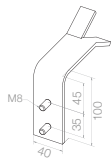
23 003.1801
Without safety clip



13 123.4501
Safety clip with
large pulling

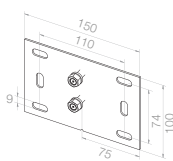
Mounting plates and mounting accessories

Plaster-in bracket

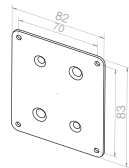


13 300.9202
max. 80 Nm

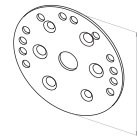
Mounting plates



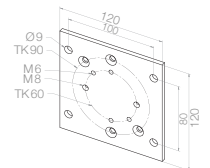
24 554.0001
For wall bracket
(23 004.0001 and
23 615.4401)



13 302.2601
For Motor bearing
(Stakusit)

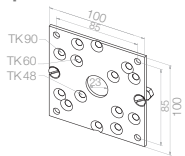


13 302.7801
48/60/78 mm centres
for Weru

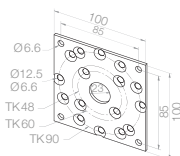


23 457.0001
Mounting plate
for cover cap

Universal adapter plate sets

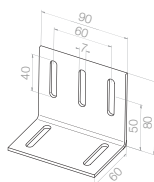


23 687.0501
With 2 countersunk
screws M6 x 16 and nuts

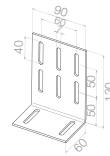


13 109.2902
48/60/85/90 mm
centres

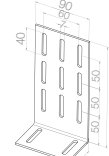
Angle brackets



13 110.5001
80 mm high

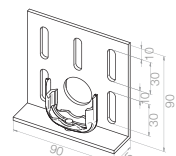


13 110.5101
130 mm high



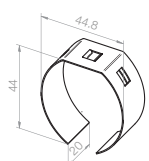
13 110.5201
180 mm high

Roller bearing holder brackets



23 852.0001
90 mm wide

Spring clip



13 301.8501
For 50 mm octagonal tube
to support roller shutter
fixing spring

Rigid shaft fastener MiniClick and MaxiClick

Universal for octagonal tubes, 40, 50, 60 and 70 mm



MiniClick, with twist lock

For mini profiles and octagonal shafts size SW 40, 50 (0.6 and 0.8 mm) and SW 60 (0.6 and 0.9 mm)

Item Number	Type/Item Description
13 309.0001	MiniClick, 1 section
13 309.0101	MiniClick, 2 sections
13 309.0201	MiniClick, 3 sections
13 309.0301	MiniClick, 4 sections
13 309.0401	MiniClick profile insert
13 309.0501	MiniClick profile spacer insert

MaxiClick, with twist lock

For standard profiles and octagonal shaft size SW 60 (0.9 mm) and SW 70 (1.0 / 1.2 and 1.5 mm)

Item Number	Type/Item Description
13 309.1001	MaxiClick, 1 section
13 309.1101	MaxiClick, 2 sections
13 309.1201	MaxiClick, 3 sections
13 309.1401	MaxiClick profile insert
13 309.1501	MaxiClick profile spacer insert

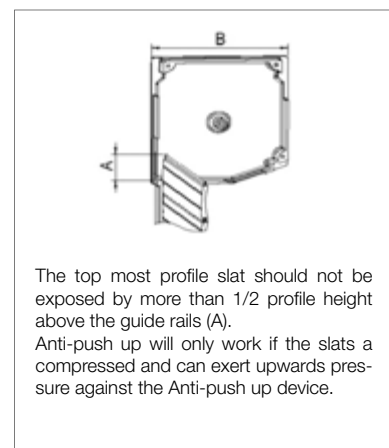
MiniClick selection table

Shaft fastener	By box depth B ¹ (mm)	Number/shutter	Shutter weight (kg)	Application range
1 section	115 – 150	Use minimum 1 fastener every 60 cm or 4 Nm drive torque	max. 8 / shaft fastener	Mini- / maxi profile ¹
2 sections	155 – 180			
3 sections	185 – 210			
4 sections	215 – 240			

MaxiClick selection table

Shaft fastener	By box depth B ¹ (mm)	Number/shutter	Shutter weight (kg)	Application range
1 section	125 – 160	Use minimum 1 fastener every 60 cm or 6 Nm drive torque	max. 12 / shaft fastener	Mini- / maxi profile ¹
2 sections	160 – 200			
3 sections	200 – 250			

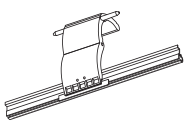
¹ Select MiniClick or MaxiClick by Shaft size.



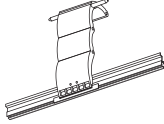
The top most profile slat should not be exposed by more than 1/2 profile height above the guide rails (A). Anti-push up will only work if the slats a compressed and can exert upwards pressure against the Anti-push up device.

Anti push-up devices

Anti push-up device mini profile

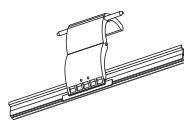


13 301.8901
2 sections

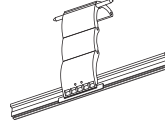


13 301.9101
3 sections

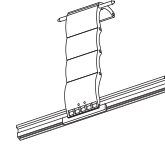
Anti push-up device standard profile



13 301.8801
2 sections

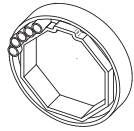


13 301.9001
3 sections

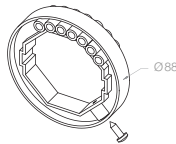


13 301.9201
4 sections

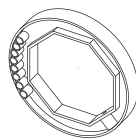
Fixing rings



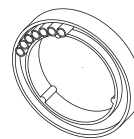
13 302.1501
For 50 mm octagonal shaft



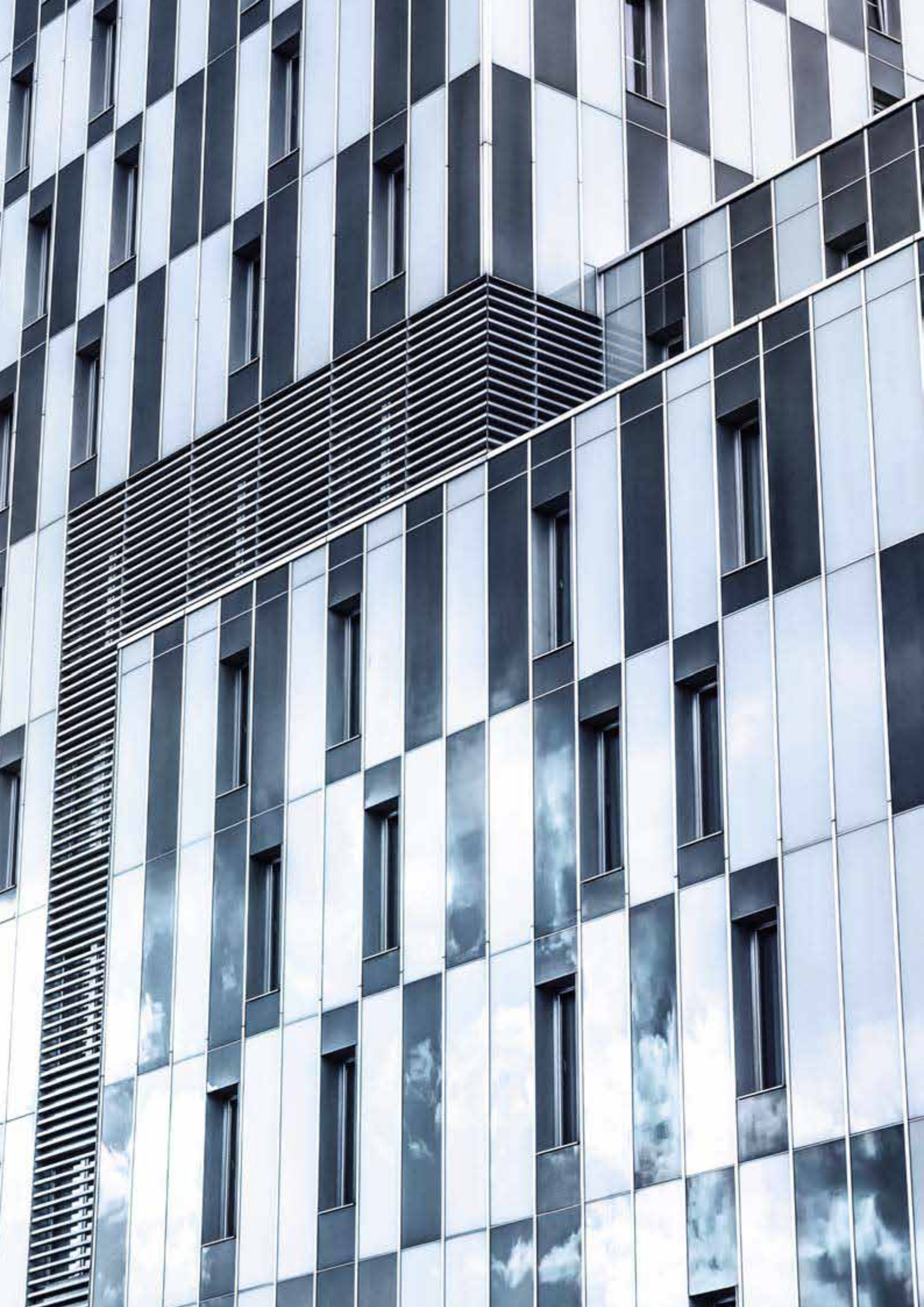
13 301.9501
For 60 mm octagonal shaft



13 301.9601
For 70 mm octagonal shaft



13 301.9701
For 65 mm rofile shaft
Hoos, IMBAC, Metalpress, Eckermann



RevoLine L

– Power packs with lots of sensitivity!



The tubular motors in the L series are available in the versions RolTop, SunTop and VariEco, and with or without an integrated radio system. Thus elero offers a wide and varied product range to cover a diversity of applications. With a diameter of 55 mm the drives are ideal for space-saving systems. Drives are available with 40 to 80 Nm and 14 rpm. All the drives may be installed and set up quickly and easily.



RoITop L-868

Radio tubular drives for roller shutters

RoITop L-868 (230V/50 Hz)

Application: Roller shutter and textile sun protection

Limit switch: Electronic limits with Soft Stop on end position approach
 Highlights: Smart force measurement
 Application protection in up and down direction and reversion on obstacle*
 Release may be activated on end position
 Limits can be adjusted via radio remote control or installation lead
 Plug-able cable
 Shaft size: From $\varnothing = 58$ mm
 Radio system: Bi-directional 868 MHz radio including routing

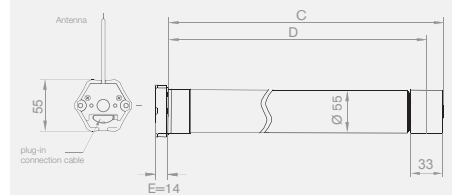
* depending on drive

Possible limit switch modes

Upper limit switch	Lower limit switch
On limit stop	Freely programmable
Freely programmable	On limit stop
On limit stop	On limit stop
Freely programmable	Freely programmable




- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets









Technical data and dimensions

Type	RoTop L60-868	RoTop L80-868	RoTop L60-868 without reversion on obstacle	RoTop L80-868 without reversion on obstacle
Max. torque (Nm)	60	80	60	80
Speed (rpm)	14			
Operating Voltage (V)	1 ~ 230			
Frequency (Hz)	50			
Application protection up and down and reversion on obstacle	•		-	
Current (A)	1.65	2.2	1.65	2.2
Power (W)	380	490	380	490
Shaft Ø (mm)	63			
Ingress protection (IP)	44			
Max. limit switch range in Revolutions of the shaft	40			
Operating mode (KB in min.)	4			
Length C (mm)	575			
Length D (mm)	558.5			
Length E (mm)	= 14			
Weight (kg)	3.3	3.6	3.3	3.6
Temperature range (°C)	-20 to +60			
Conformity	CE			
Connecting cable pluggable (m)	2.0			

	RoTop L60-868	RoTop L80-868	RoTop L60-868 without reversion on obstacle	RoTop L80-868 without reversion on obstacle
Item Number	36 732.0006	36 742.0006	36 732.0076	36 742.0076

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

	Cables Page 114		Drive adapter sets Page 115		Brackets Page 116
	Radio control units from page 161		Radio sensors from page 194		Rigid shaft fastener Page 117



RolTop L

Tubular drives for roller shutters

RolTop L (230V/50 Hz)

Application: Roller shutter and textile sun protection

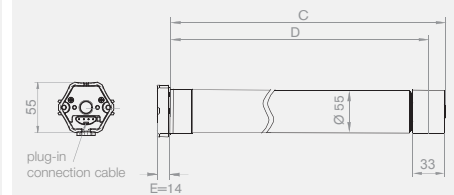
Limit switch: Electronic limits with Soft Stop on end position approach
 Highlights: Smart force measurement
 Application protection in up and down direction and reversion on obstacle*
 Release may be activated on end position
 Limits can be adjusted installation lead
 Plug-able cable
 Shaft size: From $\varnothing = 63$ mm
 * depending on drive

Possible limit switch modes

Upper limit switch	Lower limit switch
On limit stop	Freely programmable
Freely programmable	On limit stop
On limit stop	On limit stop
Freely programmable	Freely programmable




- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets










Technical data and dimensions

Type	RoTop L60	RoTop L80	RoTop L60 without reversion on obstacle	RoTop L80 without reversion on obstacle
Max. torque (Nm)	60	80	60	80
Speed (rpm)	14			
Operating Voltage (V)	1 ~ 230			
Frequency (Hz)	50			
Noiseless soft brake	-			
Application protection up and down and reversion on obstacle	-			
Current (A)	1.65	2.2	1.65	2.2
Power (W)	380	490	380	490
Shaft Ø (mm)	63			
Ingress protection (IP)	44			
Max. limit switch range in Revolutions of the shaft	40			
Operating mode (KB in min.)	4			
Length C (mm)	575			
Length D (mm)	558.5			
Length E (mm)	= 14			
Weight (kg)	3.3	3.6	3.3	3.6
Temperature range (°C)	-20 to +60			
Conformity	CE			
Connecting cable pluggable (m)	2.0			

	RoTop L60	RoTop L80	RoTop L60 without reversion on obstacle	RoTop L80 without reversion on obstacle
Item Number	36 731.0001	36 741.0001	36 731.0071	36 741.0071

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

 Cables Page 114	 Drive adapter sets Page 115	 Brackets Page 116
 ProLine control units from page 205	 Sensors from page 229	 Rigid shaft fastener Page 117
 Radio receivers from page 186		



SunTop L-868

Radio tubular drives for sun protections systems

SunTop L-868 (230V/50 Hz)

Application: Textile sun protection

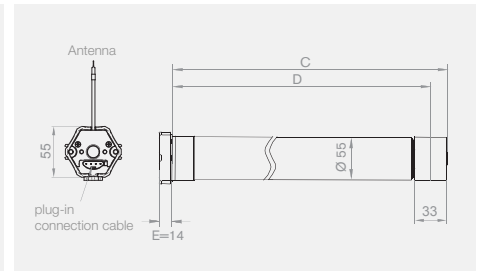
Limit switch: Electronic limits with Soft Stop on end position approach
 Highlights: Smart force measurement
 Blockage detection Up/Down
 Release may be activated on end position
 Limits can be adjusted via radio remote control or installation lead
 Plug-able cable
 Shaft size: From $\varnothing = 63$ mm
 Radio system: Bi-directional 868 MHz radio including routing

Possible limit switch modes

Upper limit switch	Lower limit switch
On limit stop	Freely programmable
Freely programmable	On limit stop
On limit stop	On limit stop
Freely programmable	Freely programmable




- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets








Technical data and dimensions

Type	SunTop L40-868	SunTop L60-868	SunTop L80-868
Max. torque (Nm)	40	60	80
Speed (rpm)	14		
Operating Voltage (V)	1 ~ 230		
Frequency (Hz)	50		
Noiseless soft brake	-		
Current (A)	1.2	1.65	2.2
Power (W)	280	380	490
Shaft Ø (mm)	63		
Ingress protection (IP)	44		
Max. limit switch range in Revolutions of the shaft	40		
Operating mode (KB in min.)	4		
Length C (mm)	515	575	
Length D (mm)	498.5	558.5	
Length E (mm)	= 14		
Weight (kg)	3.2	3.3	3.6
Temperature range (°C)	-20 to +60		
Conformity	CE		
Connecting cable pluggable (m)	2.0		

	SunTop L40-868	SunTop L60-868	SunTop L80-868
Item Number	36 222.0006	36 232.0006	36 242.0006

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

 Cables Page 114	 Drive adapter sets Page 115	 Brackets Page 116
 Radio control units from page 161	 Radio sensors from page 194	



SunTop L

Tubular drives for sun protections systems

SunTop L (230V/50 Hz)

Application: Textile sun protection

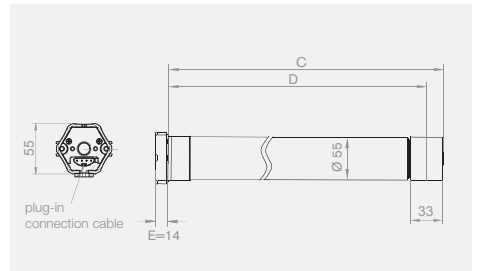
Limit switch: Electronic limits with Soft Stop on end position approach
 Highlights: Smart force measurement
 Blockage detection Up/Down
 Release may be activated on end position
 Limits can be adjusted via installation lead
 Plug-able cable
 Shaft size: From $\varnothing = 63$ mm

Possible limit switch modes

Upper limit switch	Lower limit switch
On limit stop	Freely programmable
Freely programmable	On limit stop
On limit stop	On limit stop
Freely programmable	Freely programmable




- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets









Technical data and dimensions

Type	SunTop L40	SunTop L60	SunTop L80
Max. torque (Nm)	40	60	80
Speed (rpm)	14		
Operating Voltage (V)	1 ~ 230		
Frequency (Hz)	50		
Noiseless soft brake	-		
Current (A)	1.2	1.65	2.2
Power (W)	280	380	490
Shaft Ø (mm)	63		
Ingress protection (IP)	44		
Max. limit switch range in Revolutions of the shaft	40		
Operating mode (KB in min.)	4		
Length C (mm)	515	575	
Length D (mm)	498.5	558.5	
Length E (mm)	= 14		
Weight (kg)	3.0	3.3	3.6
Temperature range (°C)	-20 to +60		
Conformity	CE		
Connecting cable pluggable (m)	2.0		

	SunTop L40	SunTop L60	SunTop L80
Item Number	36 221.0001	36 231.0001	36 241.0001

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

	Cables Page 114		Drive adapter sets Page 115		Brackets Page 116
	ProLine control units from page 205		Sensors from page 229		
	Radio receivers from page 186				



VariEco L-868

Radio tubular drives for roller shutters and sun protection systems

VariEco L-868 (230V/50 Hz)

Application: Roller shutter and textile sun protection

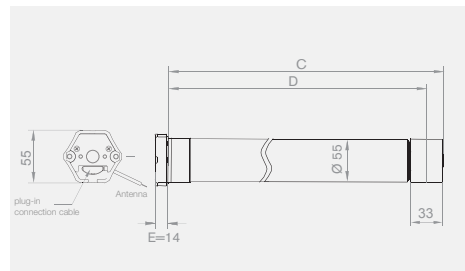
Limit switch: Mechanical limit switches
 Shaft size: From $\varnothing = 63$ mm
 Highlights: Plug-able cable
 Radio system: Bi-directional 868 MHz radio including routing

Possible limit switch modes

Upper limit switch	Lower limit switch
Freely programmable	Freely programmable




- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets









Technical data and dimensions

Type	VariEco L40-868	VariEco L60-868	VariEco L80-868
Max. torque (Nm)	40	60	80
Speed (rpm)	14		
Operating Voltage (V)	1 ~ 230		
Frequency (Hz)	50		
Noiseless soft brake	-		
Current (A)	1.2	1.65	2.2
Power (W)	280	380	490
Shaft Ø (mm)	63		
Ingress protection (IP)	44		
Max. limit switch range in Revolutions of the shaft	40		
Operating mode (KB in min.)	4		
Length C (mm)	527	586	
Length D (mm)	510.5	569.5	
Length E (mm)	= 14		
Weight (kg)	3.3	3.4	
Temperature range (°C)	-20 to +60		
Conformity	CE		
Connecting cable pluggable (m)	2.0		

	VariEco L40-868	VariEco L60-868	VariEco L80-868
Item Number	36 922.0106	36 932.0106	36 942.0106

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

	Cables Page 114		Drive adapter sets Page 115		Brackets Page 116
	Radio control units from page 161		Radio sensors from page 194		Adjustment aid Page 114



VariEco L

Tubular drives for roller shutters and sun protection systems

VariEco L (230V/50 Hz)

Application: Roller shutter and textile sun protection

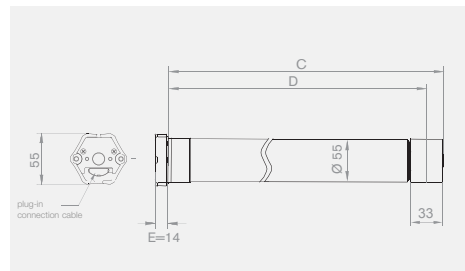
Limit switch: Mechanical limit switches
 Shaft size: From $\varnothing = 63$ mm
 Highlights: Plug-able cable

Possible limit switch modes

Upper limit switch	Lower limit switch
Freely programmable	Freely programmable




- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets










Technical data and dimensions

Type	VariEco L40	VariEco L60	VariEco L80
Max. torque (Nm)	40	60	80
Speed (rpm)	14		
Operating Voltage (V)	1 ~ 230		
Frequency (Hz)	50		
Noiseless soft brake	-		
Current (A)	1.2	1.65	2.2
Power (W)	280	380	490
Shaft Ø (mm)	63		
Ingress protection (IP)	44		
Max. limit switch range in Revolutions of the shaft	35		
Operating mode (KB in min.)	4		
Length C (mm)	527	586	
Length D (mm)	510.5	569.5	
Length E (mm)	= 14		
Weight (kg)	3.3	3.4	
Temperature range (°C)	-20 to +60		
Conformity	CE		
Connecting cable pluggable (m)	2.0		

	VariEco L40	VariEco L60	VariEco L80
Item Number	36 921.0101	36 931.0101	36 941.0101

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

	Cables Page 114		Drive adapter sets Page 115		Brackets Page 116
	ProLine control units from page 205		Sensors from page 229		Adjustment aid Page 114
	Radio receivers from page 186				

RevLine L

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio controls, radio sensors

Hardwired controls sensors

Door drives

Door controls

Adapter profiles Lifting capacity tables

Tubular drives RevoLine L – Accessories

Cables and accessories

It is not possible to return connecting cables.



Special cable lengths in combination with the drive (standard 2.0 m), **white**

Item Number	Type/Item Description
99 000.4101	2.0 m plug-in connecting cable (comes with drive as standard)
99 000.4201	3.0 m plug-in connecting cable
99 000.4301	5.0 m plug-in connecting cable
99 000.4401	10.0 m plug-in connecting cable
99 000.4801	20.0 m plug-in connecting cable
99 000.4501	0.4 m plug-in connecting cable with Hirschmann plug
99 000.7001	2.0 m plug-in connecting cable with Hirschmann plug
99 000.4601	3.0 m plug-in connecting cable universal push button (middle) and earthed plug

Special cable lengths in combination with the drive (standard 2.0 m), **black**

Item Number	Type/Item Description
99 000.5101	2.0 m plug-in connecting cable
99 000.5201	3.0 m plug-in connecting cable
99 000.5301	5.0 m plug-in connecting cable
99 000.5401	10.0 m plug-in connecting cable
99 000.5501	0.4 m plug-in connecting cable with Hirschmann plug
99 000.7701	2.0 m plug-in connecting cable with Hirschmann plug

Connecting cables without drive, **white**

23 395.0201	2.0 m plug-in connecting cable
23 395.0301	3.0 m plug-in connecting cable
23 395.0401	5.0 m plug-in connecting cable
23 395.0501	10.0 m plug-in connecting cable
23 395.0601	20.0 m plug-in connecting cable
23 395.0101	0.4 m plug-in connecting cable with Hirschmann plug
23 395.0801	2.0 m plug-in connecting cable with Hirschmann plug
23 395.0701	3.0 m plug-in connecting cable with universal push button (centred) and earthed plug
23 615.2401	0.2 m Adapter cable Type 9/RevoLine

Connecting cables without drive, **black**

23 395.2201	2.0 m plug-in connecting cable
23 395.2301	3.0 m plug-in connecting cable
23 395.2401	5.0 m plug-in connecting cable
23 395.2501	10.0 m plug-in connecting cable
23 395.2101	0.4 m RevoLine cable with Hirschmann plug
23 395.2901	2.0 m RevoLine cable with Hirschmann plug

Installation-, connecting cables and accessories

23 243.0002	Installation cable
23 246.0001	Installation cable with Hirschmann plug Stak 3
13 709.7301	5 pole connecting clip for installation cable 23 243.0002
23 395.2701	QuickConnect, the fast connection system, IP 65
23 395.4701	QuickConnect, set of 10
23 395.2601	QuickConnect with MiniPlug, IP 65 cable length 0.25 m
23 846.0001	Stas 3 with clip (motor side)
13 701.5301	Stak 3 (power supply side)
13 308.0001	Flexible adjustment aid



23 243.0002



23 246.0001



13 308.0001



23 395.2601



23 395.2601

Assembly and disassembly only in the de-energised state!

The connections to the 230V mains must be made by authorised specialist personnel.

Drive adapter sets

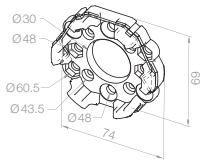
Profile Profiles of the drive adapter sets in 1:1 scale on page 315.



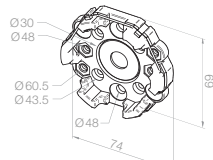
Item Number	Type/Item Description	Notch tubes	Round tubes	Profile tubes
23 383.0101	Ø 78 x 1.0 mm, MHZ Ø 78 x 1.0 mm, flat notch	•		
23 070.0001	Ø 78 x 1.0 mm, round notch, Döhner Ø 78 x 1.25 mm Ø 78 x 1.25 mm, round notch, Röchling	•		
23 377.0001	Ø 95 x 1.2 mm Schmitz	•		
23 378.0001	Ø 85 x 1.0 mm	•		
23 061.0001	Ø 90 mm, Le-Profil, Ø 89 mm Deprat	•		
22 076.0001	Ø 100 x 2 mm	•		
22 092.0001	Ø 90 x 1.25 mm, MHZ	•		
23 064.0001	Ø 63 x 1.5 mm		•	
23 064.0101	Ø 63 x 1.5 mm, with 4 x M6 thread		•	
23 067.0001	Ø 70 x 1.5 mm		•	
23 067.0101	Ø 70 x 1.5 mm, with 4 x M6 thread		•	
23 066.0001	Ø 70 x 2.0 mm		•	
23 066.0101	Ø 70 x 2.0 mm, with 4 x M6 thread		•	
23 073.0001	Ø 83 x 1.5 mm		•	
23 073.0101	Ø 83 x 1.5 mm with 4 x M6 thread		•	
23 063.0001	Ø 98 x 2.0 mm, Ø 100 x 3.0 mm, Ø 101.6 x 3.6 mm		•	
23 063.0101	Ø 98 x 2.0 mm, Ø 100 x 3.0 mm, Ø 101.6 x 3.6 mm with 4 x M6 thread		•	
23 062.0001	Ø 102 x 2.0 mm		•	
23 062.0101	Ø 102 x 2.0 mm, with 4 x M6 thread		•	
23 079.0001	Ø 133 x 2.5 mm/Ø 133 x 2.0 mm		•	
23 079.0101	Ø 133 x 2,5 mm/Ø 133 x 2.0 mm, with 4 x M6 thread		•	
22 066.0001	Ø 135 x 2.5 mm		•	
23 068.0001	Ø 67 x 1.5 mm, MHZ			•
23 060.0001	Octagonal, SW 70, Selve, Eckermann, Roma			•
23 060.0001	Octagonal, SW 70 x 1.25, Roma			•
23 071.0001	Hexagonal, Ø 75, Butzbach, Mäule			•
23 075.0001	Ø 76 x 1.2 mm, Kittelberger, Wiral			•
23 074.0001	80, Zurflüh-Feller			•
23 077.0001	Ø 85 x 1.2 mm, Imbac, Griesser			•
23 092.0001	Hexagonal, Ø 85 mm, Butzbach			•
23 078.0001	Octagonal, 102 x 2.0 mm, Alulux			•
23 069.0001	Octagonal, 102 x 2.5 mm, Roma			•
23 072.0001	Octagonal, 114, Heroal			•
23 076.0001	Ø 128 x 1.5 mm, Alukon			•

Tubular drives RevoLine L – Accessories

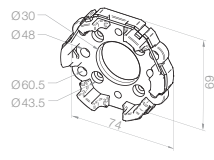
Motor bearings



23 003.0001
48/60 mm centres (Alloy)

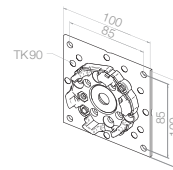


23 003.0201
Motor bearing 48/60 mm centres (Alloy) with nuts 4 x M6 and 12.5 mm hole in plastic center ring



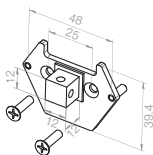
23 003.0301
Motor bearing with 48/60 mm centres (Alloy) with M6/M8 thread

with universal base plate

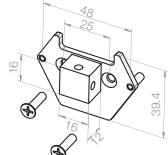


23 615.9901
With motor bearing (e.g. for VEKA Variant elements)

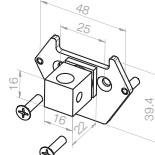
Adapter plates



23 374.3301
Motor head add-on with motor bolt 12 x 12 mm, height: 12.0 mm



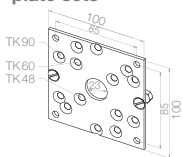
23 374.2101
Motor head add-on with motor bolt 16 x 16 mm, pin 12 mm



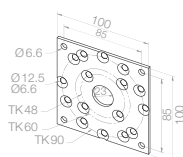
23 374.2501
Motor head add-on with motor bolt 16 x 16 mm, pin 22 mm

Mounting plates and mounting accessories

Universal adapter plate sets



23 687.0501
With 2 countersunk screws M6 x 16 and nuts



13 109.2902
48/60/85/90 mm centres

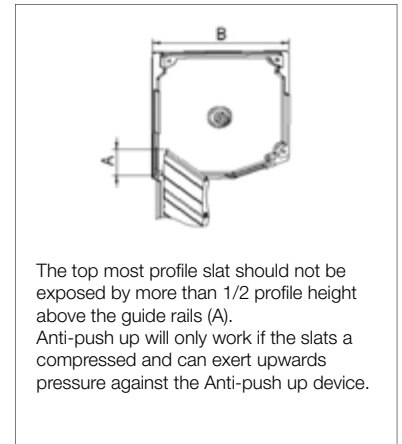
Rigid shaft fastener MaxiClick



MaxiClick, with twist lock

For mini profiles and octagonal shafts size SW 60 (0.9 mm) and SW 70 (1.0 / 1.2 and 1.5 mm)

Item Number	Type/Item Description
13 309.1001	MaxiClick, 1 section
13 309.1101	MaxiClick, 2 sections
13 309.1201	MaxiClick, 3 sections
13 309.1401	MiniClick profile insert
13 309.1501	MiniClick profile spacer insert



The top most profile slat should not be exposed by more than 1/2 profile height above the guide rails (A). Anti-push up will only work if the slats are compressed and can exert upwards pressure against the Anti-push up device.

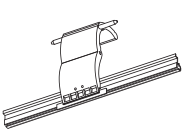
MaxiClick selection table

Shaft fastener	By box depth B ¹ (mm)	Number/shutter	Shutter weight (kg)	Application range
1 section	125 – 160	Use minimum 1 fastener every 60 cm or 6 Nm drive torque	max. 12 per shaft fastener	Maxi-Profil ¹
2 sections	160 – 200			
3 sections	200 – 250			

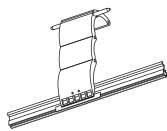
¹ Select MaxiClick by Shaft size..

Anti push-up devices

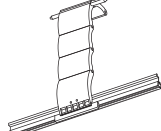
Anti push-up device standard profile



13 301.8801
2 sections

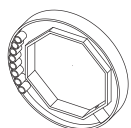


13 301.9001
3 sections



13 301.9201
4 sections

Fixing ring



13 301.9601
For 70 mm octagonal shaft



Type 11 CSM-868 / CSM-F-868 Type 11 CSM-E Type 11 (100–120 Nm) for tubes from 63 x 1.5 mm



The Type 11 drives are available in 100 Nm and 120 Nm. The high precision mechanical limit switches are easily accessible and ensure a very high repetitive accuracy. The drive features a plug-able cable which is 2.0 m long.

The Type 11 CSM-E is an awning drive with electronic regulation and an integrated release function at the upper end point. Programming is conducted very simply using the installation cable, with visible and audible feedback from the drive. Important: CSM-E drives may not be connected in parallel with conventional limit switch drives. Please note that with this drive the smallest tube interior diameter is 60 mm.

The connection cable has a length of 2.0 m and is pluggable. Thanks to its RevoLine output the drive can also be used with the RevoLine adapters.

The radio-controlled CSM-868 drives are available in various strengths and for all customary shafts with an internal diameter of at least 60 mm.

The drives have a release function to protect the awning fabric and the mechanical parts. One major advantage is seen during installation: With radio-controlled drives there is no need to wire the operating switch.

This saves on-site time when installing the drive and ensures that no dirt or dust is produced. This is an important argument with refurbishment work above all.

The CSM-F-868 type drive unit series were developed especially for open awning systems. The drives are suited to awning systems without a mechanical stop as during installation the engineer sets both the end positions with the aid of the elero installation cable or a selectively trained ProLine-868 radio transmitter: Firstly the roller blind or awning is moved to its upper limit, and this end position is then stored by simultaneously pressing the "Up" and "Down" keys. The lower limit is set in the same manner. Therefore the sun protection systems is ready for operation within a matter of seconds.



Type 11 CSM-868

Radio awning drives with electronic control and freely programmable end positions

Type 11 CSM-868 and Type 11 CSM-F-868 (230V/50 Hz)

Application: Textile sun protection

Limit switch: Electronic limits
 Highlights: Blockage detection Up/Down
 Limits can be adjusted via radio remote control or installation lead
 Plug-able cable
 Shaft size: From $\varnothing = 63$ mm
 Radio system: Uni-directional 868 MHz radio

Type 11 CSM-868
Possible limit switch modes

Upper limit switch	Lower limit switch
On limit stop	Freely programmable
Freely programmable	On limit stop

Type 11 CSM-F-868
Possible limit switch modes

Upper limit switch	Lower limit switch
Freely programmable	Freely programmable

Type 11 CSM-868

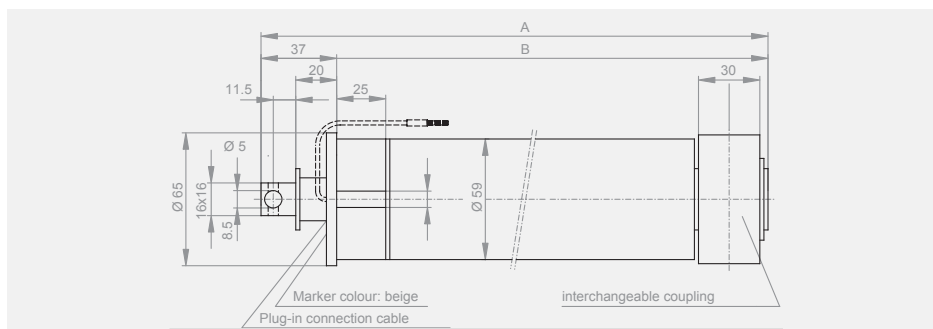


Textile sun protection
 Cassette box awning
 (awnings systems with torque stop)

Type 11 CSM-F-868




Textile sun protection
 (awning systems without torque stop)








Technical data and dimensions

Type	Type 11/10 CSM-868	Type 11/12 CSM-868	Type 11/10 CSM-F-868	Type 11/12 CSM-F-868
Max. torque (Nm)	100	120	100	120
Speed (rpm)	12			
Operating Voltage (V)	1 ~ 230			
Frequency (Hz)	50			
Noiseless soft brake	-			
Current (A)	1.9			
Power (W)	430			
Shaft Ø (mm)	63			
Ingress protection (IP)	44			
Max. limit switch range in Revolutions of the shaft	21			
Operating mode (KB in min.)	4			
Length A (mm)	694			
Length B (mm)	618			
Weight (kg)	4.9			
Temperature range (°C)	-20 to +60			
Conformity	CE			
Connecting cable pluggable (m)	2.0			

	Type 11/10 CSM-868	Type 11/12 CSM-868	Type 11/10 CSM-F-868	Type 11/12 CSM-F-868
Item Number	31 407.0002	31 427.0002	31 707.0002	31 437.0002

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

 Cables Page 126	 Drive adapter sets Page 127	 Brackets Page 126
 Radio control units from page 161	 Radio sensors from page 194	



Type 11 CSM-E

Tubular motors for awnings with electronic limits

Type 11 CSM-E (230V/50 Hz)

Application: Textile sun protection

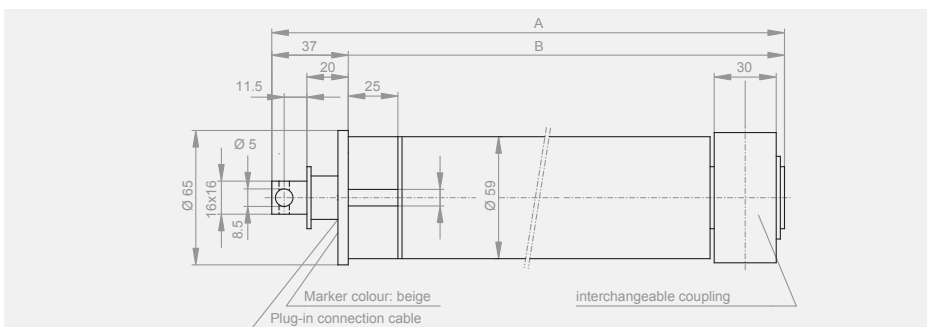
Limit switch: Electronic limits
 Highlights: Smart force measurement
 Blockage detection Up/Down
 Parallel connection possible
 Limits can be adjusted via installation lead
 Plug-able cable
 Shaft size: From $\varnothing = 63$ mm

Possible limit switch modes

Upper limit switch	Lower limit switch
On limit stop	Freely programmable
Freely programmable	On limit stop




Textile sun protection
 Cassette box awning
 (awnings systems with torque stop)









Technical data and dimensions

Type	Type 11/10 CSM-E	Type 11/12 CSM-E
Max. torque (Nm)	100	120
Speed (rpm)	12	
Operating Voltage (V)	1 ~ 230	
Frequency (Hz)	50	
Noiseless soft brake	-	
Current (A)	1.9	
Power (W)	430	
Shaft Ø (mm)	63	
Ingress protection (IP)	44	
Max. limit switch range in Revolutions of the shaft	21	
Operating mode (KB in min.)	4	
Length A (mm)	694	
Length B (mm)	618	
Weight (kg)	4.9	
Temperature range (°C)	-20 to +60	
Conformity	CE	
Connecting cable pluggable (m)	2.0	

	Type 11/10 CSM-E	Type 11/12 CSM-E
		
Item Number	31 534.0002	31 555.0002

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

 Cables Page 126	 Drive adapter sets Page 127	 Brackets Page 126
 ProLine control units from Page 205	 Sensors from Page 229	
 Radio receivers from Page 186		



Type 11

Tubular drives with mechanical limit switches for roller shutters and sun protection systems

Type 11 (230V/50 Hz)

Application: Roller shutter and textile sun protection

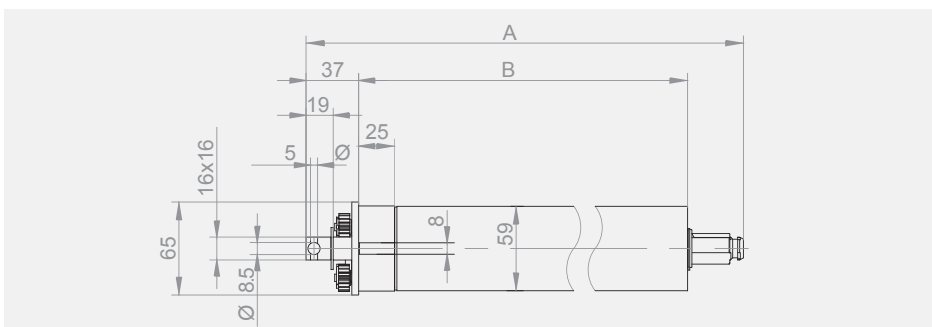
Limit switch: Mechanical limit switches
 Shaft size: From $\varnothing = 63$ mm
 Features: Plug-able cable

Possible limit switch modes









Upper limit switch	Lower limit switch
Freely programmable	Freely programmable




Shippable with a max. limit switch range of either 21 or 32 rpm









Technical data and dimensions

Type	Type 11/10	Type 11/12	Type 11/10 32 rev.	Type 11/12 32 rev.
Max. torque (Nm)	100	120	100	120
Speed (rpm)	12			
Operating Voltage (V)	1 ~ 230			
Frequency (Hz)	50			
Noiseless soft brake	-			
Current (A)	1.9			
Power (W)	430			
Shaft Ø (mm)	63			
Ingress protection (IP)	44			
Max. limit switch range in Revolutions of the shaft	21		32	
Operating mode (KB in min.)	4			
Length A (mm)	694			
Length B (mm)	618			
Weight (kg)	4.9			
Temperature range (°C)	-20 to +60			
Conformity	  		  	
Connecting cable pluggable (m)	2.0			

		Type 11/10	Type 11/12	Type 11/10 32 rev.	Type 11/12 32 rev.
	Item Number	31 332.0002	31 352.0002	31 338.0001	31 358.0001

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

	Cables Page 126		Drive adapter sets Page 123		Brackets Page 126
	ProLine control units from Page 205		Sensors from Page 229		
	Radio receivers from Page 186				

Tubular drives Type 11 – Accessories

Cables and accessories

It is not possible to return connecting cables.



23 243.0002

23 395.2701

Special cable lengths in combination with the drive (standard 2.0 m), **white**

Installation-, connecting cables and accessories

Item Number	Type/Item Description
99 000.0001	2.0 m plug-in connecting cable (standard)
99 000.0201	3.0 m plug-in connecting cable
99 000.0301	5.0 m plug-in connecting cable
99 000.0401	10.0 m plug-in connecting cable
99 000.0501	0.4 m plug-in connecting cable with Hirschmann plug

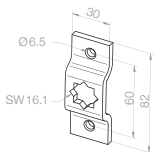
Item Number	Type/Item Description
23 243.0002	Installation cable
23 246.0001	Installation cable with Hirschmann plug
13 709.7301	5 pole connecting clip for installation cable 23 243.0002
23 395.2701	QuickConnect, the fast connection system, IP 65
23 395.4701	QuickConnect, set of 10
23 846.0001	Stas 3 with clip (motor side)
13 701.5301	Stak 3 (power supply side)

Connecting cables without drive, **white**

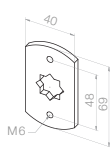
23 615.0201	2.0 m plug-in connecting cable
23 615.0301	3.0 m plug-in connecting cable
23 615.0401	5.0 m plug-in connecting cable
23 615.0501	10.0 m plug-in connecting cable
23 615.0601	20.0 m plug-in connecting cable
23 615.0101	0.4 m plug-in connecting cable with Hirschmann plug

Motor bearings

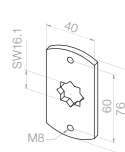
Star motor bearings



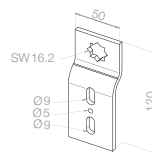
13 106.3501
60 mm centres, offset



13 103.3901
48 mm centres, flat

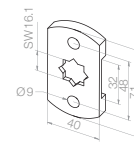


13 103.4001
60 mm centres, flat



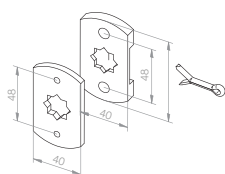
13 301.0801
Star

Distance plate



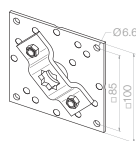
13 110.5601
for 13 103.3901

Flat motor bearing



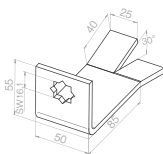
23 109.0001
48 mm centres with plastic distance plate (contains no. 13 103.3901 and 13 110.5601)

Base plate with motor bearing



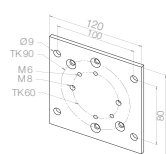
23 833.0001
48/60/85/90 mm centres

Plaster-in bracket



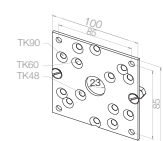
13 300.8501

Mounting plate



23 457.0001

Universal adapter plate set



23 687.0501
With 2 countersunk screws M6 x 16 and nuts

Drive adapter sets

Profiles of the drive adapter sets in 1:1 scale on page 331.



Item Number	Type/Item Description	Notch tubes	Round tubes	Profile tubes
22 024.0001	Ø 78 x 1.0 mm, MHZ	•		
22 049.0001	Ø 78 x 1.0/1.25 mm, Döhner round	•		
22 055.0001	Ø 78 x 1,25 mm, round notch Röchling	•		
22 057.0001	Ø 78 x 1,0 mm, flat notch	•		
22 038.0001	Ø 85 x 1,0 mm	•		
22 023.0001	Ø 90 mm, Le-Profil, Ø 89 mm, Deprat	•		
22 085.0001	Ø 90.5 x 1.25 mm, MHZ	•		
13 116.9601	Ø 63 x 1.5 mm without thread		•	
22 025.0001	Ø 63 x 1.5 mm with 4 x M6 thread		•	
22 044.0001	Ø 70 x 1.5 mm without thread		•	
22 026.0001	Ø 70 x 1.5 mm with 4 x M6 thread		•	
22 045.0001	Ø 70 x 2.0 mm without thread		•	
22 027.0001	Ø 70 x 2.0 mm with 4 x M6 thread		•	
22 058.0001	Ø 83 x 1.5 mm without thread		•	
22 031.0001	Ø 83 x 1.5 mm with 4 x M6 thread		•	
22 046.0001	Ø 98 x 2.0 mm without thread		•	
22 022.0001	Ø 98 x 2.0 mm with 4 x M6 thread		•	
22 047.0001	Ø 102 x 2.0 mm without thread		•	
22 021.0001	Ø 102 x 2.0 mm with 4 x M6 thread		•	
22 048.0001	Ø 133 x 2.5 mm/Ø 133 x 2.0 mm without thread		•	
22 036.0001	Ø 133 x 2.5 mm/ Ø 133 x 2.0 mm with 4 x M6 thread		•	
13 117.0901	Ø 67 x 1.5 mm, MHZ			•
22 020.0001	Octagonal, 70, Selve, Eckermann, Roma			•
22 029.0001	Hexagonal, Ø 75, Butzbach, Mäule			•
22 033.0001	Ø 76 x 1.2 mm, Kittelberger, Wiral			•
22 032.0001	ZF 80, Zurflüh-Feller			•
22 037.0001	Hexagonal, Ø 85 mm, Butzbach			•
22 035.0001	Octagonal, 102 x 2.0 mm, Alulux			•
22 028.0001	Octagonal, 102 x 2.5 mm, Roma			•
22 030.0001	Octagonal, 114, Heroal			•
22 034.0001	Ø 128 x 1.5 mm, Alukon			•
22 039.0001	Ø 85 x 1.2 mm, Imbac			•
22 043.0001	Ø 85 x 1.2 mm, Griesser			•



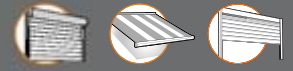
Type 9 NHK Type 11 NHK



These drives allow for the optimum operation of gates and doors, roller shutters and awnings. The characteristic features are the well-balanced torques of 8 to 50 Nm. Even in the event of a power failure the system may be operated quite simply with an emergency crank handle. The mechanical limit stop is simple to adjust, regardless of whether it is installed on the left or right side. The compact design of the tubular drives is excellently suited to installation in confined spaces and can also be used for roll-down systems. The end position setting is not changed when using the manual override.

The safety gear box will not allow any feedback on the crank handle in case power returns to the motor while operating the motor manually.





Type 9 NHK

Tubular drives with manual override (NHK)

Type 9 NHK (230V/50 Hz)

Application: Door, roller shutter and textile sun protection

Limit switch: Mechanical limit switches
 Shaft size: From $\varnothing = 50$ mm
 Features: Plug-able cable
 Manual override

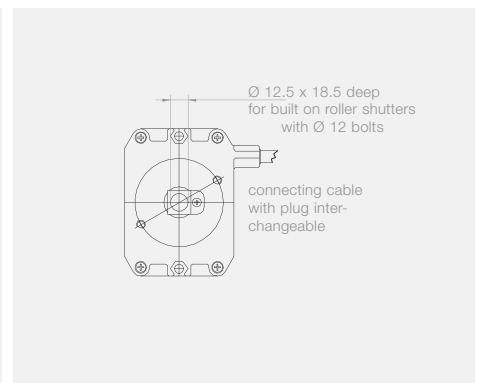
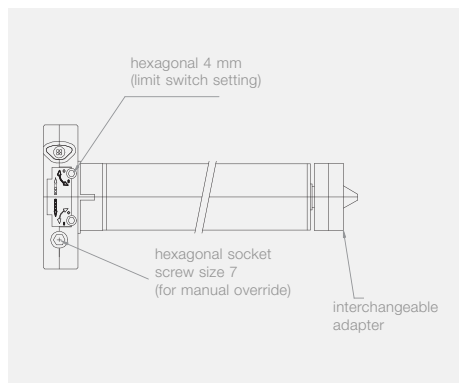
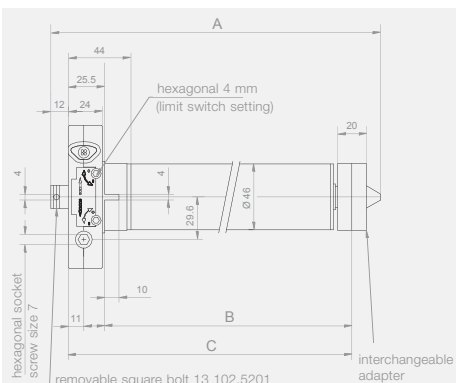
Possible limit switch modes

Upper limit switch	Lower limit switch
freely programmable	freely programmable




- Plug-able cable
- Manual override via 7 mm hexagonal shaft

Dimensions












Technical data and dimensions

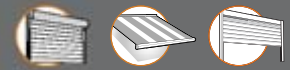
Type	Type 9/08 NHK	Type 9/1.3 NHK	Type 9/2 NHK	Type 9/2.5 NHK	Type 9/3 NHK	Type 9/4 NHK	Type 9/5 NHK	
Max. torque (Nm)	8	13	20	25	30	40	50	
Speed (rpm)	14						10	
Operating Voltage (V)	1 ~ 230							
Frequency (Hz)	50							
Noiseless soft brake	-							
Current (A)	0.64	0.85	0.92	1.1	1.22			
Power (W)	145	190	200	260	280			
Shaft Ø (mm)	50							
Ingress protection (IP)	44							
Max. limit switch range in Revolutions of the shaft	29							
Operating mode (KB in min.)	4							
Length A (mm)	617				651	671		
Length B (mm)	559				593	613		
Length C (mm)	585				619	639		
Weight (kg)	2.75	2.63	2.74	3.1	3.25			
Temperature range (°C)	-20 to +60							
Conformity	CE				CE			
Connecting cable pluggable (m)	2.0							

	Type 9/08 NHK	Type 9/1.3 NHK	Type 9/2 NHK	Type 9/2.5 NHK	Type 9/3 NHK	Type 9/4 NHK	Type 9/5 NHK
 Item Number	31 171.0004	31 181.0004	31 191.0003	31 211.0003	31 221.0004	31 925.0001	31 453.0001

All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.

Accessories

 Cables Page 134	 Drive adapter sets Page 135	 Mounting plates and brackets Page 137
 NHK accessories Page 132	 Safety brakes Page 140	 Door controls from page 283
 ProLine control units from page 205	 Sensors from page 229	
 Radio receivers from page 186		



Type 11 NHK

Tubular drives with manual override (NHK)

Type 11 NHK (230V/50 Hz)

Application: Door, roller shutter and textile sun protection

Limit switch: Mechanical limit switches
 Shaft size: From $\varnothing = 63$ mm

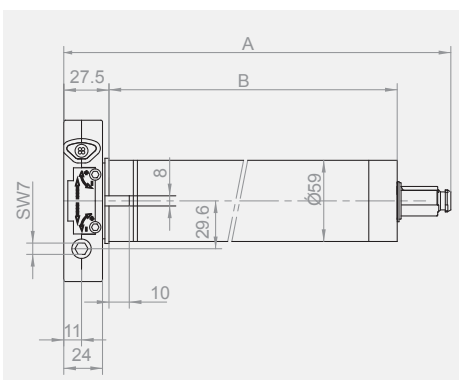
Possible limit switch modes

Upper limit switch	Lower limit switch
freely programmable	freely programmable



- Plug-able cable
- Manual override via 7 mm hexagonal shaft

Dimensions



Technical data and dimensions

Type	Type 11/4 NHK	Type 11/6 NHK	Type 11/8 NHK	Type 11/10 NHK	Type 11/12 NHK
Max. torque (Nm)	40	60	80	100	120
Speed (rpm)	15	12	15	12	
Operating Voltage (V)	1 ~ 230				
Frequency (Hz)	50				
Noiseless soft brake	-				
Current (A)	1.5		1.9		
Power (W)	330		430		
Shaft Ø (mm)	63				
Ingress protection (IP)	44				
Max. limit switch range in Revolutions of the shaft	29				
Operating mode (KB in min.)	5		4		
Length A (mm)	673				
Length B (mm)	639				
Weight (kg)	4.35	4.42	5.53	5.54	
Temperature range (°C)	-20 to +60				
Conformity	CE		CE		CE
Connecting cable pluggable (m)	2.0				

	Type 11/4 NHK	Type 11/6 NHK	Type 11/8 NHK	Type 11/10 NHK	Type 11/12 NHK
Item Number	31 081.0004	31 061.0005	31 131.0003	31 342.0003	31 362.0002

*Drives with larger limit switch range or for 100 V – 250 V/50 or 60 Hz are available on request.
All drives are exclusive of: drive adapter, wall bracket (motor bearing) and switches.*

Accessories

Cables Page 134	Drive adapter sets Page 136	Mounting plates and brackets Page 137
NHK accessories Page 132	Safety brakes Page 140	Door controls from page 283
ProLine control units from page 205	Sensors from page 229	
Radio receivers from page 186		

Cables and accessories

It is not possible to return connecting cables.

Special cable lengths in combination with the drive (standard 2.0 m), **white**

Item Number	Type/Item Description
99 000.0001	2.0 m plug-in connecting cable (standard)
99 000.0201	3.0 m plug-in connecting cable
99 000.0301	5.0 m plug-in connecting cable
99 000.0401	10.0 m plug-in connecting cable
99 000.0601	20.0 m plug-in connecting cable
99 000.0501	0.4 m plug-in connecting cable with Hirschmann plug



Connecting cables without drive, **white**

23 615.0201	2.0 m plug-in connecting cable
23 615.0301	3.0 m plug-in connecting cable
23 615.0401	5.0 m plug-in connecting cable
23 615.0501	10.0 m plug-in connecting cable
23 615.0601	20.0 m plug-in connecting cable
23 615.0101	0.4 m plug-in connecting cable with Hirschmann plug



Installation-, connecting cables and accessories

23 243.0002	Installation cable
23 246.0001	Installation cable with Hirschmann plug Stak 3
13 709.7301	5 pole connecting clip for installation cable 23 243.0002
23 395.2701	QuickConnect, the fast connection system, IP 65
23 395.4701	QuickConnect, set of 10
23 846.0001	Stas 3 with clip (motor side)
13 701.5301	Stak 3 (power supply side)
13 308.0001	Flexible adjustment aid



23 395.2701



13 308.0001



23 243.0002



23 246.0001

Drive adapter sets for Type 9 NHK

Profiles of the drive adapter sets in 1:1 scale on page 322.



Item Number	Type/Item Description	Notch tubes	Round tubes	Profile tubes
23 510.0001	Ø 62 mm	•		
23 583.0001	Ø 63 mm	•		
23 547.0001	Ø 70 mm (round notch)	•		
23 559.0001	Ø 70 mm	•		
23 563.0001	Ø 70 mm, Imbac, Ahlquist	•		
23 581.0002	Ø 70 x 0.7 mm, Perma, decagonal	•		
23 641.0001	Ø 70 mm, Griesser	•		
23 700.0001	Ø 70 mm, Welser	•		
23 560.0001	Ø 74 mm	•		
23 580.0001	Ø 78 mm	•		
23 538.0001	Ø 78 mm, Döhner	•		
23 540.0001	Ø 78 x 1.0 mm, crown 23 mm wide	•		
23 600.0001	Ø 78 mm, MHZ	•		
23 681.0001	Ø 85 mm	•		
23 643.0001	Ø 85 mm, Griesser	•		
13 105.5701	Ø 50 x 1.5 mm		•	
13 110.7401	Ø 50 mm, Siral		•	
23 578.0002	Ø 62 x 2.0 mm und Ø 60 x 1.5 mm		•	
23 585.0001	Ø 63 x 1.5 mm		•	
23 546.0001	Ø 70 x 1.5 mm		•	
23 372.0001	Ø 102 x 1.5 mm		•	
23 373.0001	Ø 102 x 3.5 mm		•	
23 301.0001	50 mm, Selve, octagonal			•
23 873.0001	50 x 1.5 mm, Rau, octagonal			•
23 586.0001	Ø 55 mm, elero			•
23 870.0002	Ø 57 mm, Alu, Ates, MHZ			•
23 834.0001	Ø 58 mm, Termo, Perco			•
23 555.0001	60 mm, Selve, Döhner, Eckermann, Heinzmann, octagonal			•
23 874.0001	Ø 60 mm, Alu-Plastik, Kittelberger			•
23 906.0001	Ø 60 mm, Bonfante, octagonal			•
23 554.0001	Ø 60 mm, Butzbach, Mäule, hexagonal			•
23 534.0001	60 mm, IMBAC, octagonal			•
23 557.0001	60 mm, Martin, octagonal			•
23 562.0001	Ø 62 mm, LeProfil und Krülland			•
23 558.0001	Ø 64 mm, Zurflüh-Feller			•
23 522.0001	Ø 65 mm, HOOS			•
23 556.0001	Ø 65 mm, IMBAC, Metalpress, Eckermann			•
23 529.0001	70 mm, Selve, Döhner, Eckermann, octagonal			•
23 320.0001	Ø 71 x 1.5 mm			•
23 548.0001	Ø 75 mm, Butzbach, Mäule hexagonal			•
23 336.0001	Ø 76 x 1.2 mm, Kittelberger			•
23 528.0001	Ø 80 mm, Zurflüh-Feller			•
23 622.0001	Ø 83 x 1.5 mm			•
23 542.0001	Ø 85 mm, LeProfil			•

Drive adapter sets for Type 11 NHK

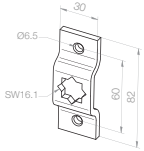
Profiles of the drive adapter sets in 1:1 scale on page 331.



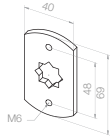
Item Number	Type/Item Description	Notch tubes	Round tubes	Profile tubes
22 024.0001	Ø 78 x 1.0 mm, MHZ	•		
22 049.0001	Ø 78 x 1.0/1.25 mm, Döhner round	•		
22 055.0001	Ø 78 x 1.25 mm, round notch Röchling	•		
22 057.0001	Ø 78 x 1.0 mm, flat notch	•		
22 038.0001	Ø 85 x 1.0 mm	•		
22 023.0001	Ø 90 mm, Le-Profil, Ø 89 mm, Deprat	•		
22 085.0001	Ø 90.5 x 1.25 mm, MHZ	•		
13 116.9601	Ø 63 x 1.5 mm without thread		•	
22 025.0001	Ø 63 x 1.5 mm with 4 x M6 thread		•	
22 044.0001	Ø 70 x 1.5 mm without thread		•	
22 026.0001	Ø 70 x 1.5 mm with 4 x M6 thread		•	
22 045.0001	Ø 70 x 2.0 mm without thread		•	
22 027.0001	Ø 70 x 2.0 mm with 4 x M6 thread		•	
22 058.0001	Ø 83 x 1.5 mm without thread		•	
22 031.0001	Ø 83 x 1.5 mm with 4 x M6 thread		•	
22 046.0001	Ø 98 x 2.0 mm without thread		•	
22 022.0001	Ø 98 x 2.0 mm with 4 x M6 thread		•	
22 047.0001	Ø 102 x 2.0 mm without thread		•	
22 021.0001	Ø 102 x 2.0 mm with 4 x M6 thread		•	
22 048.0001	Ø 133 x 2.5 mm/Ø 133 x 2 mm without thread		•	
22 036.0001	Ø 133 x 2.5 mm/Ø 133 x 2.0 mm with 4 x M6 thread		•	
13 117.0901	Ø 67 x 1.5 mm, MHZ			•
22 020.0001	Octagonal, 70, Selve, Eckermann, Roma			•
22 029.0001	Hexagonal, 75, Butzbach, Mäule			•
22 033.0001	Ø 76 x 1.2 mm, Kittelberger, Wiral			•
22 032.0001	ZF 80, Zurflüh-Feller			•
22 037.0001	Hexagonal, 85 mm, Butzbach			•
22 035.0001	Octagonal, 102 x 2.0 mm, Alulux			•
22 028.0001	Octagonal, 102 x 2.5 mm, Roma			•
22 030.0001	Octagonal, 114, Heroal			•
22 034.0001	Ø 128 x 1.5 mm, Alukon			•
22 039.0001	Ø 85 x 1.2 mm, Imbac			•
22 043.0001	Ø 85 x 1.2 mm, Griesser			•

Motor bearings

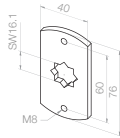
Star motor bearings



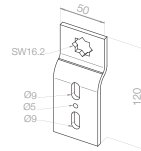
13 106.3501
60 mm centres,
offset



13 103.3901
48 mm centres,
flat

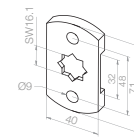


13 103.4001
60 mm centres,
flat



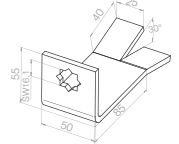
13 301.0801
Star

Distance plate



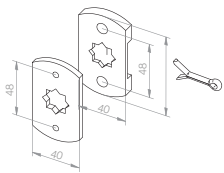
13 110.5601
for 13 103.3901

Plaster-in bracket



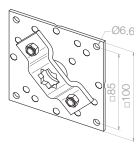
13 300.8501

Flat motor bearing



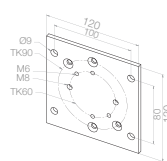
23 109.0001
48 mm centres with plastic
distance plate (contains
no. 13 103.3901 and
13 110.5601)

Base plate with motor bearing

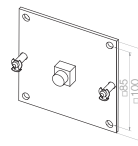


23 833.0001
48/60/85/90 mm
centres

Mounting plate

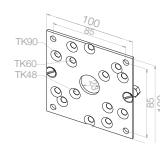


23 457.0001



23 800.0001

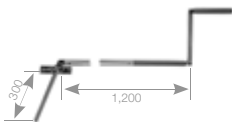
Universal adapter plate set



23 687.0501
With 2 countersunk
screws M6 x 16
and nuts

Hand control

Crank handles



23 764.0002
Hinged crank handle
with link bearing (45°)
and 7.0 mm hexagonal



23 731.0002
Link bearing with
awning eyelet



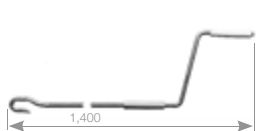
23 771.0002
7.0 mm hexagonal
with awning eyelet
Length: 180 mm



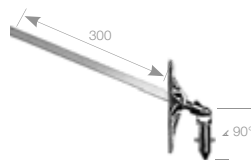
23 771.0102
7.0 mm hexagonal
with awning eyelet
Length: 460 mm



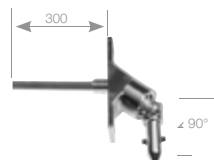
23 771.0301
7.0 mm hexagonal
with awning eyelet
Length: 600 mm



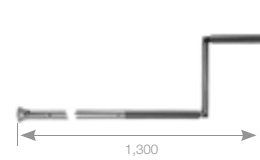
12 300.0901
Crank handle
with awning hook
Length: 1.4 m



23 772.0002
Link bearing (45°) for crank
handle with adapter cone



23 342.0001
Link bearing (90°)
for crank handle
with adapter cone



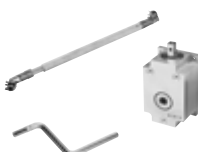
23 773.0001
Hinged crank handle
with adapter cone

NMA adapter set



23 199.5701
For Type 9/Type 11 NHK

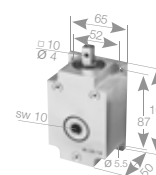
Base set NMA



23 199.9501
Consisting of: angle drive/
drive shaft/crank handle



23 081.0001
Drive shaft extendable
from 1.7 to 3.0 m



23 030.0001
Angle drive



13 305.8001
Crank handle for
angle drive

Rigid shaft fastener MiniClick and MaxiClick

Universal for octagonal tubes, 40, 50, 60 and 70 mm



MiniClick, with twist lock

For mini profiles and octagonal shafts size SW 40, 50 (0.6 and 0.8 mm) and SW 60 (0.6 and 0.9 mm)

Item Number	Type/Item Description
13 309.0001	MiniClick, 1 section
13 309.0101	MiniClick, 2 sections
13 309.0201	MiniClick, 3 sections
13 309.0301	MiniClick, 4 sections
13 309.0401	MiniClick profile insert
13 309.0501	MiniClick profile spacer insert

MaxiClick, with twist lock

For standard profiles and octagonal shaft size SW 60 (0.9 mm) and SW 70 (1.0 / 1.2 and 1.5 mm)

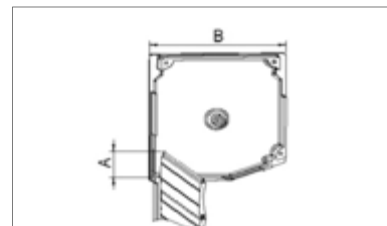
Item Number	Type/Item Description
13 309.1001	MaxiClick, 1 section
13 309.1101	MaxiClick, 2 sections
13 309.1201	MaxiClick, 3 sections
13 309.1401	MaxiClick profile insert
13 309.1501	MaxiClick profile spacer insert

MiniClick selection table

Shaft fastener	By box depth B ¹ (mm)	Number/shutter	Shutter weight (kg)	Application range
1 section	115 – 150	Use minimum 1 fastener every 60 cm or 4 Nm drive torque	max. 8 / shaft fastener	Mini- / maxi profile ¹
2 sections	155 – 180			
3 sections	185 – 210			
4 sections	215 – 240			

MaxiClick selection table

Shaft fastener	By box depth B ¹ (mm)	Number/shutter	Shutter weight (kg)	Application range
1 section	125 – 160	Use minimum 1 fastener every 60 cm or 6 Nm drive torque	max. 12 / shaft fastener	Mini- / maxi profile ¹
2 sections	160 – 200			
3 sections	200 – 250			

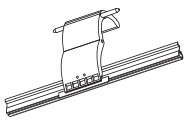


The top most profile slat should not be exposed by more than 1/2 profile height above the guide rails (A).
Anti-push up will only work if the slats a compressed and can exert upwards pressure against the Anti-push up device.

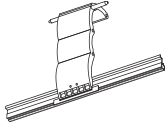
¹ Select MiniClick or MaxiClick by Shaft size.

Anti push-up devices

Anti push-up device mini profile

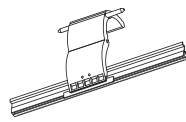


13 301.8901
2 sections

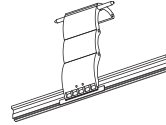


13 301.9101
3 sections

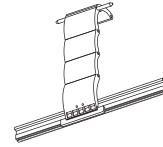
Anti push-up device standard profile



13 301.8801
2 sections

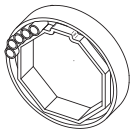


13 301.9001
3 sections

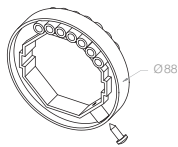


13 301.9201
4 sections

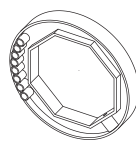
Fixing rings



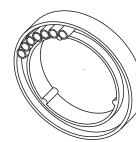
13 302.1501
For 50 mm
octagonal shaft



13 301.9501
For 60 mm
octagonal shaft



13 301.9601
For 70 mm
octagonal shaft



13 301.9701
For 65 mm rofile shaft
Hoos, IMBAC, Metalpress,
Eckermann

RevoLine

Type 9 + 11 NHK

Venetian blind drives

Speciality drives

Hausautomation, radio
controls, radio sensors

Hardwired controls
sensors

Door drives

Door controls

Adapter profiles
Lifting capacity tables

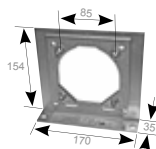
Safety brakes TA0-RD/X

for left or right hand installation
suitable for built-on roller shutters



24 031.0001

TA0-RD/X
max. torque: 147 Nm
max. operating speed: 22 rpm
with damping and electrical cut-off



24 040.0001

Pedestal bearing console
complete for TA0-RD/X

Drive adapter sets for Ta0-RD/X (2 pieces required)



Item Number	Type/Item Description	Notch tubes	Round tubes	Profile tubes
13 116.9201	Ø 57 mm, Ates	•		
13 117.0701	Ø 60 mm, AXE, Griesser, Hüppe	•		
13 116.9301	Ø 62 x 0.6 mm, DEPRAT F 2000	•		
13 116.7101	Ø 63 x 1.0 mm	•		
13 116.4502	Ø 70 mm, IMBAC, Ahlquist	•		
13 116.4602	Ø 70 mm, Griesser	•		
13 117.2701	Ø 70 mm	•		
13 117.0601	Ø 71 x 1.5 mm	•		
13 114.8701	Ø 78 x 1.0 mm/78 x 1.25 mm, flat notch, MHZ	•		
13 116.9101	Ø 78 x 1.0 mm, Döhner	•		
13 117.5301	Ø 78 x 1.0 mm/1.25 mm	•		
13 114.7601	Ø 85 x 1.0 mm	•		
13 117.0001	Ø 85 x 1.2 mm, IMBAC-Neu, Griesser	•		
13 117.0501	Ø 90 mm, Le Profil and Ø 89 mm, DEPRAT	•		
13 116.2901	Ø 50 x 1.5 mm		•	
13 116.9901	Ø 50 x 1.5 mm, Siral		•	
13 116.9501	Ø 60 x 1.5 mm and Ø 62 x 2.0 mm		•	
13 116.9601	Ø 63 x 1.5 mm		•	
13 116.9701	Ø 70 x 1.5 mm		•	
13 117.2801	Ø 70 x 2.0 mm		•	
13 117.7101	Ø 83 x 1.5 mm (with profile)		•	
13 117.0301	Ø 102 x 1.5 mm and Ø 102 x 2.0 mm		•	
13 117.0401	Ø 102 x 3.5 mm and Ø 98 x 2.0 mm		•	
13 117.7901	Ø 133 x 2.5 mm and Ø 133 x 2.0 mm		•	
13 117.8501	Ø 50 mm, Soprofen			•
13 115.9501	Octagonal, 50, Selve			•
13 117.8301	Ø 53 mm, Deprat			•
13 116.1001	Ø 54 mm, Zurflüh-Feller			•
13 116.9001	Ø 55 mm, elero			•
13 117.0201	Ø 58 x 1.5 mm Alu, Termo Perco			•
13 116.8301	Octagonal, 60, Selve, IMBAC			•
13 117.0801	Octagonal, 60 mm, Bonfante			•
13 116.9801	Hexagonal, 60 x 0.7 mm, Butzbach, Mäule			•
13 117.0101	Ø 60 mm, Alu-Plast, Kittelberger, Ø 63 x 1.5 EHAGE			•
13 116.9401	Ø 62 mm Le-Profil, Krülland			•
13 114.8301	Ø 64 mm, Zurflüh-Feller			•
13 116.7401	Ø 65 mm, IMBAC, Eckermann, Metallpress			•
13 116.7501	Ø 65 mm, Hoos			•
13 117.0901	Ø 67 x 1.5 mm, MHZ			•
13 115.9301	Octagonal, 70 Selve, Döhner, Eckermann			•
13 117.1101	Hexagonal, 75 mm, Butzbach, Mäule			•
13 116.7601	Ø 76 x 1.2 mm, Kittelberger, Wiral			•
13 117.8001	Pentagonal, 78 mm, Meimo			•
13 114.8501	Ø 80 mm, Zurflüh-Feller			•
13 117.8601	Hexagonal, Ø 80 mm, Butzbach			•
13 117.7701	Octagonal, 102 x 2.0 mm, Alulux			•
13 117.5101	Octagonal, 102 x 2.5 mm, Roma			•
13 117.5501	Octagonal, 114 mm, Heroal			•
13 117.7401	Ø 128 x 1.5 mm, Alukon			•

Revoline

Type 9 + 11 NHK

Venetian blind drives

Speciality drives

Hausautomation, radio controls, radio sensors

Hardwired controls sensors

Door drives

Door controls

Adapter profiles Lifting capacity tables



Venetian blind drives

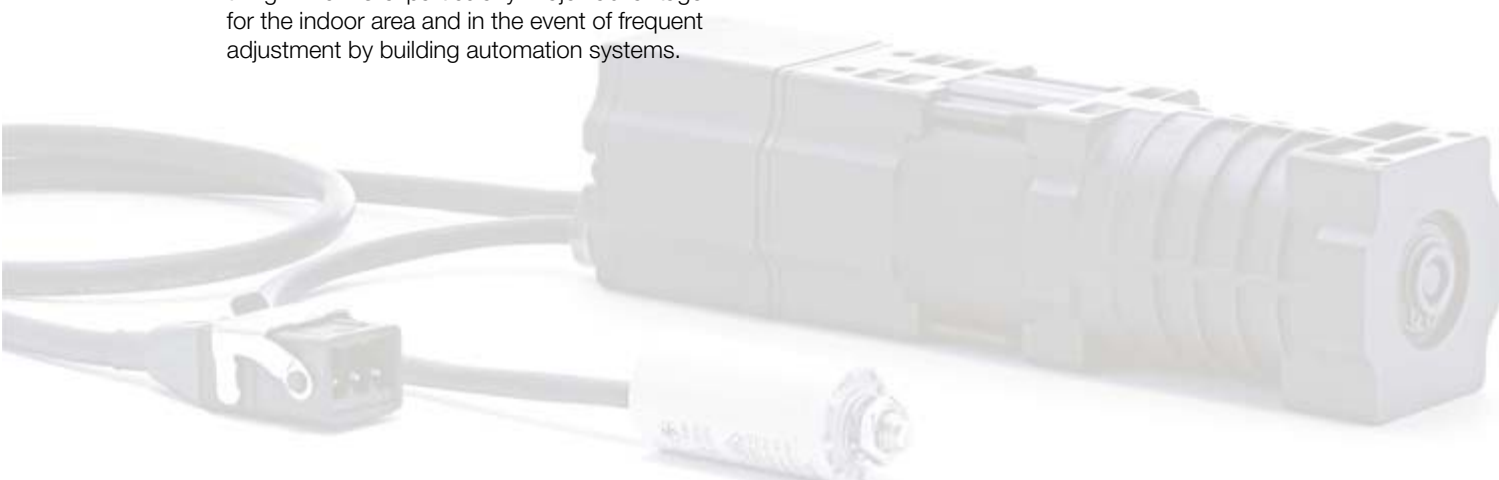
JA/JA Soft

JAR/JAR Soft

JA NHK



JA drives are tailored in an optimum manner to the specific requirements of venetian blinds. Their reliability and precision make them maintenance-free "assistants". They are fitted with thermal overload protection and easy-to-set limit switches. The limit switches for the upper and lower switching points are separate and accessible from outside. An indestructible planetary gear, the splash-proof motor housing, and the use of extremely precise individual components ensure the highest quality and a long service life. JA drives with a "Soft" brake guarantee a gentle arrival – without any disturbing clicking noise, something which is a particularly major advantage for the indoor area and in the event of frequent adjustment by building automation systems.





JA/JA Soft

Venetian blind drive JA

JA drives (230V/50 Hz)

Application: Venetian blind/roman shades/speciality applications

Limit switch: Mechanical limit switches
Features : Noiseless soft brake
(only JA Soft versions)

JA Soft



Noiseless soft brake,
drive shaft output on both sides

JAe



Standard brake system,
drive shaft output on one side only

JAdk



Standard brake system,
drive shaft output on both sides

Technical data and dimensions

Type	JA 06 Soft	JA 09 Soft	JA 06e	JA 06dk	JA 10dk	JA 20dk
Max. torque (Nm)	6	9	6		10	2 x 10
Speed (rpm)	26					
Operating Voltage (V)	1 ~ 230					
Frequency (Hz)	50					
Noiseless soft brake	•		-			
Current (A)	0.5	0.68	0.5		0.55	1.0
Power (W)	115	156	115		125	230
Shaft (mm)	-					
Ingress protection (IP)	44					
Max. limit switch range in Revolutions of the shaft	85					
Operating mode (KB in min.)	5	4		5		4
Length A (mm)	229	260	202	228	259	284
Weight (kg)	1.52	1.95	1.53	1.63	1.81	2.23
Temperature range (°C)	-20 to +60					
Conformity						
Connecting cable (m)	0.8 (with Hirschmann plug Stas 3, with clip)					

	JA 06 Soft	JA 09 Soft	JA 06e	JA 06dk	JA 10dk	JA 20dk
Item Number	35 204.0002	35 224.0002	35 022.0002	35 052.0002	35 062.0002	35 072.0002

Installation cable with Hirschmann plug Stak 3	
Item Number	23 246.0001

Accessories

	Assembly kits Page 153		Damper Page 153		Spring clip fixing kits from page 153
	Spring clips Page 153		Drive shaft adapters Page 152		Plugs Page 152
	ProLine control units from page 205		Sensors from page 229		Installation cable with Hirschmann plug Page 152
	Radio control units from page 161		Radio receivers from page 186		



JAR/JAR Soft

Venetian blind drives with additional limit switch JAR

JAR drives (230V/50 Hz)

Application: Venetian blind/speciality applications

Limit switch: Mechanical limit switches
Features: secondary lower end limit
Noiseless soft brake
(only JAR Soft versions)

JAR Soft



noiseless soft brake
drive shaft output on both sides

JARdk



drive shaft output on both sides
electromagnetic brake

Technical data and dimensions

Type	JAR 06 Soft	JAR 09 Soft	JAR 06dk	JAR 10dk	JAR 20dk
Max. torque (Nm)	6	9	6	10	20
Speed (rpm)	26				
Operating Voltage (V)	1 ~ 230				
Frequency (Hz)	50				
Noiseless soft brake	•		-		
Current (A)	0.5	0.68	0.5	0.55	1.0
Power (W)	115	156	115	125	230
Shaft (mm)	-				
Ingress protection (IP)	44				
Max. limit switch range in Revolutions of the shaft	85				
Operating mode (KB in min.)	5	4	5	5	4
Length (mm)	273	304	273	304	329
Weight (kg)	1.87		1.59	1.87	2.31
Temperature range (°C)	-20 to +60				
Conformity					
Accessories included	Connecting cable 0.8 m with Hirschmann plug Stas 4 (with clip)				

	JAR 06 Soft	JAR 09 Soft	JAR 06dk	JAR 10dk	JAR 20dk
Item Number	35 084.0002	35 094.0002	35 082.0002	35 092.0002	35 102.0002

Installation cable for JAR drives	
Item Number	26 843.0001

Accessories

	Assembly kits Page 153		Damper Page 153		Spring clip fixing kits from page 153
	Spring clips Page 153		Drive shaft adapters Page 152		Plugs Page 152
	Installation cable with Hirschmann plug Page 152				



JA NHK

Venetian blind drive JA NHK

JA NHK drives (230V/50 Hz)

Application: Venetian blind/roman shades/speciality applications

Limit switch: Mechanical limit switches

Features: Manual operation

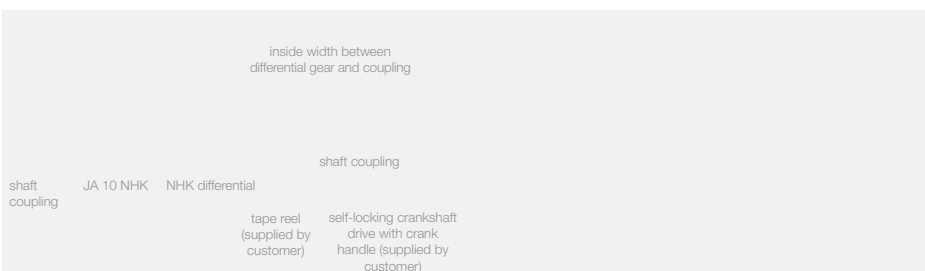


drive shaft output on both sides
electromagnetic brake

In the window




Outwith the window





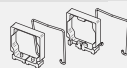








Technical data and dimensions

Type	JA 10 NHK			
	In the window for SW 11 mm/hexagonal	Outwith the window for SW 11 mm/hexagonal	In the window for SW 12 mm/4-side	Outwith the window for SW 12 mm/4-side
Max. torque (Nm)	10			
Speed (rpm)	26			
Operating Voltage (V)	1 ~ 230			
Frequency (Hz)	50			
Suitable for	SW 11 mm hexagonal		SW 12 mm 4-side	
In the window	•	–	•	–
Outwith the window	–	•	–	•
Current (A)	0.55			
Power (W)	125			
Ingress protection (IP)	44			
Max. limit switch range in Revolutions of the shaft	85			
Operating mode (KB in min.)	5			
Length A (mm)	328			
Weight (kg)	2.1			
Temperature range (°C)	-20 to +60			
Conformity	CE			
Accessories included	Installation cable with Hirschmann plug Stas 3			

 JA 10 NHK	In the window for SW 11 mm/hexagonal	Outwith the window for SW 11 mm/hexagonal	In the window for SW 12 mm/4-side	Outwith the window for SW 12 mm/4-side
	Item Number	35 417.0401	35 418.0401	35 417.2401

Installation cable with Hirschmann plug Stak 3	
Item Number	23 246.0001

Accessories

	Assembly kits Page 153		Damper Page 153		Spring clip fixing kits from page 153
	Spring clips Page 153		Drive shaft adapters Page 152		Plugs Page 152
	ProLine control units from page 205		Sensors from page 229		Installation cable with Hirschmann plug Page 152
	Radio control units from page 161		Radio receivers from page 186		

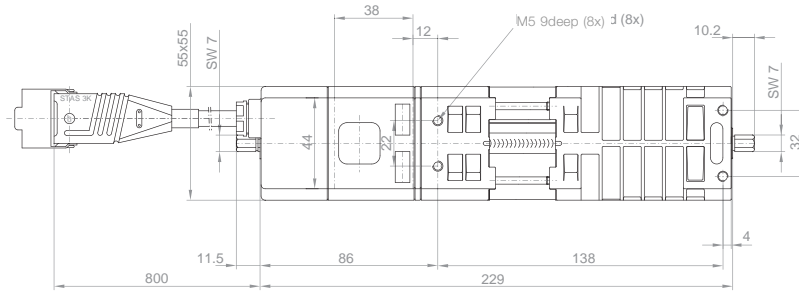


Mounting dimensions

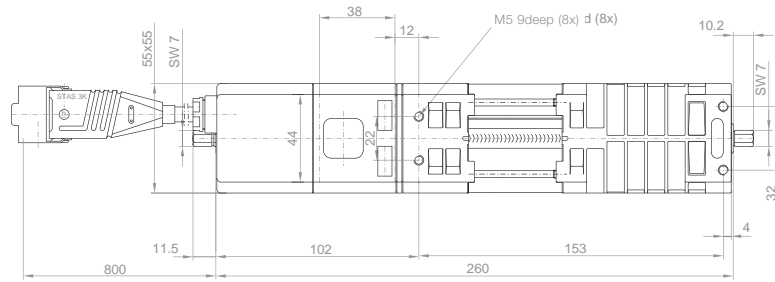
Dimension sheets for Venetian blind drives JAe and JAdk on request.

JA drives

JA 06 Soft

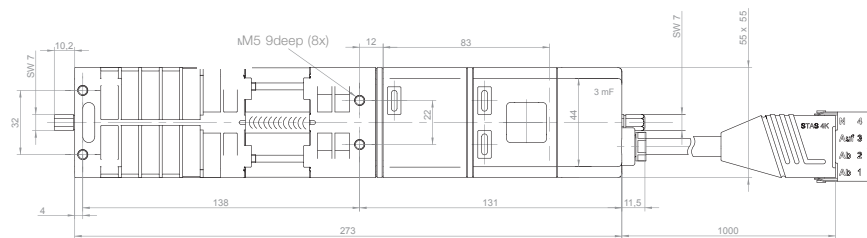


JA 09 Soft

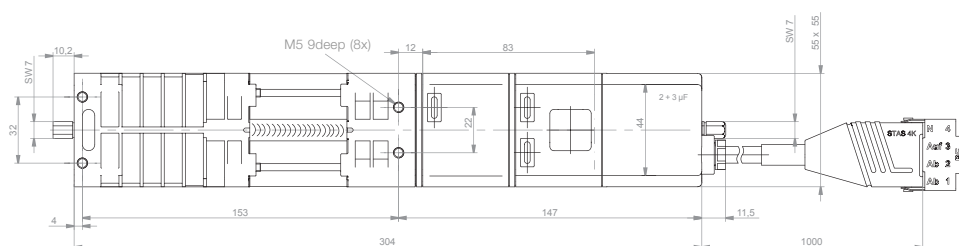


Dimension sheets for Venetian blind drives JARdk on request.

JAR 06 Soft

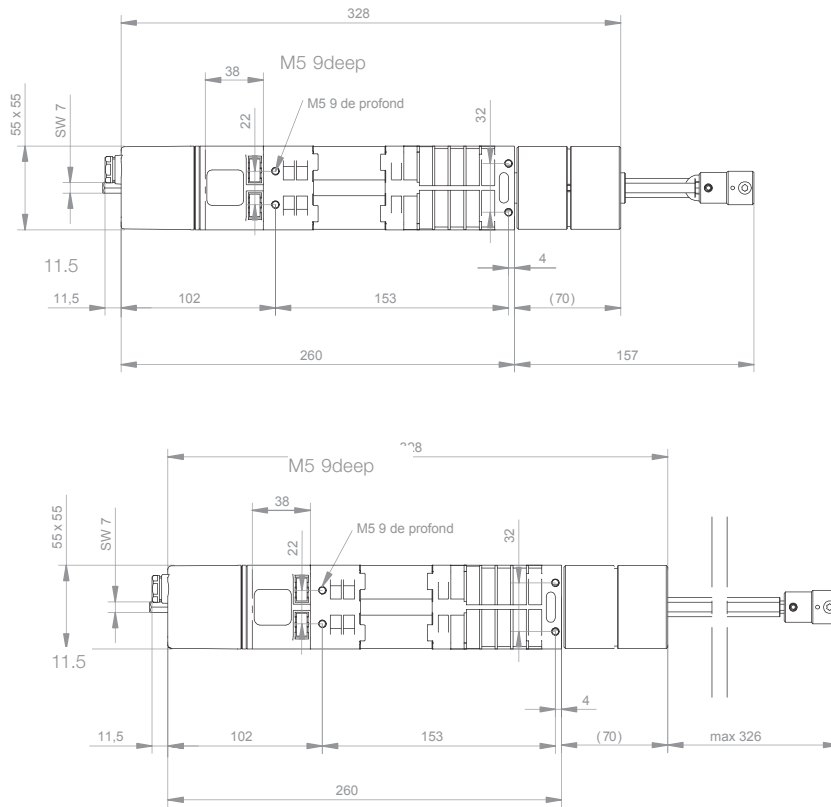


JAR 09 Soft

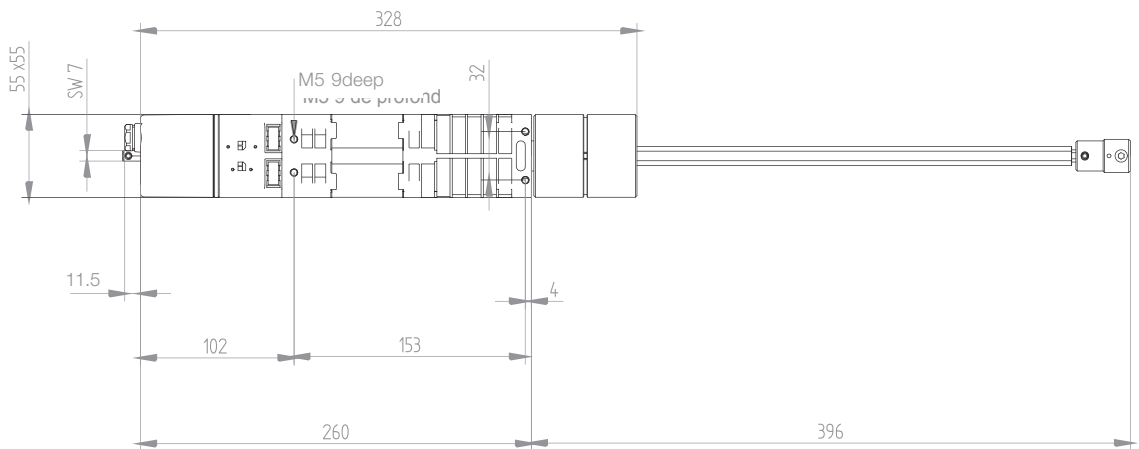


JA drives

JA 10 NHK in the window



JA 10 NHK outwith the window



RevoLine

Type 9 + 11

JA / JAR / JA NHK

Speciality drives

Hausautomation, radio controls, radio sensors

Hardwired controls sensors

Door drives

Door controls

Adapter profiles
Lifting capacity tables

Drive shaft adapters



1 piece

Item Number	Type/Item Description
16 300.3501	Hexagonal 6.0 mm, with drilling 3.3 mm
16 300.1301	Hexagonal 8.0 mm, with drilling 3.3 mm
16 300.1401	Hexagonal 9.0 mm
16 300.8901	Square 6.0 mm, with drilling 3.3 mm
16 300.1001	Square 8.0 mm, with drilling 3.3 mm
16 300.1101	Square 9.0 mm, with drilling 3.3 mm
16 300.1501	Notch tube Ø 12.0 mm, with drilling 3.3 mm



Adapter set

– 2 adapters; Taptite screws; Set screws, micro-encapsulated

26 512.1001	Hexagonal 9.0 mm, with M5 thread
26 506.1001	Hexagonal 13.0 mm, with M5 thread

Coupling set

– 2 couplings; short version; no continuous drill hole; no screw thread; 2 self-tapping screws; 2 suitable self-securing headless screws

26 517.0001	Square 6.0 mm, with drilling 3.3 mm
--------------------	-------------------------------------



1 piece, QuickSnap

Item Number	Type/Item Description
16 300.1202	Hexagonal 7.0 mm, short
16 300.8502	Square 7.0 mm, short with M4 thread
16 300.0702	Square 12.0 mm, short, with drilling 3.3 mm
16 300.2402	Square 10.0 mm, short, with drilling 3.3 mm
16 300.1602	Notch tube Ø 14.0 mm, short, with drilling 3.3 mm



Adapter set, QuickSnap

– 2 adapters; 2 set screws, micro-encapsulated

26 514.0002	Hexagonal 11.0 mm, with M5 thread
26 500.1002	Notch tube 14.0 mm, long, with M5 thread
26 504.1002	Square 12.0 mm, long, with M5 thread
26 513.1002	Square 10.0 mm, long, with M5 thread
26 522.0002	Square 7.0 mm, short, with M5 thread

Electrical assembly accessories

Extension cable with female Hirschmann socket 13 701.5301 at one end, other end of cable not ready-for-use

	Item Number	Type/Item Description
	26 618.0201	2.50 m
	26 618.0501	5.00 m
	26 618.1001	10.00 m

Extension cable with female Hirschmann socket 13 701.5301 at one end and 40 mm of stripped cable at the other end. Wires with cord end sleeve terminals

	26 619.2201	2.20 m
	26 618.1501	5.00 m
	26 618.0901	9.20 m
	26 618.2001	10.00 m

Extension cable with female Hirschmann socket 13 701.5301 and male Hirschmann plug 13 701.5701

	26 617.0101	1.25 m
	26 617.0201	2.50 m

Hirschmann plugs male



23 846.0001
Stas 3 with clip (motor side)



13 708.6601
Stas 4 for JAR and SMI motors (motor side)



16 101.0102
Rubber insert to close hole in head rail to allow Hirschmann plug and cable trough

Hirschmann plugs female



13 701.5301
Stak 3 (power supply side)



13 704.9801
Stak 4 for JAR and SMI motors (power supply side)



13 707.5701
Cable clip for head rail

Installation cables



23 246.0001
with Hirschmann plug Stak 3

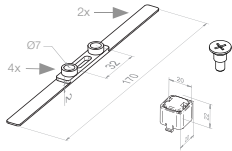


26.843.0002
for JAR drives with Hirschmann plug Stak 4

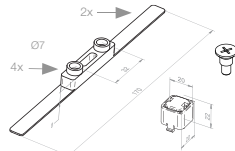
delivery period following consultation

Mechanical assembly accessories

JA/JAR assembly kit with 2 dampers, 4 screws, safety cut-out right (orange) and assembly instruction

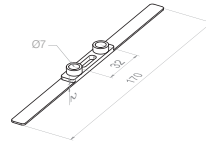


26 520.0002
for 29.5 mm shaft height

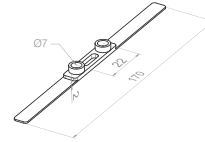


26 521.0002
for 35.5 mm shaft height (Faber)

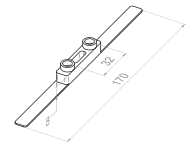
Dampers



16 101.6001
Height: 2.0 mm
hole distance: 32.0 mm

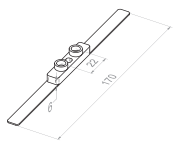


16 101.6101
Height: 2.0 mm
hole distance: 22.0 mm



16 101.6201
Height: 8.0 mm
hole distance: 32.0 mm

Damper



16 101.6301
Height: 8.0 mm
hole distance: 22.0 mm

Screws

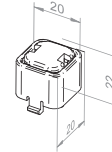


16 300.7301
Screws for 2.0 mm
damper height



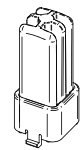
16 300.7402
Screws for 8.0 mm
damper height

Safety cut-out

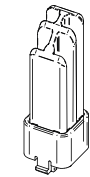


26 200.3601
Safety cut-out right (orange limit)

Safety cut-outs



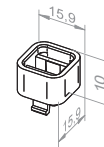
26 200.8101
Extended Safety cut-out right
(orange limit) 49 mm high



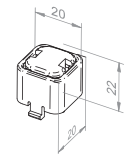
26 200.8001
Extended Safety cut-out right
(orange limit), angled, 60 mm high



16 701.4701
Angled cap for Safety cut-out
suitable for left and right

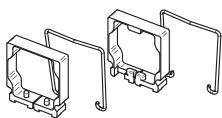


16 101.4501
Safety cut-out extension,
10.0 mm

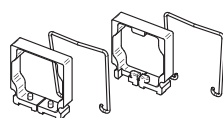


26 200.1101
Safety cut-out left (white)

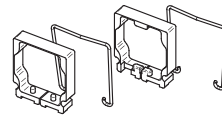
Spring clip fixing kits for venetian blind drives



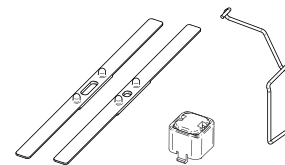
26 611.0001
for head box 68 x 66 mm;
shaft height: 35 mm, black
(Griesser)



26 612.0001
for head box 58 x 56 mm;
shaft height: 29 mm, grey

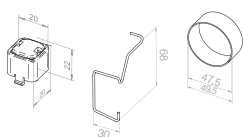


26 613.0002
Set of 10
for head box 58 x 56 mm;
shaft height: 29 mm



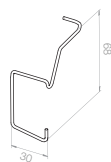
26 529.0001
for head box 57 x 51, shaft height 29.5 mm
Set includes:
2 x 16 302.3201 Spring clip
1 x 16 103.1801 Rubber damper with knobs
1 x 16 103.1901 Rubber damper with knobs
1 x 26 200.3601 Safety cut-off right
1 Damper set incl. F.O.C. if ordered together with motor

Assembly kit JA complete



26 527.0001
Containing: 2 x spring clip wire
(16 302.3201), 2 x rubber
damper (16 302.8301),
1 x safety cut-out orange

Spring clip, wire



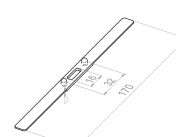
16 302.3201
Clamping spring for head box
57 x 51 mm (2 pieces are required
per drive)

Hose piece

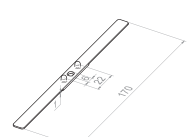


16 302.8301
Rubber damper tape
for Venetian blind drives
(2 pieces are required
per drive)

Dampers with fixing knobs



16 103.1801
Height: 2.0 mm
knobs distance:
32.0 mm



16 103.1901
Height: 2.0 mm
knobs distance:
22.0 mm



Speciality drives

Box 5 shaft-mounted drive

Folding shutter drive



Retrofit installations in awnings, adjusting automatically ventilating shutters in the conservatory, moving antiglare devices operating glass screens in green houses – there are many applications, where you can simply apply our box 5 drive.

As a decorative and stylish element for façades, folding shutters are particularly suitable for the restoration of old and listed buildings, as well as for new buildings.

The folding shutter drives from elero can be turned easily into complete folding shutter systems through the addition of ProLine controls. Whether these are hand-held or wall transmitters, timers with weekly switching times or weather sensors.



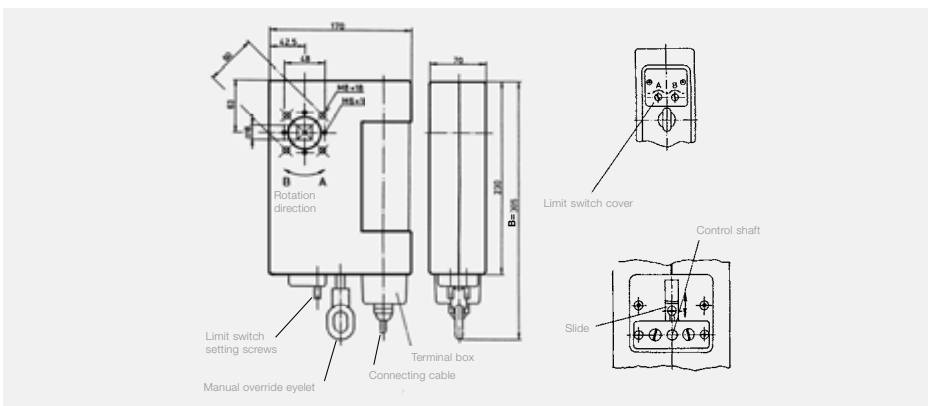


Box 5

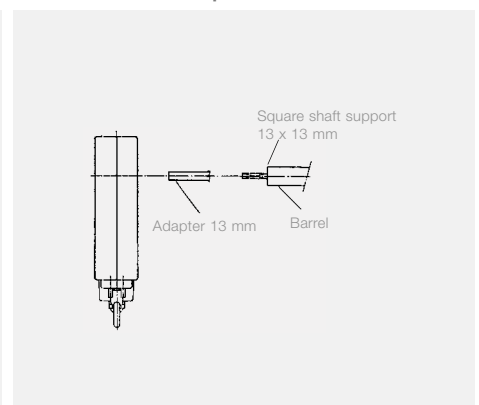
Shaft-mounted drive with NHK (Crank handle)

Box 5

Features: Easy to mount, compact, powerful and robust
Integrated crank handle



Installation of the adapter



Technical data and dimensions







Type	Box 5	
Max. torque (Nm)	60	
Speed (rpm)	11.5	
Operating Voltage (V)	1 ~ 230	
Frequency (Hz)	50	
Current (A)	2.2	
Power (W)	500	
Lateral space requirement (mm)	70	
Ingress protection (IP)	54	
Max. limit switch range in Revolutions of the shaft	21	
Rating (min)	5	
Lifting capacity on the barrel (N): Barrel-Ø x wall thickness (mm)	2,500	48 x 1.5
	2,000	60 x 1.5
	1,900	63 x 1.5
	1,700	70 x 1.5
	1,440	83 x 1.5
Length A (mm)	170	
Length B (mm)	305	
Weight (kg)	4.83	
Temperature range (°C)	-20 to +60	
Conformity	CE	
Including hardwired connection cable 1.5 (m)	1.5 (Cross section 4 x 0.75)	

Box 5	
Item Number	41 014.0001

Adapter 13 x 13 mm for BOX 5 (reducing bushes)	
Item Number	14 100.8101

Crank handle with awning hook, Length 1.40 m	
Item Number	12 300.0901

Accessories

	Crank handle with awning hook Page 157		Radio control units from page 161		Radio sensors from page 194
	ProLine control units from page 205		Radio receivers from page 186		
	Sensors from page 229				



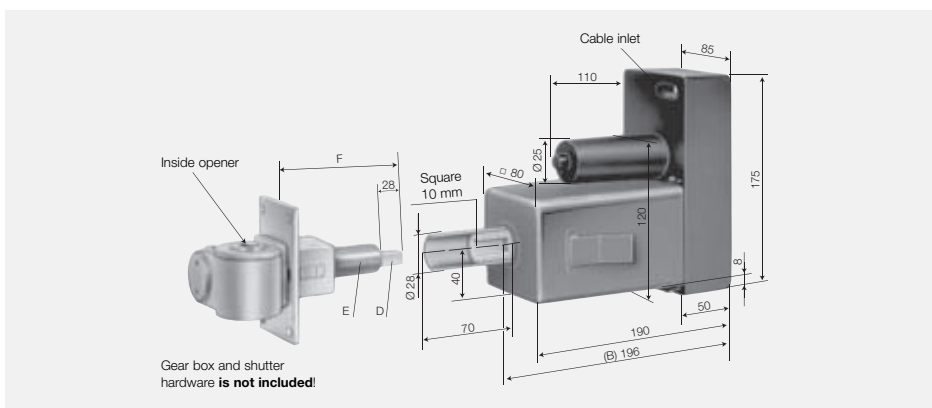
Folding shutter drive

with adjustable torque limiting

Folding shutter drive

Application: Folding shutter drive

Limit switch: Electronic torque limits
 Features: Obstacle detection
 Suitable for KINI gear for flush or partial surface mounting,
 230 V/50 Hz, Torque up to 20 Nm, KB: 4 min.



Sample calculation

The drive is to be fitted into a wall with a total thickness of 300 mm.

Mounting dimensions

As a result of different wall thicknesses, both the square drive shaft of the inside opener and the protective sheath must be adjusted to match the wall concerned. The following calculation formula can be used here:

$$\text{Dimension F of the inside opener} = \text{total wall thickness} - 196 \text{ mm (B)}$$

Note:

The minimum dimension for which fitting is possible is 300 mm for flush mounting. 250 – 300 mm is appropriate for partial surface mounting.

Technical data and dimensions

Type	Folding shutter drive
Max. torque (Nm)	20
Speed (Upm)	26
Operating Voltage (V)	1 ~ 230
Frequency (Hz)	50
Current (A)	0.7
Power (W)	160
Ingress protection (IP)	20
Operating mode (KB in min.)	4
Weight (kg)	3.9
Temperature range (°C)	-20 to +60
Conformity	CE
Accessory included	Cover included Other required shutter hardware is not included!

	Folding shutter drive
Item Number	35 741.0002

Suitable shutter hardware available exclusively from:

Kini Beschläge GmbH Mettmannerstraße 10 A 42551 Velbert Germany	Phone: +49 2051 8089801 Fax: +49 2051 8089803 E-Mail: info@kini.de Web: www.kini.de
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Accessories

 VarioTec-868 Page 182	 AstroTec Page 208	

- RevoLine
- Type 9 + 11
- Venetian blind drives
- Speciality drives
- Hausautomation, radio controls, radio sensors
- Hardwired controls sensors
- Door drives
- Door controls
- Adapter profiles Lifting capacity tables



elero

Radio control units for roller shutters and sun protection systems



The name "ProLine" stands for a range of control devices that can be used for a variety of applications in the home. Radio control hand-held transmitters, as well as wall-mounted transmitters, sensors and external radio receivers. With devices which are to be deployed in the "visible" living area great significance was attached to a modern, yet timeless design.

Roller shutters, awnings, roller blinds and Venetian blinds may be controlled more reliably, more capably and in a more transparent manner with ProLine 2, the bidirectional radio control system from elero. At the heart of the technology (868 MHz) are bidirectional transceivers which not only receive signals but can also confirm and transmit these. In addition, radio commands are forwarded to radio receivers which otherwise might be out of range (routing functionality). Another decisive advantage over other radio control systems is the fact that the user can directly see the status of signal processing on the hand-held transmitter. As soon as a command has been performed, it receives a feedback signal and thus always knows what's happening.



Centero

Centralized building automation from elero

Simple and intuitive operation of building technologies

Benefits:

- Taught-in devices automatically appear in the app, may be renamed, grouped or assigned icons.
- Even more living comfort thanks to individual scene modes and automatic controls
- Various users can access the Centero at the same time with their smartphones or tablets



Centero Server, Centero Transmitter Stick

**The set includes a transmitter stick with 15 channels.
Up to 10 transmitter sticks can be operated on one
Centero server for extension purposes.**

Technical data and dimensions

Type	Centero Server	Centero Transmitter Stick
Operating Voltage (V)	1 ~ 100 – 240	n.a.
Frequency (Hz)	50 – 60	n.a.
Power (W)	5 (20 max.)	n.a.
Transmission power (mW)	n.a.	10
Ingress protection (IP)		20
Temperature range (°C)		0 to +55
Radio frequency (MHz)		868
Dimensions (mm)	L 95 x W 65 x H 49	n.a.
Weight (g)	200	7
Number of channels	-	15
Unidirectional		-
Bidirectional		•
Interface	USB 2.0, LAN, WLAN	USB 2.0
Content	Centero Server, Centero Transmitter Stick, Adapter, Cable, Manual	

	Centero Server	Centero Transmitter Stick
Item Number	28 795.0001	

Centero Transmitter Stick	
Item Number	22 125.0001

Centero Power Pack	
Item Number	28 799.0001

Functional principle



RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Home automation

Hardwired controls sensors

Door drives

Door controls

Adapter profiles
Lifting capacity tables

Peripheral devices for the Centero

from the company Eldat

Expanded functionality and integration with external devices

Benefits:

- Simple, intuitive learning-in process
- Step by step explanation of learning-in on display
- Associations can be created: "if" "then"



USB stick Easywave RX09
28 895.0301

Bidirectional radio module with 64 channels for building control and monitoring via Easywave receiver.



Motion detector RTS40
28 895.0001

Battery-operated radio motion detector for the indoor area. Automatic reaction in accordance with preferred settings.



Window contact RTS16
28 895.0101

Status monitoring for windows, doors and gates.



Humidity sensor SH01
28 895.0201

Humidity sensor and push button. Cyclical measurement of the relative humidity with switching signal to an Easywave radio receiver.

Technical data and dimensions

Type	USB stick Easywave RX09	Window contact RTS16	Motion detector RTS40	Humidity sensor SH01
Frequency	868.30 MHz	868.30 MHz	868.30 MHz	868.30 MHz
Modulation	FSK	FSK	FSK	FSK
Coding	Easywave	Easywave A/B	Easywave A/B Easywave Plus	Easywave A/B
Power supply	via USB port	1x 3V battery, CR2032	2x 3V batteries, CR2032	1x 3V battery, CR2032 or alternatively 12-24 V AC/DC ELV to DIN VDE 0100-410
Output channels	64	-	-	-
Current consumption	-	1,6 µA	-	max. 15 µA
Measuring range	-	-	-	1-99% rF
Accuracy	-	-	-	±5% (bei 30%-70% rF)
Switching values	-	-	-	1. >74% RH 2. fast increase by 4% when >40% EH
Data logging	-	-	-	every 2 mins.
Operating temperature	0° C to +40° C	-20° C to +60° C		
Radio range	outdoors: approx. 150 m indoors: approx. 30 m			
Brightness range	-	-	10 lx to 500 lx	-
Follow-up time	-	-	1 sec. to 131 mins.	-
Monitoring range	-	-	approx. 16 m²	-
Ingress protection	IP20	IP54	IP30	IP30
Dimensions	24 x 8 x 75 mm	Transmitter: 65 x 12 x 28 mm Magnet: 18 x 18 x 13 mm	Cover: 55 x 55 x 12 mm Plate: 71 x 71 x 1.5 mm	Cover: 55 x 55 x 10 mm Plate: 71 x 71 x 1.5 mm
Weight	13 g	Transmitter: 20.6 g Magnet: 2.2 g	34.0 g	32.0 g incl. Battery
Scope of supply	USB transceiver, operating manual	Radio-controlled window contact RTS16 incl. battery, bracket with magnet, mounting accessories, operating manual	Transmission module, 2 batteries CR2032, cover, mounting plate, mounting accessories, operating manual	Sensor module, battery CR2032, mounting plate, push button, mounting accessories, operating manual

	USB stick Easywave RX09	Window contact RTS16	Motion detector RTS40	Humidity sensor SH01
Item Number	28 895.0301	28 895.0101	28 895.0001	28 895.0201

Enhancement of Centro with third-party products





MultiTec Touch-868

Multi-channel wall-mounted radio transmitters for simple operation of building technology

Simple and intuitive operation of building technology via touchscreen

- 20 single channels, 5 groups channels and 1 central channel
- Individual switching times and vacation program
- Wall-mounted radio transmitters for flush-mounted outlet socket (230 V)
- Astro function may be set per channel
- Automatic adjustment for daylight-saving time
- Illuminated display with menu navigation in 14 different languages
- Ready for operation after entry of date and time




MultiTec Touch-868 silver

Colours



Technical data and dimensions

Type	MultiTec Touch-868		
Mains connection (V)	1 ~ 230		
Power supply / standby (W)	0.5 (typical)		
Power supply via mini USB (socket)	5 V AC, max. 0.5		
Battery type (for buffering)	CR 2032		
Ingress protection (IP)	20		
Protection class (only after correct installation)	II		
Temperature range (°C)	0 to +45		
Display dimensions incl. frame (mm)	145 x 90		
Weight (g) incl. battery	200		
Radio frequency (MHz)	868		
Unidirectional	-		
Bidirectional	•		
Colours	white	silver	titanium grey
Scope of supply	Power supply unit with wall bracket, operating manual, assembly pack with 2 screws and raw/plugs		

		MultiTec Touch-868		
		white	silver	titanium grey
	Item Number	28 715.0001	28 716.0001	28 717.0001



RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Home automation

Hardwired controls
sensors

Door drives

Door controls

Adapter profiles
Lifting capacity tables



TempoTel 2

ProLine 2 radio hand-held transmitter



Hand-held transmitter for maximum user comfort

- 10+1-channel hand-held transmitter
- Uni- and bidirectional
- Integrated timer (bidi per channel)
- Astro and holiday program
- Large UP, STOP and DOWN keys
- Visualisation of the transmission and feedback commands
- 10 individual channels, 2 group channels and 1 one master channel
- 3 colours: white, silver, titanium grey
- Transmission-secure radio frequency 868 MHz
- Ability to disable old Uni-directional mode



TempoTel 2 silver

Colours



Technical data and dimensions

Type	TempoTel 2		
Operating Voltage (V DC)	3		
Battery type	2 x LR06 (AA Mignon)		
Ingress protection (IP)	20		
Temperature range (°C)	0 to +50		
Radio frequency (MHz)	868		
Dimensions (mm) (hand-held transmitter)	L 150 x W 51 x H 26		
Weight (g) including batteries	140		
Individual channels	10		
Group channels	2		
Master channel	1		
Manual/automatic switch	•		
Unidirectional	•		
Bidirectional	•		
Colours	white	silver	titanium grey
Accessories included	Magnetic wall bracket, batteries and mounting material (packed ready to mount in display package)		

	white	TempoTel 2 silver	titanium grey
Item Number Language version 1	28 265.0002	28 266.0002	28 267.0002

Language version 1:

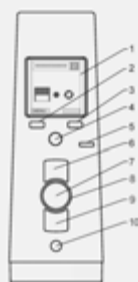
German, English, French, Spanish, Italian, Portuguese, Dutch, Swedish, Dansk, Polish

Item Number Language version 2	28 465 0002	28 466 0002	28 467 0002
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Language version 2:

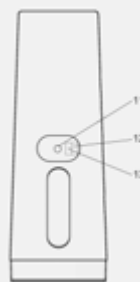
German, English, Hungarian, Czech, Slovenian, Turkish

Front of view TempoTel 2



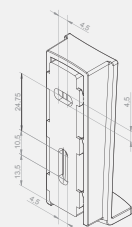
- 1 Display
- 2 Left menu button
- 3 Right menu button
- 4 Joystick
- 5 Operating mode indicator
- 6 UP button
- 7 STOP button
- 8 Status indicator
- 9 DOWN button
- 10 Select button

Back of view TempoTel 2



- 11 Learn button P
- 12 DIP switch 1 (for experts)
- 13 Disable old Uni-directional mode

Wall bracket



RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hand-held transmitters

Hardwired controls

sensors

Door drives

Door controls

Adapter profiles
Lifting capacity tables



MultiTel 2/VarioTel 2

ProLine 2 radio hand-held transmitters

MultiTel 2 – the Comfortable

- 15+1-channel hand-held transmitter
- Bidirectional
- Large UP, STOP and DOWN keys
- Display of position and commands via multi-line display
- 15 individual channels, 5 group channels and 1 master channel
- 3 colours: white, silver, titanium grey
- Transmission-secure radio freq. 868 MHz
- Select 1 of 14 languages

VarioTel 2 – the Versatile

- 5+1-channel hand-held transmitter
- Uni- and bidirectional
- Large UP, STOP and DOWN keys
- 5 individual channels, 1 master channel
- 3 colours: white, silver, titanium grey
- Transmission-secure radio frequency 868 MHz
- Ability to disable old Uni-directional mode



MultiTel 2 silver, VarioTel 2 silver

Colours

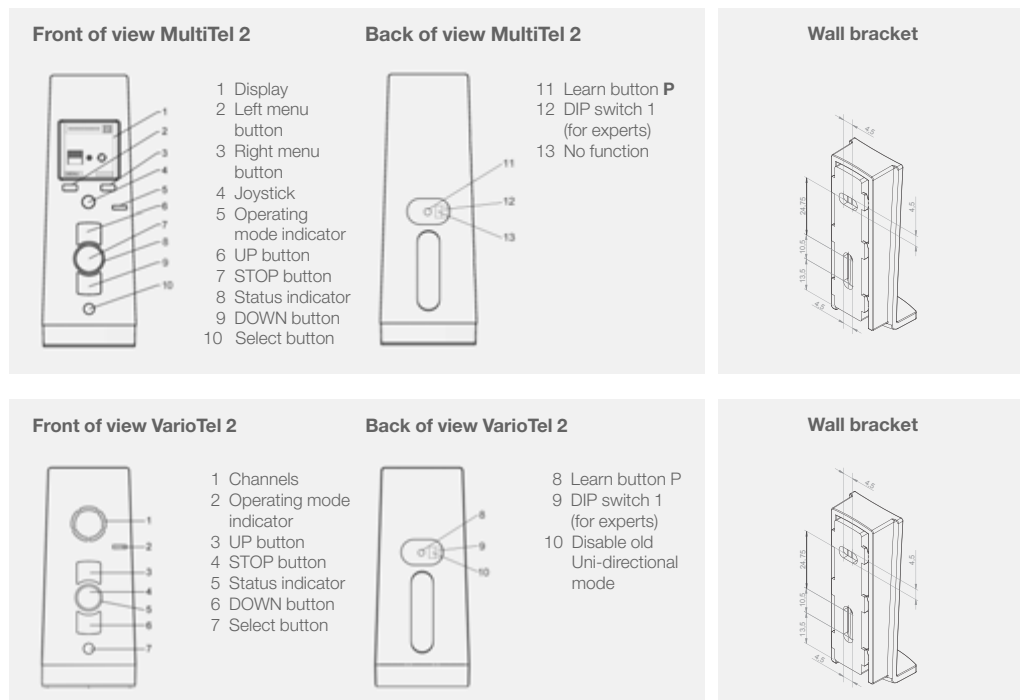


Technical data and dimensions

Type	MultiTel 2			VarioTel 2		
Operating Voltage (V DC)	3					
Battery type	2 x LR06 (AA Mignon)					
Ingress protection (IP)	20					
Temperature range (°C)	0 to +50					
Radio frequency (MHz)	868					
Dimensions (mm) (hand-held transmitter)	L 150 x W 51 x H 26			L 120 x W 51 x H 26		
Weight (g) including batteries	140			120		
Individual channels	15			5		
Group channels	5 (each max. 5 individual channels)			-		
Master channel	1					
Manual/automatic switch	•					
Unidirectional	-			•		
Bidirectional	•					
Colours	white	silver	titanium grey	white	silver	titanium grey
Accessories included	Magnetic wall bracket, batteries and mounting material (packed ready to mount in display package)					

Item Number	MultiTel 2			VarioTel 2		
	white	silver	titanium grey	white	silver	titanium grey
	28 255.0001	28 256.0001	28 257.0001	28 245.0001	28 246.0001	28 247.0001

Available language selection on MultiTel:
 German, English, French, Spanish, Italian,
 Portuguese, Dutch, Danish, Swedish, Polish,
 Hungarian, Czech, Slovenian, Turkish



RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hand-held transmitters

Hardwired controls sensors

Door drives

Door controls

Adapter profiles
Lifting capacity tables



LumeroTel 2/MonoTel 2/SoloTel 2

ProLine 2 radio hand-held transmitters

LumeroTel 2 – the Comfortable

- Single-channel hand-held transmitter
- Single-, group- or central unit
- Uni- and bidirectional
- Large UP, STOP and DOWN keys
- Manual/automatic switch
- 3 colours: white, silver, titanium grey
- Transmission-secure radio frequency 868 MHz
- Ability to disable old Uni-directional mode

MonoTel 2 – the Simple

- Single-channel hand-held transmitter
- Single-, group- or central unit
- Uni- and bidirectional
- Large UP, STOP and DOWN keys
- 3 colours: white, silver, titanium grey
- Transmission-secure radio frequency 868 MHz
- Ability to disable old Uni-directional mode

SoloTel 2 – the Combined

- Single-channel hand-held/wall mounted transmitter
- Uni- and bidirectional
- 3 colours: white, silver, black
- Transmission-secure radio frequency 868 MHz



LumeroTel 2 silver, MonoTel 2 silver and SoloTel 2 silver

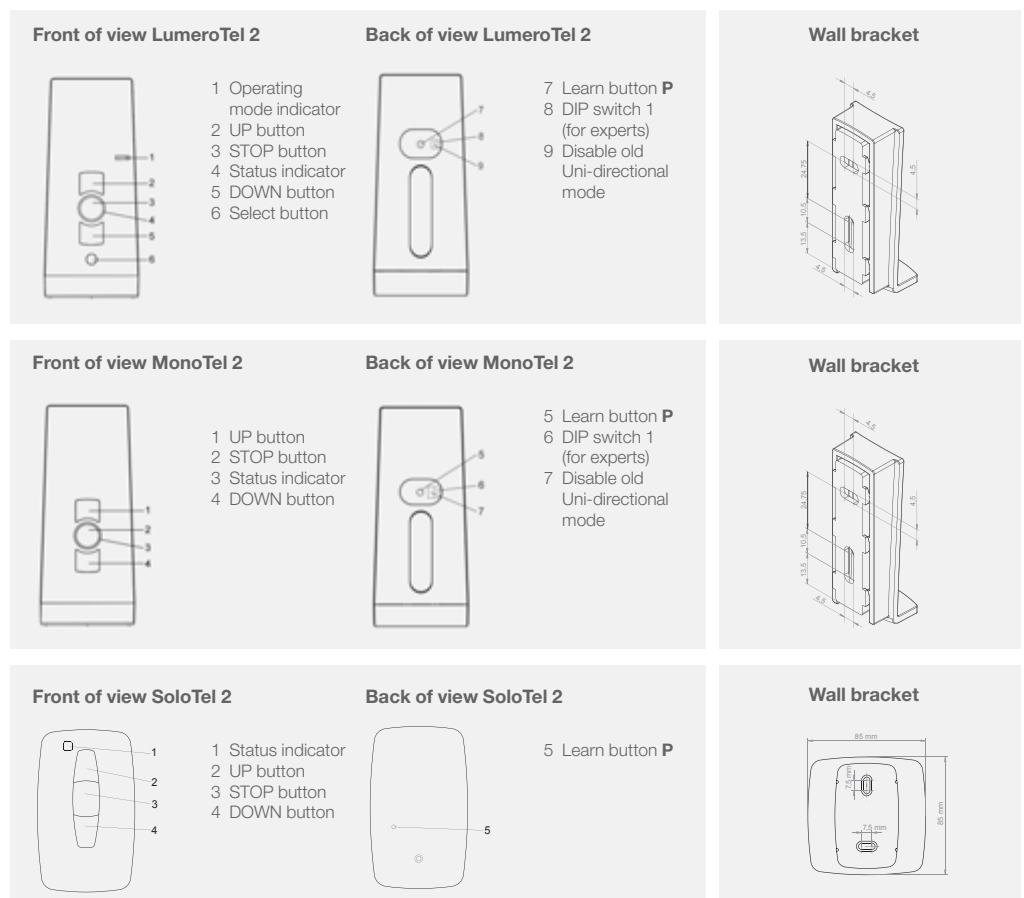
Colours



Technical data and dimensions

Type	LumeroTel 2			MonoTel 2			SoloTel 2		
Operating Voltage (V DC)	3								
Battery type	2 x LR06 (AA Mignon)						1 x CR 2032		
Ingress protection (IP)	20								
Temperature range (°C)	0 to +50								
Radio frequency (MHz)	868								
Dimensions (mm) (hand-held transmitter)	L 150 x W 51 x H 26			L 120 x W 51 x H 26			L 85 x W 85 x H 18		
Weight (g) including batteries	140			120			45		
Channels	1								
Manual/automatic switch	•						-		
Unidirectional							•		
Bidirectional							•		
Colours	white	silver	titanium grey	white	silver	titanium grey	white	silver	black
Accessories included	Magnetic wall bracket, batteries and mounting material (packed ready to mount in display package)						Magnetic wall bracket, batteries and mounting material (packed ready to mount in display package)		

Item Number	LumeroTel 2			MonoTel 2			SoloTel 2		
	white	silver	titanium grey	white	silver	titanium grey	white	silver	black
	28 225.0001	28 226.0001	28 227.0001	28 205.0001	28 206.0001	28 207.0001	28 600.0006	28 640.0006	28 620.0006





AstroTec-868/AstroTec-868 bidi

Timer as comfort wall transmitter

Comfortable 1-channel-timer with astro program

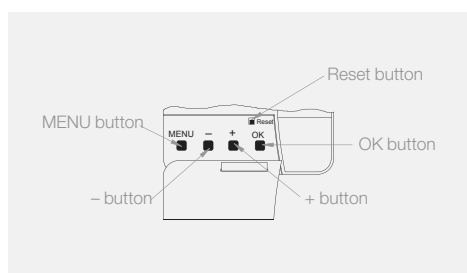
- Integrated timer
- Single-, group- or central unit
- Uni- or bidirectional
- Astro function
- Manual/automatic switch
- ext. Light sensor usable
- Transmission-secure radio frequency 868 MHz

Note:

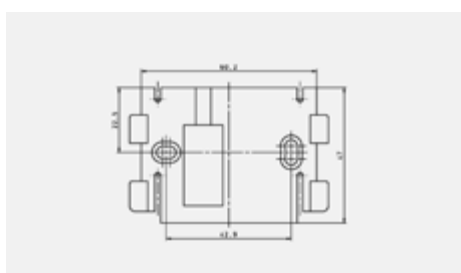
The AstroTec-868 bidi is a radio wall transmitter for exclusive use with bidirectional receivers (use of the AstroTec-868 bidi with unidirectional transmitters and receivers is not possible – in this use please use the unidirectional AstroTec-868 (item no. 28 320.0001).



Buttons under the cover



Mounting plate



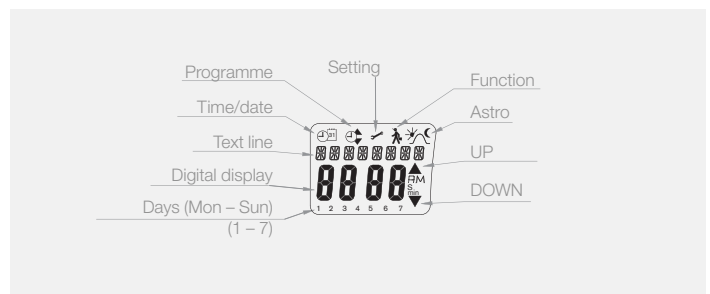
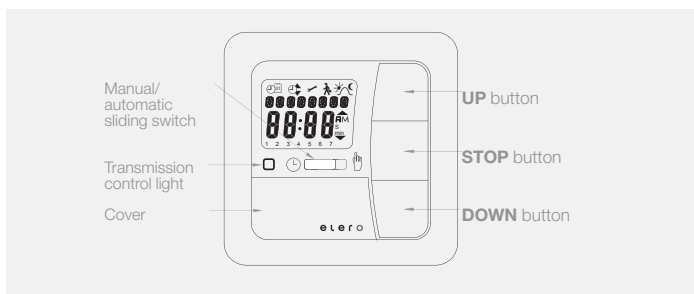
Technical data and dimensions

Type	AstroTec-868	AstroTec-868 bidi
Operating Voltage (V DC)	3	
Battery type	2 x LR 03 (AAA)	
Ingress protection (IP)	20	
Temperature range (°C)	0 to +55	
Radio frequency (MHz)	868	
Dimensions (mm)	L 85 x W 85 x T 28	
Type of installation	Wall-mounted	
Unidirectional	•	-
Bidirectional	-	•
Colours	white	
Accessories included	Batteries, wall bracket, 2 wall plugs (Ø 6 mm), 2 screws (Spax 4 x 35)	


	AstroTec-868	AstroTec-868 bidi
Item Number	28 320.0001	28 320.0006

Lumo 2.0 m (P. 230)	
Item Number	28 080.0001

Lumo 10.0 m (P. 230)	
Item Number	28 090.0001



Accessories

	Lumo Light and twilight sensor Page 230		

RevoLine
Type 9 + 11
Venetian blind drives
Speciality drives
Radio transmitters
Hardwired controls sensors
Door drives
Door controls
Adapter profiles
Lifting capacity tables



MemoTec-868

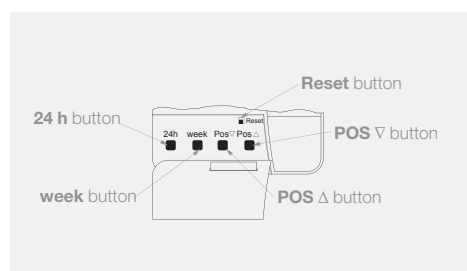
Intelligent comfort wall transmitter

Intelligent comfort transmitter with daily or weekly switching time

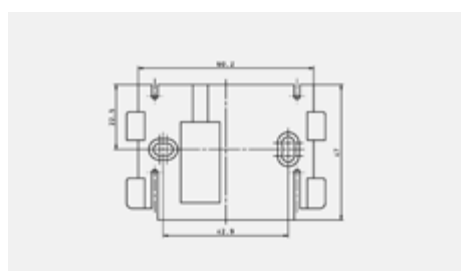
- Fixed daily or weekly switching times programmable
- Large keys
- Unidirectional only
- Manual/automatic switch
- Transmission-secure radio frequency 868 MHz



Buttons under the cover



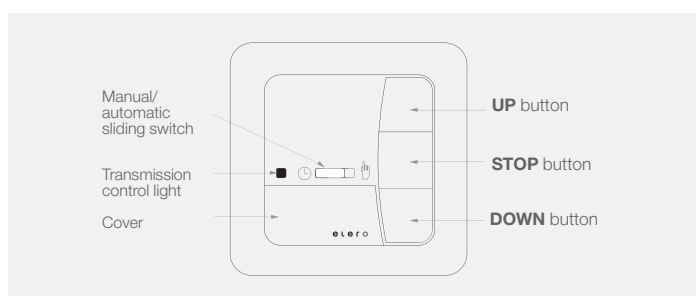
Mounting plate



Technical data and dimensions

Type	MemoTec-868
Operating Voltage (V DC)	3
Battery type	2 x LR 03 (AAA)
Ingress protection (IP)	20
Temperature range (°C)	0 to +55
Radio frequency (MHz)	868
Dimensions (mm)	L 85 x W 85 x T 28
Type of installation	Wall-mounted
Unidirectional	•
Bidirectional	-
Accessories included	Batteries, Wall bracket, 2 wall plugs (Ø 6 mm), 2 screws (Spax 4 x 36)
Colours	white

	MemoTec-868
Item Number	28 300.0001





UniTec-868/UniClic-868

Wall transmitter with manual/automatic switching

UniTec-868

- 1-channel wall-mounted transmitter
- Uni- and bidirectional
- Suitable for controlling one or several receivers
- Large UP, STOP and DOWN keys
- Manual/automatic switch
- Transmission-secure radio frequency 868 MHz

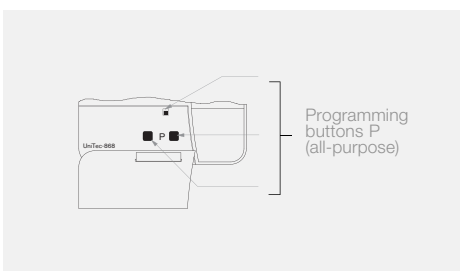
UniClic-868

- 1-channel wall-mounted transmitter
- Uni- and bidirectional
- Suitable for controlling one or several receivers
- Large UP, STOP and DOWN keys
- Manual/automatic switch
- Suitable for existing strap coiler boxes
- Transmission-secure radio frequency 868 MHz

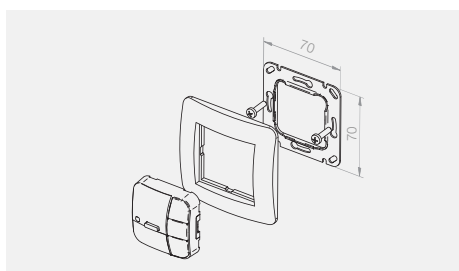


UniTec-868, UniClic-868

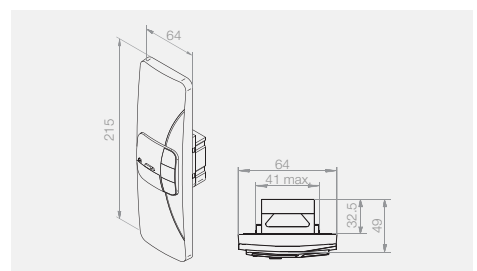
Buttons under the cover



Wall fixture has been changed in the new model



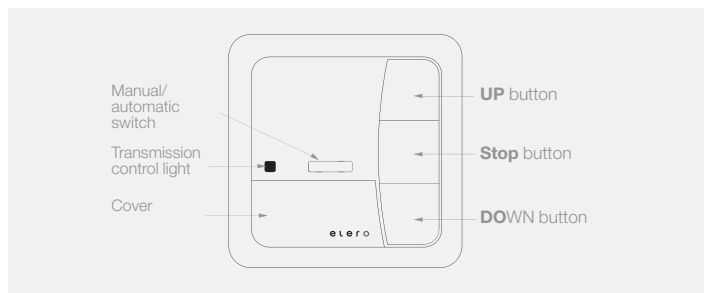
UniClic-868





Technical data and dimensions

Type	UniTec-868	UniClic-868
Operating Voltage (V DC)	3	
Battery type	CR 2032	
Ingress protection (IP)	20	
Temperature range (°C)	0 to +50	
Radio frequency (MHz)	868	
Dimensions (mm)	L 54 x W 54 x T 22 (without frame) L 81 x W 81 x T 22 (with frame)	L 215 x W 64 x T 49 (with frame)
Type of installation	Wall-mounted	Strap coiler box
Channels	1	
Manual/automatic switch	•	
Unidirectional	•	
Bidirectional	•	
Colours	white	
Accessories included	ProLine frame, battery, wall bracket, 2 wall plugs (Ø 6 mm), 2 screws (4 x 35)	UniClic frame and battery

Item Number	UniTec-868	UniClic-868
	28 330.0007	28 882.0006



Accessories

	Adapter frames Page 218		Flash mount frames Page 219	

- RevoLine
- Type 9 + 11
- Venetian blind drives
- Speciality drives
- Radio transmitters
- Hardwired controls sensors
- Door drives
- Door controls
- Adapter profiles
Lifting capacity tables

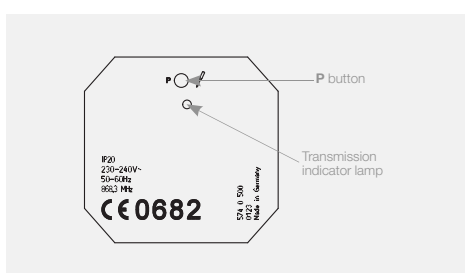


Invio-868

Flush mount radio transmitter

Flush mount radio transmitter for all elero ProLine radio receivers

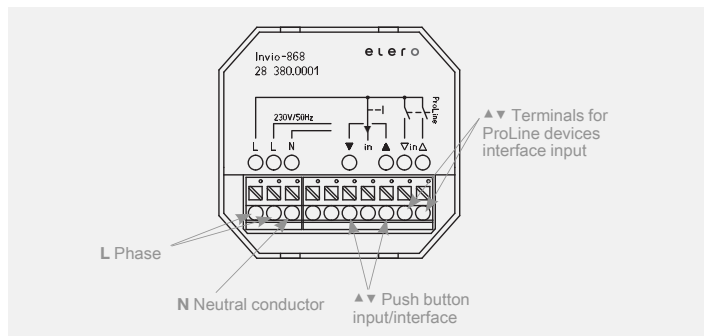
- Suitable for the automation of already radio controlled shutters or blinds
- Suitable for all elero ProLine radio receivers
- Possible to use to interface to a higher-level controller
- Can be combined with switches for blinds from all common lines
- Transmission-secure radio frequency 868 MHz





Technical data and dimensions

Type	Invio-868
Operating Voltage (V)	1 ~ 230 – 240
Frequency (Hz)	50 – 60
Ingress protection (IP)	20
Temperature range (°C)	0 to +55
Radio frequency (MHz)	868
Dimensions (mm)	L 50 x W 48 x H 22
Weight (g)	52
Type of installation	Flush mount: Requires at least Ø 58 mm flush mount box, 23 mm deep Surface mount: possible in suitable surface mount box
Unidirectional	•
Bidirectional	–

	Invio-868
Item Number	28 380.0001



Accessories

	Interlocked blind/shutter switches Page 242		Flush mount housings Page 219	

RevoLine
Type 9 + 11
Venetian blind drives
Speciality drives
Radio transmitters
Hardwired controls sensors
Door drives
Door controls
Adapter profiles
Lifting capacity tables



VarioTec-868

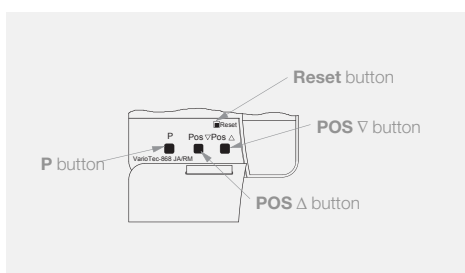
Motor or master/group control unit

The All-in-one solution

- Integrated radio receiver
- Can be used as master, group or motor controller
- Manual/automatic switch
- Unidirectional only
- Large UP, STOP and DOWN keys
- Transmission-secure radio frequency 868 MHz
- Not compatible with the Sensero-868



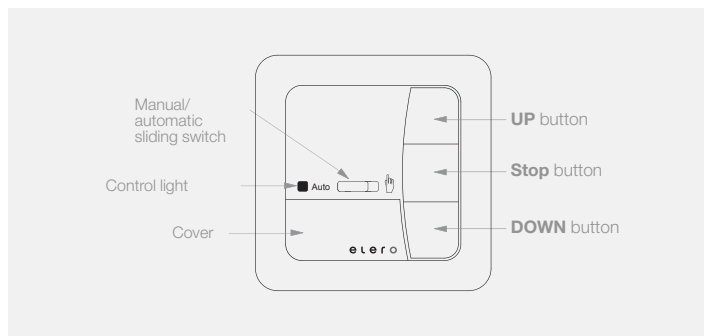
Buttons under the cover






Technical data and dimensions

Type	VarioTec-868	
Operating Voltage (V)	1 ~ 230 – 240	
Frequency (Hz)	50 – 60	
Maximum switching current (A) (250V AC at cos φ =1)	5 (resistive load)	
Ingress protection (IP)	20	
Protection class (only after correct installation)	II	
Temperature range (°C)	0 to +55	
Radio frequency (MHz)	868	
Unidirectional	•	
Bidirectional	•	
ProLine frame included	–	•
Colours	white	Set white
Type of installation	Flush mount: requires at least Ø 58 mm flush mount box, 35 mm deep Surface mount: possible in suitable surface mount box Strap coiler box: use UniClic version	

Item Number	VarioTec-868	
	white	Set white
	28 341.0006	28 340.0006



Accessories

	Frame adapters Page 218		Flash mount frames Page 219		Venetian blind switches Page 242
	Flash mount frames Page 219		Radio control units from page 161		

RevoLine
Type 9 + 11
Venetian blind drives
Speciality drives
Radio receivers
Hardwired controls sensors
Door drives
Door controls
Adapter profiles
Lifting capacity tables



AeroControl-868

Control unit for awnings and venetian blinds

Surface mount control unit for sun protections systems, with integrated radio receiver

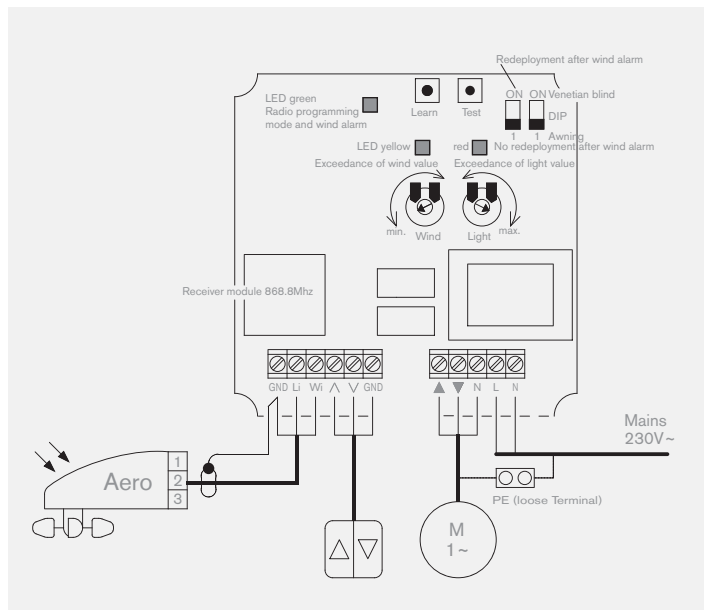
- Radio receiver module 868 MHz
- Robust and simple construction for problem-free retrofitting
- Transmission-secure radio frequency 868 MHz
- Operation is through a optionally connected push button or a hand-held transmitter
- Connection options: Aero, Ventero, Lumero, mains lead, 1 alternating current drive, momentary contact switch







Technical data and dimensions

Type	AeroControl-868
Operating Voltage (V)	1 ~ 230
Frequency (Hz)	50 – 60
Maximum switching current (A) (250V AC at cos φ =1)	5
Ingress protection (IP)	55
Temperature range (°C)	-25 to +55
Radio frequency (MHz)	868
Unidirectional	•
Bidirectional	-
Dimensions (mm)	L 108 x W 108 x H 58
Weight (g)	272
Operating time (min.)	2

Item Number	AeroControl-868
	28 370.0001



Accessories

	Interlocked push-buttons Page 242		Lumero Page 230		Aero, Ventero Page 232
	Radio control units from Page 161				



Revio-868 /P /SW

Flush mount radio receiver for roller shutters, roller blinds and venetian blinds drives

Flush mount receiver for uni- and bidirectional radio control units

- Revio-868
Control of single-phase motors
Suitable for every ProLine transmitter – be it a hand-held device or wall-mount, with or without a timer switch
Venetian blind switch can be connected
May not be operated with sequencing relay
- Revio-868 P:
Possible to control all ProLine control units as well as control units from another manufacturer via the potential-free outputs
- Revio-868 SW:
Usable with switchable electrical loads with a 230 V AC supply voltage (e.g. light)
Venetian blind switch can be connected
Potential-free output

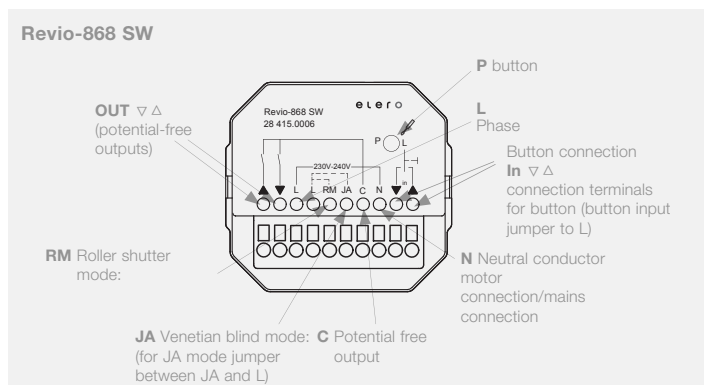
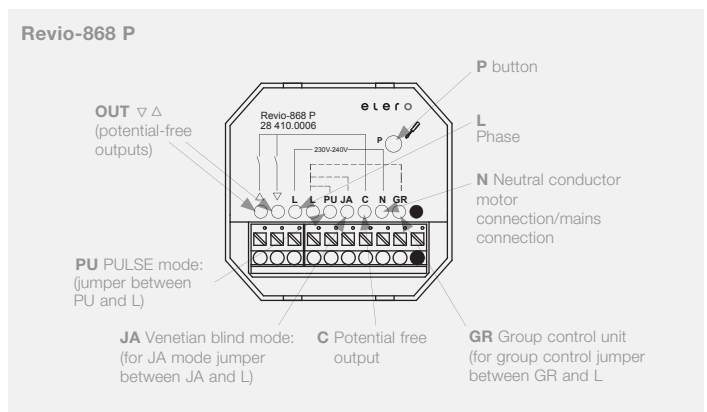
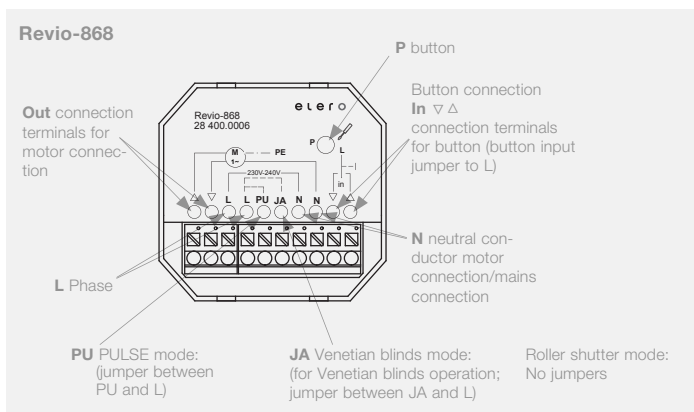


Revio-868, Revio-868 P, Revio-868 SW

Technical data and dimensions

Type	Revio-868	Revio-868 P	Revio-868 SW
Operating Voltage (V)		1 ~ 230 – 240	
Frequency (Hz)		50 – 60	
Maximum switching current (A)		3	
Term duration (Min.)	3 (JA) / 2 (RM)		∞ (SW) / 5 (JA) / 5 (RM)
Ingress protection (IP)		20	
Temperature range (°C)		0 to +55	
Radio frequency (MHz)		868	
Dimensions (mm)		L 50 x W 48 x H 27	
Weight (g)		52	
Type of installation		Flush mount: Requires at least Ø 58 mm flush mount box, 28 mm deep Exposed: in appropriate exposed casing	
Potential-free output	–		•
Unidirectional		•	
Bidirectional		•	
Group controller	–	•	–
Limit switch detection	•		–

Item Number	Revio-868	Revio-868 P	Revio-868 SW
	28 400.0006	28 410.0006	28 415.0006



Accessories

	Radio control units from page 161		
	Radio sensors from page 194		



Unio-868

Radio power socket

Convenient operation of electrical appliances by radio command

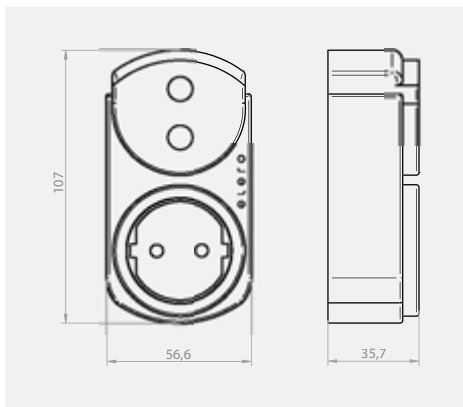
- Visual indication of the current switching status
- Manual operation possible
- Simple to integrate into existing ProLine radio systems
- Timers and light sensors enable automated control



Technical data and dimensions

Type	Unio-868
Operating Voltage (V)	1 ~ 198 – 253
Frequency (Hz)	50 – 60
Switching capacity (VA)	2,300
Ingress protection (IP)	20
Temperature range (°C)	0 to +55
Radio frequency (MHz)	868
Dimensions without plug (mm)	L 110 x W 60 x H 40
Weight (g)	160
Unidirectional	•
Bidirectional	•

	Unio-868
Item Number	28 980.0006



Accessories

 Radio control units from page 161	 Radio sensors from page 194	

RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Radio receivers

Hardwired controls
sensors

Door drives

Door controls

Adapter profiles
Lifting capacity tables



Combio-868 JA /Pulse /RM

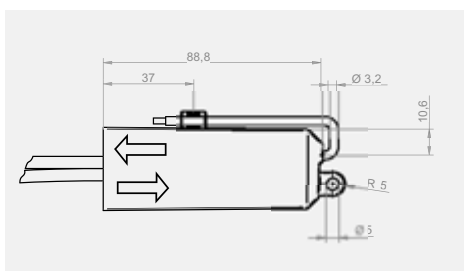
Radio receiver for venetian blind drives and roller shutters

Radio receivers for tubular and venetian blind drives

- Combio-868 JA:
For venetian blind drives
Tip operation mode
Intermediate position and a tilting position
- Combio-868 JA Pulse:
For venetian blind drives
Precise tilting of the slats via pulse mode
Pulse duration adjustable
Intermediate and tilting position adjustable
- Combio-868 RM:
Suitable for the use with tubular motors Receiver goes immediately into maintained mode
Intermediate position
For roller shutters it is possible to programme a ventilation position



Combio-868 JA, Combio-868 RevoLine, Combio-868 RM-K STAS3/STAK3



All variants of the Combio-868 are suitable for the use with uni- and bidirectional radio systems.

Technical data and dimensions

Type	Combio-868 JA	Combio-868 JA Pulse	Combio-868 RM (for Typ 9-11)	Combio-868 RevoLine	Combio-868 RM/STAK3	Combio-868 RM-K STAS3/STAK3
Operating Voltage (V)	1 ~ 230					
Frequency (Hz)	50					
Max. connected power (W)	450					
Ingress protection (IP)	56					
Temperature range (°C)	-20 to +70					
Radio frequency (MHz)	868					
Power supply cable (m)	0.5 with Hirschmann plug Stas 3		3			0.085 with Hirschmann plug STAS3
Motor side cable (m)	0.25 with Hirschmann coupling Stak3		0.25 with NHK motor plug	0.25 with RevoLine motor plug	0.25 with Hirschmann plug Stak3	0.095 with Hirschmann coupl. STAK3
Dimensions (mm)	L 100 x W 40 x H 15					
Installation space (mm)	L 104 X W 44 x H 19					
Weight (g)	260		306	302		
Standard pulse duration (ms)	-		87.5	-		

	Combio-868 JA	Combio-868 JA Pulse	Combio-868 RM (for Typ 9-11)	Combio-868 RevoLine	Combio-868 RM/STAK3	Combio-868 RM-K STAS3/STAK3
Item Number	28 500.0006	28 505.0006	28 520.0006	28 525.0006	28 580.0006	28 585.0006

	Mounting clamp	
	Item Number	16 302.3701
	Cable bushing for plug guiding	
	Item Number	16 101.0101
	Cable clip	
	Item Number	13 707.5701

Accessories

	Radio control units from page 161		Radio sensors from page 194	



Combio-868 HE /LI /SW

Radio receiver for heating and light systems

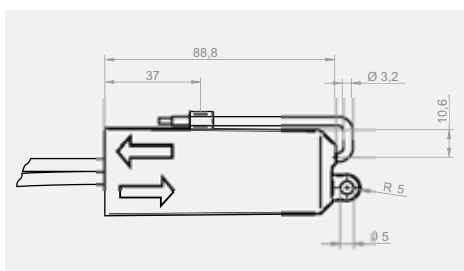
Radio receiver for heating and light systems

- **Combio-868 HE:**
Radiant heaters with rated powers of up to 2.0 kW can be switched on and off
Possibility to switch the radiant heater to 66% of its rated power
- **Combio-868 LI/ET and LI/MT:**
Lights can be switched on and off by radio remote control
Possible to dim the lights
Storing two brightness levels
- **Combio-868 SW:**
Switching on and off via radio control



Combio-868 HE, Combio-868 LI

Combio-868 LI/ET LI/MT SW



Technical data and dimensions


Type	Combio-868 HE	Combio-868 LI/ET	Combio-868 LI/MT	Combio-868 SW
Operating Voltage (V)	1 ~ 230			
Frequency (Hz)	50			
Max. connected power (W)	2,000		250	
Ingress protection (IP)	56 (plug connection IP 54)		56	
Temperature range (°C)	-20 to +45		-20 to +65	
Radio frequency (MHz)	868			
Unidirectional	•			
Bidirectional	•		–	
Mains cable (m)	0.49 with Hirschmann plug Stas 3		3	
Motor cable (m)	0.235 with Hirschmann coupling Stak3		0.9	
Dimensions (mm)	L 147 x W 48 x H 29		L 100 x W 40 x H 15	
Installation space (mm)	L 151 x W 52 x H 33		L 104 X W 44 x H 19	
Weight (g)	363		356	

	Combio-868 HE	Combio-868 LI/ET	Combio-868 LI/MT	Combio-868 SW
Item Number	28 594.0006	28 563.0005	28 564.0005	28 566.0005

Connecting cable set for Combio-868 HE (6.5 m connect. cable with plug)		
Item Number	23 285.0901	–

Application table	Lamp voltage (V)		Combio-868 LI/ET	Combio-868 LI/MT	Combio-868 SW
Incandescent lamps	230V/50 Hz		•	•	•
Fluorescent lamps, energy-saving lamps	230V/50 Hz		–	–	•
Halogen lamps	230V/50 Hz		•	•	•
Low voltage lamps with electronic transformer	e.g. 12V		•	–	•
Low voltage lamps with toroidal or block transformer	e.g. 12V		–	•	•
Reverse phase control			•	–	–
Phase angle control			–	•	–

Accessories

 Radio control units from page 161		



Sensero-868 AC /Plus

Radio sensors for light, wind and rain

The innovative radio weather sensors

- Sensero-868 AC:
Weather sensor has light, twilight and wind functions
Tiltable wallbracket or facade mounting possible

- Sensero-868 AC Plus:
With additional rain sensor

- 230V/50Hz power supply required
- Only in connection with compatible radio receivers from the range of the elero radio system
- Manual operation of the system is carried out with a hand-held/wall transmitter

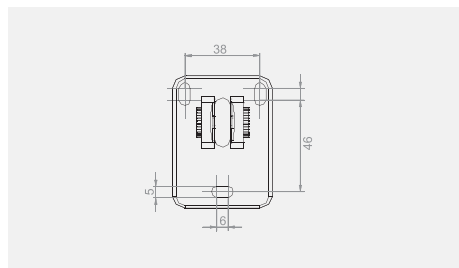


Sensero-868 AC, Sensero-868 AC Plus

Mounting options

	<p>Wall bracket The device can be fastened to the upper side of the roof or to the façade using the tilting wall bracket.</p>
	<p>Pole support As an alternative, mount the device to a pole of 27 mm diameter.</p>
	<p>Pole or corner support Use the corner or pole support to attach the device to the corner of the façade or to the pole.</p>

Wall bracket



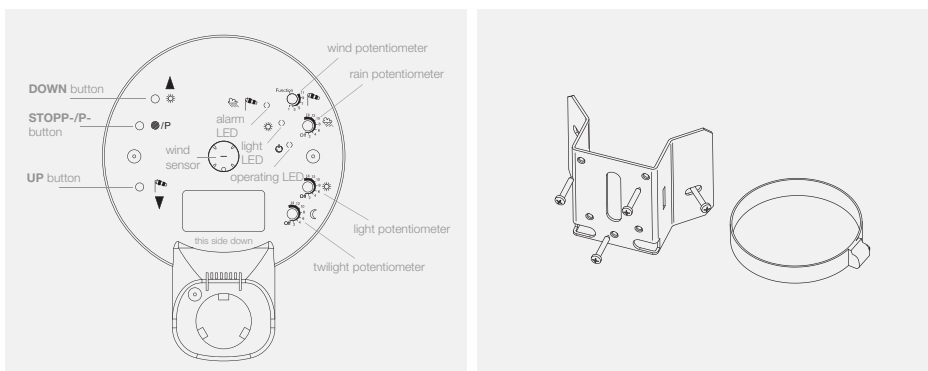
Technical data and dimensions

Type	Sensero-868 AC	Sensero-868 AC Plus
Operating Voltage (V)	1 - 230	
Frequency (Hz)	50 - 60	
Ingress protection (IP)	44	
Temperature range (°C)	-20 to +60	
Radio frequency (MHz)	868	
Detection angle (°) (Light/twilight sensor)	150	
Dimensions (mm)	L 205 x W 125 x H 105	
Weight (g)	600	610
Wind-, light sensor		•
Rain sensor	-	•
Unidirectional		•
Bidirectional		•

	Sensero-868 AC	Sensero-868 AC Plus
Item Number	28 890.0006	28 900.0006

Pole and corner adapter (Ø 60 - 80 mm)	
Item Number	24 269.0202

Pole and corner adapter





Aero-868 /Plus /AC /Ventero-868

Solar powered light and wind sensor for awnings and venetian blinds

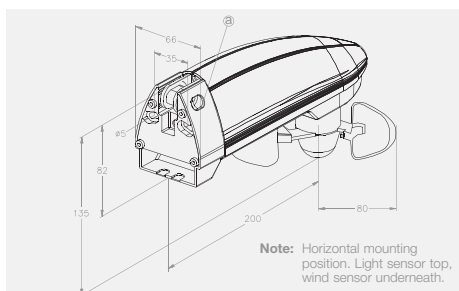
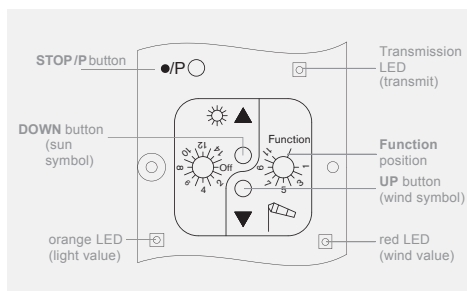
Radio sensors for all situations

- Aero-868: Light- and wind sensor. For venetian blinds
- Aero-868 Plus: Light- and wind sensor. For venetian blinds, awnings and blinds. Integrated solar cells provide the power to run the unit
- Ventero-868: Wind sensor. For venetian blinds with integrated solar cells
- Aero-868 AC: Wind sensor. For venetian blinds, awnings and blinds with power connection
- In combination with radio receivers from the elero ProLine-868 radio system only
- The awning can be operated manually via a manual/wall transmitter
- Transmission-secure radio frequency 868 MHz

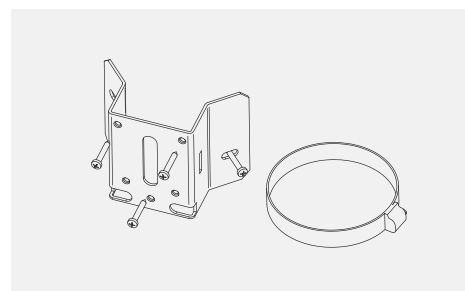
Aero-868 and Ventero-868 are not suitable for applications which require view protection during night time due to the limited power reserves!



Aero-868 Plus, Aero-868/Ventero-868



Pole and corner adapter




Technical data and dimensions

Type	Aero-868 Plus	Aero-868	Aero-868 AC	Ventero-868
Power supply	solar		1 ~ 230 V / 50 – 60 Hz	solar
Ingress protection (IP)	43			
Temperature range (°C)	-20 to +60			
Radio frequency (MHz)	868			
Unidirectional	•			
Bidirectional	•			
Detection angle (°) (Light/wind sensor)	150			
Standby (h)	~24	~12	–	~12
Dimensions (mm)	L 280 x W 130 x H 130			
Weight (g)	380		360	

	Aero-868 Plus	Aero-868	Aero-868 AC	Ventero-868
Item Number	28 480.0006	28 440.0006	28 460.0006	28 190.0006

Pole and corner adapter (Ø 60 – 80 mm)	
Item Number	24 269.0202

Accessories

 Radio receivers from page 186		

RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Radio sensors

Hardwired controls
sensors

Door drives

Door controls

Adapter profiles
Lifting capacity tables



Protero-868

Wireless vibration sensor

Vibration sensor

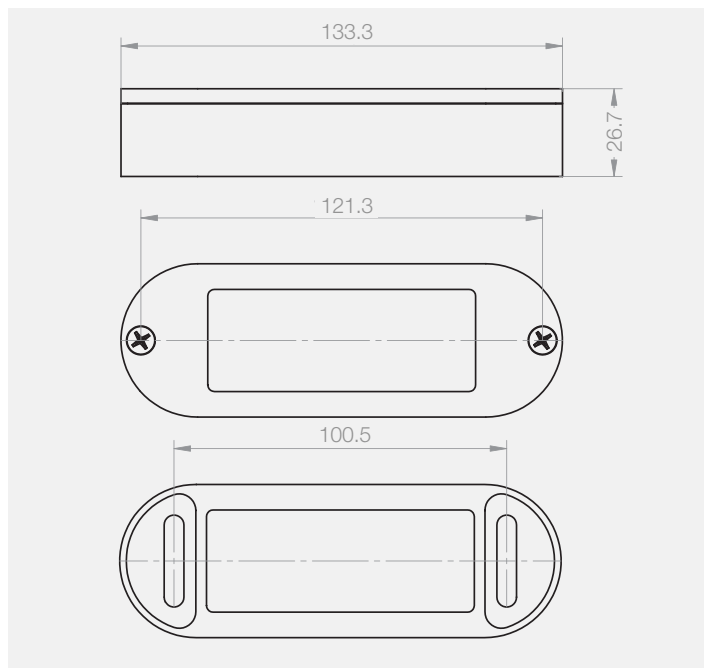
- For retractable arm awnings
- Wind sensitivity is adjustable
- Manual operation of the awning with a hand-held/wall transmitter
- May be programmed for the receiver on the same awning only
- Uni- and bidirectional
- In bidirectional radio mode compatible with:
 - SunTop-868 radio tubular motor from Vers. V25
 - VariEco-868 radio tubular motor from Vers. V20
 - Combio-868 RM external radio receiver from Vers. V79
 - Revio-868 external radio receiver from Vers. V12



Technical data and dimensions

Type	Protero-868	
Operating Voltage (V)	3	
Battery type	2 x LR03 (AAA)	
Ingress protection (IP)	54	
Temperature range (°C)	-20 to +60	
Radio frequency (MHz)	868	
Dimensions (mm)	L 133.3 x W 46.5 x H 26.7	
Colours	traffic white	traffic grey
Weight incl. battery (g)	186	

Item Number	Protero-868	
	traffic white	traffic grey
	28 960.0006	28 961.0006



RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

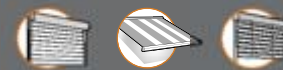
Radio sensors

Hardwired controls sensors

Door drives

Door controls

Adapter profiles
Lifting capacity tables



Lumero-868

Solar powered, radio operated light sensor for awnings and venetian blinds

Lightsensor for shading systems

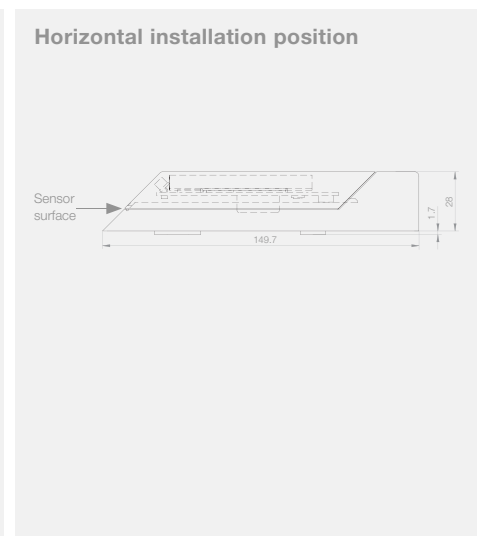
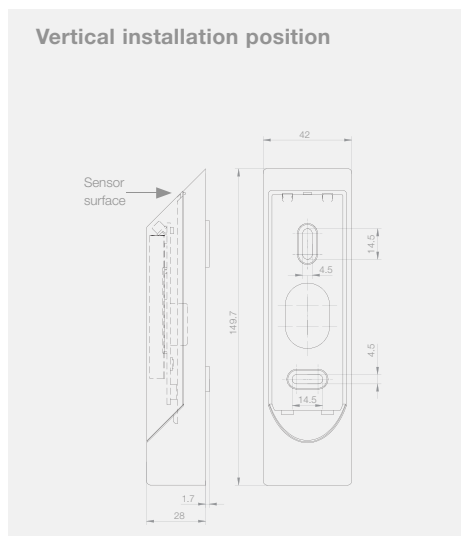
- Wireless sun sensor
- Uni- and bidirectional
- Integrated solar cells
- Manual operation with a hand-held/wall transmitter
- Only in combination with radio receivers from the elero ProLine and ProLine 2 radio system
- Bidi operation only with receivers from Version 75 (Combio-868) or from Version 21 (RoTop-868, SunTop-868) or with min. date 05/2012



Technical data and dimensions

Type	Lumero-868
Power supply	solar
Ingress protection (IP)	54
Temperature range (°C)	-20 to +60
Radio frequency (MHz)	868
Detection angle (°)	190
Dimensions (mm)	L 149.7 x W 42 x H 28
Weight incl. battery (g)	75
Standby	~1
Unidirectional	•
Bidirectional	•

	Lumero-868
Item Number	28 680.0006





Lumo-868

Light, twilight and glass breakage sensor

Sensor for light, twilight and glass breakage

- Wireless light-, twilight and glass breakage sensor
- Sticks to glass using suction cup
- Uni- and bidirectional
- Manual operation with a hand-held/wall transmitter
- UP-, STOP-/P, DOWN keys
- Control according to adjusted threshold values
- Bidi operation only with receivers from Version 75 (Combio-868) or from Version 21 (RoTop-868, SunTop-868) or with min. date 05/2012

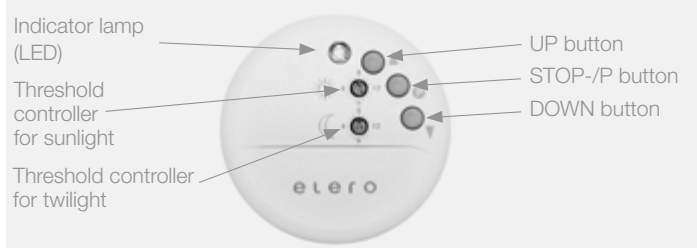


Technical data and dimensions

Type	Lumo-868
Operating Voltage (V DC)	3
Battery type	CR 2032
Ingress protection (IP)	20
Temperature range (°C)	0 to +55
Dimensions (mm)	Ø 48 x 15
Weight (g)	22
Radio frequency (MHz)	868
Unidirectional	•
Bidirectional	•
Accessories included	Battery, miniature screw driver for adjusting trigger levels

	Lumo-868
Item Number	28 420.0006

Explanation of front buttons







Hardwired control units for roller shutters and sun protection systems



Control systems should be smart, reliable and offer combination flexibility. In addition the smart devices should be as user friendly as possible.

Whether roller shutters, Venetian blinds or awnings, control via button, automation via sensors or with a smart timer: One of the elero hardwired controllers will surely offer a suitable solution.





AeroTec

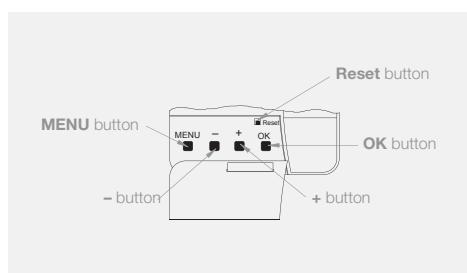
Control unit for sun protection systems

The perfect weather station for each sun protection system

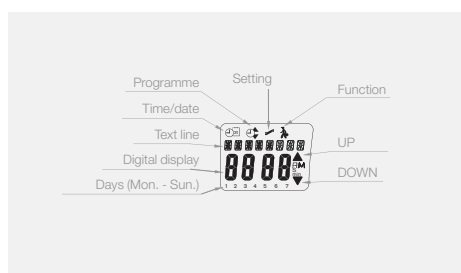
- Pre-programmed ex works with current date and time (CET) settings
- Usable as Master, group or motor control unit
- Operating dependent on sun intensity, wind value and rain
- Can be operated manually at any time
- Can even be programmed if the operating device has been removed or is not powered up via integrated battery
- Possible to integrate into existing switch design of a number of manufacturers



Buttons under the cover



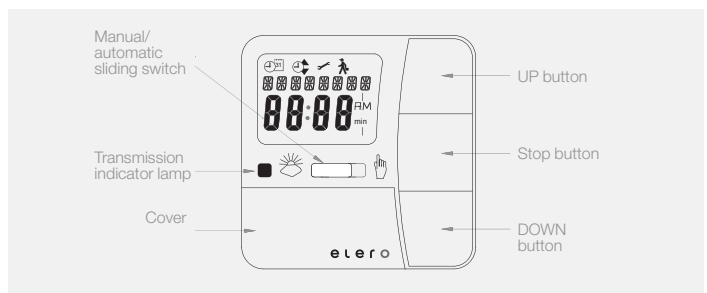
Explanation of displays and symbols



Technical data and dimensions

Type	AeroTec		
Operating Voltage (V)	1 ~ 230 – 240		
Frequency (Hz)	50 – 60		
Maximum switching current (250V AC at cos φ =1)	5		
Battery type	1 x CR 2032		
Ingress protection (IP)	20		
Protection class (only after correct installation)	II		
Type of installation	Flush mount: Requires at least Ø 58 mm flush mount box, 35 mm deep Surface mount: possible in suitable surface mount box		
Colours	white	ivory	white
ProLine frame included	-		• (set)

	white	AeroTec ivory	Set white
Item Number	28 141.0001	28 141.0011	28 140.0001



Accessories

	Frame adapters Page 218		Flash mount frames Page 219		Flash mount housings Page 219
	Surface mount housings Page 219		Aero, Ventero Page 232		Aquero Page 234
	Lumero Page 230				

RevoLine
Type 9 + 11
Venetian blind drives
Speciality drives
Hausautomation, radio controls, radio sensors
Hardwired control units
Door drives
Door controls
Adapter profiles
Lifting capacity tables



AstroTec/TempoTec/AstroClic

Timer

Timer with and without astro program

- AstroTec:
Usable as a master, group or motor control unit
Integrated timer
Together with the Lumo (p. 230), roller shutters are turned into the perfect sun protection
Suitable for a large range of switch programmes

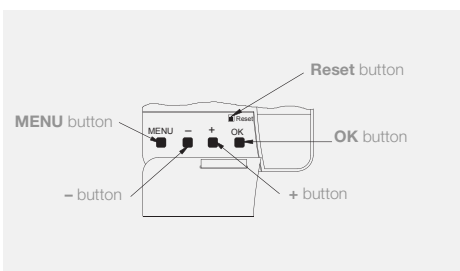
- TempoTec:
Simple timer
Fixed switching times or closing automatically at sundown

- AstroClic:
Comfortable timer
UniClic frame
Astro program (like AstroTec)
Connection of the Lumo (p. 230) light and twilight sensor is also possible.

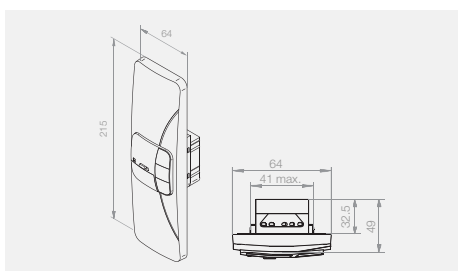


AstroTec/TempoTec, AstroClic

Buttons under the cover



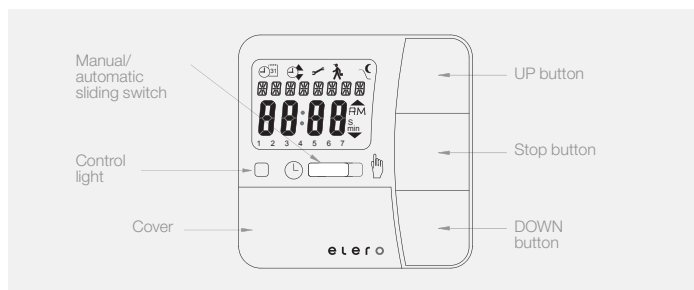
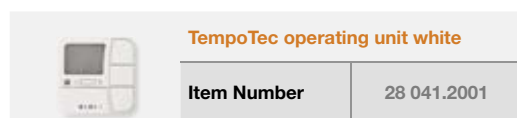
AstroClic



Technical data and dimensions

Type	AstroTec			TempoTec			AstroClic
Operating Voltage (V)	1 ~ 230 – 240						
Frequency (Hz)	50 – 60						
Maximum switching current (A) (250V AC at cos φ =1)	5						
Ingress protection (IP)	20						
Protection class (only after correct installation)	II						
Temperature range (°C)	0 to +55						
ProLine frame included	• (set)						
Colours	white	ivory	• (set) white	white	ivory	• (set) white	white
Type of installation	Flush mount: Requires at least Ø 58 mm flush mount box, 35 mm deep Surface mount: possible in suitable surface mount box						Strap coiler box

	white	AstroTec ivory	Set white	white	TempoTec ivory	Set white	AstroClic white
Item Number	28 061.0001	28 061.0011	28 060.0001	28 041.0001	28 041.0011	28 040.0001	28 881.0001



Accessories

	Frame adapters Page 218		Flash mount frames Page 219		Lumo Light and twilight sensor Page 230
	Flash mount housings Page 219		Surface mount housings Page 219		



MemoTec

Intelligent switch

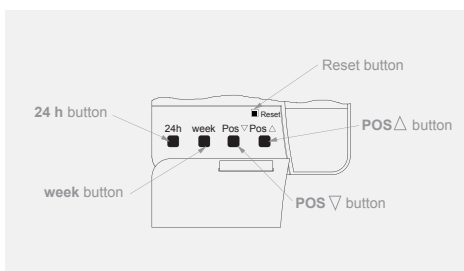
Suitable for large range of switch programmes

- Operates at programmed switching times
- Large keys
- Manual/automatic switch
- Suitable for a large range of switch programmes

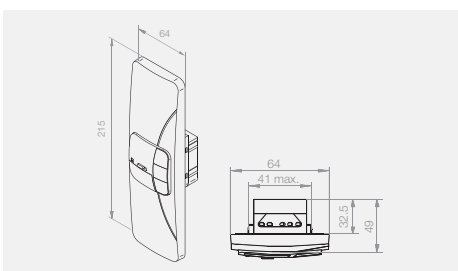


MemoTec, UniClic frame

Buttons under the cover



UniClic



Technical data and dimensions

Type	MemoTec		
Operating Voltage (V)	1 ~ 230 – 240		
Frequency (Hz)	50 – 60		
Maximum switching current (A) (250V AC at cos φ =1)	5		
Battery type	1 x CR 2032		
Ingress protection (IP)	20		
Protection class (only after correct installation)	II		
Temperature range (°)	0 to +55		
Type of installation	Flush mount: Requires at least Ø 58 mm flush mount box, 35 mm deep Surface mount: possible in suitable surface mount box Strap coiler box: Use UniClic version		
Colours	white	ivory	white
ProLine frame included	-		• (set)

	white	MemoTec ivory	Set white
Item Number	28 021.0001	28 021.0011	28 020.0001



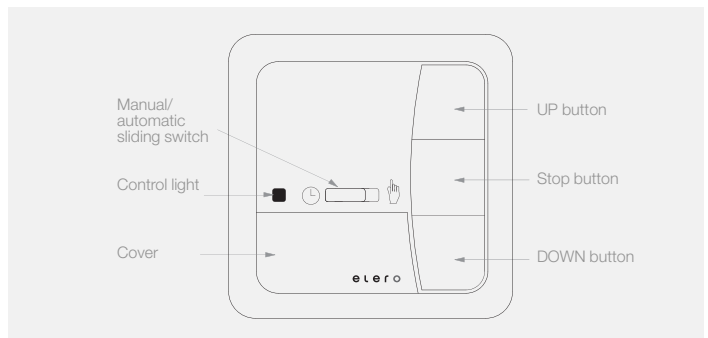
MemoTec operating unit white (for UniClic frame)

Item Number	28 021.2001
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UniClic frame white (with integrated mains unit)

Item Number	28 880.0001
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Accessories

	Frame adapters Page 218		Flash mount frames Page 219	
	Flash mount housings Page 219		Surface mount housings Page 219	

RevoLine
Type 9 + 11
Venetian blind drives
Speciality drives
Hausautomation, radio controls, radio sensors
Hardwired control units
Door drives
Door controls
Adapter profiles
Lifting capacity tables



VarioTec

Motor or central/group control unit

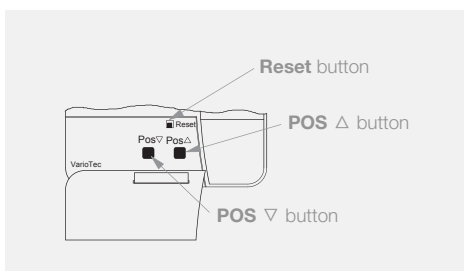
The variable control unit

- It may be used as a central-, group- or as an end device
- Manual/automatic switch
- Large UP, STOP and DOWN keys
- Suitable for a large range of switch programmes

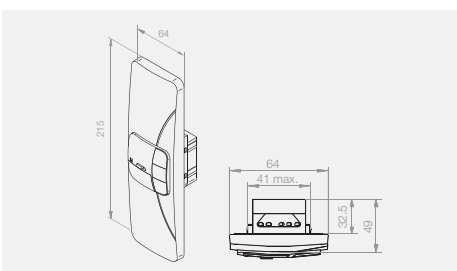


VarioTec, UniClic frame

Buttons under the cover




UniClic



Technical data and dimensions

Type	VarioTec		
Operating Voltage (V)	1 ~ 230 – 240		
Frequency (Hz)	50 – 60		
Maximum switching current (A) (250V AC at cos φ =1)	5		
Ingress protection (IP)	20		
Protection class (only after correct installation)	II		
Temperature range (°)	0 to +55		
Type of installation	Flush mount: Requires at least Ø 58 mm flush mount box, 35 mm deep Surface mount: Possible in suitable surface mount box Strap coiler box: Use UniClic version		
Colours	white	ivory	white
ProLine frame included	-		• (set)

	white	VarioTec ivory	Set white
Item Number	28 121.0001	28 121.0011	28 120.0001



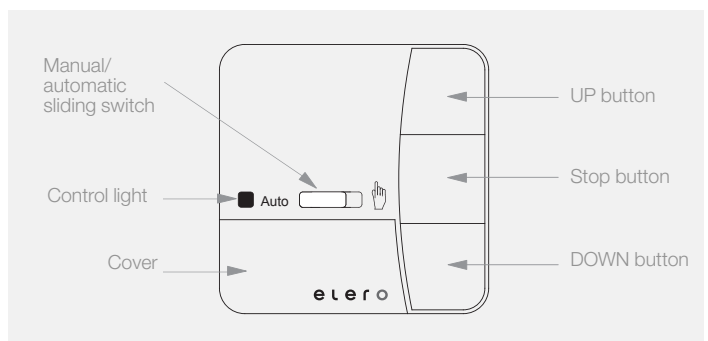
VarioTec operating unit white (for UniClic frame)

Item Number	28 121.2001
-------------	-------------







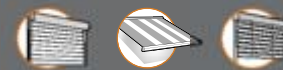
UniClic frame white (with integrated mains unit)

Item Number	28 880.0001
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Accessories

	Frame adapters Page 218		Flash mount frames Page 219	
	Flash mount housings Page 219		Surface mount housings Page 219	



MonoTec

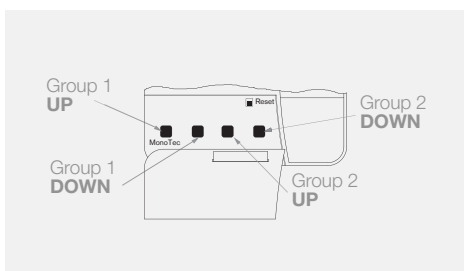
Comfort control switch

The intelligent switch

- Central- and group pushbutton
- Suitable for roller shutters, venetian blinds and awnings
- Must not be used for connecting a motor directly!
- Suitable for a large range of switch programmes



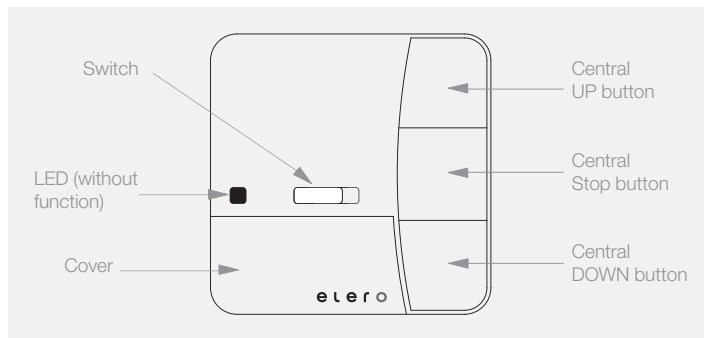
Buttons under the cover



Technical data and dimensions

Type	MonoTec		
Ingress protection (IP)	20		
Protection class (only after correct installation)	II		
Temperature range (°)	0 to +55		
Type of installation	Flush mount: Requires at least Ø 58 mm flush mount box, 35 mm deep Surface mount: Possible in suitable surface mount box		
Colours	white	ivory	white
ProLine frame included	-		• (set)

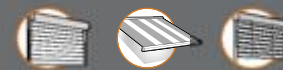
	white	MonoTec ivory	Set white
Item Number	28 101.0001	28 101.0011	28 100.0001



Accessories

	Frame adapters Page 218		Flash mount frames Page 219	
	Flash mount housings Page 219		Surface mount housings Page 219	

RevoLine
Type 9 + 11
Venetian blind drives
Speciality drives
Hausautomation, radio controls, radio sensors
Hardwired control units
Door drives
Door controls
Adapter profiles
Lifting capacity tables



TimeTec

Day and week time switch

Electronic roller shutter control

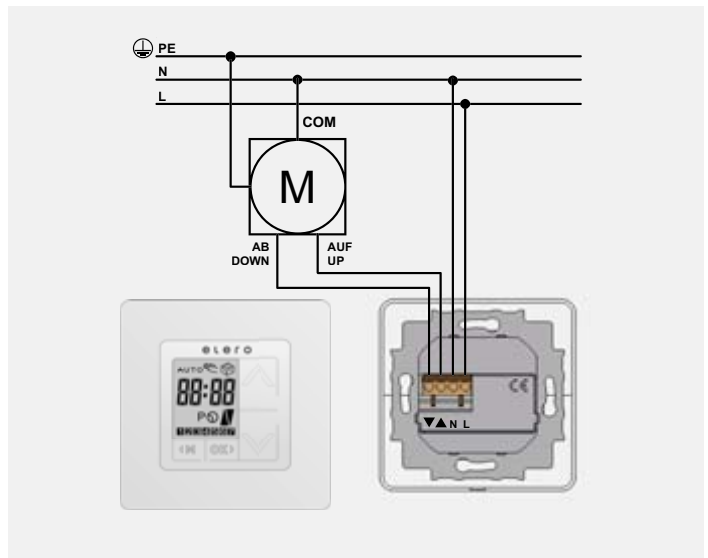
- Single control unit
- Weekly time switch
- Automatic, manual and random mode
- No adapter frames available



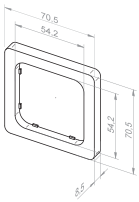
Technical data and dimensions

Type	TimeTec
Operating Voltage (V)	230, ±10%
Frequency (Hz)	50
Outputs	2 NO relays (NOT potential-free)
Maximum switching current (A)	5 (bei $\cos \varphi = 1$)
Running time (s)	150
Temperature range (°)	-5 to +45
Type of installation	Ø 58 mm (flush-mounted)
Switching delay (s)	mind. 0.5
Operation mode	automatic, manual, random
Standby (h)	ca. 24 (by 20 °C)
Memory places	7 x UP / 7 x DOWN
Colours	white

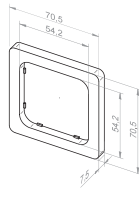
	TimeTec
Item Number	28 670.0001



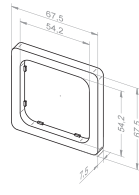
Adapter frames for ProLine control units



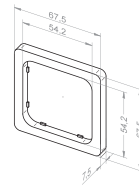
14 303.0501
White, suitable for:
Jung-topline



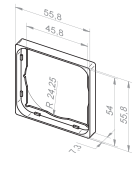
14 303.0601
Ivory, suitable for:
Jung-topline



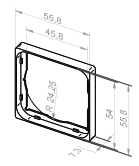
14 303.0101
White, suitable for:
Jung CD 500
Jung ST 550



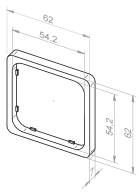
14 303.0201
Ivory, suitable for:
Jung CD 500
Jung ST 550



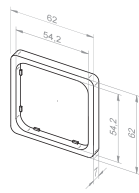
14 303.7601
White, suitable for*:
Jung A 500 and AS 500
AS Universal, and Jung A Plus



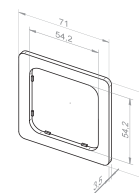
14 303.8601
Ivory, suitable for:
Jung A 500 and AS 500



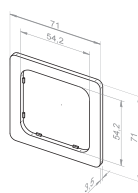
14 303.1101
White, suitable for:
Gira F100 (before 2007)



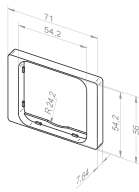
14 303.1201
Ivory, suitable for:
Gira F100 (before 2007)



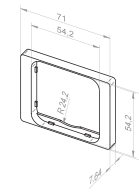
14 303.1301
White, suitable for:
Gira Standard, Gira S-Color
Gira F100 (after 2007)



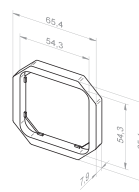
14 303.1401
Ivory, suitable for:
Gira Standard
Gira F100 (after 2007)



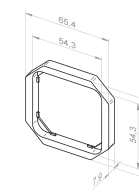
14 303.1501
White, suitable for:
Berker Arsys



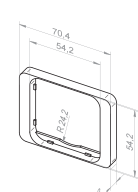
14 303.1601
Ivory, suitable for:
Berker Arsys



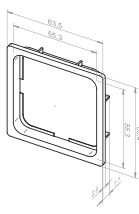
14 303.0701
White, suitable for:
Merten Octocolor



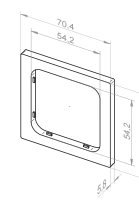
14 303.0801
Ivory, suitable for:
Merten Octocolor



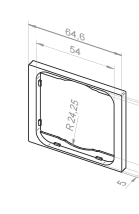
14 303.0901
White, suitable for:
Busch-Jaeger alpha-nea



14 306.7601
Frame adapter
BJ Solo, Future, Davos



14 303.1701
White, suitable for:
Peha Tangenta
Peha Dialog



14 303.7401
White, suitable for:
Legrand Sagane

No adapter frame is required for the following switch ranges:

- Busch-Jaeger Duro 2000 SI
- Busch-Jaeger Reflex SI

With system-inherent variations concerning the fit:

- Merten M1
- Merten Atelier

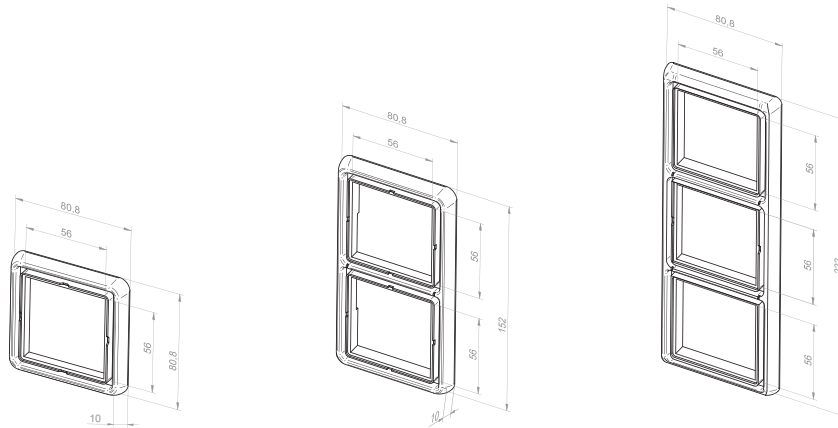
Slight variations of the colour and surface structure are possible.

* also suitable for:

- Gira Standard 55
- Gira E2
- Gira Event
- Gira Esprit
- Berker S1 and B1
- Merten M-Plan
- Merten M-Smart
- Merten M

Adapter frames for ProLine control units

Adapter frames for Jung CD 500



Item Number	1-gang	2-gang	3-gang	white	ivory
14 803.3901	•			•	
14 803.4001	•				•
14 803.4201		•		•	
14 803.4301		•			•
14 803.4501			•	•	
14 803.4601			•		•
ProLine frame					
18 100.0001	•			•	

Surface and flush mount housings

Item Number	Type
24 752.0002	Surface mount housings white, Jung LS 990 can be combined with Jung-topline adapter frame (14 303.0501)
24 752.1301	Base for surface mount housing, white incl. 4 cable feedtroughs for more depth
24 843.0104	Surface mount housing ivory, Jung LS 990 can be combined with Jung-topline adapter frame (14 303.0601)
24 843.1301	Base for surface mount housing, ivory incl. 4 cable feedtroughs for more depth
13 701.5101	Flush mount housing, deep version
14 305.7401	Round flush mount housing for hollow walls and panel mount with attachment clamps. Suitable for all flush mount ProLine controllers
14 305.7501	Round flush mount housing for hollow walls and panel mount with attachment clamps. Deep version for more wiring space. Suitable for all flush mount ProLine controllers
13 702.6201	Flush mount box for 1-way and 2-way controller, dimensions: 100 x 100 mm
13 302.5601	Surface mount housing (85 x 85 x 37 mm) for sequencing relay or central control unit for 2 single-phase motor
13 702.6301	Surface mount box for 1-way and 2-way controller (can fit up to 4) and other controllers, dimensions: 104 x 120 x 40 mm



24 752.0002
24 843.0104



13 701.5101



14 305.7401
14 305.7501



13 702.6201

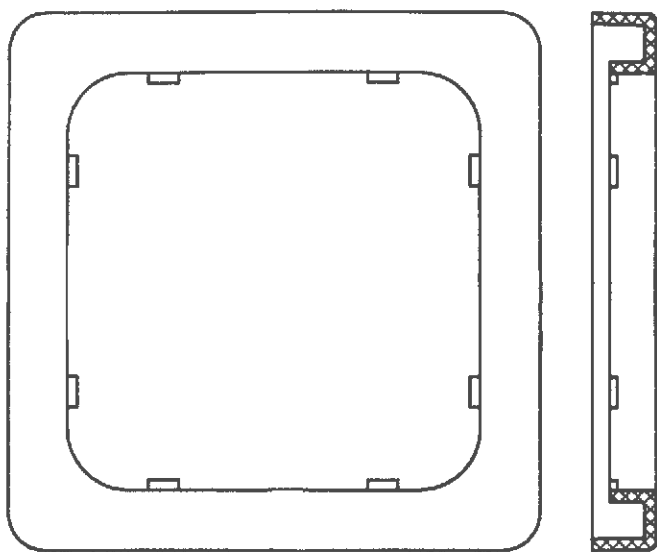


13 302.5601

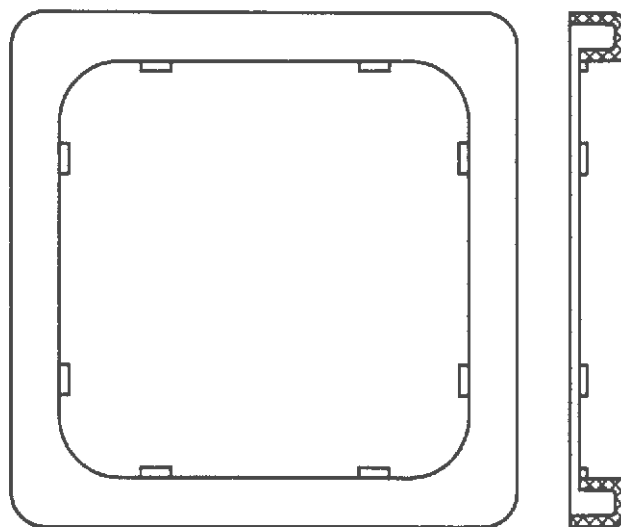


13 702.6301

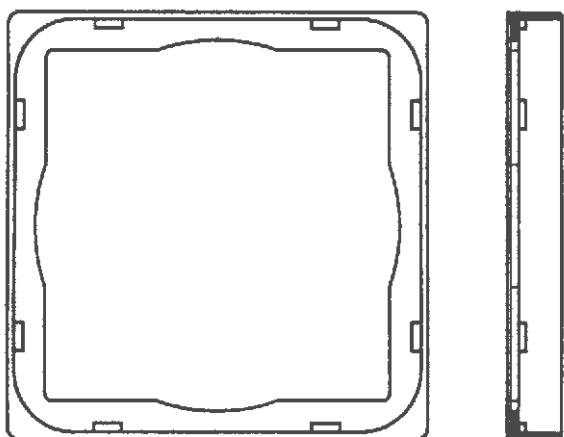
1:1 scale



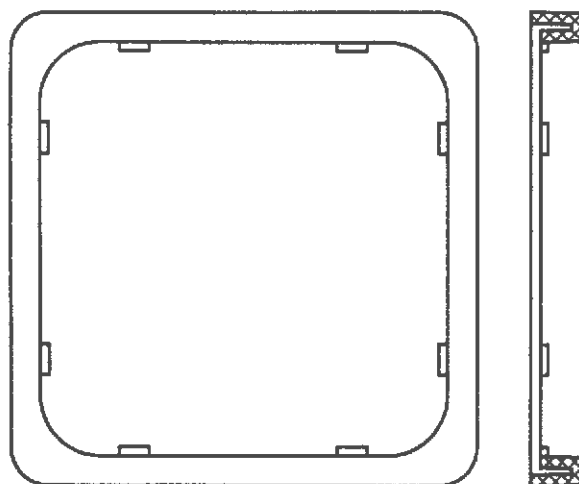
14 303.0501 alpine white
14 303.0601 white



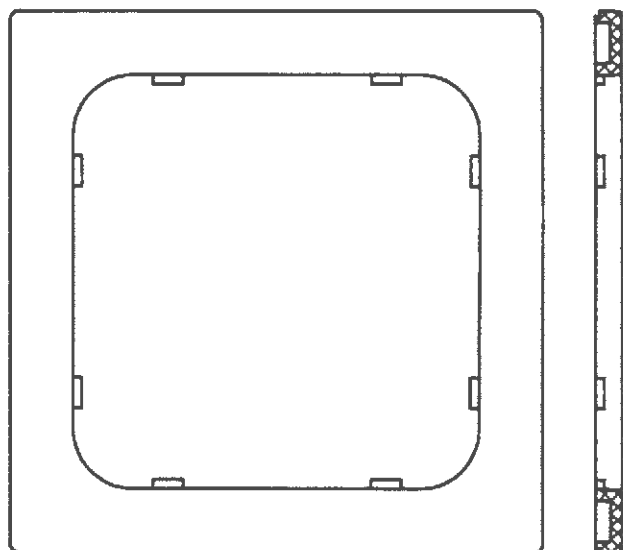
14 303.0101 alpine white
14 303.0201 white



14 303.7601 alpine white
14 303.8601 white

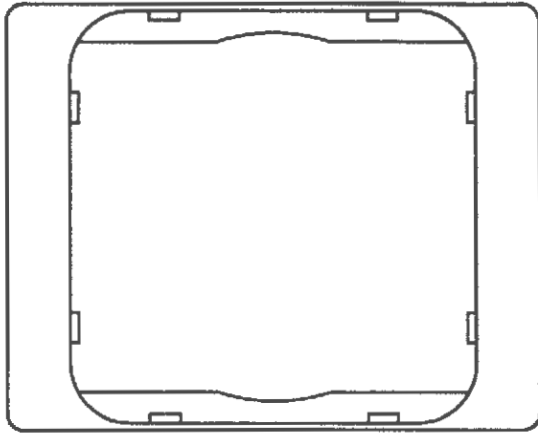


14 303.1101 alpine white
14 303.1201 white

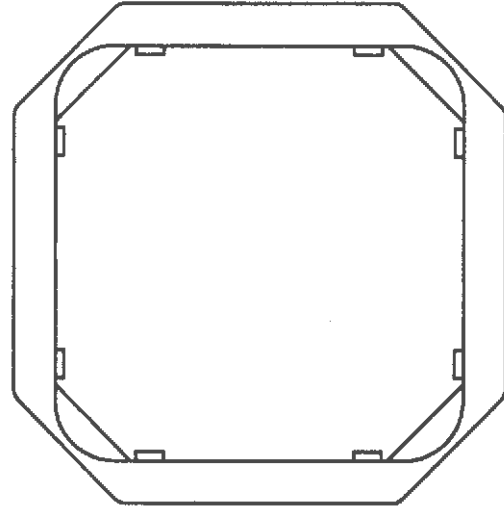


14 303.1301 alpine white
14 303.1401 white

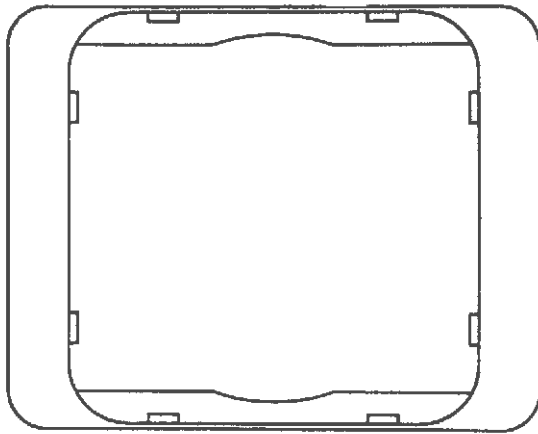
1:1 scale



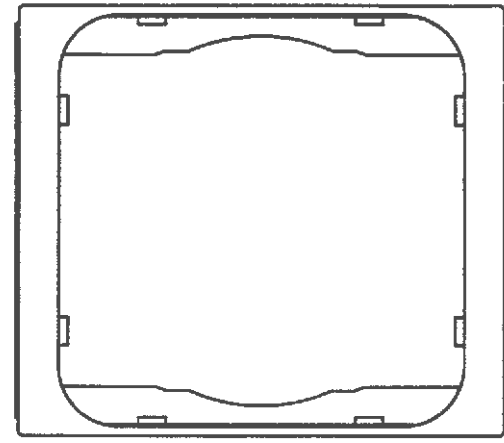
14 303.1501 alpine white
14 303.1601 white



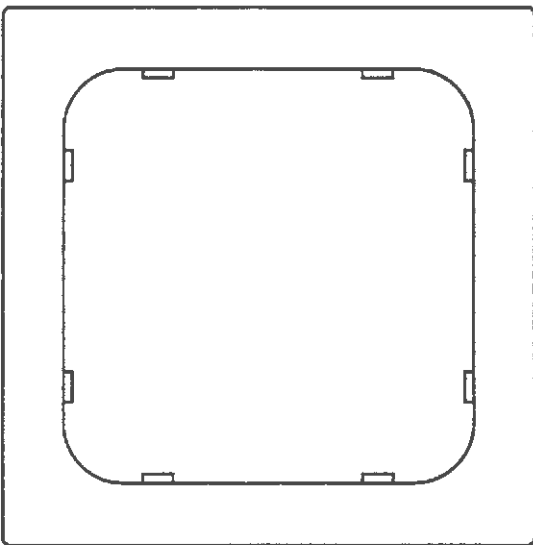
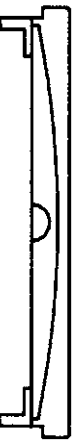
14 303.0701 alpine white
14 303.0801 white



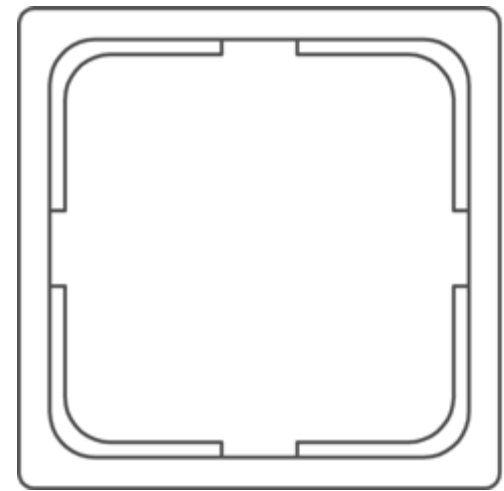
14 303.0901 alpine white



14 303.7401 alpine white



14 303.1701 alpine white



14 306.7601 alpine white



RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio controls, radio sensors

Adapter frames and housings

Door drives

Door controls

Adapter profiles
Lifting capacity tables



Project control units for roller shutters and sun protection systems



Something that is increasingly becoming popular in single-family homes has long since been standard in large buildings: electrical roller shutters and automated venetian blinds and awnings that move automatically in line with commands from timer switches or weather sensors. But in large buildings it is generally much more difficult to design the best-possible control network. If the entire building technology is to be networked as well as the sun protection, the first idea is usually that of installing a BUS network. For planners, however, it may be worth taking a look at the range of classical sun protection control units – for modern building controls can cover a wide range of control requirements.





Objecta

ProLine comfort control

Control center for large-scale objects

- Master control unit for 4 facades
- For controlling ProLine group or motor control devices
- Sensor data analysing via 4 integrated AeroTec operating devices
- Modular concept:
 - Every facade/floor can be controlled individually
 - 4 channels (1 channel per façade)
 - Individual light and wind detection per sub-group
 - Expandable up to 64 sub-groups per channel/facade
 - Can be used and extended with ProLine controllers



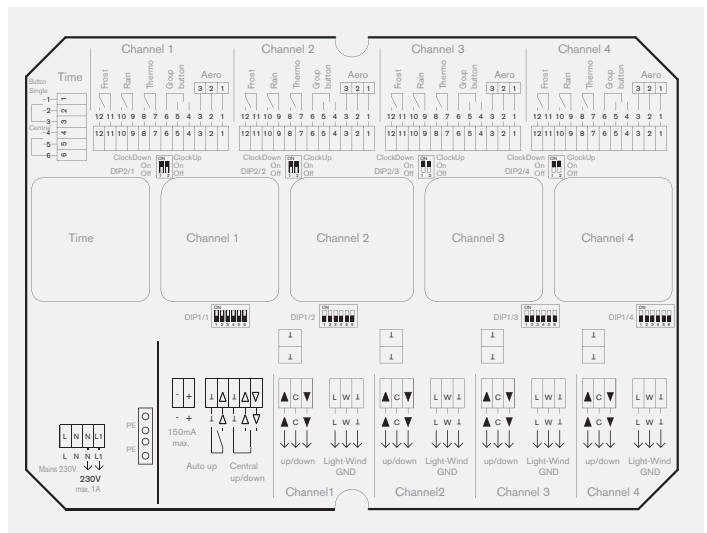
Technical data and dimensions

Type	Objecta
Operating Voltage (V)	1 ~ 230
Frequency (Hz)	50
Maximum switching current (A)	4 x max. 5 (potential free)
Ingress protection (IP)	54
Power consumption (VA)	max. 10
Temperature range (°)	0 to +55
Power supply for external devices	24V DC max. 150 mA
Incl. operating units	-
Dimensions (mm)	H 230 x W 300 x T 90

	Objecta
Item Number	28 700.0001

Operating unit AstroTec white (functional description on page 208)	
Item Number	28 061.2001

Operating unit AeroTec white (functional description on page 206)	
Item Number	28 141.2001



Accessories

	Aero, Ventero Page 232		Aquero Page 234	
	Lumero Page 230			

RevoLine
Type 9 + 11
Venetian blind drives
Speciality drives
Hausautomation, radio controls, radio sensors
Project control units
Door drives
Door controls
Adapter profiles
Lifting capacity tables



REG

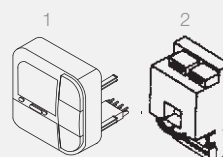
DIN-rail mount control unit

DIN-rail mounted control units for mounting in control cabinets (for TS 35 DIN rail)

- For the ProLine control units AeroTec, AstroTec und VarioTec
- Either as higher-level master and group control unit or as a motor control unit
- Connected to each other with a plug-in bus cable
- Possible to install the complete roller shutter, venetian blinds and awning controller of a building in a central control cabinet
- With Objecta or a ProLine control unit combinable



Imagery compilation
(type independent representation)



1 Operating unit (AeroTec, AstroTec, VarioTec)
2 Mains unit (ProLine REG)

Technical data and dimensions



Type	ProLine DIN-rail mount control unit			Mains unit for ProLine REG devices	Motor REG 2M	Splitter REG
	AstroTec	VarioTec	AeroTec			
Operating Voltage (V)	1 ~ 230 – 240					-
Frequency (Hz)	50 – 60					-
Ingress protection (IP)	20					
Protection class (after correct installation)	II					-
Type of installation	Control cabinet (TS-35)					
Temperature range (°)	0 to +55					-5 to +50
Dimensions (mm)	H 90 x W 54 x T 45			H 90 x W 54 x T 32		H 90 x W 54 x T 60
Weight (g)	142			105	137	72

Item Number	ProLine DIN-rail mount control unit			Mains unit for ProLine REG devices	Motor REG 2M	Splitter REG
	AstroTec	VarioTec	AeroTec			
	28 861.0001	28 863.0001	28 862.0001	28 860.0001	28 870.0001	23 331.0001

Each of the above mentioned control units are supplied completed with one bus cable, 60 mm, 5-pole. The connection accessory can – if necessary – be ordered separately with the following item numbers:

60 mm 5-pole bus cable	
Item Number	13 707.6001
200 mm 5-pole bus cable	
Item Number	13 707.6101
5-pole bus cable connector for connecting two bus cables (as extension)	
Item Number	13 707.6201

Accessories

 Aero, Ventero Page 232	 Aquero Page 234	
 Lumero Page 230		



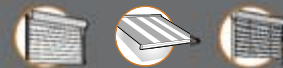
Sensor technology for hardwired controls



The roller shutters, venetian blinds or awnings can be easily automated with sensors: They register the actual weather conditions, of sunlight, rain, temperature and wind velocity, and then activate the drive accordingly.

This enables you to protect yourself from damp and frost, avoid damage from storm gusts and offers patios, conservatory or homes the ideal sun protection.





Lumo/Lumero/Thermostat

Sensors for light, twilight and temperature

Sensors for light, twilight and temperature

- Lumo:
Light sensor
Recommended for use with:
AstroTec, AstroTec REG and
AstroTec-868 controller

- Lumero:
Light and twilight sensor
for the outdoor installation
Recommended for use with:
AeroTec and AeroTec REG controller

- Room thermostat:
for external connection



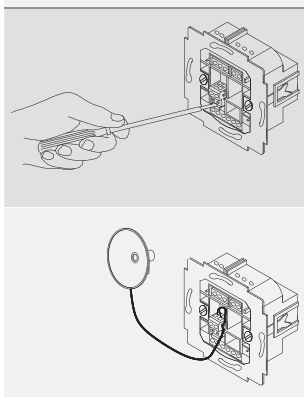
Lumo, Lumero, Room thermostat

Technical data and dimensions

Type	Lumo	Lumero	Thermostat
Ingress protection (IP)	20	43	20
Temperature range (°)	0 to +55	-25 to +60	0 to +55
Dimensions (mm)	Ø 46 x 22	L 82 x W 27 x H 38	L 75 x W 75 x H 25
Weight (g)	17	58	76
Cable length (m)	2	10	-

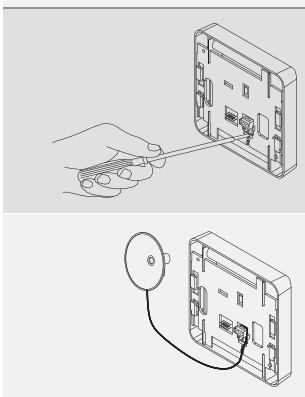
Item Number	Lumo 2.0 m	Lumo 10.0 m	Lumero	Thermostat
	28 080.0001	28 090.0001	28 180.0001	13 803.4801

Connecting the Lumo to the AstroTec



1. Cut the wire to the desired length. Bare approx. 5 mm of the wire.
2. Remove the connecting terminal using a screwdriver.
3. Insert the wire into the terminal.
4. Insert the connecting terminal into the receptacle.
5. Secure the Lumo onto the window using the suction cap.

Fitting the Lumo into the AstroTec-868



1. Cut the wire to the desired length. Bare approx. 5 mm of the wire.
2. Remove the connecting terminal using a screwdriver.
3. Insert the wire into the terminal.
4. Insert the connecting terminal into the receptacle.
5. Secure the Lumo onto the window using the suction cap.



Aero/Ventero

Solar powered light and wind sensors

Comfortable living inside and outside

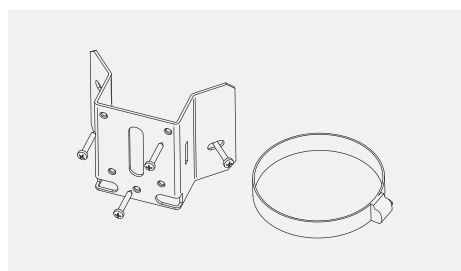
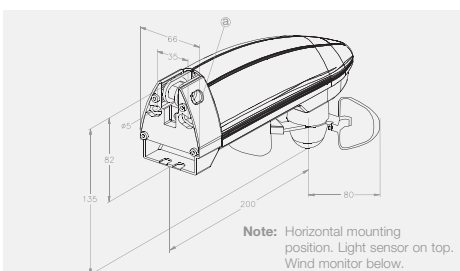
- Aero:
Light- and wind sensor
Continuous measurement of wind and light values
In combination with AeroTec (p. 206) and AeroControl-868 (p. 184)

- Ventero:
Wind sensor
In combination with AeroTec (p. 206) and AeroControl-868 (p. 184)
Continuous measurement of wind values



Aero, Ventero

Pole and corner adapter



Technical data and dimensions

Type	Aero	Ventero
Ingress protection (IP)	43	
Temperature range (°C)	-25 to +60	
Pole support	Ø 60 – 80 mm (optional accessory)	
Detection angle (°)	150	
Dimensions (mm)	L 280 x W 130 x H 130	
Weight (g)	286	
Wind sensor	•	
Light sensor	•	–
Colours	white	

	Aero	Ventero
Item Number	28 160.0001	28 170.0001

Pole and corner adapter (Ø 60 – 80 mm)	
Item Number	24 269.0202

RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio controls, radio sensors

Sensor technology

Door drives

Door controls

Adapter profiles
Lifting capacity tables

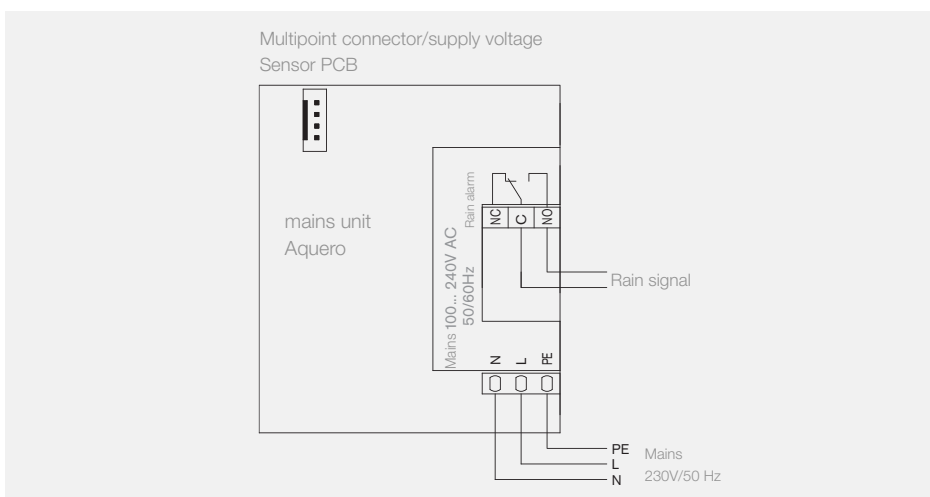


Aquero

Rain sensor

Our elegant sensor with claim

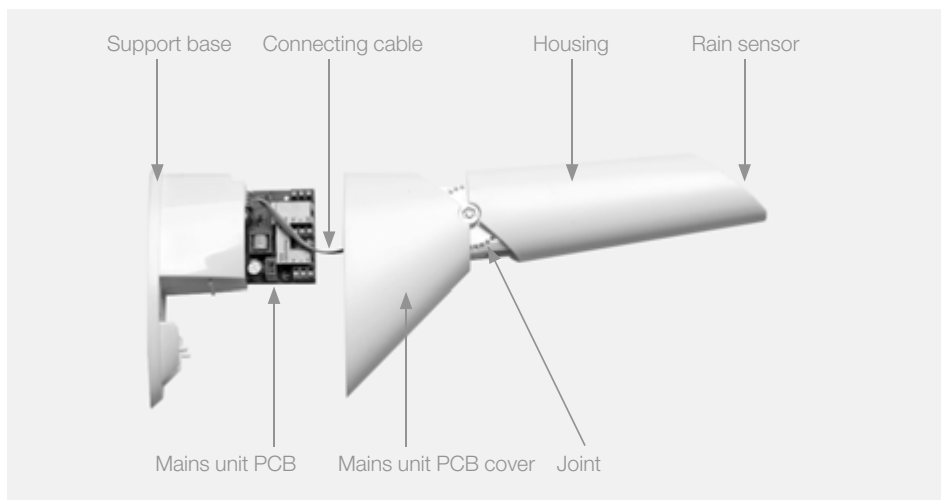
- In combination with AeroTec (p. 206)
- Precipitation measuring at intervals via the sensor surfaces
- Response threshold preset
- Potential-free changeover contact



Technical data and dimensions

Type	Aquero
Operating Voltage (V)	1 ~ 110 – 230
Supply voltage (Hz)	50 – 60
Ingress protection (IP)	44
Temperature range (°)	-20 to +50
Output	1 potential-free changeover contact 5 A/250V
Dimensions (mm)	L 300 x W 170 x H 65
Weight (g)	408

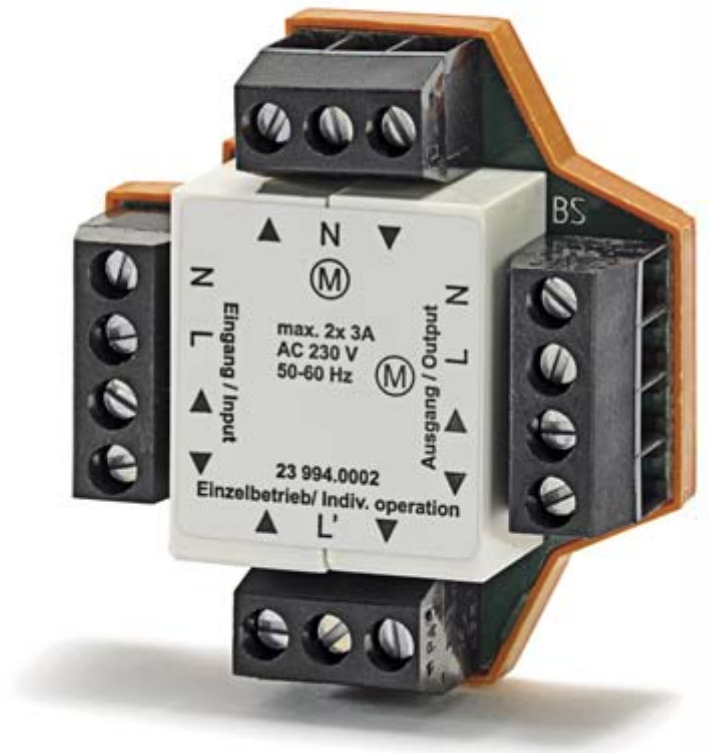
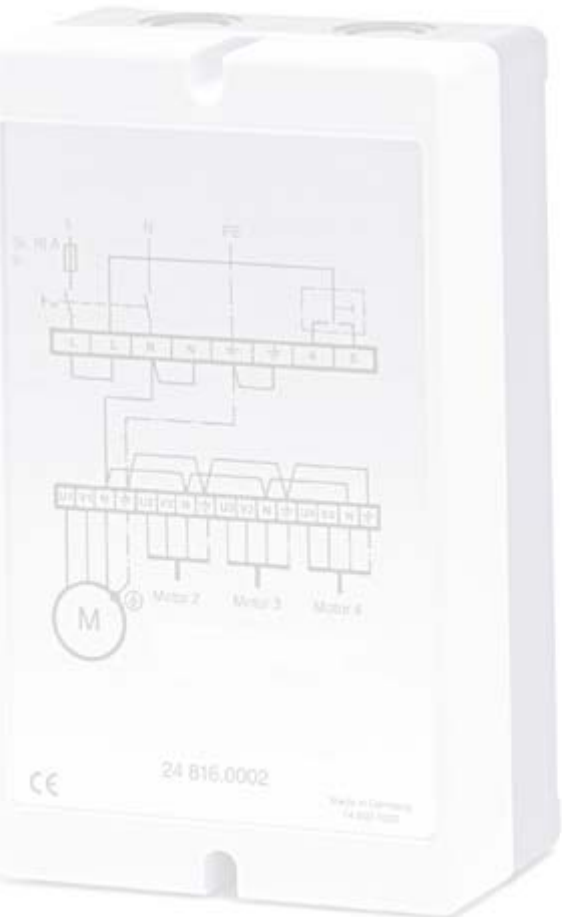
	Aquero
Item Number	28 690.0001





Relay and DC controllers

The common control of several drives via one switching point is required for some applications. This is simple to implement with suitable relays or controllers.





Central control units/Multi-point control relay

Relay controllers

Central control units to switch alternating current motors

- Operation of multiple drives with one control unit using an interlocked venetian blinds push button or switch,
- Automatic switching with ProLine control units and individual operation with interlocked venetian blinds push button

Follow the overall phase load when designing the complete system. The number of sequencing relays that can be connected in series depends on the current consumption of the motors employed. The back-up fuse may not exceed a maximum value of 10 A.



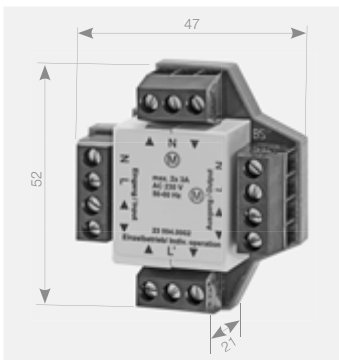
2-way motor control unit, 4-way motor control unit, multi point motor control unit and central control unit for 1 single-phase motor without permanent phase

Technical data and dimensions

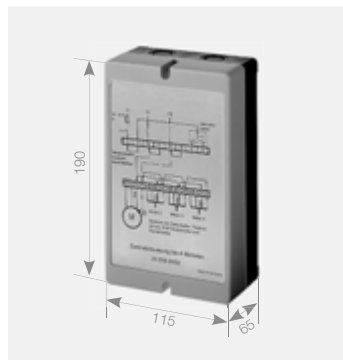
Type	Central control unit (sequencing relay) for 1 or 2 single-phase motors	Central control unit for up to 4 single-phase motors without individual control.	Multi-point control relay	Central control unit for 1 single-phase motor without permanent phase
Operating Voltage (V)	1 ~ 230 – 240			
Frequency (Hz)	50 – 60			
Current consumption (mA)	10 in relay mode	on request		10 in relay mode
Switching current	max. 2 x 3 A, 250V AC, motor load max. 2 x 690VA, for 230V motors only with limit switches	max. 4 x 3 A, 250VAC	3 A, 690VA	8 A AC1, 4 A cos phi 0.6
Ingress protection (IP)	20			
Temperature range (°C)	0 to +60	-10 to +40	-40 to +40	
Fuse protection (A)	max. 10	10 slow-blow	-	
Dimensions (mm)	L 47 x W 52 x H 21	L 115 x W 65 x H 190	L 45 x W 47 x H 23	L 49 x W 53 x H 22
Max. number of drives	2	4	1	1
Weight (g)	57	863	54	59

Item Number	Central control unit (sequencing relay) for 1 or 2 single-phase motors	Central control unit for up to 4 single-phase motors without individual control.	Multi-point control relay	Central control unit for 1 single-phase motor without permanent phase
Item Number	23 994.0002	24 816.0002	23 845.0001	23 995.0201

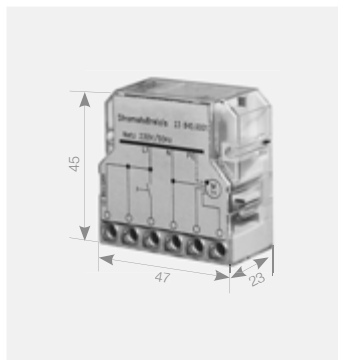
Central control unit (sequencing relay) for 1 or 2 single-phase motors



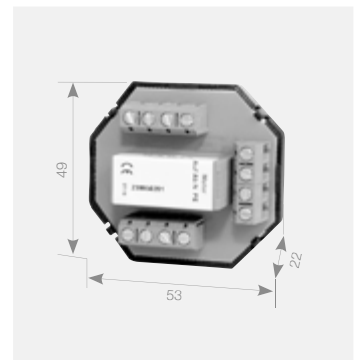
Central control unit for up to 4 single-phase motors without individual control



Multi-point control relay

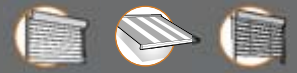


Central control unit for 1 single-phase motor without permanent phase



Accessories

	Switches and push-buttons Page 242		Switches and push-buttons Page 301		Surface mount housings for sequencing relay Page 219
	Switches and push-buttons Page 301				



Control Unit DC

DC controller

Control of 24V DC drives

- The Control Unit DC can be controlled by the following controllers
 - AstroTec (p. 208)
 - AeroTec (p. 206)
 - VarioTec-868 (p. 182)
 - VarioTec (p. 212)
 - Revio-868 P (p. 186)

These devices have a potential-free relay output

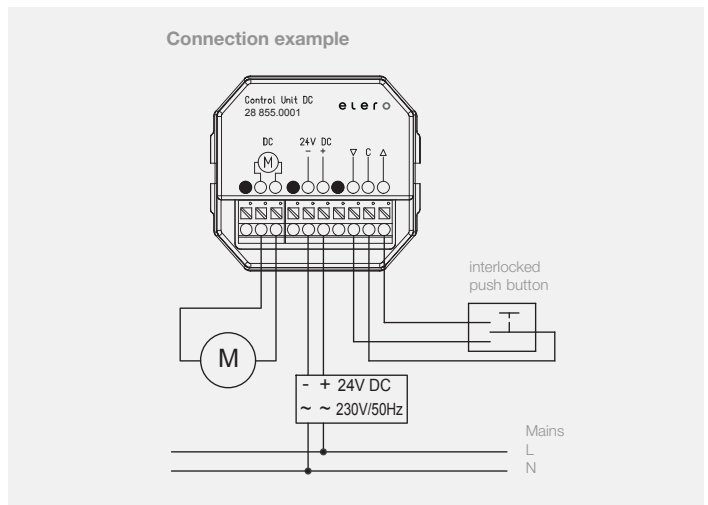
- You can also connect an interlocked push button (p. 242) instead of a ProLine device for controlling the Control Unit DC




Technical data and dimensions

Type	Control Unit DC
Operating Voltage (V)	24V DC, ± 10%
Control voltage	24V DC, ± 10%
Current consumption (mA)	25
Switching capacity (A)	3
Ingress protection (IP)	20
Temperature range (°C)	0 to +55
Dimensions (mm)	L 52 x W 49 x H 29
Type of installation	Suitable for flush mount housings Ø 60 mm or suitable boxes

	Control Unit DC
Item Number	28 855.0001



Accessories

	ProLine control units from page 205		

RevoLine
Type 9 + 11
Venetian blind drives
Speciality drives
Hausautomation, radio controls, radio sensors
Relais and DC controllers
Door drives
Door controls
Adapter profiles
Lifting capacity tables

Switches and push-buttons



Venetian blind switch
flush mount



Rotary switch



Interlocked switches



Venetian blind switch
surface mount

Interlocked switches/push buttons for single-phase motors, flush mount

Item Number	Type
24 051.0001	Venetian blind switch Jung CD 500 alpine white
24 222.0001	Interlocked venetian blind push-button Jung CD 500 alpine white

Rotary switch 2-pole

Item Number	Type
13 701.3401	Flash mount for connecting 2 motors (can be used as switch or push-button)

Interlocked switches/push buttons for single-phase motors

Item Number	Type
23 250.0001	Cord push-button alpine white
23 251.0001	Cord switch alpine white
23 252.0001	Universal push-button alpine white
23 253.0001	Universal switch alpine white

Switch/push-button, water protected, surface mount

Item Number	Type
14 701.1701	Venetian blind switch surface mount, water-protected
14 701.2101	Venetian blind push-button surface mount, water-protected



RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio controls, radio sensors

Switches and push-buttons

Door drives

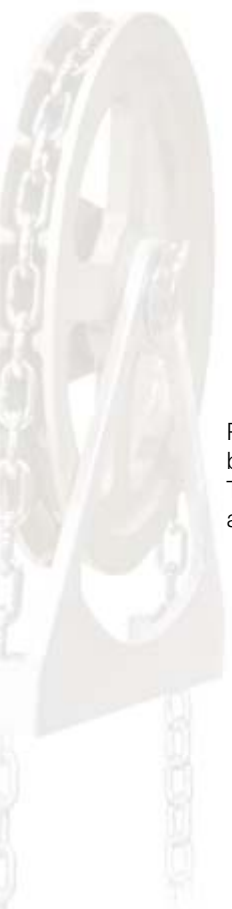
Door controls

Adapter profiles
Lifting capacity tables



elero door drives have a lot of advantages

Power operated doors offer many advantages, but at the same time conceals some risks. Therefore elero has developed the door drives and associated smart controls.





Informations

Gears and operating modes

The shaft mounted rolling door drives are maintenance-free alternating current/ three-phase current drives with self-locking safety gear. The integrated safety brake in the worm gear is wear-free and testing is not necessary. If a gear component fails, the safety brake is applied automatically and the load is brought to a standstill almost completely smoothly. The drive is subsequently no longer operational and must be completely exchanged. The safety gear was tested by the TÜV - SÜD and certified with certificate no. TorFV 5/061 and TorFV 5/062.

Operating modes

All elero door drives are equipped with an automatically resetting protection temperature limiter in the motor windings. Testing of the modes of operation took place with the maximum rated torque (static load) according to EN 60034-1.

S1 continuous operation – drives not suitable for doors

Operation with constant load (rated torque), which continues so that the machine can achieve the thermal steady-state condition.

S2 short-time operation – drives for infrequently used doors

Maximum period of operation with constant load in minutes; the temperature of the temperature limiter may not be reached

during this period. Switch off the drive until the ambient temperature (approx. 20 °C) is reached. Period of operation for door drives ≥ 4 minutes.

S3 periodic intermittent duty – drives suitable for underground car parks and doors for commercial and industrial use

An operation that consists of a sequence of identical operations, each of which encompasses an operating period with constant load and a standstill period with dead windings, whereby the starting current does not noticeably affect the overtemperature. The operating duration amounts to 10 minutes and the relative duty cycle has the following values: 15, 25, 40 and 60 percent. Period of operation for door drives ≥ 4 minutes.

S4 periodic intermittent duty with start-up phase – drives for underground car parks and doors for commercial and industrial use, e.g. sectional doors

An operation that consists of a sequence of identical operations, each of which encompasses a noticeable start-up time, an operating period with constant load and a standstill period without power to the motor.

Practical modes of operation

The duty cycle of the drives is tested with a rolling door; as a result, the drive is loaded dynamically in both the opening and closing directions. The power consumption varies and heating up is less than with S3.

Rolling door operation RTB

The rolling door drive is operated with a rolling door (dynamic load) until the thermal steady-state condition is reached. The RTB mode of operation is a periodic intermittent mode of operation similar to S 3. One door cycle is 5 revolutions OPEN, 30 seconds pause, 5 revolutions CLOSE, 30 seconds pause and so on. The operating duration amounts to 10 minutes and the relative duty cycle has the following values: 60, 80 and 100 percent.

Door cycles per hour

The rolling door drive is operated with a rolling door (dynamic load) until the thermal steady-state condition is reached. One door cycle is 5 revolutions OPEN, 30 seconds pause, 5 revolutions CLOSE, constant pause and so on. The operating duration amounts to one hour and has the following values: No. of door cycles per hour.

IP codes:

elero door drives are tested with IP4X, IP5X, IP6X and IPX4, IPX5 according to BS EN 60529. The test duration is 3 – 10 min for each degree of protection. Due to this test, an additional protective measure is necessary in the case of continuous sprinkling, e.g. outdoors. Aggressive water, (cleaning water, alkalis, solutions etc.) or aggressive dust (gypsum and cement etc.) are harmful to the drives and controllers; they must be shielded.

Do not hose down the drives and controllers with high pressure/steam jet cleaners!

Degrees of protection		against solid foreign bodies (1 st number)	against water (2 nd number)
IP0X	IPX0	No protection	
IP1X	IPX2	Protected against solid foreign bodies with a diameter of 50 mm and larger. Protected against access to dangerous parts with the back of the hand.	Vertically falling droplets may not have any harmful effect.
IP2X	IPX3	Protected against solid foreign bodies with a diameter of 12.5 mm and larger. Protected against access to dangerous parts with the finger.	Vertically falling droplets may not have any harmful effect if the housing is inclined by an angle of up to 15° from the perpendicular on both sides.
IP3X	IPX4	Protected against solid foreign bodies with a diameter of 2.5 mm and larger. Protected against access to dangerous parts with a tool.	Water that is sprayed at an angle of up to 60° from the perpendicular on both sides may not have any harmful effect.
IP4X	IPX5	Protected against solid foreign bodies with a diameter of 1 mm and larger. Protected against access to dangerous parts with a wire.	Water that splashes from any direction against the housing may not have any harmful effect.
IP5X	IPX6	Protected against dust; penetration of dust is not completely prevented, but dust may not penetrate in such a quantity that the satisfactory operation of the device or safety is impaired.	Water that is directed as a jet from any direction against the housing may not have any harmful effect.
IP6X	IPX7	Dustproof, no penetration of dust.	Water that is directed as a strong jet from any direction against the housing may not have any harmful effect.
	IPX8	–	Water may not enter in a quantity that would cause harmful effects if the housing is temporarily immersed in water under standardised pressure and time conditions.
	IPX9	–	Water may not enter in a quantity that would cause harmful effects if the housing is continuously immersed in water under conditions that must be agreed upon between the manufacturer and the user. The conditions must be more difficult than those listed in number 7.

Drive designation:

D									=	Three-phase current switchable 400/230V 50 Hz
	W								=	AC current 230V
		F							=	Shaft mounted rolling door drive with safety brake
		K							=	Chain drive with plug-in shaft
			M						=	Mechanical limit stop
				ZE					=	Potential-free additional limit switch 'top and bottom'
					...				=	Rated torque in Nm
						...			=	Speed in rpm only for special rotation speeds
							NHK		=	Manual override for crank handle
							NMA		=	Manual override, engaging automatically for various systems
							SHK		=	Haul chain, engaging automatically
								...V/...Hz	=	Special voltage and/or frequency

Certificates



Shaft mounted drives D.M 170 to 750



Shaft mounted drives DFM 100 to 350



Type 15/... and Type 15/... W NMA



BoxControl



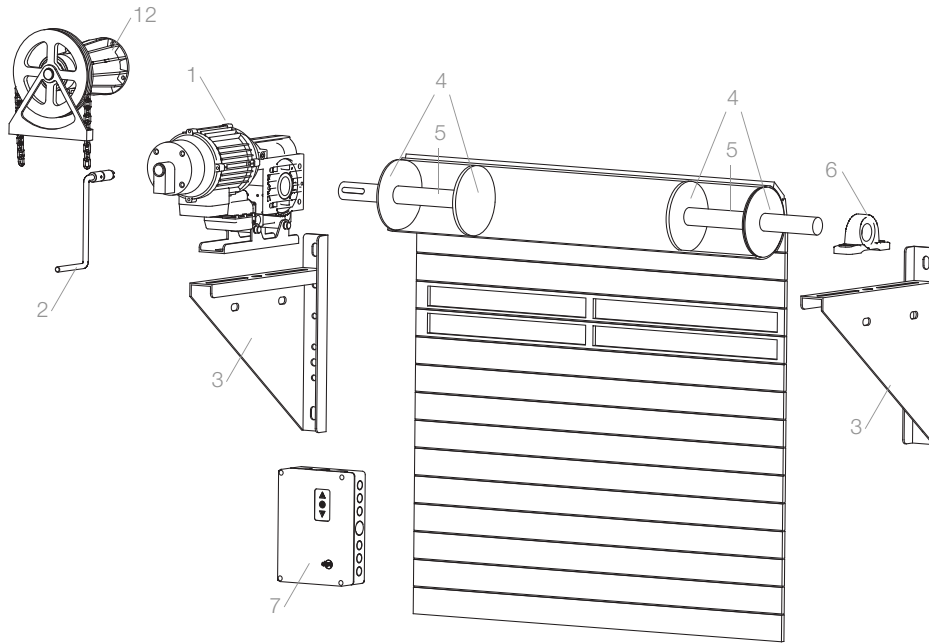
Shaft mounted drives D.M 170 to 750



Shaft mounted drives DFM 400 to 750

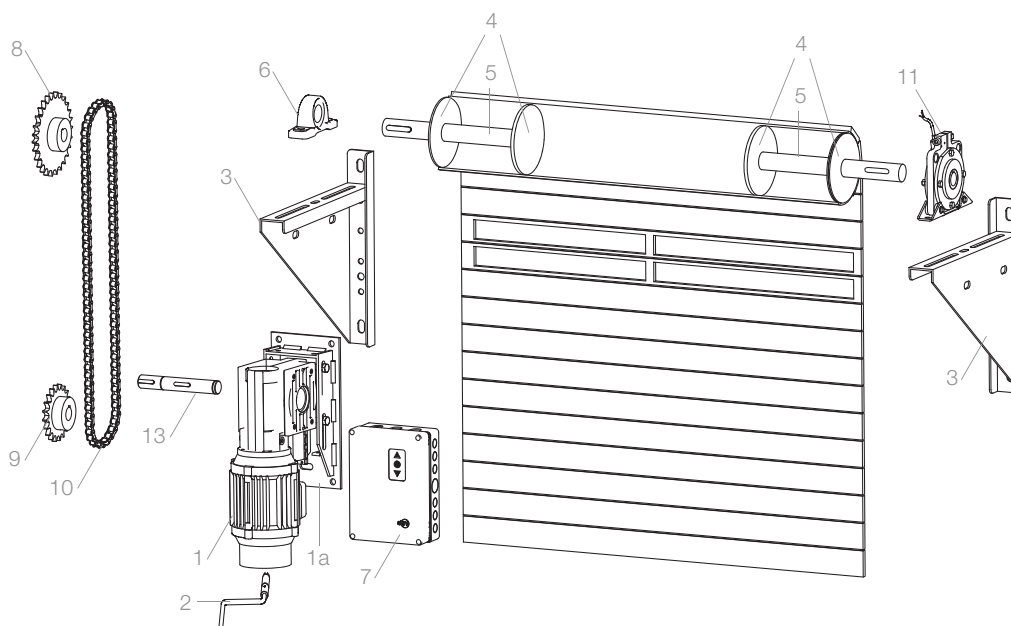
Installation examples

Shaft mounted drives

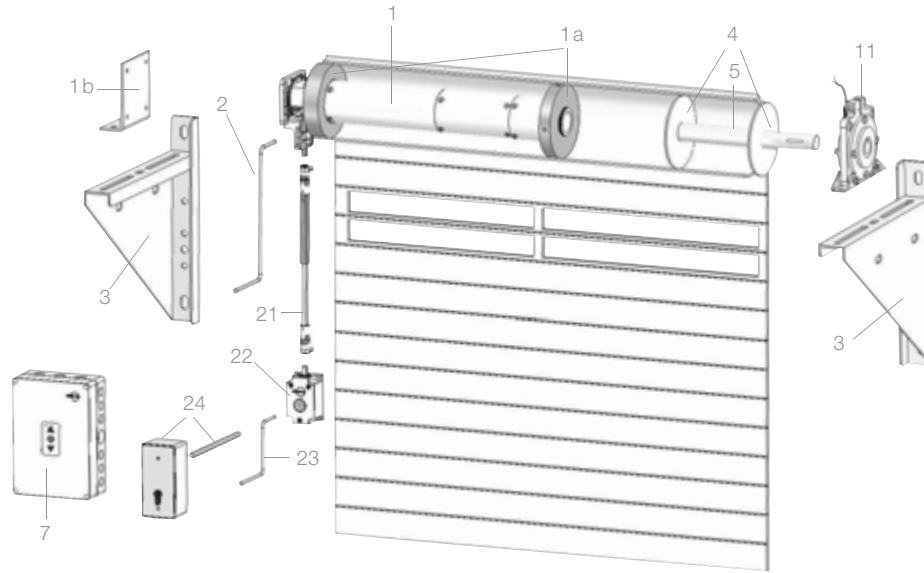


- | | | | | | |
|----|---|----|-------------------------------|----|---------------|
| 1 | Drive | 5 | Welding shafts | 11 | Safety brake |
| 1a | Bracket with tensioning rail and clamping bolts | 6 | Pedestal bearing | 12 | Haul chain |
| 2 | Crank handle | 7 | elero door control | 13 | Plug-in shaft |
| 3 | Bracket | 8 | Chain wheel for winding shaft | | |
| 4 | Blanks | 9 | Drive chain wheel | | |
| | | 10 | Chain | | |

Chain wheel drives



Type 15 W NMA



- | | | | | | |
|----|---------------|----|------------------------------|----|--|
| 1 | Tubular motor | 5 | Welding shafts | 24 | A. P. KeyBox with integrated crank handle and connecting shaft |
| 1a | Adapter set | 7 | Door control | | |
| 1b | Angle bracket | 11 | Safety brake | | |
| 2 | Crank handle | 21 | Drive shaft | | |
| 3 | Brackets | 22 | Angle drive | | |
| 4 | Blanks | 23 | Crank handle for angle drive | | |



Type 15

– the tubular door drive!



Type 15 is the ideal drive for heavy roller shutters, small rolling gates and roller grilles. These are characterized by the well-balanced torques, 120 Nm, 150 Nm, 180 Nm, 230 Nm and 300 Nm, each with 230V/50 Hz.



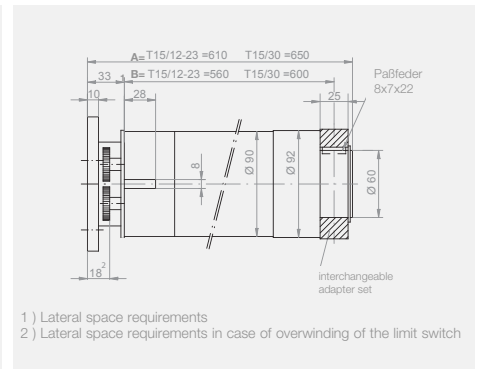


Type 15 W

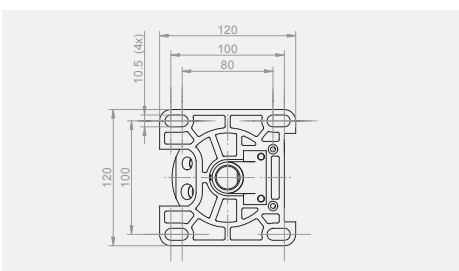
Tubular drive for doors

Tubular drive Type 15 W

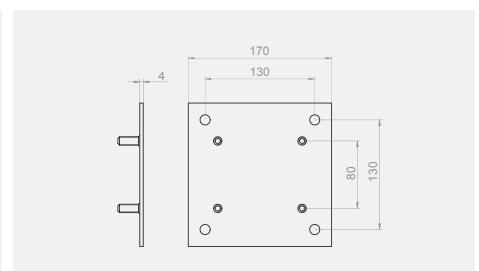
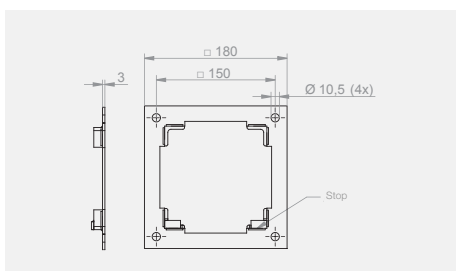
- Changeable couplings (adapters) for tubes of $\text{Ø } 98 \times 2.0$ to 168×4.0 mm or SW 114 (octagonal)
- Long service life
- Optimum gearing guarantees quiet operations
- The fixing plates of the Type 15 W... drives must be installed at right angles to the fixing area. It is imperative to use the wall bracket pocket item no. 23 100.0001 in case of unevenness



Wall bracket pocket



Wall bracket plate



Technical data and dimensions

Type	Type 15/12 W	Type 15/15 W	Type 15/18 W	Type 15/23 W	Type 15/30 W
Max. torque (Nm)	120	150	180	230	300
Speed (rpm)	12				
Operating Voltage (V)	1 ~ 230				
Rated frequency (Hz)	50				
Current (A)	3.4	3.5	3.6	3.9	5.5
Power (W)	700	740	780	810	1.250
Shaft Ø (mm)	98				
Ingress protection (IP)	44				
Max. limit switch range in Revolutions of the shaft	36				
Operating mode (KB in min.)	6			4	
Door cycles per hour $\ddot{\text{U}}$ h ⁻¹ *	6				
Length A (mm)	610				650
Length B (mm)	560				600
Weight (kg)	11.4				13
Temperature range (°C)	-20 to +60				
Conformity					
Connecting cable (m)	3.0				

* One door cycle is: 5 revolutions OPEN – 30 sec. pause – CLOSE

	Type 15/12 W	Type 15/15 W	Type 15/18 W	Type 15/23 W	Type 15/30 W
Item Number	32 301.0002	32 281.0002	32 321.0002	32 361.0002	32 381.0002

Wall bracket pocket

Item Number	23 100.0001
-------------	-------------

Wall bracket plate

Item Number	13 301.4901
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Accessories

	Drive adapter sets Page 256		Wall bracket pocket Page 256		Wall bracket plate Page 256
	Door controls from page 284		Angle bracket 13 305.9201 Page 256		

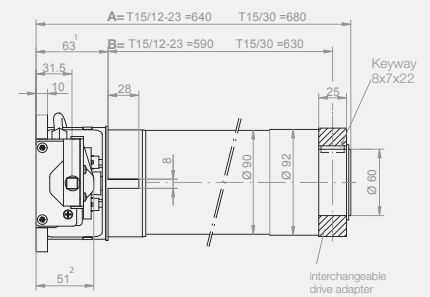


Type 15 W NMA

Tubular drives for doors with NMA

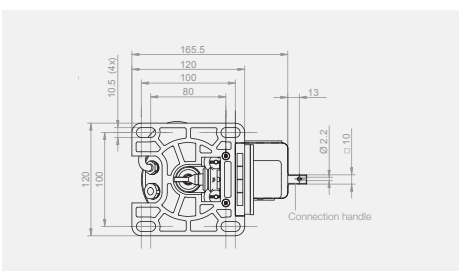
Tubular drive Type 15 W NMA

- Manual gearbox in the event of a power failure
- Changeable couplings (adapters) for tubes of $\varnothing 98 \times 2.0$ to 168×4.0 mm or SW 114 (octagonal)
- Long service life
- Optimum gearing guarantees quiet operations
- The fixing plates of the Type 15 W... drives must be installed at right angles to the fixing area. It is imperative to use the wall bracket pocket item no. 23 100.0001 in case of unevenness

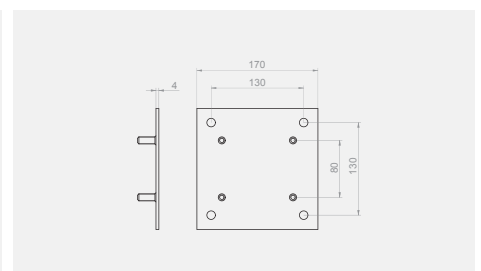
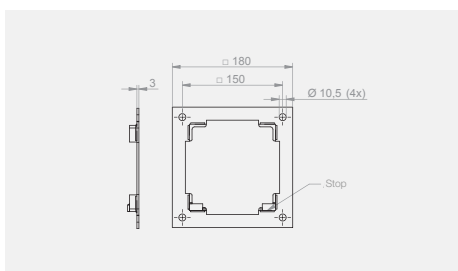


- 1) Lateral space requirements
- 2) Lateral space requirements in case of overwinding of the limit switch

Wall bracket pocket



Wall bracket plate



Technical data and dimensions

Type	Type 15/12 W NMA	Type 15/15 W NMA	Type 15/18 W NMA	Type 15/23 W NMA	Type 15/30 W NMA
Max. torque (Nm)	120	150	180	230	300
Speed (rpm)	12				
Operating Voltage (V)	1 ~ 230				
Rated frequency (Hz)	50				
Current (A)	3.4	3.5	3.6	3.9	5.5
Power (W)	700	740	780	810	1,250
Shaft Ø (mm)	98				
Ingress protection (IP)	44				
Max. limit switch range in Revolutions of the shaft	36				
Operating mode (KB in min.)	6			5	
Door cycles per hour \ddot{u} h ⁻¹ *	6				
Length A (mm)					680
Length B (mm)					630
Weight (kg)	12.1				13.8
Temperature range (°C)	-20 to +60				
Conformity					
Connecting cable (m)	3.0				

* One door cycle is: 5 revolutions OPEN – 30 sec. pause – CLOSE

	Type 15/12 W NMA	Type 15/15 W NMA	Type 15/18 W NMA	Type 15/23 W NMA	Type 15/30 W NMA
 Item Number	32 312.0002	32 292.0002	32 332.0002	32 362.0002	32 382.0002

Wall bracket pocket

Item Number	23 100.0001
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Wall bracket plate

Item Number	13 301.4901
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Accessories

 Drive adapter sets Page 256	 Wall bracket pocket Page 256	 Wall bracket plate Page 256
 Door controls from page 284	 Angle bracket 13 305.9201 Page 256	 Crank handle Page 257



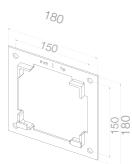
Drive adapter sets for Type 15 W ...

Profiles of the drive adapter sets in 1:1 scale on page 337.

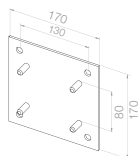


Item Number	Type	Round tubes	M8 thread
13 103.5701	Ø 98 x 2.0 mm	•	•
23 584.0001	Ø 102 x 2.0 mm	•	•
23 475.0001	Ø 108 x 3.6 mm	•	
23 527.0001	Ø 108 x 3.6 mm drilled	•	•
23 494.0002	Ø 133 x 2.0 mm	•	•
23 325.0001	Ø 133 x 2.5 mm	•	•
23 495.0002	Ø 133 x 4.0 mm	•	
23 495.0101	Ø 133 x 4.0 mm	•	•
23 309.0001	Ø 159 x 2.6 mm	•	•
23 310.0001	Ø 159 x 4.5 mm	•	•
23 027.0001	Ø 168.3 x 4.5 mm and Ø 168 x 4.0 mm	•	•
23 456.0001	SW 114 mm octagonal (side-to-side dimension 125 mm)		
23 311.0001	Ø 120 mm, Alukon	•	•

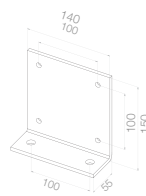
Installation accessories



23 100.0001



13 301.4901

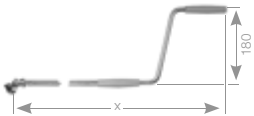


13 305.9201

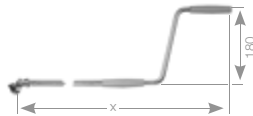
Item Number	Type
23 100.0001	Wall bracket pocket (with axial securing)
13 301.4901	Angle bracket
13 305.9201	Mounting bracket

Manual override accessories

Crank handles



24 049.0001
Crank handle with ball joint x = 0.55 m



24 050.0001
Crank handle with ball joint x = 1.35 m

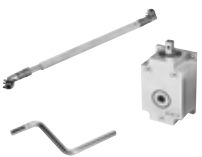


12 300.0901
Crank handle with awning hook x = 1.4 m



23 398.9801
Awning eyelet for Type 15/... NMA

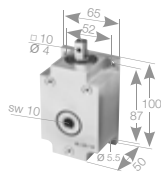
Base set NMA



23 199.9501
Consisting of: Angle drive/drive shaft/crank handle



23 081.0001
Drive shaft extendable from 1.7 to 3.0 m

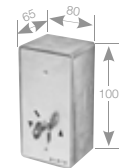


23 030.0001
Angle drive



13 305.8001
Crank handle for angle drive Length 0.2 m

A.P. KeyBox



23 080.0001
With integrated crank handle, key switch (dead man safety) and 0.50 m long connecting shaft 10 mm hexagonal. To operate NMA motors from outside manually and electrically. Requires NMA Base kit 23 199.9501

Cables and accessories



23 243.0002

Installation-/connecting cables and accessories

Item Number	Type
23 243.0002	Installation cable

RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio controls, radio sensors

Hardwired controls sensors

Type 15 W / NMA

Door controls

Adapter profiles Lifting capacity tables



Door drives to the highest safety level **DFM DKM WFM WKM**



Power operated doors offer many advantages, but at the same time conceals some risks. Therefore elero has developed the door drives and associated smart controls.



Three-phase shaft mounted drives with NHK

Shaft mounted drives with safety brake and mechanical limit stop






DFM ... NHK and DFM-ZE ... NHK

Highlights: Safety limit switch
Safety gear
Manual override crank



Dimension drawings on page 272

Accessories

 <p>Welding shafts and blanks from page 277</p>	 <p>Brackets Page 279</p>	 <p>Connection kit Page 292</p>
 <p>BoxControl from page 290</p>	 <p>Manual override Page 274</p>	

Technical data and dimensions

Type	DFM NHK									
	100/90	170/12.5	250/12.5	250/27	350/13.5	500/11	500/31	750/8	750/11	
Speed n ² (min ⁻¹)	90	12.5	27	13.5	11	31	8	11		
Max. torque (Nm) ⁵⁾	100	170	250	350	500	750				
Rated Voltage (V)	3 ~ 230/400									
Rated frequency (Hz)	50									
Rated current (A)	5.5/3.2	3.2/1.85	4.5/2.6	5.2/3.0	4.2/2.4	5.7/3.3	10.0/6.0	5.9/3.4	6.9/4.0	
Power factor (cos φ)	0.8	0.58	0.45	0.8	0.6	0.74	0.8	0.6	0.68	
Insulation class	H									
Power consumption (kW)	1.25	0.75	0.8	1.1	1.0	1.7	2.2	1.4	1.9	
Ingress protection (IP)	54 (optional 65)									
Max. limit switch range mech. (centrally set at 9 revs.)	18									
Rated operating time (S3)	40%	60%	40%				60%			
Max. torque for rolling door operation (Nm) ³⁾										
RTB 80%	80	170	200	300	500	600	650			
RTB 100%	60	150	170	250	400	500	550			
Coil temperature limiter (°C)	130									
Door cycles per hour $\frac{1}{h}$ ⁴⁾	60	35	30	45	34	28	50	20	24	
Temperature range (°C)	-10 to +40									
Contin. sound pressure level db (A)	< 60									
Electromagnetic brake	•	-				•				
Shaft Ø (mm)	30				40					
Key width (mm)	8				12					
Integrated safety brake (Type)	F 40				F 80					
Max torque on safety gear (Nm)	884				2,302					
Deceleration (g)	< 1.5				< 2.0					
Length A (mm)	715				810				835	
Length B (mm)	500				590				615	
Drive weight (kg)	22		21		22		31	34	31	
TÜV-Süd certificate no.	5/061				5/062					
VDE checked	-	•		-	•		-	•		
VDE EMC checked			•				-	•		
Accessories included	crank handle									

DFM xxx NHK	100/90	170/12.5	250/12.5	250/27	350/13.5	500/11	500/31	750/8	750/11
Item Number	-	41 021.0002	41 031.0002	41 581.0002	41 051.0002	41 061.0002	41 621.0002	-	41 071.0002

DFM-ZE xxx NHK	100/90	170/12.5	250/12.5	250/27	350/13.5	500/11	500/31	750/8	750/11
Item Number	41 501.0002	41 091.0002	41 101.0002	41 591.0002	41 121.0002	41 131.0002	41 631.0002	41 831.0002	41 141.0002

Drives in IP 65 version (surcharge)	
Item Number	99 000.2701

Connection kit for WFM/DKM, DFM/DKM drives	
Item Number	24 350.0101

Note: If the drive is to be painted subsequently, then the shaft gaskets must remain free of paint. Other voltages and frequencies upon request. Drive for vertical lift gates: If the drives are used for vertical lift gates, the specified rated torques must be reduced by 20 %. 3) Rolling door operation RTB: Rolling door drives with rolling doors are operated dynamically with load change. The S3 operating mode with periodic intermittent duty in accordance with BS EN is tested at the rated torque related to 10 minutes operating time with the defined duty cycle in %. 4) One door cycle is: 5 revolutions OPEN – 30 sec. pause – CLOSE. 5) The rated torques of the drives are guaranteed from -20 °C to 60 °C/-4 °F to 140 °F.



Three-phase shaft mounted drives with SHK

Shaft mounted drives with safety brake and mechanical limit stop

DFM ... SHK and DFM-ZE ... SHK

Highlights: Safety limit switch
Safety gear
Manual haul chain



Dimension drawings on page 272

Accessories

 <p>Welding shafts and blanks from page 277</p>	 <p>Brackets Page 279</p>	 <p>Connection kit Page 292</p>
 <p>BoxControl from page 290</p>	 <p>Manual override Page 274</p>	

Technical data and dimensions

Type	DFM SHK						
	170/12.5	250/12.5	250/27	350/13.5	500/11	500/31	750/11
Speed n ² (min ⁻¹)	12.5		27	13.5	11	31	1
Max. torque (Nm) ⁵⁾	170	250		350	500		750
Rated Voltage (V)	3 ~ 230/400						
Rated frequency (Hz)	50						
Rated current (A)	3.2/1.85	4.5/2.6	5.2/3.0	4.2/2.4	5.7/3.3	10.0/6.0	6.9/4.0
Power factor (cos φ)	0.58	0.45	0.8	0.6	0.74	0.8	0.68
Insulation class	H						
Power consumption (kW)	0.75	0.8	1.1	1.0	1.7	2.2	1.9
Ingress protection (IP)	54 (optional 65)						
Max. limit switch range mech. (centrally set at 9 revs.)	18						
Rated operating time (S3)	60 %	40 %			60 %		
Max. torque for rolling door operation (Nm) ³⁾							
RTB 80 %	170	200		300	500		650
RTB 100 %	150	170		250	400		550
Coil temperature limiter (°C)	130						
Door cycles per hour $\frac{1}{h} h^{-1}$ ⁴⁾	35	30	45	34	28	50	24
Temperature range (°C)	-10 to +40						
Contin. sound pressure level db (A)	< 60						
Electromagnetic brake	-			•			
Shaft Ø (mm)	30			40			
Key width (mm)	8			12			
Integrated safety brake (Type)	F 40			F 80			
Max torque on safety gear (Nm)	884			2,302			
Deceleration (g)	< 1.5			< 2.0			
Length A (mm)	590			750		775	
Drive weight (kg)	21			22	31		31
TÜV-Sued certificate no.	5/061			5/062			
VDE checked	•		-	•		-	•
VDE EMC checked	•			•			
Accessories included	Haul chain						

	DFM xxx SHK	170/12.5	250/12.5	250/27	350/13.5	500/11	500/31	750/11
	Item Number	41 022.0002	41 032.0002	41 582.0002	41 052.0002	41 062.0002	41 622.0002	41 072.0002

	DFM-ZE xxx SHK	170/12.5	250/12.5	250/27	350/13.5	500/11	500/31	750/11
	Item Number	41 092.0002	41 102.0002	41 592.0002	41 122.0002	41 132.0002	41 632.0002	41 142.0002

Drives in IP 65 version (surcharge)	
Item Number	99 000.2701

Connection kit	
Item Number	24 350.0101

Note: If the drive is to be painted subsequently, then the shaft gaskets must remain free of paint. Other voltages and frequencies upon request. Drive for vertical lift gates: If the drives are used for vertical lift gates, the specified rated torques must be reduced by 20 %. 3) Rolling door operation RTB: Rolling door drives with rolling doors are operated dynamically with load change. The S3 operating mode with periodic intermittent duty in accordance with BS EN is tested at the rated torque related to 10 minutes operating time with the defined duty cycle in %. 4) One door cycle is: 5 revolutions OPEN – 30 sec. pause – CLOSE. 5) The rated torques of the drives are guaranteed from -20 °C to 60 °C/-4 °F to 140 °F.



Three-phase chain wheel drives with NHK

Chain wheel drives with mechanical limit stop






DKM ... NHK

Highlights: Safety limit switch
Safety gear
Manual override crank



Dimension drawings on page 272

Assessories

 <p>Connection kit Page 292</p>	 <p>Pedestal bearings Page 275</p>	 <p>Chain wheels Page 276</p>
 <p>Door controls from page 290</p>	 <p>Manual override Page 274</p>	

Technical data and dimensions

Type	DKM NHK					
	170/12.5	250/12.5	350/13.5	500/11	750/11	
Speed n ² (min ⁻¹)	170	12.5	250	13.5	11	750
Max. torque (Nm) ⁵⁾	170	250	350	500	750	
Rated Voltage (V)	3 ~ 230/400					
Rated frequency (Hz)	50					
Rated current (A)	3.2/1.85	4.5/2.6	4.2/2.4	5.7/3.3	6.9/4.0	
Power factor (cos φ)	0.58	0.45	0.6	0.74	0.68	
Insulation class	H					
Power consumption (kW)	0.75	0.8	1.0	1.7	1.9	
Ingress protection (IP)	54 (optional 65)					
Max. limit switch range mech. (centrally set at 9 revs.)	18					
Rated operating time (S3)	60 %	40 %		60 %		
Max. torque for rolling door operation (Nm) ³⁾						
RTB 80 %	170	200	300	500	650	
RTB 100 %	150	170	250	400	550	
Coil temperature limiter (°C)	130					
Door cycles per hour $\frac{1}{h}$ h ⁻¹ ⁴⁾	35	30	34	28	24	
Temperature range (°C)	-10 to +40					
Contin. sound pressure level db (A)	< 60					
Electromagnetic brake	-		•			
Shaft Ø (mm)	30			40		
Key width (mm)	8			12		
Length A (mm)	715			810	835	
Length B (mm)	500		590			
Drive weight (kg)	21		22	31		
TÜV-Sued certificate no.	5/061			5/062		
VDE checked				•		
VDE EMC checked				•		

Accessories incl. tensioning rail, drive shaft and crank handle

DKM xxx NHK	170/12.5	250/12.5	350/13.5	500/11	750/11
Item Number	41 271.0002	41 281.0002	41 301.0002	41 311.0002	41 321.0002

DKM-ZE xxx NHK	170/12.5	250/12.5	350/13.5	500/11	750/11
Item Number	41 341.0002	41 351.0002	41 371.0002	41 381.0002	41 391.0002

Drives in IP 65 version (surcharge)	
Item Number	99 000.2701

Connection kit	
Item Number	24 350.0101

Note: If the drive is to be painted subsequently, then the shaft gaskets must remain free of paint. Other voltages and frequencies upon request. Drive for vertical lift gates: If the drives are used for vertical lift gates, the specified rated torques must be reduced by 20 %. 3) Rolling door operation RTB: Rolling door drives with rolling doors are operated dynamically with load change. The S3 operating mode with periodic intermittent duty in accordance with BS EN is tested at the rated torque related to 10 minutes operating time with the defined duty cycle in %. 4) One door cycle is: 5 revolutions OPEN – 30 sec. pause – CLOSE. 5) The rated torques of the drives are guaranteed from -20 °C to 60 °C/-4 °F to 140 °F.



Three-phase chain wheel drives with SHK

Chain wheel drives with mechanical limit stop






DKM ... SHK

- Highlights:
- Safety limit switch
 - Chain tensioning bracket
 - Manual haul chain



Dimension drawings on page 272

Accessories

 <p>Connection kit Page 292</p>	 <p>Pedestal bearings Page 275</p>	 <p>Chain wheels Page 276</p>
 <p>Door controls from page 290</p>	 <p>Manual override Page 274</p>	
		

Technical data and dimensions

Type	DKM SHK					
	170/12.5	250/12.5	350/13.5	500/11	750/11	
Speed n ² (min ⁻¹)	170	12.5	250	13.5	11	750
Max. torque (Nm) ⁵⁾	170	250	350	500	750	
Rated Voltage (V)	3 ~ 230/400					
Rated frequency (Hz)	50					
Rated current (A)	3.2/1.85	4.5/2.6	4.2/2.4	5.7/3.3	6.9/4.0	
Power factor (cos φ)	0.58	0.45	0.6	0.74	0.68	
Insulation class	H					
Power consumption (kW)	0.75	0.8	1.0	1.7	1.9	
Ingress protection (IP)	54 (optional 65)					
Max. limit switch range mech. (centrally set at 9 revs.)	18					
Rated operating time (S3)	60 %	40 %		60 %		
Max. torque for rolling door operation (Nm) ³⁾						
RTB 80 %	170	200	300	500	650	
RTB 100 %	150	170	250	400	550	
Coil temperature limiter (°C)	130					
Door cycles per hour $\frac{1}{h}$ h ⁻¹ 4)	35	30	34	28	24	
Temperature range (°C)	-10 to +40					
Contin. sound pressure level db (A)	< 60					
Electromagnetic brake	-		•			
Shaft Ø (mm)	30			40		
Key width (mm)	8			12		
Length A (mm)	590		750		775	
Drive weight (kg)	21	22		31		
TÜV-Sued certificate no.	5/061		5/062			
VDE checked			•			
VDE EMC checked			•			

Accessories incl. tensioning rail, insert shaft and haul chain

	DKM xxx SHK	170/12.5	250/12.5	350/13.5	500/11	750/11
Item Number		41 272.0002	41 282.0002	41 302.0002	41 312.0002	41 322.0002

	DKM-ZE xxx SHK	170/12.5	250/12.5	350/13.5	500/11	750/11
Item Number		41 342.0002	41 352.0002	41 372.0002	41 382.0002	41 392.0002

Drives in IP 65 version (surcharge)

Item Number	99 000.2701
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Connection kit

Item Number	24 350.0101
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Note: If the drive is to be painted subsequently, then the shaft gaskets must remain free of paint. Other voltages and frequencies upon request. Drive for vertical lift gates: If the drives are used for vertical lift gates, the specified rated torques must be reduced by 20 %. 3) Rolling door operation RTB: Rolling door drives with rolling doors are operated dynamically with load change. The S3 operating mode with periodic intermittent duty in accordance with BS EN is tested at the rated torque related to 10 minutes operating time with the defined duty cycle in %. 4) One door cycle is: 5 revolutions OPEN – 30 sec. pause – CLOSE. 5) The rated torques of the drives are guaranteed from -20 °C to 60 °C/-4 °F to 140 °F.



Pole-reversible three-phase shaft mounted drives

Pole-reversible shaft mounted drives with safety brake and mechanical limit stop

DFM-ZE 400/32-16 NHK 3 x 400V 50 Hz

Highlights: Safety limit switch
Safety gear
Manual override crank



Dimension drawings on page 272

Accessories

 <p>Welding shafts and blanks from page 277</p>	 <p>Brackets Page 279</p>	 <p>Door controls from page 290</p>
 <p>Manual override Page 274</p>	 <p>Manual override Page 274</p>	
		

Technical data and dimensions

Type	DFM-ZE 400/32-16 NHK 3 x 400V		DFM-ZE 400/32-16 NHK 3 x 230V	
	2 pole (opening)	4 pole (closing)	2 pole (opening)	4 pole (closing)
Speed (Upm)	32	16	32	16
Max. torque (Nm)	400	200	400	200
Rated Voltage (V)	3 ~ 400		3 ~ 230	
Rated frequency (Hz)	50			
Rated current (A)	4.3	2.0	7.5	3.5
Power consumption (kW)	2.3	1.2	2.3	1.2
Ingress protection (IP)	54			
Insulation class	H			
Max. limit switch range mech. (centrally set at 9 revs.)	18			
Duty cycle (S3)	60%			
Door cycles per hour *	40			
2 additional limit switches	•			
Electromagnetic brake	•			
Shaft Ø (mm)	40			
Integrated safety brake (Type)	F 80			
Max torque on safety gear (Nm)	2,302			
Deceleration (g)	< 2.0			
Length A (mm)	775			
Length B (mm)	615			
Drive weight (kg)	35			
Temperature range (°C)	-10 to +40			
Conformity				
Accessories included	Crank handle			

* One door cycle is: 5 revolutions OPEN – 30 sec. pause – CLOSE.

Use of the drives for vertical lift gates etc.: The given rated torque of the drives is to be reduced by 20 %.

 Item Number	DFM-ZE 400/32-16 NHK 3 x 400V		DFM-ZE 400/32-16 NHK 3 x 230V	
	2 pole (opening)	4 pole (closing)	2 pole (opening)	4 pole (closing)
	41 781.0002		41 791.0002	

Drives in IP 65 version (surcharge)

Item Number	99 000.2701
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Connection kit

Item Number	24 350.0101
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RevoluLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio controls, radio sensors

Hardwired controls sensors

DFM-ZE

Door controls

 Adapter profiles
Lifting capacity tables



Single-phase shaft mounted drives/ chain wheel drives








Shaft mounted drives with safety brake
Chain wheel drives without safety brake

WFM ... SHK and WFM ... NHK	WKM ... SHK and WKM ... NHK	Note:
<ul style="list-style-type: none"> • Shaft mounted drives with safety brake (integrated safety brake) • Mechanical limit stop incl. operating capacitor • With haul chain (SHK) • Incl. crank handle (NHK) 	<ul style="list-style-type: none"> • Chain wheel drives without safety brake • Mechanical limit stop • Incl. operating capacitor • With haul chain (SHK) • Incl. crank handle (NHK) 	<p>The shaft mounted drives W.M 170 ... can only be operated with the BoxControl D 400 and BoxControl compact 3~230V.</p>



from left: WFM SHK, WFM NHK, WKM SHK and WKM NHK
Dimension drawings on page 272

Accessories

 <p>Connection kit Page 292</p>	 <p>Pedestal bearings Page 275</p>	 <p>Chain wheels Page 276</p>
 <p>Door controls from page 290</p>	 <p>Manual override Page 274</p>	 <p>Manual override Page 274</p>
		

Technical data and dimensions

Type	WFM 170/14		WKM 170/14	
	NHK	SHK	NHK	SHK
Speed n ² (min ⁻¹)	14			
Max. torque (Nm) ⁵⁾	170			
Rated Voltage (V)	230			
Rated frequency (Hz)	50			
Rated current (A)	6.7			
Power factor (cos φ)	0.92			
Insulation class	H			
Power consumption (kW)	1.4			
Ingress protection (IP)	54 (optional 65)			
Max. limit switch range mech. (centrally set at 9 revs.)	18			
Rated operating time (S3)	4 min.			
Max. torque for rolling door operation (Nm) ³⁾	-			
RTB 80 %	-			
RTB 100 %	-			
Coil temperature limiter (°C)	130			
Door cycles per hour \pm h ⁻¹ ⁴⁾	10			
Temperature range (°C)	-10 to +40			
Contin. sound pressure level db (A)	< 70			
Electromagnetic brake	•			
Shaft Ø (mm)	30			
Key width (mm)	8			
Integrated safety brake (Type)	F 40		-	
Max torque on safety gear (Nm)	884		-	
Deceleration (g)	< 1.5		-	
Length A (mm)	715	590	715	590
Length B (mm)	500	-	500	-
Drive weight (kg)	19			
TÜV-Sued certificate no.	5/061			
VDE checked	-			
VDE EMC checked	-			
Accessories included	Crank handle	Haul chain	Crank handle	Haul chain

Item Number	WFM 170/14		WKM 170/14	
	NHK	SHK	NHK	SHK
41 011.0003	41 012.0003	41 261.0003	41 262.0003	

Item Number	WFM 170/14		WKM 170/14	
	NHK	SHK	NHK	SHK
41 081.0003	41 082.0003	41 251.0003	41 252.0003	

Drives in IP 65 version (surcharge)				
Item Number	99 000.2701			

Connecting kit				
Item Number	24 350.0101			

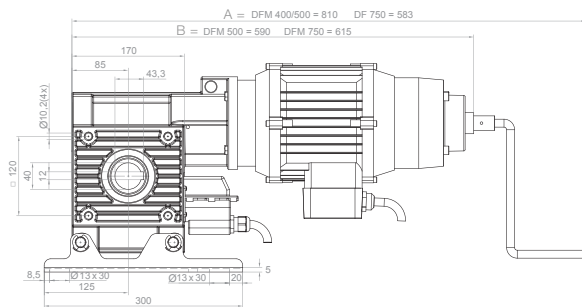
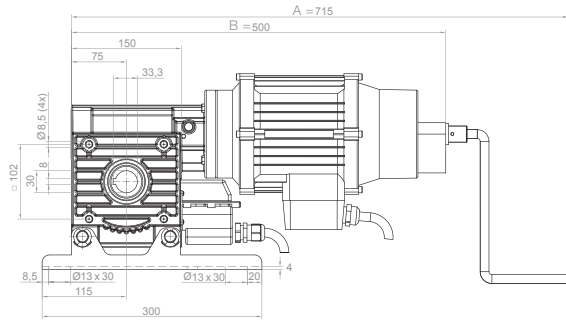
Note: If the drive is to be painted subsequently, then the shaft gaskets must remain free of paint. Other voltages and frequencies upon request. Drive for vertical lift gates: If the drives are used for vertical lift gates, the specified rated torques must be reduced by 20 %. 3) Rolling door operation RTB: Rolling door drives with rolling doors are operated dynamically with load change. The S3 operating mode with periodic intermittent duty in accordance with BS EN is tested at the rated torque related to 10 minutes operating time with the defined duty cycle in %. 4) One door cycle is: 5 revolutions OPEN – 30 sec. pause – CLOSE. 5) The rated torques of the drives are guaranteed from -20 °C to 60 °C/-4 °F to 140 °F.



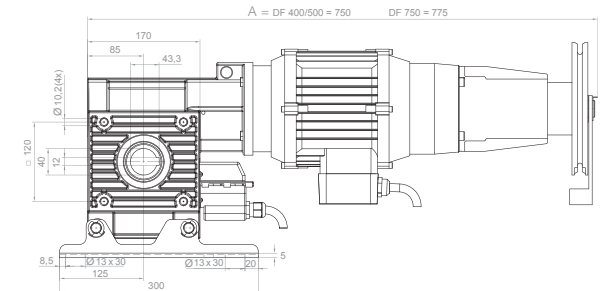
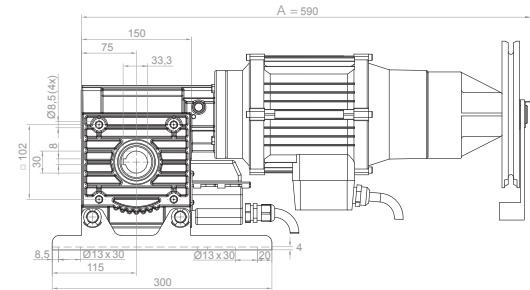
Mounting dimensions

Shaft mounted drives

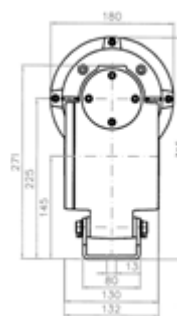
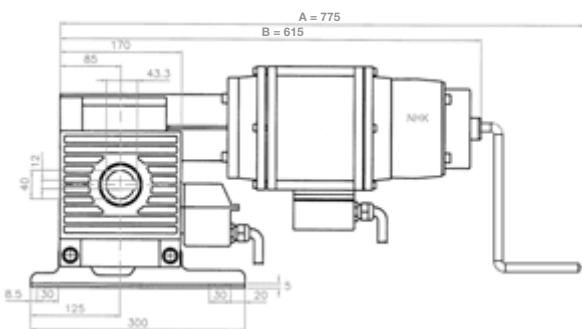
DFM NHK



DFM SHK



DFM ZE (pole-reversible)



(for Ø 40 mm welding shaft, min. length of the key 40 mm)

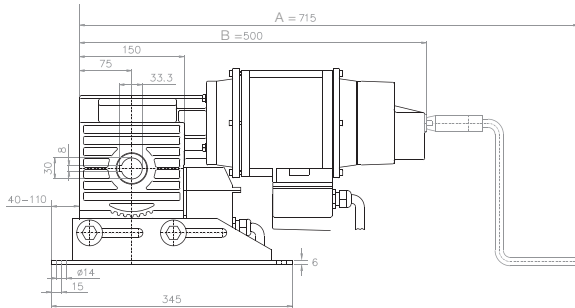
Calculation of the mean lifting speed in cm/second:

$$V_m = \frac{D + d \cdot 3.14 \cdot n}{2 \cdot 60}$$

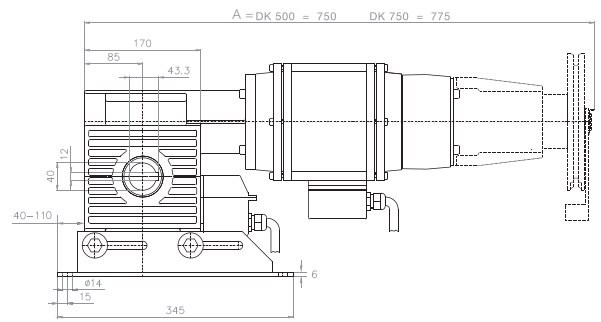
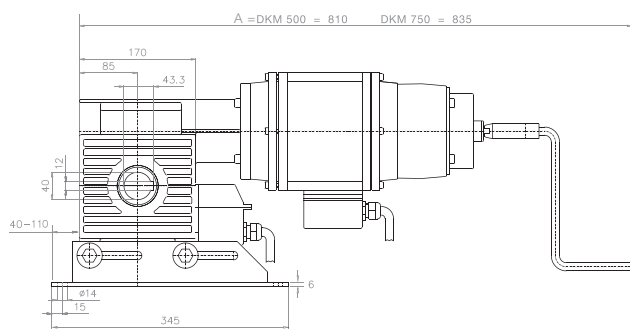
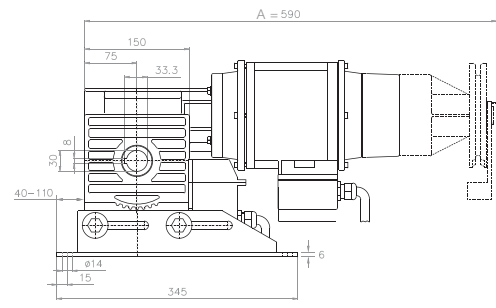
- V_m = Mean lifting speed in cm/second
- D = Roll diameter in cm
- d = Tube diameter in cm
- n = Revolutions per min.

Chain wheel drives

DKM NHK

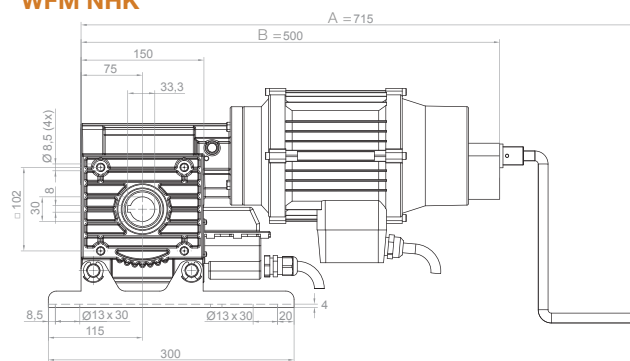


DKM SHK

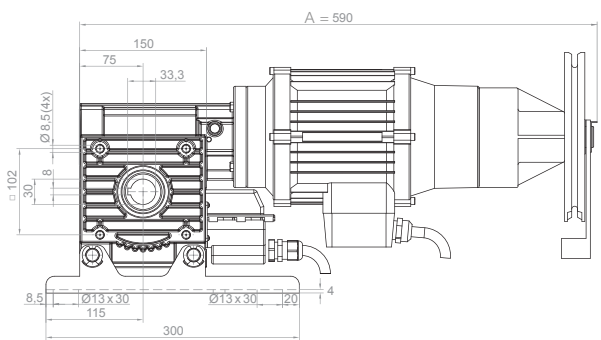


Single-phase shaft mounted drives/chain wheel drives

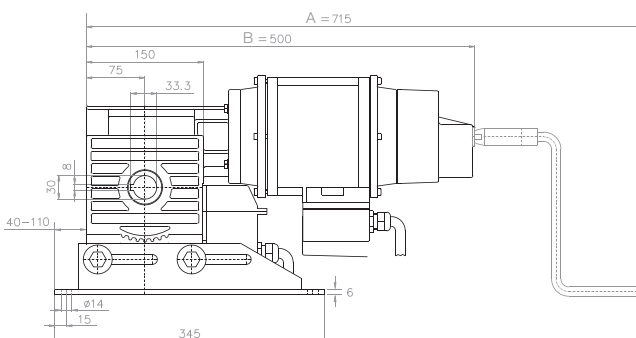
WFM NHK



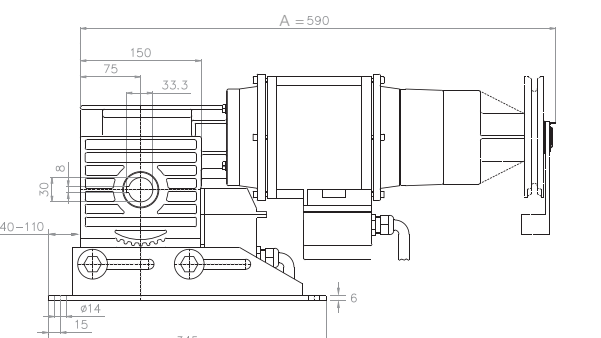
WFM SHK



WKM NHK



WKM SHK

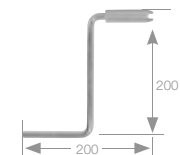




Delivery time on request

Manual override accessories for DFM/DKM

Crank handle



14 302.9501
Standard



24 334.0501
Crank handle with universal joint for D.M and W.M drives
 $x = 0.55 \text{ m}$



24 334.0701
Crank handle with universal joint for D.M and W.M drives
 $x = 1.35 \text{ m}$

Haul chain (SHK) attachment



24 318.0201
For DFM/WFM/DKM/WKM 100–350 NHK with 3.0 m round steel chain (approx. 1.4 m suspended)



24 376.0201
For DFM/DKM 500–750 NHK with 3.0 m round steel chain (approx. 1.4 m suspended)



14 300.8901
3.0 m round steel chain
DIN 766 A4 x 16 mm

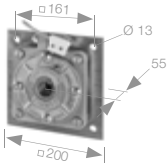


14 300.9001
Closing link

Delivery time on request

Safety brakes

with electrical switch off, IP 65, TÜV-Süd certified



24 541.0002
TA 1/2 RD with bracket for wall mounting Ø 30 mm
max. torque : 332 Nm
max. operating speed: 22 rpm
test number: 02165

Pedestal bearing



24 552.0003
TA 1/2 RD Ø 30 mm
max. torque: 332 Nm
max. operating speed: 22 rpm
test number: 02165



24 553.0003
TA 2/3 RD Ø 40 mm
max. torque: 552 Nm
max. operating speed: 22 rpm
test number: 02166



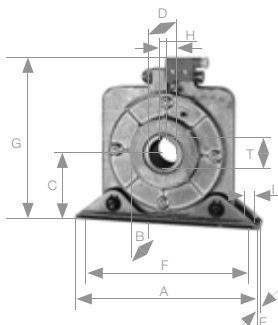
24 530.0001
TA 4 RD Ø 50 mm
max. torque: 1063 Nm
max. operating speed: 18 rpm
test number: 02168



24 531.0001
TA 5 RD Ø 50 mm
max. torque: 1943 Nm
max. operating speed: 12 rpm
test number: 02169

Item number	A	B	C	D ^{H7}	E	F	G	H ^{H9}	I	T	kg
24 552.0003	210	44	80	30	38	180	185	8	12	33.3	4.5
24 553.0003	260	50	100	40	45	230	225	12	14	43.3	8
24 530.0001	340	78	150	50	75	300	320	14	22	53.8	23
24 531.0001	390	88	180	65	90	340	380	18	22	69.4	37

Choice of safety brake



	24 541.0002 TA 1/2 RD	24 552.0003 TA 1/2 RD	24 553.0003 TA 2/3 RD	24 530.0001 TA 4 RD	24 531.0001 TA 5 RD
Door size h x w mm	3,000 x 3,000		5,000 x 5,000	5,000 x 4,000	5,000 x 7,000
108.0 x 4.0	475				
133.0 x 4.0	450		660		
168.3 x 4.5	370		580	980	
193.7 x 5.4	325		500	925	
219.1 x 5.9	282		470	830	
244.5 x 5.9	246		420	720	
298.5 x 8.0	190		330	610	1,110
323.9 x 8.0			290	560	980
355.6 x 8.0				500	950

These data relate to the complete door weight in kg.

RevoLine
Type 9 + 11
Venetian blind drives
Speciality drives
Hausautomation, radio controls, radio sensors
Hardwired controls sensors
DFM/WFM/DKM/WKM
Door controls
Adapter profiles
Lifting capacity tables



Delivery time on request

Sprocket with hub

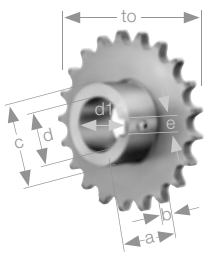
For DKM/WFM 170-350 only use the chain wheel ¾" 20 teeth 24 918.0001.

For DKM 500-750 only use the chain wheel 1" 19 teeth 24 919.0401.

¾ x 7/16"

Item number	Tooth count	to	a	b	c	d	d1	e	For reduction
24 918.0001	20	121.8	35	11.1	80	30	33.3	8	1:1
24 919.0101	40	242.8	40	11.1	100	40	43.3	12	2:1
24 919.0201	50	303.4	61	11.1	110	40	43.3	12	2.5:1
24 919.0301	60	364.0	61	11.1	110	50	43.3	12	3:1
24 920.0101	50	303.4	61	11.1	110	50	53.8	14	2.5:1
24 920.0201	60	364.0	61	11.1	110	50	53.8	14	3:1

with set screw fastening see page 277, example c)



1" x 17.02

Item number	Tooth count	to	a	b	c	d	d1	e	For reduction
24 919.0401	19	154.4	45	15.3	128	40	43.3	12	1:1
24 920.0301	19	154.4	45	15.3	128	50	53.8	14	1:1
24 920.0401	38	307.6	50	15.3	140	50	53.8	14	2:1
24 920.0501	48	388.4	68	15.3	140	50	53.8	14	2.53:1
24 921.0101	38	307.6	50	15.3	110	65	69.4	18	2:1
24 921.0201	48	388.4	68	15.3	110	65	69.4	18	2.53:1
24 921.0301	57	461.0	68	15.3	110	65	69.4	18	3:1

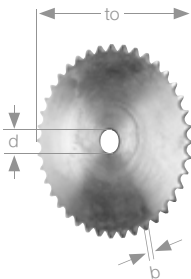
with set screw fastening see page 277, example c)

Sprocket

¾ x 7/16"

Item number	Tooth count	to	b	d	For reduction
14 110.4401	20	121.8	11.1	30	1:1
14 110.4501	40	242.8	11.1	40	2:1
14 110.4601	50	303.4	11.1	40	2.5:1
14 110.4701	60	364.0	11.1	50	3:1
14 110.4801	50	303.4	11.1	50	2.5:1
14 110.4901	60	364.0	11.1	50	3:1

for welding to the winding shaft see page 277, example e)



1" x 17.02 chain

Item number	Tooth count	to	b	d	For reduction
14 110.5001	19	154.4	15.3	40	1:1
14 110.5101	19	154.4	15.3	50	1:1
14 110.5201	38	307.6	15.3	50	2:1
14 110.5301	48	388.4	15.3	50	2.53:1
14 110.5401	38	307.6	15.3	65	2:1
14 110.5501	48	388.4	15.3	65	2.53:1
14 110.7701	57	461.0	15.3	65	3:1

Delivery time on request

Chains and chain joints

Note: EN 12604 requires drive chains to have a safety factor of at least 6.

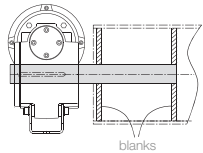


Item number	Type
14 300.1801	Chain 3/4 x 7/16", breaking load 29,000 N
14 300.1601	Chain joint 3/4 x 7/16"
14 300.1901	Chain 1" x 17.02, breaking load 60,000 N
14 300.1701	Chain joint 1" x 17.02

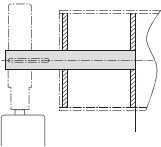
* per meter

Welding shafts

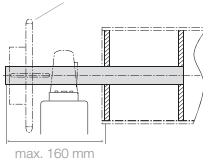
a) Drive side:



b) Bearing side:
with safety brake



c) Drive side:
with chain wheel with hub



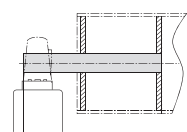
Item number	Shaft Ø (mm)	Key (mm)	Length (mm)
24 045.0001	30	8 x 7 x 50	500
	a) for DFM/WFM 100 – 350 and BoxLine rolling door drives		
	b) Safety brake TA ½		
	c) Chain wheel with hub		
24 045.0101	40	12 x 8 x 60	500
	a) for DFM/WFM 400 – 750		
	b) Safety brake TA ¾		
	c) Chain wheel with hub		
24 045.0201	50	14 x 9 x 60	600
	b) Safety brake TA 4		
	b) Chain wheel with hub		
24 045.0301	65	18 x 11 x 90	600
	b) Safety brake TA 5		
	b) Chain wheel with hub		

Welding shaft for DKM drives

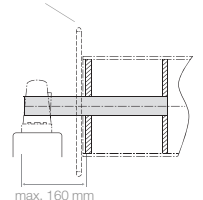
Item number	Shaft Ø (mm)	Key (mm)	Length (mm)
24 334.0201			Short version (also suitable for DKM drives 170 – 350)
24 348.0201			Short version (also suitable for DKM drives 500 – 750)

Welding shaft bearing side

d) Bearing side:



e) Drive side: with full chain wheel



Item number	Shaft Ø (mm)	Length (mm)
14 110.8001	30	500
14 110.8101	40	500
14 110.8201	50	600
14 110.8301	60	600
	d) For pedestal/flange bearing	
	e) Full chain wheel	



Delivery time on request

Blanks

Note: 2 blanks required per welding shaft.

For welding shafts and counterpart supports

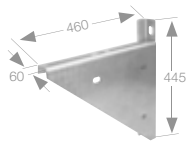


Item number	For shaft Ø (mm)	Blanks Ø (mm)	Thickness (mm)	Hole Ø (mm)
13 117.6001	98 x 2.0; 100 x 3.0; 101.6 x 3.6	93	4	30
14 110.3301	108.0 x 3.6	99	4	30
14 110.3201	133.0 x 4.0	124	6	30
13 117.6101	133.0 x 2.0	128.5	6	30
13 117.6201	159.0 x 4.5	149	6	30
13 119.7601	159.0 x 2.6	153	6	30
14 110.5401	168.3 x 4.5	158.5	6	30
14 110.6001	168.3 x 3.0	161.5	6	30
14 110.9501	193.7 x 5.4	181.5	6	30
14 110.9601	193.7 x 3.0	187	6	30
13 104.6101	133.0 x 4.0	124	6	40
14 102.4201	133.0 x 2.0	128.5	6	40
13 117.6201	159.0 x 4.5	149	6	40
13 102.6001	159.0 x 2.6	153	6	40
13 102.6201	168.3 x 4.5	158.5	6	40
14 102.6701	168.3 x 3.0	161.5	6	40
14 102.6201	193.7 x 5.4	181.5	8	40
14 101.9401	193.7 x 3.0	187	8	40
14 110.6101	219.1 x 5.9	206	8	40
14 110.6201	244.5 x 6.3	231	8	40
14 101.7701	133.0 x 4.0	124	6	50
14 101.7501	133.0 x 2.0	128.5	6	50
14 101.8301	159.0 x 4.5	149	6	50
14 110.5801	159.0 x 2.6	153	6	50
14 101.8701	168.3 x 4.5	158.5	6	50
14 100.5701	168.3 x 3.0	161.5	6	50
14 101.8901	193.7 x 5.4	181.5	8	50
14 110.3401	219.1 x 5.9	206	8	50
14 110.3501	244.5 x 6.3	231	8	50
14 110.3601	273.0 x 6.3	259	8	50
14 110.3701	298.5 x 7.1	283	8	50
14 110.3801	273.0 x 6.3	259	8	65
14 110.3901	298.5 x 7.1	283	8	65
14 110.4001	318.0 x 7.5	302	8	65
14 110.4101	323.9 x 7.1	308	8	65
14 110.4201	355.6 x 8.0	338	8	65
14 110.4301	368.0 x 8.0	351	8	65
14 110.7101	193.9 x 5.4	181.5	8	65
14 110.7201	219.6 x 5.9	206	8	65
14 110.7301	244.5 x 6.3	231	8	65

Delivery time on request

Brackets

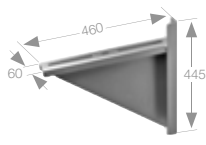
Wallbrackets



max. load: 3,000 N

24 399.0001

With 2 hex bolts M 12 x 50 and nuts for drives DFM/WFM 100 – 350 safety brake TA 1/2 RD

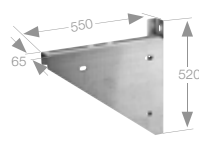


max. load: 3,000 N

24 313.0001

With 2 hex bolts M 12 x 50 and nuts for drives DFM/WFM 100 – 350 safety brake TA 1/2 RD

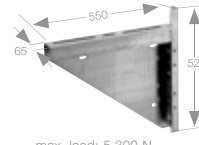
Brackets



max. load: 5,300 N

24 399.0301

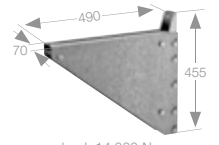
With 2 hex bolts M 12 x 50 and nuts for drives DFM 400 – 750 safety brake TA 2/3 RD



max. load: 5,300 N

24 399.0401

With 2 hex bolts M 12 x 50 and nuts for drives DFM 400 – 750 safety brake TA 2/3 RD

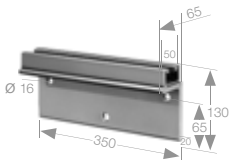


max. load: 14,000 N

14 306.4601

For drives DFM 400 – 750 safety brake TA 4 RD and TA 5 RD

Screw-on angle



max. load: 5,300 N

24 553.0101

For pedestal bearing, safety brake TA 1/2 RD and TA 2/3 RD

Bracket adapter



24 393.0001

For replace Box 15 – 40 to DF 170 – 350



24 394.0001

For replace Box 50 – 75 to DF 500 – 700

Bracket adapter for Riexinger brackets



14 302.8501

For replace Box 15 – 40 to DF 170 – 350



14 302.8601

For replace Box 50 – 75 to DF 500 – 700

RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio controls, radio sensors

Hardwired controls sensors

DFM/WFM/DKM/WKM

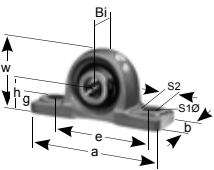
Door controls

Adapter profiles Lifting capacity tables

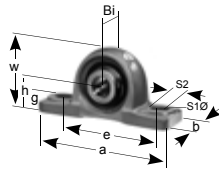


Pedestal bearings and flange bearings

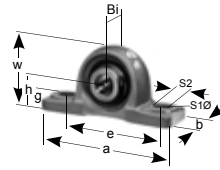
Pedestal bearings



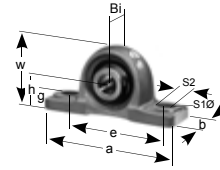
13 300.7701
With set screw fastening
Ø 30 mm



13 305.5401
With set screw fastening
Ø 40 mm



13 300.3901
With set screw fastening
Ø 50 mm



13 305.5501
With set screw fastening
Ø 65 mm

Plate bearings



13 300.3601
Ø 17 mm



13 300.3701
Ø 20 mm

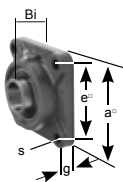


13 300.3001
Ø 17 mm

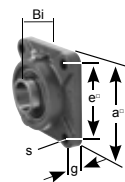


13 300.3101
Ø 20 mm

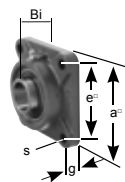
Flange bearings



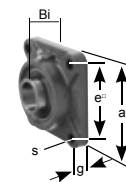
13 300.3201
Ø 30 mm



13 305.5601
Ø 40 mm



13 300.3401
Ø 50 mm



13 305.5701
Ø 65 mm

Item number	h	a	e	b	S1Ø	S2	g	w	Bi	kg
13 300.7701	42.9	165	121	48	17	21	15	84	38.1	1.3
13 305.5401	49.2	184	137	54	17	21	17	100	49.2	2.0
13 300.3901	57.2	206	159	60	20	22	19	114	51.6	2.7
13 305.5501	76.2	265	203	70	25	29	25	150	65.11	5.6

Item number	a	e	g	SØ	Bi	kg
13 300.3201	108	83	13	12	38.1	1.1
13 305.5601	130	102	15	16	49.2	2.0
13 300.3401	143	111	16	16	51.6	2.5
13 305.5701	187	149	20	19	65.1	5.5

Screws for pedestal bearings and safety brakes



14 300.5501

T-head screw M 10 x 40 with M 10 nut for fixing the pedestal bearing to the screw-on angle (2 pieces required)



14 300.5601

T-head screw M 12 x 50 with M 12 nut (for pedestal bearings Ø 30 and Ø 40 and safety brake TA 1/2 RD / TA 2/3 RD on the screw-on angle, item no. 24 553.0101)

RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio controls, radio sensors

Hardwired controls sensors

DFM/WFM/DKM/WKM

Door controls

Adapter profiles Lifting capacity tables



2



Door controls and BoxControl – safety first!



A push of a button is sufficient to operate motorised rolling garage doors, roller grilles or smaller industrial doors reliably and quietly. The DoorControl and SafeControl door controllers have been specially developed for single-phase shaft tube drives with mechanical limit stop and conform to the European standards EN 12453 and EN 12445 "Safety in use of power operated doors". Of course, both controllers are CE compliant and certified by the TÜV.





Control selection table

Safe- und DoorControl

Control selection	SafeControl for rolling doors and roller grilles	DoorControl	
		for rolling doors without radio	868.8 MHz for roller grilles *2) without radio
*1) Recommendations for doors shown below			
Doors for commercial and industrial use etc. Pulse control with or without sight of door (maintained mode) Automatic control with traffic lights		•	
Rolling doors or roller grilles for underground garages etc. Automatic control/two-way traffic with red/green traffic light	•		–

Features

Menu-guided parameterisation in German, French and English	•		–
Two-way traffic control system with request store	•		–
Automatic closing with traffic light function		•	
Test of the opto-electronic door-edge security system for 8.2 KΩ resistance evaluation		•	
*2) Test of the ingress protection system integrated	•		–
Automatic drives switch-off at the end positions		•	
Connection of 'CLOSE' light barrier		•	
Connection of pre-end switch		•	
Garage light connection		•	–
Integrated radio receiver FM 868.8 MHz	–		•
Slot for radio module item. no.: 17 700.4301 / 24 147.0001	•		–
Connection of timer possible		•	

*1) Be sure to follow EN 12453! § 5.5. Table 1 – Follow the „Minimum protection levels for security of main door-edge“! Maintained mode only if this represents no risk of injury or damage. Connection of protection systems is essential.

*2) Ingress protection with testing for roller grille can be connected. Item no.: 17 700.5401 light barriers test unit for 2 one-way light barriers item no.: 24 961.0001 or light barrier requirements: Voltage 24V DC; power consumption \leq 1.5VA. Standby delay \leq 250 ms

Control selection table

Box-, Master- and SoftControl

Control selection	BoxControl-M D 400 with plug-in modules				MasterControl	SoftControl
	BoxControl-M compact	basic	BoxCard-M plus	*2) premium		
*1) Recommendations for doors shown below						
Doors with occasional use, warehouses etc. Control without maintained mode (dead-man)	•	•				
Doors for commercial and industrial halls etc. Pulse signal control with or without sight of door (maintained mode)			•	•	•	•
Rolling doors for underground garages etc. Automatic control/single lane traffic with red/green traffic light				•	•	•
Rolling doors or roller grilles with ingr. prot. for underground garages etc. Automatic control/single lane traffic with red traffic light				•	•	•
Rolling doors or roller grilles with ingr. prot. for underground garages etc. Automatic control/two-way traffic with red/green traffic light					•	•
Features						
Menu-guided parameterisation					•	•
Two-way traffic control system with request store					•	
Automatic closing with traffic light function				•	•	•
Testing the opto-electrical door edge security system. Item no.: 24 275.0001 or door-edge security system with 8.2 kΩ resistance evaluation			•	•	•	•
Testing of the ingress protection external via 'Light barrier test unit', item no.: 17 700.5401				•		
Test of the ingress protection system integrated					•	
Soft starting and stopping Frequency 15 – 100 Hz; for D.M 170 ZE, max. torque 150 Nm						•
Connection of 'CLOSE' light barrier			•	•	•	•
Garage light connection				•	•	•
Slot for radio module item no.: 17 700.4301/24 147.0001			•	•	•	
Slot for Rex 2000 timer item no.: 17 800.3001				•	•	•
Door cycle counter			•	•	•	•
Maintenance interval counter			•	•		
Slot for emergency key switch (dead-man's safety system)			•	•		
Fault or error message				•		
Inspection control system			•	•		

*1) Be sure to follow EN 12453! § 5.5. Table 1 – Follow the „Minimum protection levels for security of main door-edge“! Maintained mode only if this represents no risk of injury or damage. Connection of protection systems is essential.

*2) Ingress protection with testing for roller griller can be connected. Item no.: 17 700.5401 light barriers test unit for 2 one-way light barriers item no.: 24 961.0001 or light barrier requirements: Voltage 24V DC; Power consumption ≤ 1,5VA. Standby delay ≤ 250 ms

RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio controls, radio sensors

Hardwired controls sensors

Door drives

Door controls

Adapter profiles
Lifting capacity tables



DoorControl

Convenient door controllers

DoorControl

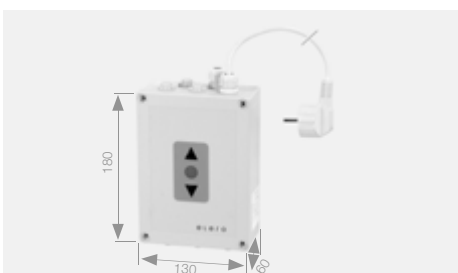
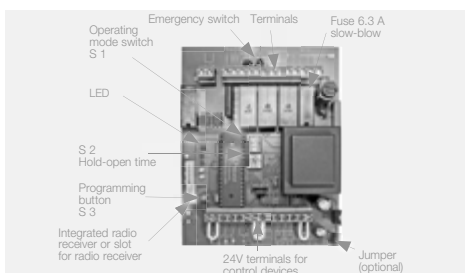
for tubular drives Type 9-15 W NHK and NMA with mechanical limit stop
1 x 230V/50 Hz

- Door edge detection
- Dynamic motor runtime monitoring
- Output for interior light or warning light
- Automatic operation of door systems with 230V single-phase motors
- DoorControl RG: Suitable for roller grilles



DoorControl with hand-held radio transmitter

DoorControl









Technical data and dimensions

Type	DoorControl for rolling doors	DoorControl for roller grilles
Supply voltage (V)	230	
Rated frequency (Hz)	50 – 60	
Power consumption (W)	max. 6	
On-site fuse protection (A)	max. 10	
Switched current (A)	max. 6	
Switching capacity (VA)	max. 1,300	
Ingress protection (IP)	54	
Internal fuse (A)	6.3 slow-blow	
Temperature range (°C)	-10 to +50	
Dimensions (mm)	L 180 x W 130 x H 60	
Weight (g)	1,000	
TÜV-certified	EN 12453 PL c/Cat. 2 as per EN ISO 13849-1:2008 for the safe function of the door-edge security system	
Radio version	•	–
Incl. radio receiver	•	–
Incl. hand-held transmitter	•	–
Incl. slot for radio module	–	•
Accessories included	The controller is delivered with a 1.5 m long connecting cable with an earthed plug and a membrane keypad (Up-Stop-Down) built into the housing cover.	

Item Number	DoorControl for rolling doors			DoorControl for roller grilles
	24 180.0001	24 180.0301	24 180.0101	24 080.0101
				

Radio receiver in housing 2-command 868.8 MHz for follow-on control	Item Number	–	17 700.4201
Radio module FM 868.8 MHz, 2-command, pluggable	Item Number	–	17 700.4301
Rod antenna FM 868 MHz, 50 Ohm (external antenna for 17 700.4201 and 17 700.4301)	Item Number		17 700.4901
Hand-held radio transmitter 4-command, 868 MHz, range up to 50 m, extremely safe “SOMLOQ” Rolling code system	Item Number		17 700.3701
Wall mount holder for hand-held radio transmitter 17 700.3701	Item Number		17 700.3901

Accessories

 Door-edge security system Page 300	 Light barrier test unit Page 300	 One way “Twin-Safe” light barrier Page 300
 Reflection light barrier Page 300	 Surface mount push-button Page 301	 Surface mount key switch Page 301



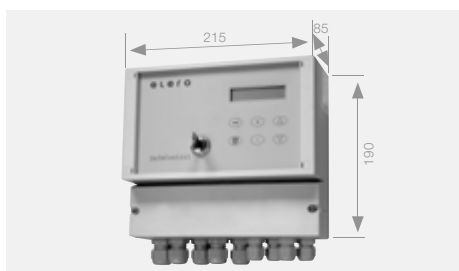
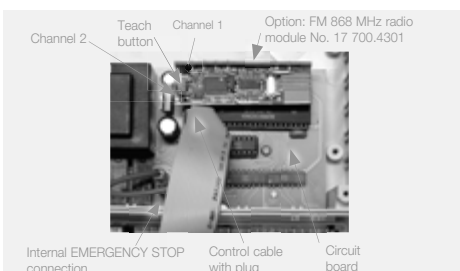
SafeControl

Convenient door controllers for tubular drives

All-rounder for rolling doors and roller grilles


for tubular drives Type 9-15 W NHK and NMA with mechanical limit stop
1 x 230 V/50 Hz

- Automatic closing with one- or two-way traffic control
- Direct connection of the entanglement protection
- Automatic operation of rolling doors and roller grilles with AC tubular motors



Technical data and dimensions

Type	SafeControl
Supply voltage (V)	230
Rated frequency (Hz)	50
Power consumption (W)	max. 13
On-site fuse protection (A)	max. 10
Switched current AC1 (A)	max. 6
Switching capacity (VA)	max. 1,300
Ingress protection (IP)	54
Internal fuse (A)	6.3 slow blow
Temperature range (°C)	-10 to +55
Dimensions (mm)	L 215 x W 190 x H 85
Weight (g)	1,400
TÜV certified	DIN EN 12453

		SafeControl
Item Number		24 178.0101

Radio receiver in housing, 2-command 868 MHz for follow-on control	
Item Number	17 700.4201

Radio module FM 868 MHz, 2-command, pluggable	
Item Number	17 700.4301

Rod antenna FM 868 MHz, 50 Ohm (external antenna for 17 700.4201 and 17 700.4301)	
Item Number	17 700.4901

Hand-held radio transmitter 4-command, 868 MHz, range up to 50 m, „SOMLOQ“ Rolling code system	
Item Number	17 700.3701

Wall mount holder for hand-held radio transmitter 17 700.3701	
Item Number	17 700.3901

Accessories

 Door-edge security system Seite 300	 Reflection light barrier Page 300	 One way "Twin-Safe" light barrier Page 300
 Surface mount push-button Page 300		

RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio controls, radio sensors

Hardwired controls sensors

Door drives

Door controls

Adapter profiles Lifting capacity tables



BoxControl

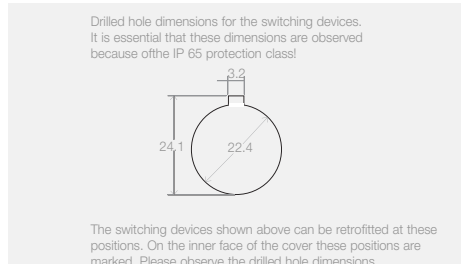
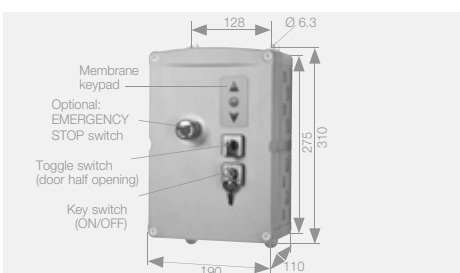
BoxControl-M D 400 and BoxControl-M compact

The modular drive control system for sectional doors, rolling doors and roller grilles

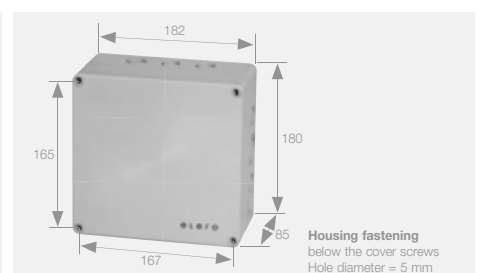
- BoxControl-M D 400:
Only for controlling rolling doors, sectional doors and vertical lift gates equipped with elero three-phase drives
- Must be extended with the following:
BoxCard-M basic, BoxCard-M plus or BoxCard-M premium and plug-in control cable and plug-in motor cable
- BoxControl-M compact D 230:
For DFM/DKM-, WFM/WKM 170 drives with dead man mode
- BoxControl-M compact D 400:
For DFM/DKM drives, with dead man mode



BoxControl-M




BoxControl-M compact





Technical data and dimensions

Type	BoxControl-M		BoxControl-M compact	
	D 400		D 230	D 400
Rated voltage	3 x 400V/N /PE; 3 x 400V/PE; 3 x 230V/N /PE; 3 x 230V/PE (1 x 230V/PE)		3 x 230V (1x230 V/PE)	3 x 400V/PE
Rated frequency (Hz)	50/60			
On-site fuse protection (A)	10 (3-pole) (CEE-type connector, 16A, clockwise rotating field)		8	
Control voltage	24V DC			
Fuse for external units (AT)	2		-	
Power supply for external units max.	24V DC/250 mA		-	
Max. motor power AC 3	400V 2 kW/230V 2 kW		230V 4 kW	400V 3 kW
Contactors	Mechanically locked			
Contact status display	LED "OPEN" and "CLOSE"		-	
Integrated brake relay	Yes		-	
Ingress protection (IP)	65 (cable glands installed vertically downwards)		65	
Temperature range (°C)	-10 to +40			
Dimensions (mm)	H 275 x W 190 x T 110 (HB 310 with screwed connections)		H 180 x W 182 x T 85	
Weight (g)	4,200		-	
VDE checked	DIN EN 50178; DIN EN 60204-1; DIN EN 12453		-	
Accessories included	incl. 3 cable entry diaphragms, without mains lead		with 1.0 m long connected motor and control cables	











Item Number	BoxControl-M		BoxControl-M compact	
	D 400		D 230	D 400
	24 119.0004		24 198.1101	24 199.1101

BoxCard-M basic (dead man mode)				
	Item Number	24 136.0001	-	

BoxCard-M plus (pulse control)				
	Item Number	24 144.0002	-	

BoxCard-M premium (automatic control)				
	Item Number	24 176.0001	-	

Accessories

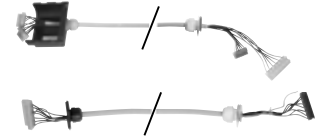
	Motor and control cables Page 292		Mains lead Page 292		Connection sets Page 292
	Device switches Page 292		Hand-held radio transmitter Page 300		One way light barrier Page 300
	Push button Page 301		Radio module Page 300		Door-edge security system Page 300
					Rod antenna Page 300



Motor and control cables for BoxControl-M D 400

for DFM/DKM and WFM/WKM 170
with plug-in screws and plug-in terminals on both sides

Item Number	Length 1.0 m	Length 5.0 m	Length 8.0 m	Length 10.0 m
24 172.1101	•			
24 172.1501		•		
24 172.1801			•	
24 172.2001				•



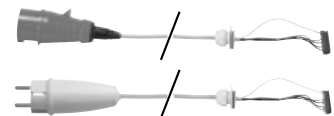
for DFM/DKM and WFM/WKM 170 ZE
with plug-in screws and plug-in terminals on both sides

24 172.0101	•			
24 172.0501		•		
24 172.0801			•	
24 172.1001				•

Mains

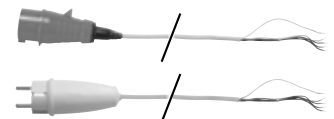
for BoxControl-M D 400
with plug-in screws and plug-in terminals

Item Number	Length 1.5 m with CEE plug, 16 A	Length 1.5 m with earthed plug, 1 x 230V
24 172.0001	•	
24 600.9001		•



for BoxControl-M compact
with plug-in screws and plug-in terminals

24 177.0001	•	
24 600.9101		•



Connection sets

for BoxControl for deliveries without connecting cables

Item Number	1 x plug-in terminal with 1 x plug in screw	2 x plug-in terminal with 2 x plug in screw
Mains connection set		
24 119.8301	•	
Motor and limit switch connection set		
24 119.8401		•

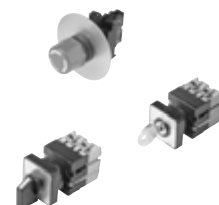


24 350.0101	Connection kit for drives without motor- und control cables	
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Device switches

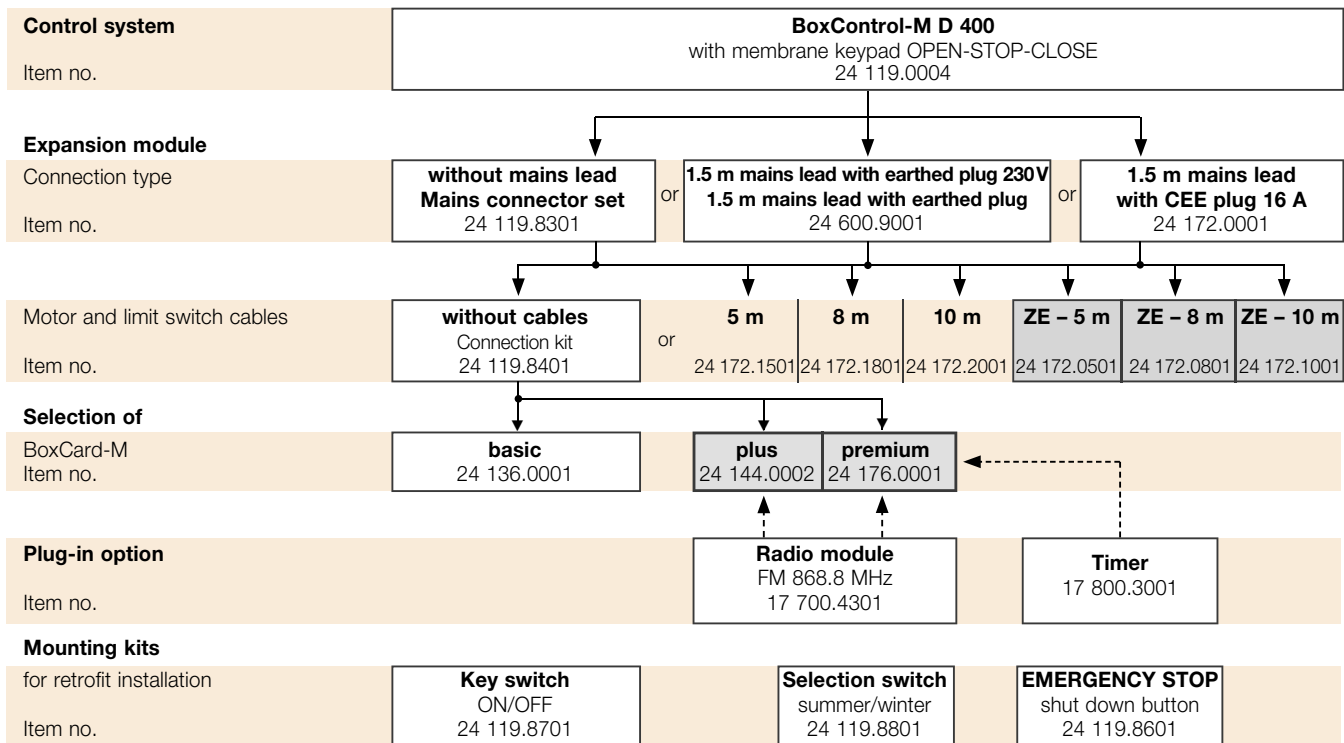
for retrofit installation in the housing cover

Item Number	EMERGENCY STOP (shut down button) with connection strands	Key switch ON-OFF (Automatic on/off switching) with connection strands	Selection switch S/W (half door opening) with connection strands
24 119.8601	•		
24 119.8701		•	
24 119.8801			•



Order instructions

BoxControl for WFM/WKM 170 and DFM/DKM 100–750



Recommendation:
In case all functions are used fully for BoxCard-M plus and premium drives use ZE additional limit switches.



BoxControl for pole-reversible drives

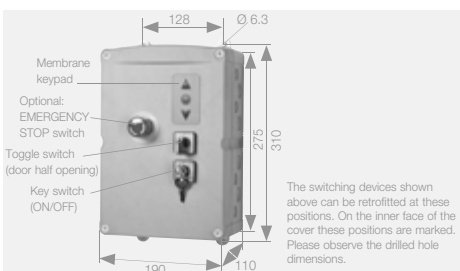
BoxControl-M D 400/2 P

The modular drive control system for sectional doors, rolling doors and roller grilles

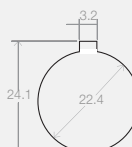
- Only for controlling rolling doors with elero DFM 400/32–16 drives and original elero control cable and motor cable
- Must be extended with BoxCard-M basic, BoxCard-M plus or BoxCard-M premium, and plug-in control cable and plug-in motor cable



BoxControl-M



Drilled hole dimensions for the switching devices. It is essential that these dimensions are observed because of the IP 65 protection class!



Technical data and dimensions

Type	BoxControl-M 400/2 P
Rated voltage	3 x 400V/N /PE; 3 x 400V/PE; 3 x 230V/N /PE; 3 x 230V/PE
Rated frequency (Hz)	50/60
On-site fuse protection (A)	10 (3-pole) (CEE-type connector, 16 A, clockwise rotating field)
Control voltage	24V DC
Fuse for external units (AT)	2
Power supply for external units max.	24V DC/250 mA
Max. motor power AC 3	400V 2.3 kW/230V 2.3 kW
Contactors	Mechanically locked
Contactors status display	LED "OPEN" and "CLOSE"
Integrated brake relay	Yes
Ingress protection (IP)	65 (cable glands installed vertically downwards)
Temperature range (°C)	-10 to +40
Dimensions (mm)	H 275 x W 190 x T 110 (HB 310 with screwed connections)
Weight (g)	4,200
VDE checked	DIN EN 50178; DIN EN 60204-1; DIN EN 12453
Accessories included	BoxControl-M D 400/BoxControl-M D 400/2 P: incl. 3 cable entry diaphragms, without mains lead BoxControl-M Compact: with 1.0 m long connected motor and control cables, without mains unit

Item Number	BoxControl-M 400/2 P
	24 196.0001

BoxCard-M basic (dead man mode)

Item Number	
	24 136.0001











BoxCard-M plus (pulse control)

Item Number	
	24 144.0002

BoxCard-M premium (automatic control)

Item Number	
	24 176.0001

Accessories

 Motor and control cables Page 296	 Mains lead Page 296	 Connection sets Page 296
 Device switches Page 296	 Hand-held radio transmitter Page 300	 One way light barrier Page 300
 Push button Page 301	 Radio module Page 300	 Door-edge security system Page 300
		 Rod antenna Page 300

RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio controls, radio sensors

Hardwired controls sensors

Door drives

Door controls

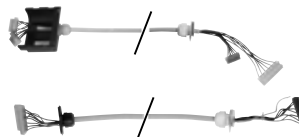
Adapter profiles
Lifting capacity tables



Motor and control cables for BoxControl-M D 400/2 P

for pole-reversible drives
with plug-in screws and plug-in
terminals on both sides

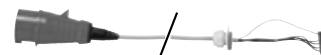
Item Number	Length 5.0 m
24 197.0501	•



Mains

for BoxControl-M D 400 and D 400/2P
with plug-in screws and plug-in terminals on both sides

Item Number	Length 1.5 m with CEE plug, 16 A
24 172.0001	•



Connection sets

for BoxControl for deliveries without connecting cables

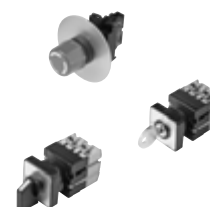
Item Number	1 x plug-in terminal with 1 x plug in screw
Mains connection set	
24 119.8301	•

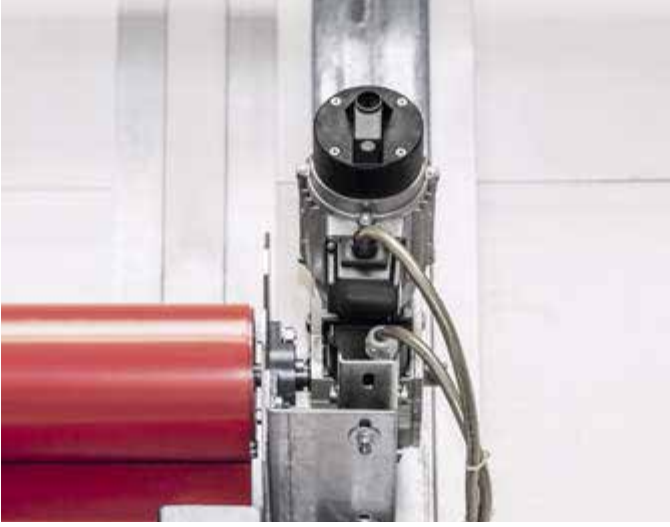


Device switches

for retrofit installation in the housing cover

Item Number	EMERGENCY STOP (shut down button) with connection strands	Key switch ON-OFF (Automatic on/off switching) with connection strands	Selection switch S/W (half door opening) with connection strands
24 119.8601	•		
24 119.8701		•	
24 119.8801			•





Adapter profiles Lifting capacity tables	Door controls	Door drives	Hardwired controls sensors	Hausautomation, radio controls, radio sensors	Speciality drives	Venetian blind drives	Type 9 + 11	RevoLine
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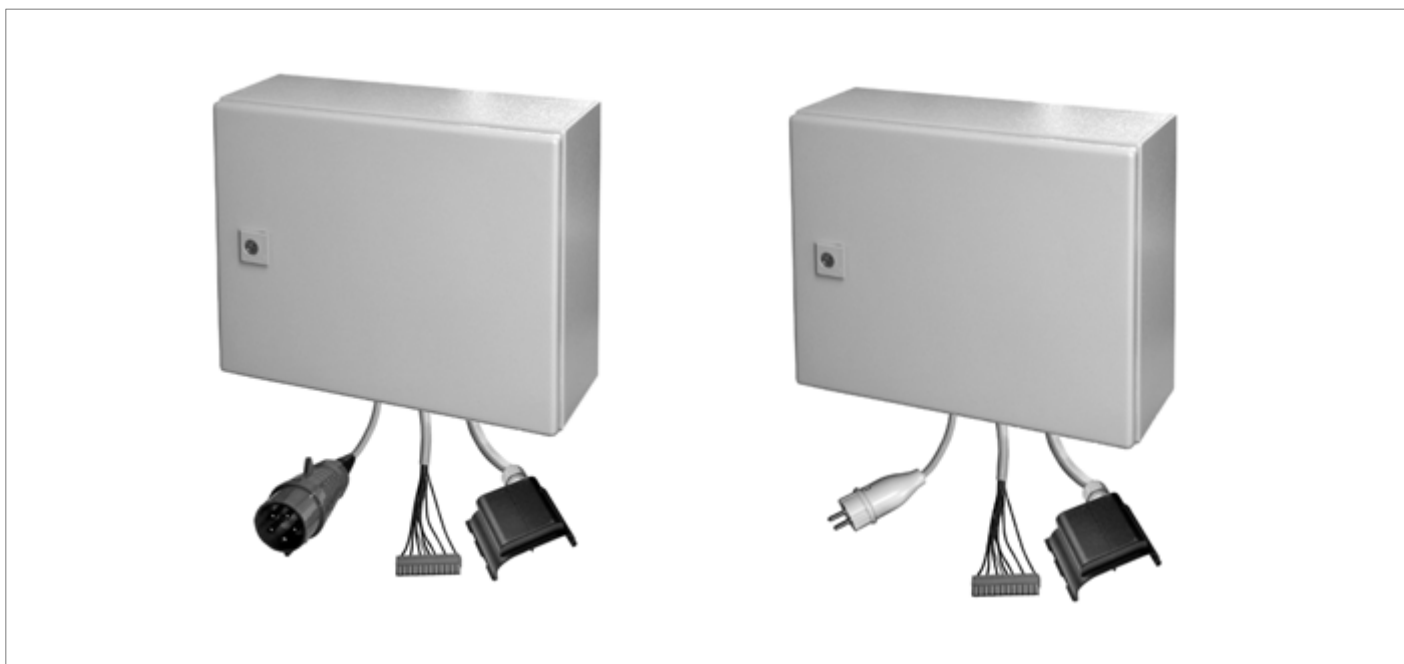


MasterControl/SoftControl

MasterControl RD 400 ZE/SoftControl RD 230 ZE

Versatile door control for DFM/DKM roller shutter drives

- *MasterControl RD 400 ZE:*
 - Automatic rolling door systems and roller grilles
 - Automatic operation of door systems
 - System state displayed via LCD display
 - In the event of a fault or during setup, the drive can be moved manually in dead man's mode via the UP/DOWN PCB keys
- *SoftControl RD 230 ZE:*
 - For DFM/DKM 170 ZE rolling doors
 - Test of the door-edge security system as per category 2
 - System state displayed via LCD display
 - In the event of a fault or during setup, the drive can be moved manually in dead man's mode via the UP/DOWN PCB keys
- *Control voltage 24V DC*
- *Connection to 230V three-phase current drives only*



MasterControl, SoftControl

Technical data and dimensions

Type	MasterControl RD 400 ZE	SoftControl RD 230 ZE
Power supply	3 x 400V/N/PE; 3 x 230V/PE, 50 Hz +/- 10%	230V, 50 Hz +/- 10%
Power consumption (VA)	Standby max. 13	
Control voltage (V DC)	24	
Switching power (kW)	2.2	1.1; 3 x 230V
Frequenz (Hz)	-	10 to 100
Ingress protection (IP)	65	
On-site fuse protection (A)	max. 10, Switching current of the lamp outputs: max. 2	
Controller fuse (A)	2 x A slow-blow	F1: 8 A slow-blow or AH for converter F2: 2 A slow-blow for brake chopper
Temperature range (°C)	-10 to +55	
Storage temperature (°C)	-20 to +70	
Dimensions (mm)	H 380 x W 300 x T 155	
Weight (g)	11,500	9,900
VDE checked		
Plug-in motor and limit switch cable (m)	5.0	2.0
Mains lead (m)	1.5 with CEE plug 16 A	

	MasterControl RD 400 ZE	SoftControl RD 230 ZE
	24 185.0001	24 186.0001
		24 166.0001

MasterControl

Application:

- Automatic rolling door systems and roller grilles
- 400/230V 50 Hz three-phase current
- Control voltage 24V DC
- 1.5 m mains lead with CEE plug 16 A
- optional connection of an opto-electrical door-edge security system OSE
- or 8,2 kΩ resistance evaluation
- Connection of the ingress protection – one-way light barrier, item no. 24 960.0301 or 24 961.0001
- Test of the door-edge security system and ingress protection as per category 2
- Automatic closing with various traffic light functions: Pre-warning, traffic regulation for 1- or 2-way
- Menus in German, English or French
- Sheet metal housing degree of protection IP 66; colour RAL 7035 (light grey)

SoftControl

Application:

- Automatic rolling doors for garages etc.
- Input: 230V 50 Hz single-phase current
- Output: 230V three-phase current 1.0 kW 25 to 100 Hz
- Control voltage 24V DC
- 1.0 m mains lead with earthed plug
- 2.0 m shielded, plug-in motor and limit switch cables
- optional connection of an opto-electrical door-edge security system OSE
- or for 8.2 KΩ resistance evaluation
- Test of the door-edge security system as per category 2

Note:

- Connection to 230V three-phase current drives only
- 150 Nm torque for DFM/DKM 170
- Speed 6.5 – 25 rpm
- Screened cable with a max. length of 2.0 m must be used for the connecting cables from the frequency converter to the drive

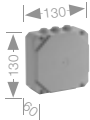
Accessories

	Door-edge security system Page 300		One way light barrier Page 300		Push button Page 301
	Radio module Page 300		Rod antenna Page 300		



Radio remote control 868.8 MHz

Radio receiver in housing
2-command 868.8 MHz



17 700.4201
For follow-on control power supply, 230V AC op. modes: Push-button mode switch mode, on/off timer mode switch-off delay up to 250 sec.

Radio module FM 868.8 MHz, 2-command



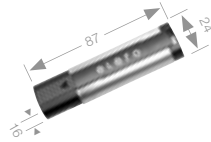
17 700.4301
Can be plugged into BoxCard plus and premium DoorControl 24 180.0101, usable in SafeControl, MasterControl, SoftControl

Rod antenna FM 868.8 MHz



17 700.4901
External antenna for radio receiver 17 700.4201 and for the radio module 17 700.4301
50 Ohm – coaxial cable (10.0 m)

Hand-held radio transmitter
4-command 868.8 MHz



17 700.3701
Range up to 50 m, depending on environment, safe "SOMLOQ" Rolling code system, 3V Battery, CR 2032
Size: 87 x 24 x 16 mm

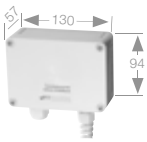
Wall mount holder



17 700.3901
For hand-held radio transmitter 17 700.3701

Safety for crushing, shearing and ingress points

Door-edge security system
(Opto-electronic safety edge)

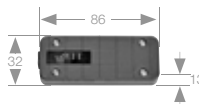


14 705.9002
Evaluation device for mains voltage 230V/50 Hz, switching contact, potential-free (in plastic housing IP 66)



24 275.0001
Transmitter, cable length 1.0 m receiver, cable length 10.5 m range from 1.0 – 8.0 m max, Ø 11 mm

Connection box (on blind)



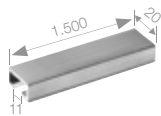
23 173.0002
With strain relief for spiral cable integrated plug on/screw type terminals incl. screwdriver



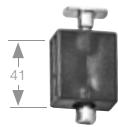
14 705.2801
Spiral cable 3 x 0.5 mm² extendable from 0.9 – 3.0 m



14 706.2601
Safety edge rubber hollow double profile with seal flap



14 701.0602
Aluminium C-rail for safety edge rubber 1.5 m length



23 255.0002
Stoppers (pair)

Reflection light barrier with polarizer IP 67



24 960.0201
Accessories: Reflector, angle bracket, screw connections and fixing screws for the support brackets. Range: 0.50 ... 15.0 m; Rated voltage: 15 – 45V DC or 24V AC; Ready to operate: < 100 ms; Rated current: max. 30 mA/24V

Note: The reflectors for the reflection light barriers can fog up outdoors due to weather effects, frost etc, thus drastically reducing their range. Recommendation: One-way light barriers are suitable outdoors even in tough conditions

One way light barrier IP 67



24 961.0001
Set: Transmitter, receiver and fastening part. Plastic. Range: max. 50.0 m; rated voltage: 20–230V AC/DC Exit: relais

Weather protection hoods



14 306.8501
for reflection light barriers or one-way light barriers



14 306.8601
for reflectors

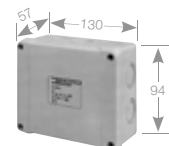
One way "Twin-Safe" light barrier



24 960.0301
Accessories: Angle bracket

Range: 1.0 – 20.0 m,
Rated voltage:
10 – 30V DC
Opening angle: < 4°,
Rated current: 70 mA

Light barrier test unit for pull up protection



17 700.5401
Functions only with BoxCard Premium for 2 one-way light barriers item no. 24 961.0002 or 24 960.0301

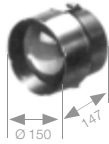
Timers and traffic lights

Rex 2000 plug-in weekly timer

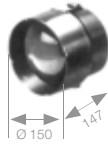


17 800.3001
for Master-, SoftControl and BoxCard premium

LED lamp E27 25 mA;
1 x 230V 50/60 Hz



14 700.3801
Lamp red



14 700.3901
Lamp green

Switches and push-buttons

Venetian blind switches/push-buttons
for single-phase motors, surface mount



14 701.1701
Switch surface mount,
water-protected



14 701.2101
Push-button surface mount,
water-protected



14 701.3301
with latched position on
both sides and cover
lock



14 701.3601
momentary on one side
latching on the other,
and cover lock



14 701.3801
momentary on one
side single pole, and
cover lock

Flush mount key switch
IP 54



14 701.3901
with latched position on both
sides and cover lock



14 701.4201
momentary on both sides
and cover lock



14 701.4401
momentary on one
side and latching on
the other, cover lock

Surface mount
push-button



14 701.2401
Single pole,
Push-button

Push-button surface mount,
water-protected
IP 54



14 701.2501
UP-DOWN



14 701.2901
UP-STOP-DOWN

Surface mount combined
key and pushbutton switch
IP55



14 701.4501
Key switch UP-DOWN,
momentary on both sides
and pushbutton STOP

Flush mount combined
key and pushbutton
switch, IP 55



14 701.4801
Key switch UP-DOWN,
momentary on both sides
and push-button STOP



14 703.1301
Pull switch (momen-
tary contact), surface
mount, aluminium
housing



14 703.2601
Lockable main switch,
surface mount,
4-pole 400V 4 kW



14 703.2701
Emergency shut down
button, surface mount

RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio
controls, radio sensors

Hardwired controls
sensors

Door drives

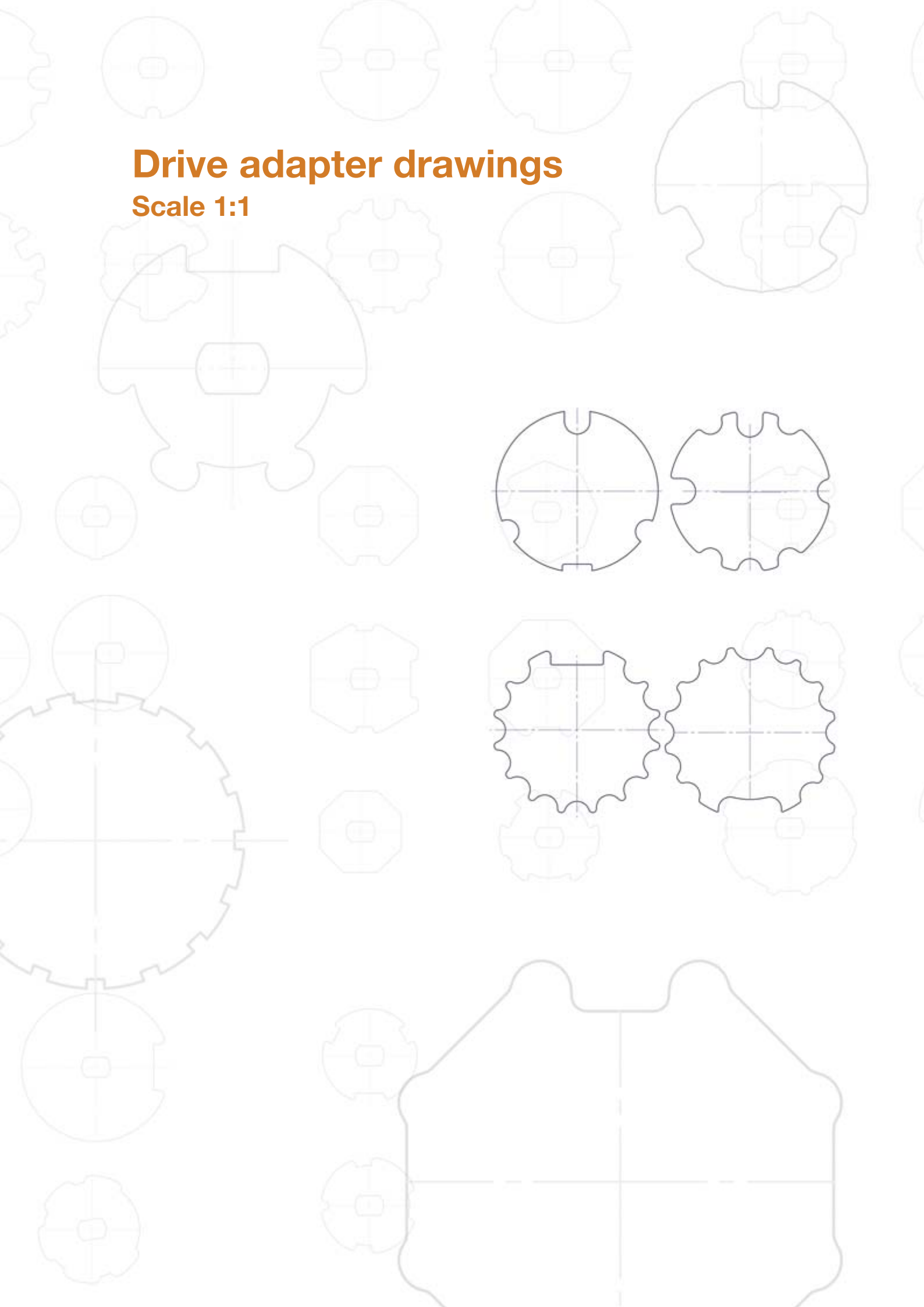
Door controls

Adapter profiles
Lifting capacity tables



Drive adapter drawings

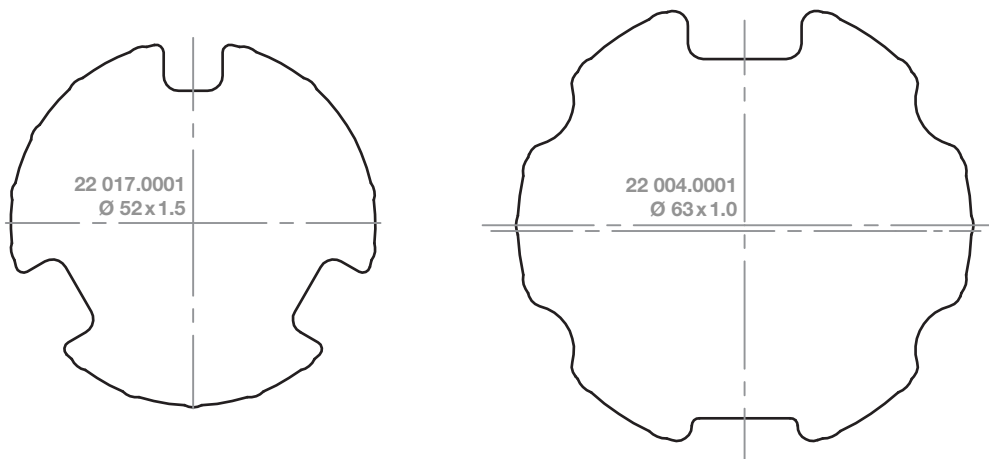
Scale 1:1



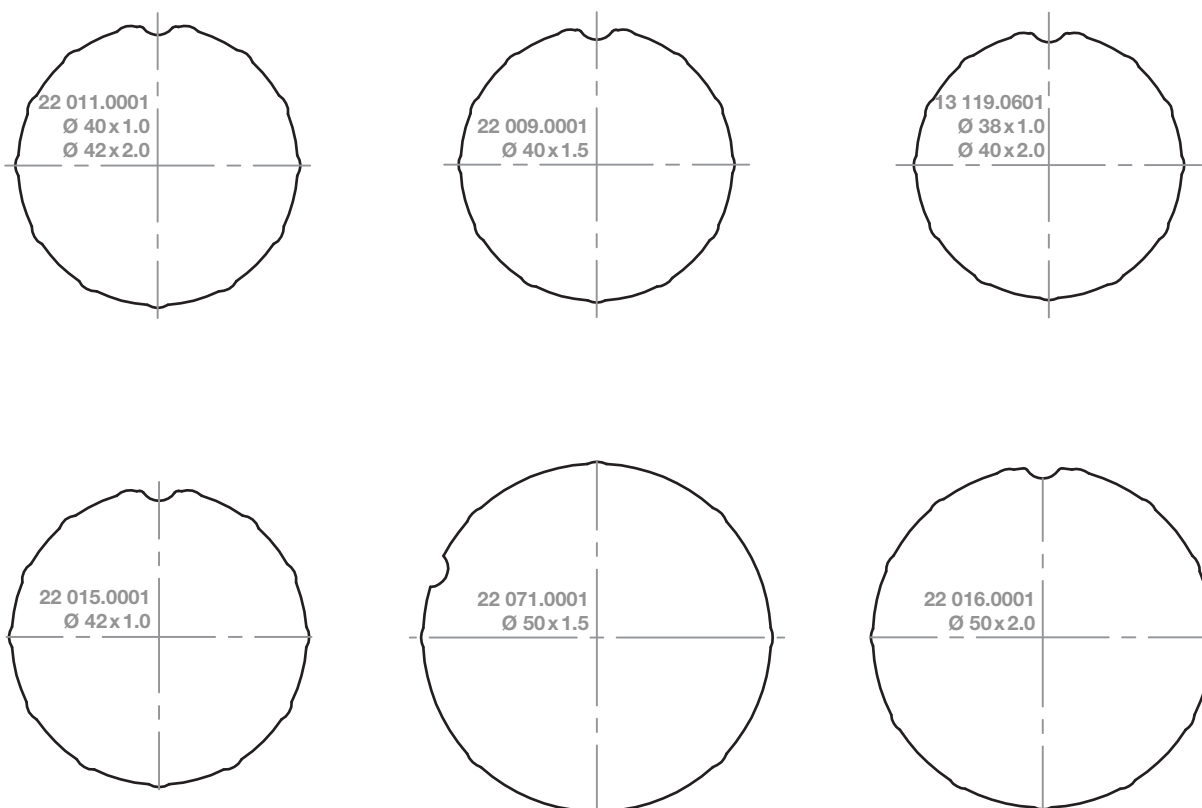
RevoLine S

1:1 scale / Dimensions in millimeters

Notch tubes

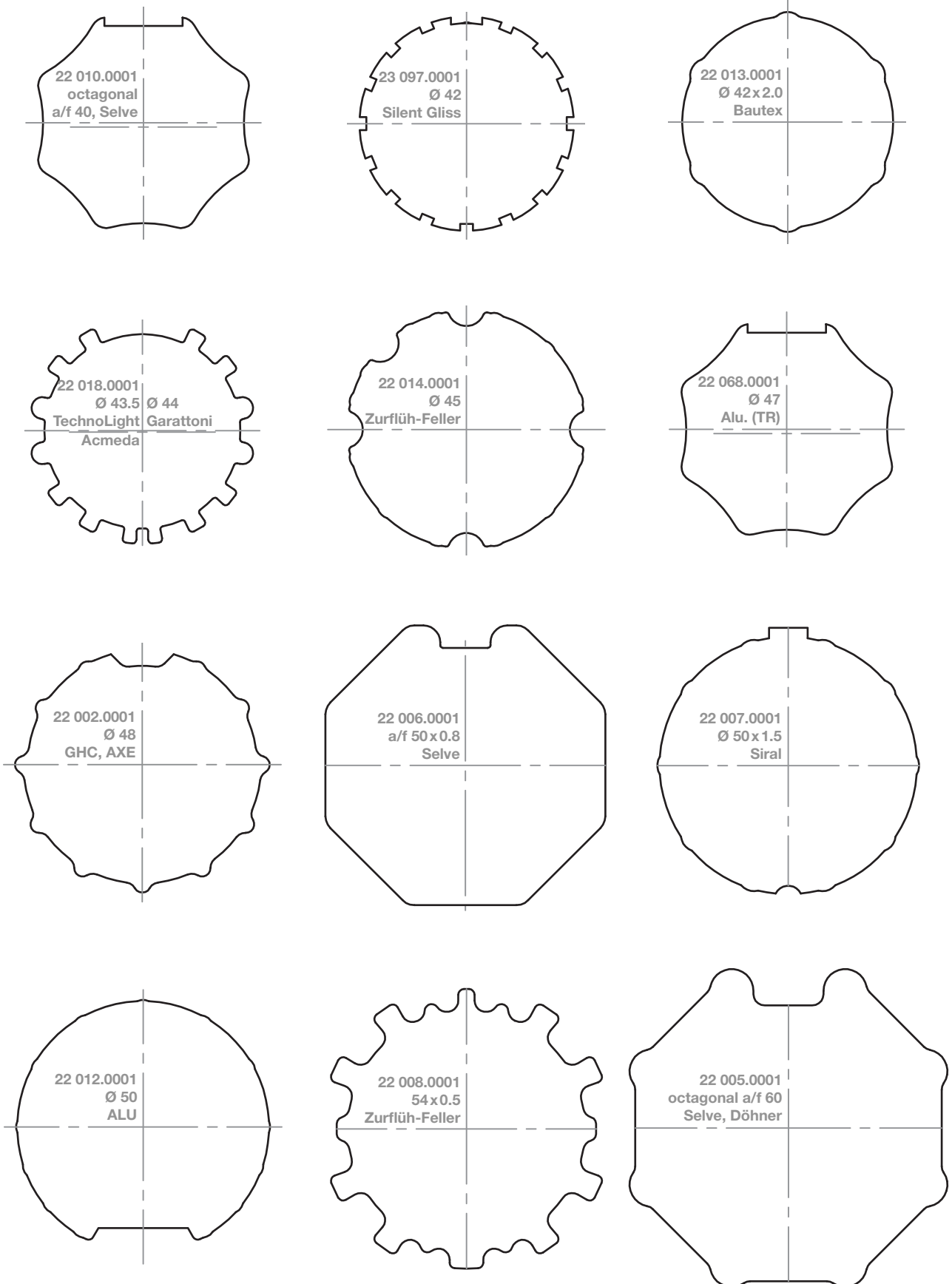


Round tubes



1:1 scale / Dimensions in millimeters

RevoLine S
Profile tubes

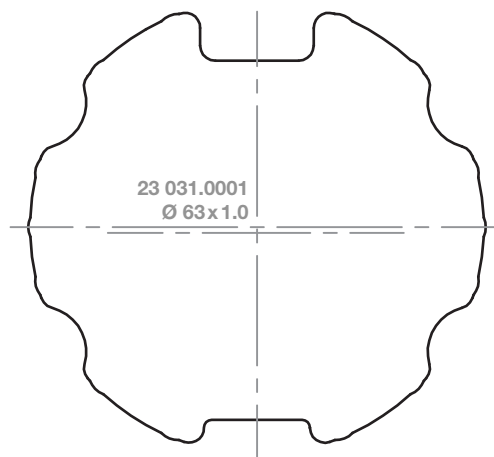
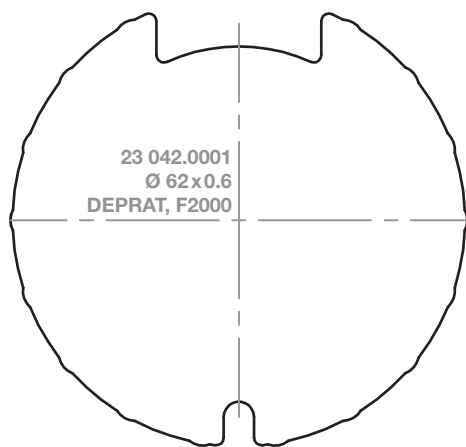
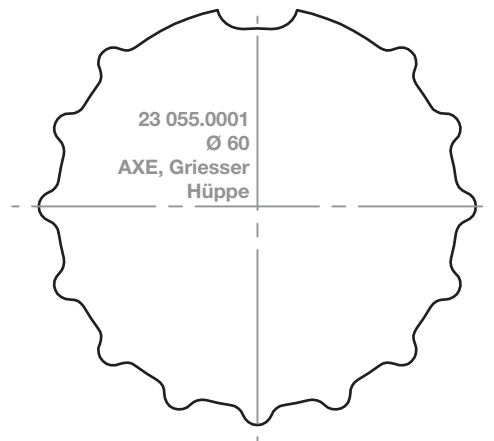
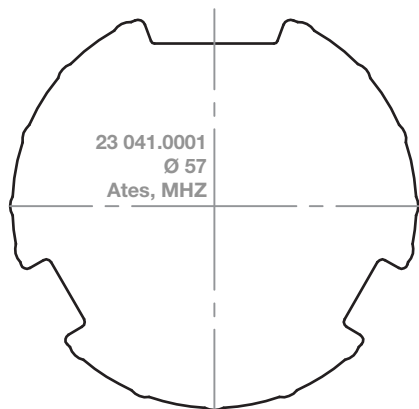


RevoLine
Type 9 + 11
Venetian blind drives
Speciality drives
Hausautomation, radio controls, radio sensors
Hardwired controls sensors
Door drives
Door controls
Adapter profiles

RevoLine M

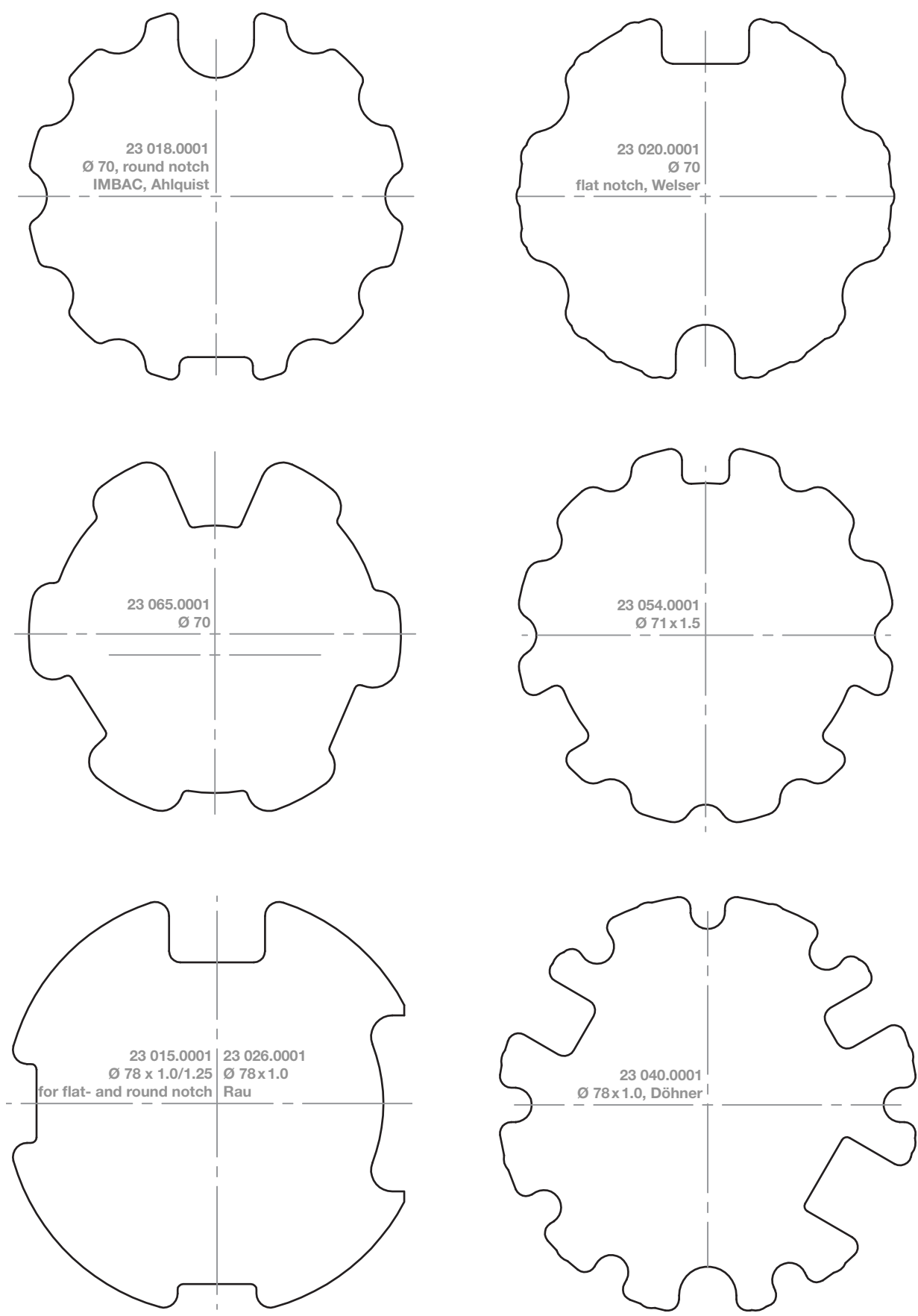
1:1 scale / Dimensions in millimeters

Notch tubes



1:1 scale / Dimensions in millimeters

RevoLine M
Notch tubes

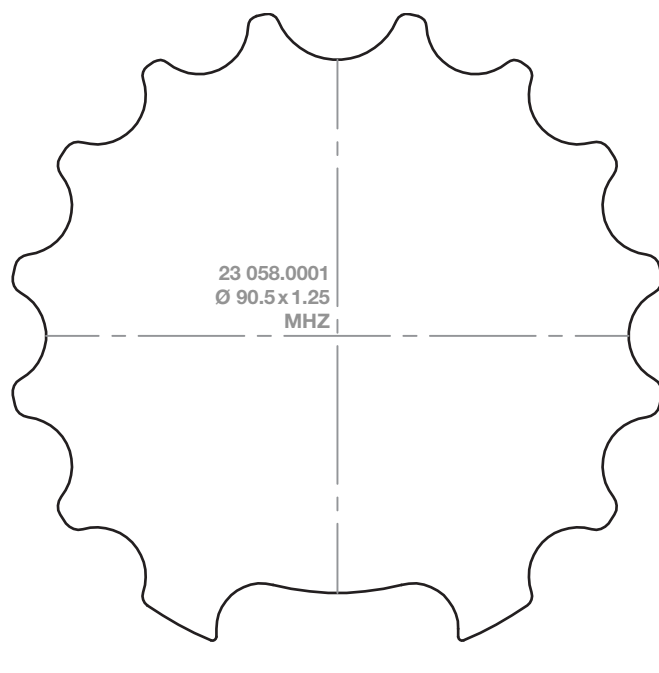
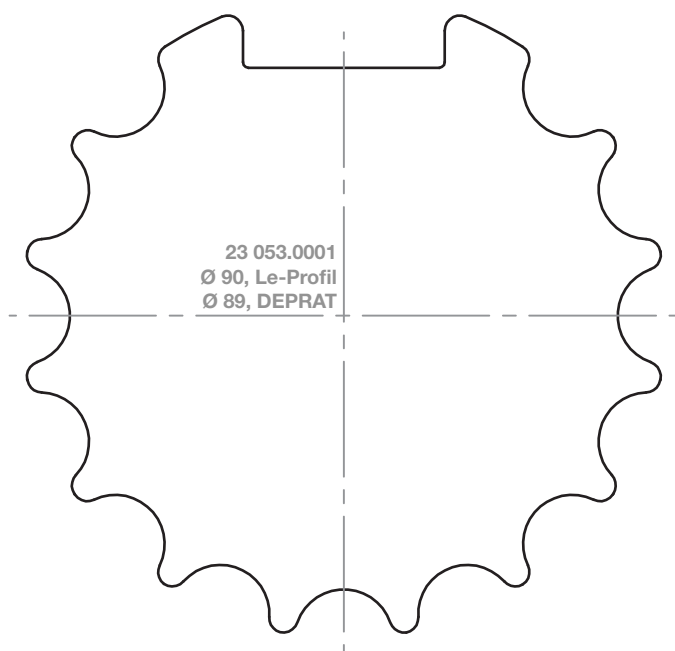
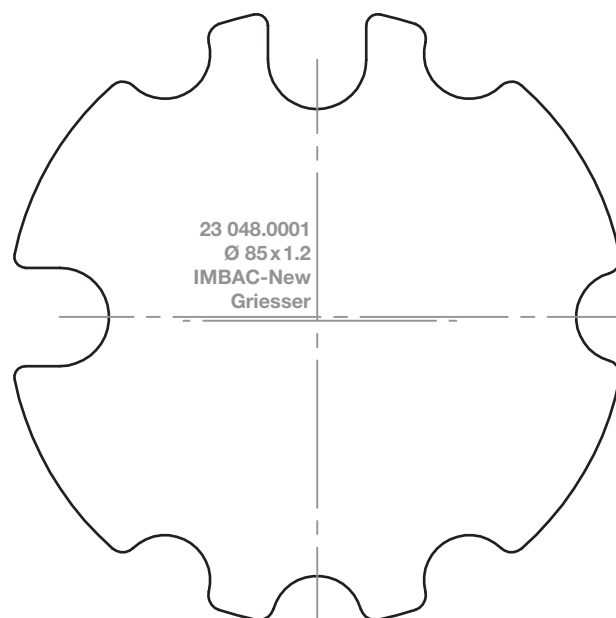
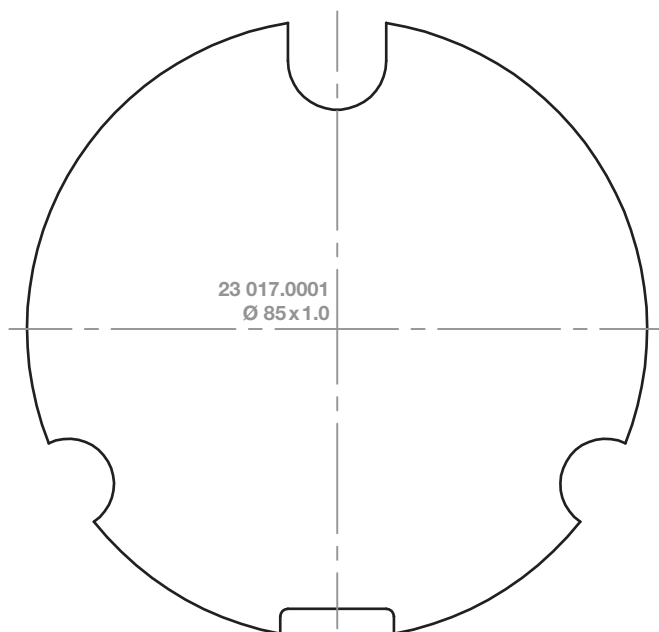


Adapter profiles
Door controls
Door drives
Hardwired controls sensors
Hausautomation, radio controls, radio sensors
Speciality drives
Venetian blind drives
Type 9 + 11
RevoLine

RevoLine M

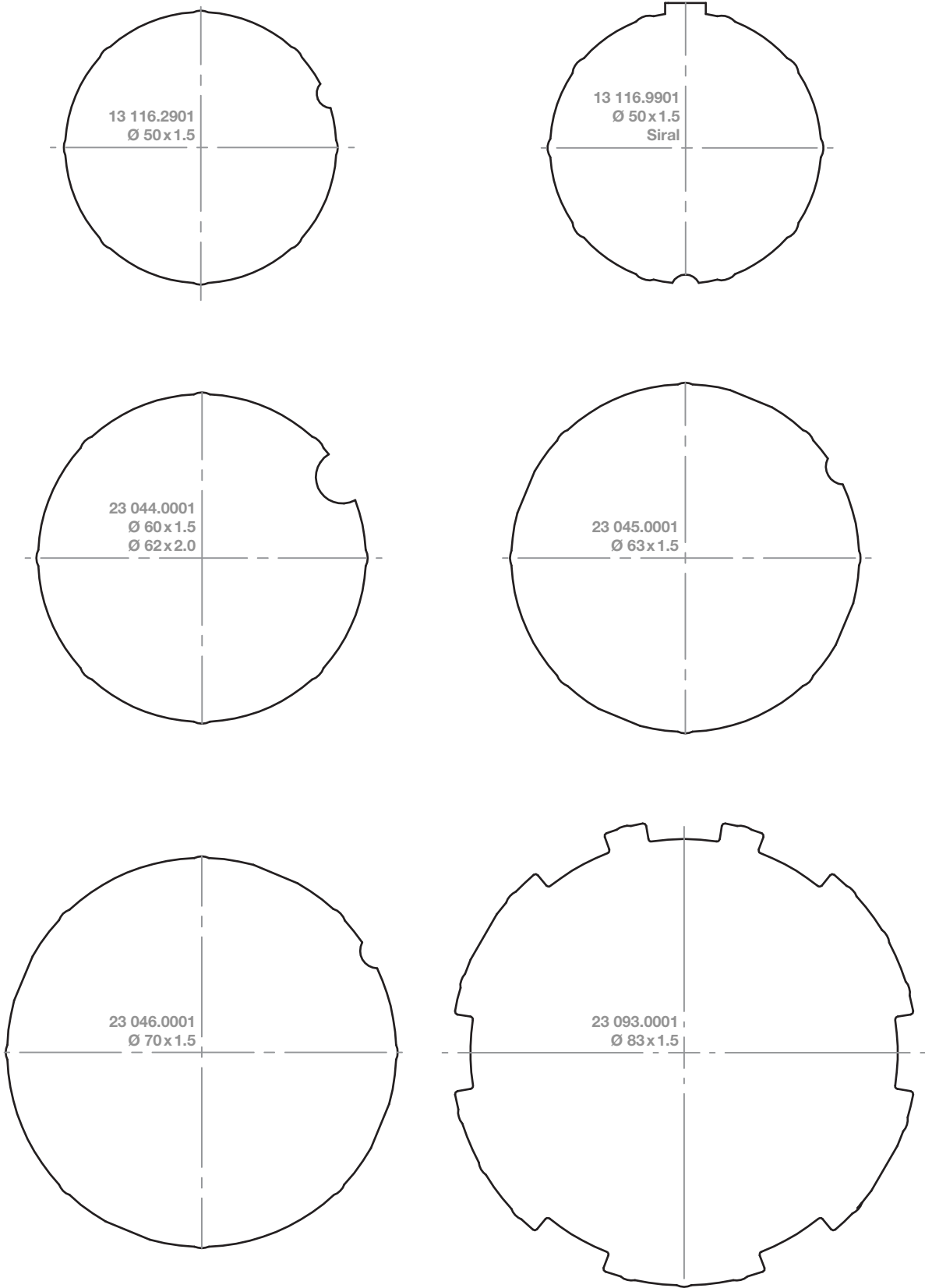
1:1 scale / Dimensions in millimeters

Notch tubes



1:1 scale / Dimensions in millimeters

RevoLine M
Round tubes

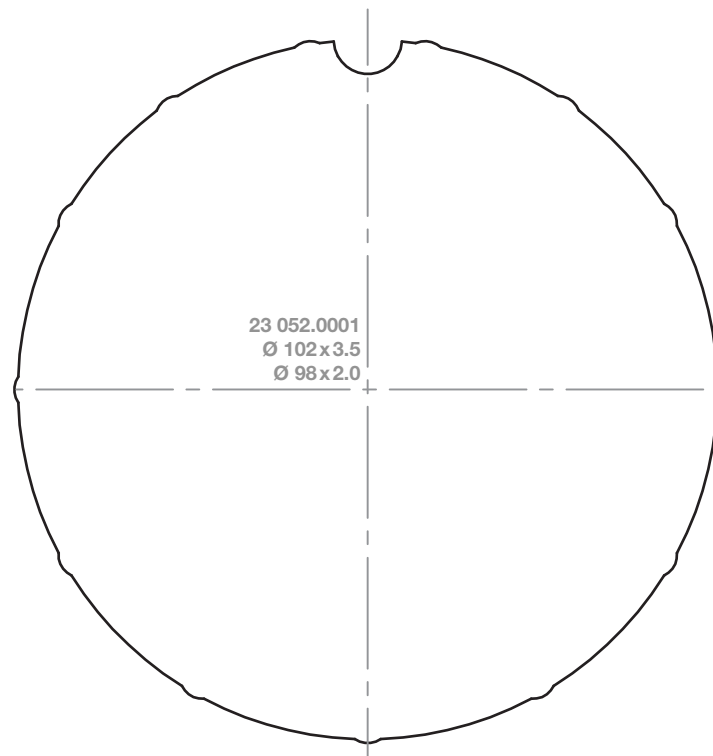
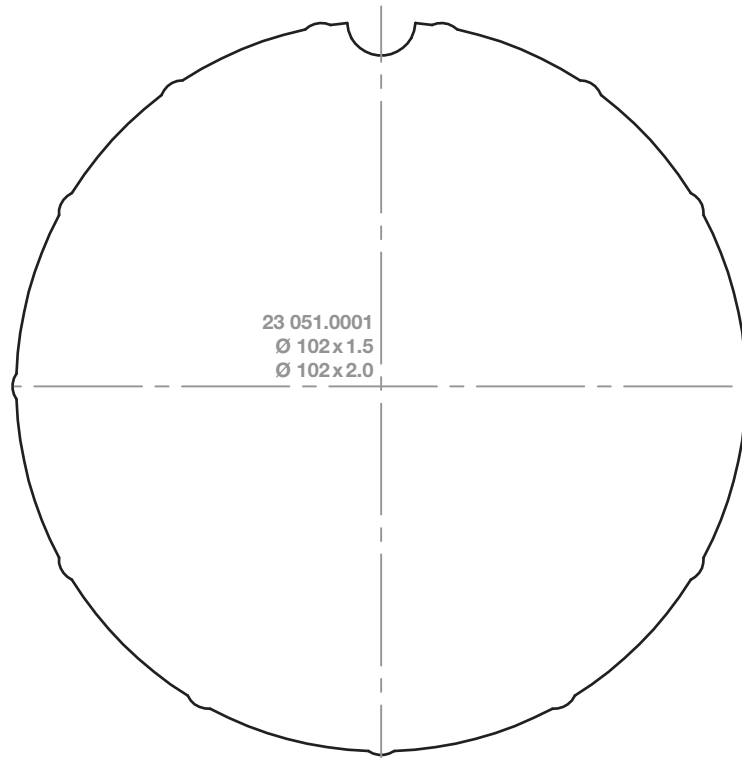


RevoLine
Type 9 + 11
Venetian blind drives
Speciality drives
Hausautomation, radio controls, radio sensors
Hardwired controls sensors
Door drives
Door controls
Adapter profiles

RevoLine M

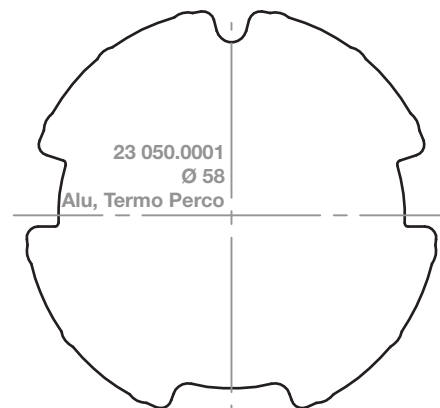
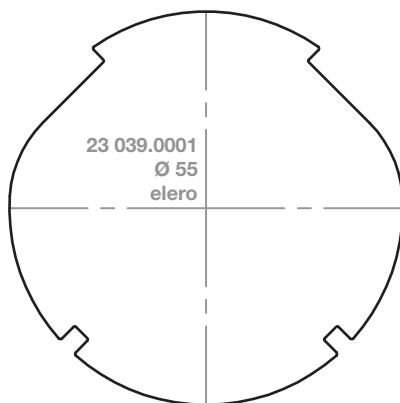
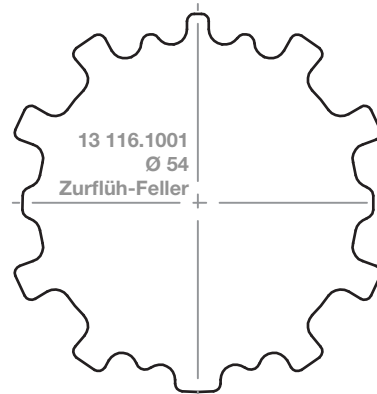
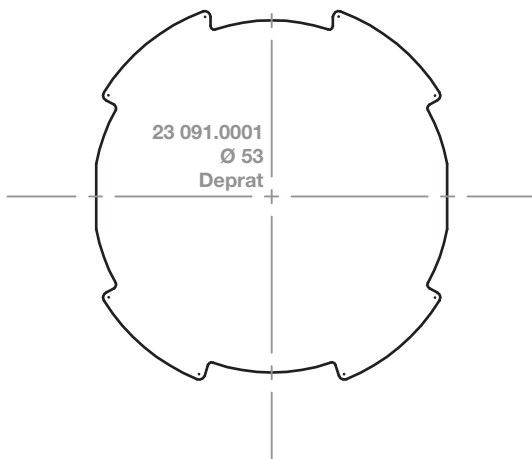
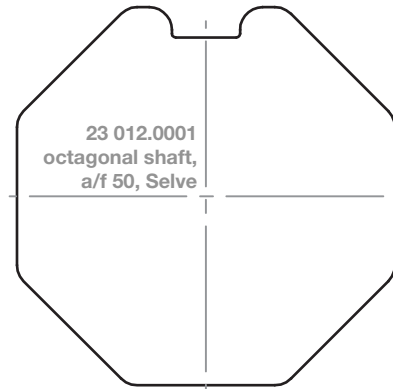
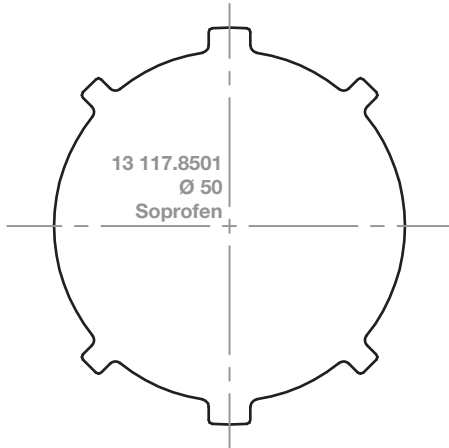
Round tubes

1:1 scale / Dimensions in millimeters



1:1 scale / Dimensions in millimeters

RevoLine M
Profile tubes



RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio controls, radio sensors

Hardwired controls sensors

Door drives

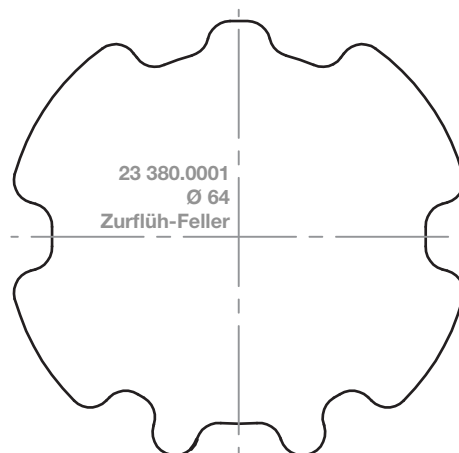
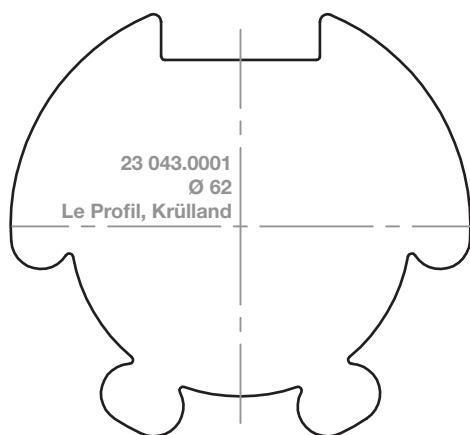
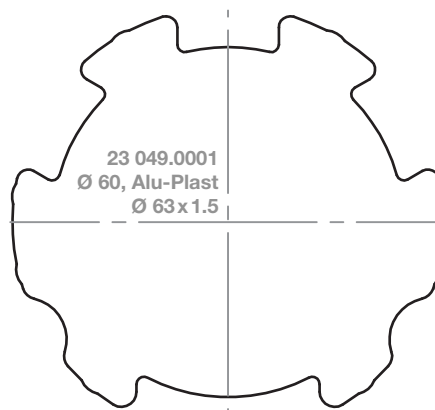
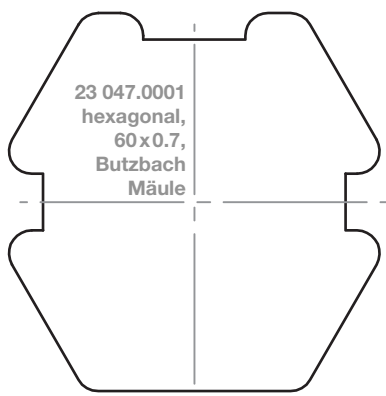
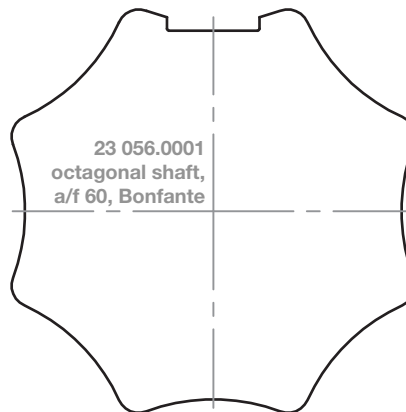
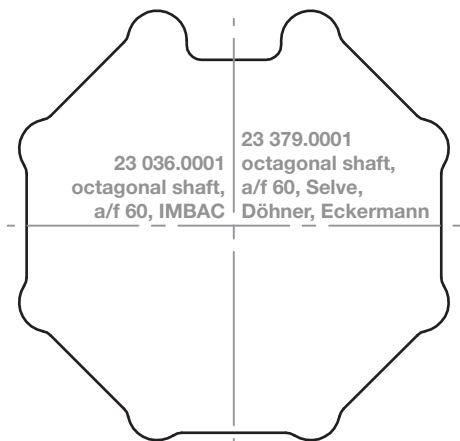
Door controls

Adapter profiles

RevoLine M

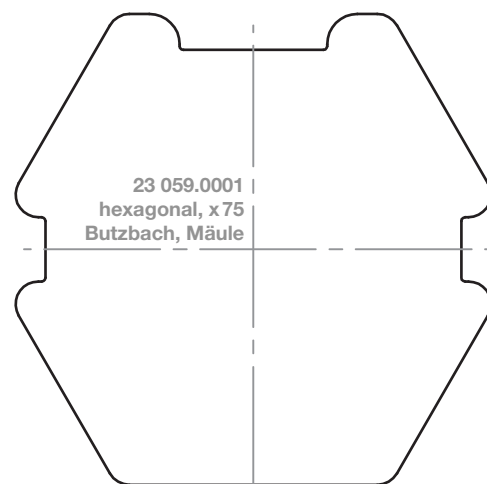
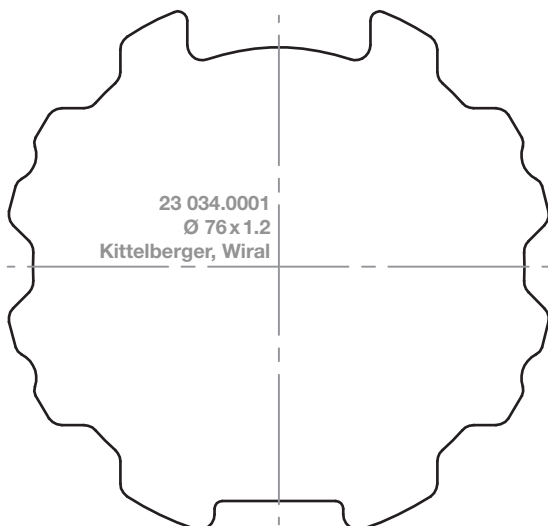
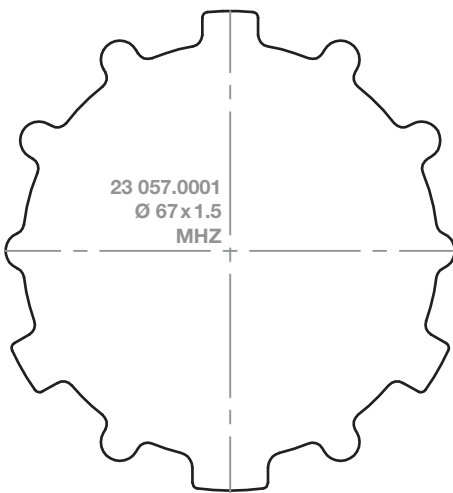
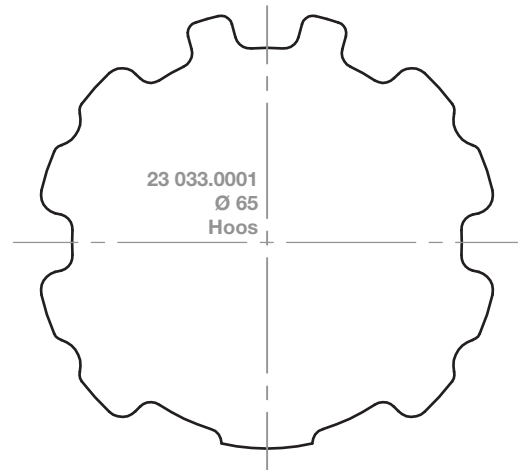
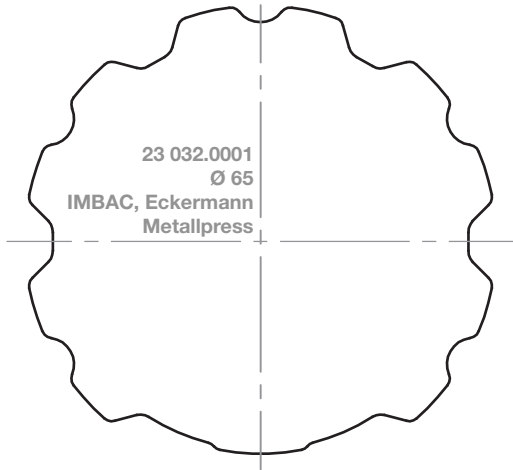
1:1 scale / Dimensions in millimeters

Profile tubes



1:1 scale / Dimensions in millimeters

RevoLine M
Profile tubes



RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio controls, radio sensors

Hardwired controls sensors

Door drives

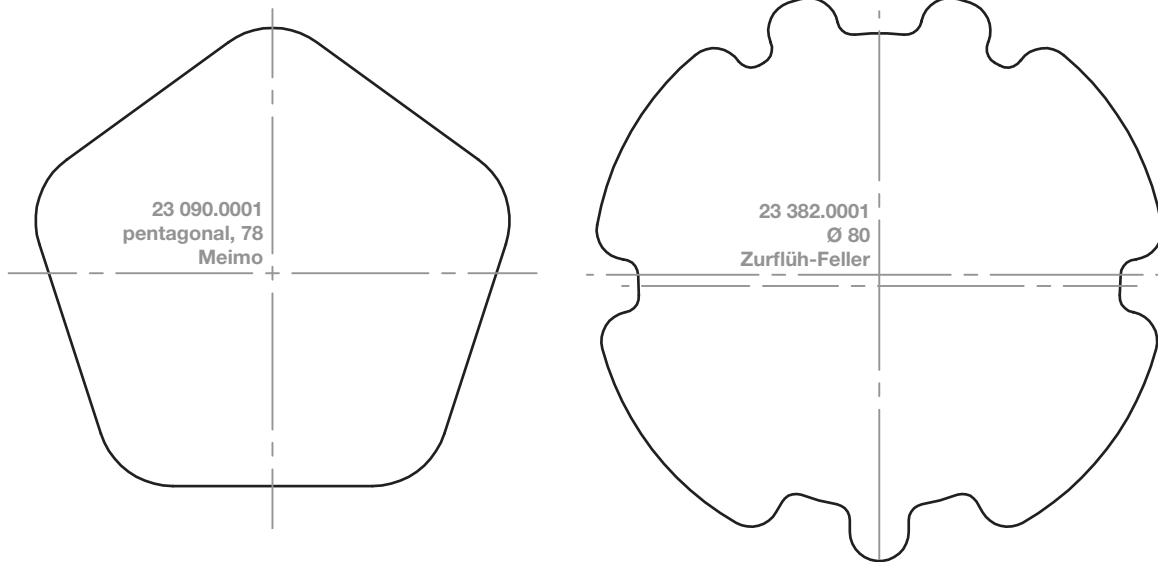
Door controls

Adapter profiles

RevoLine M

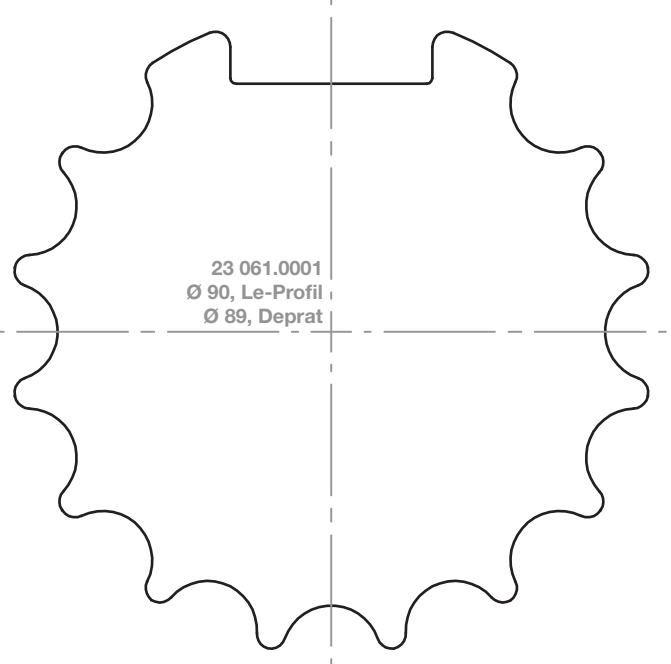
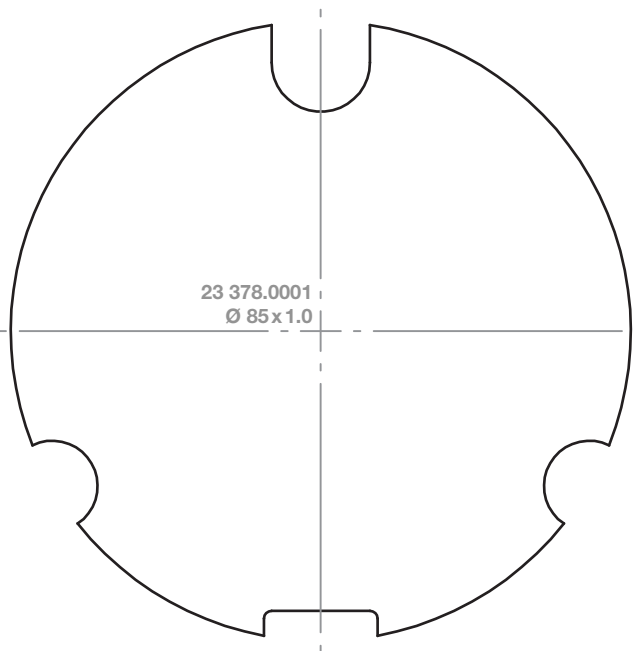
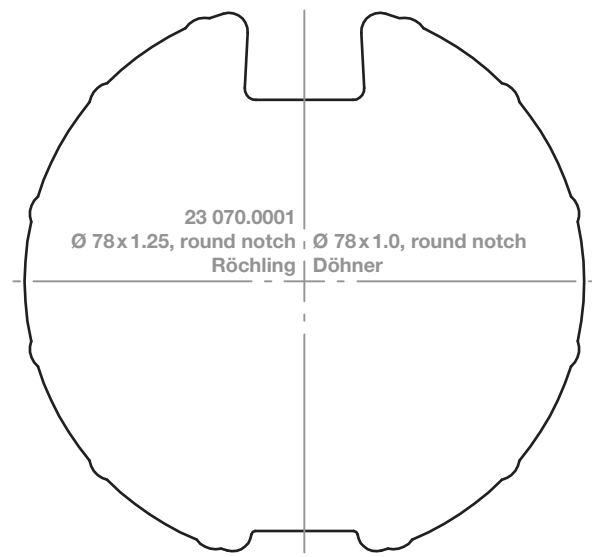
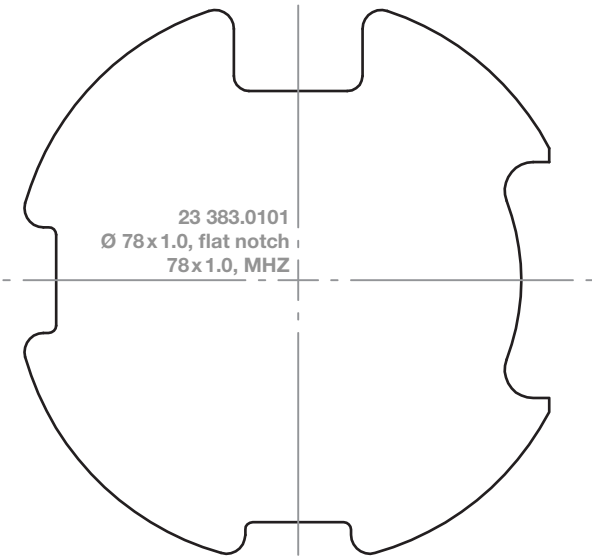
1:1 scale / Dimensions in millimeters

Profile tubes



1:1 scale / Dimensions in millimeters

RevoLine L
Notch tubes



RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio controls, radio sensors

Hardwired controls sensors

Door drives

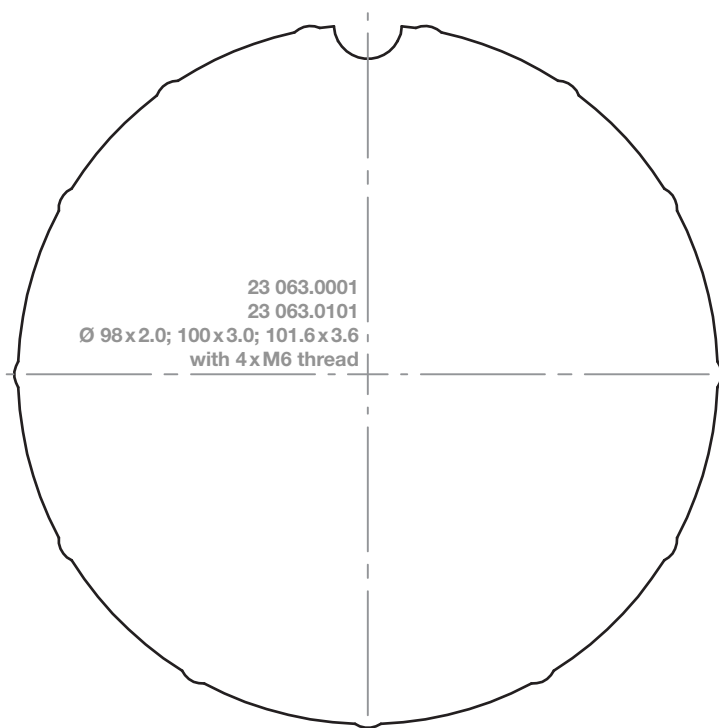
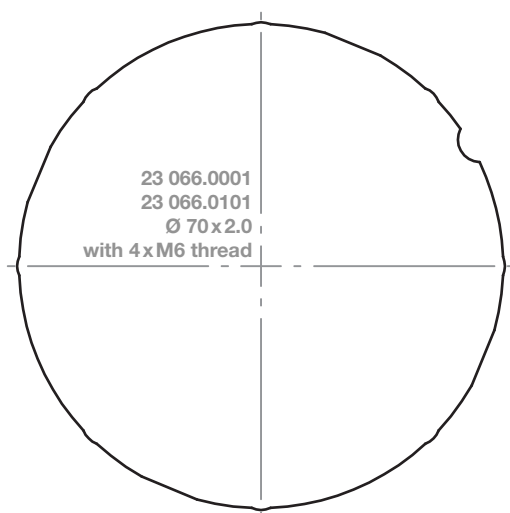
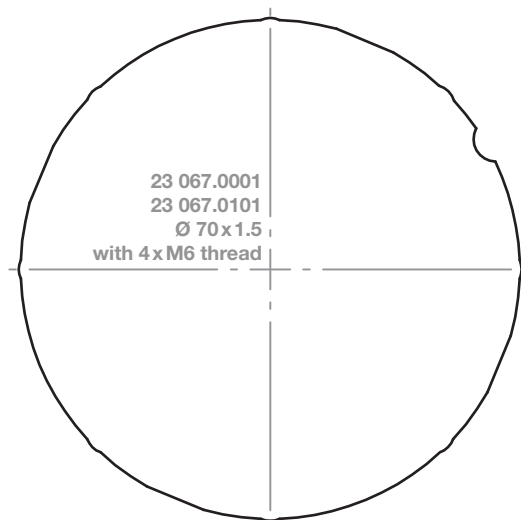
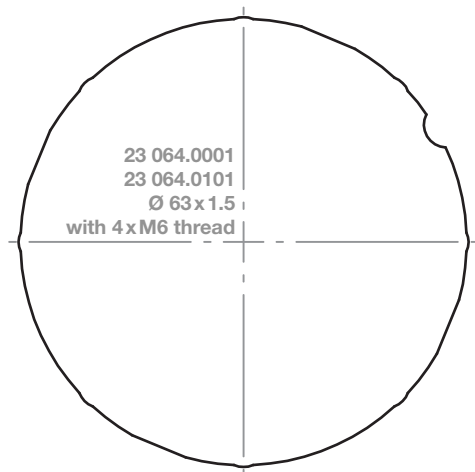
Door controls

Adapter profiles

RevoLine L

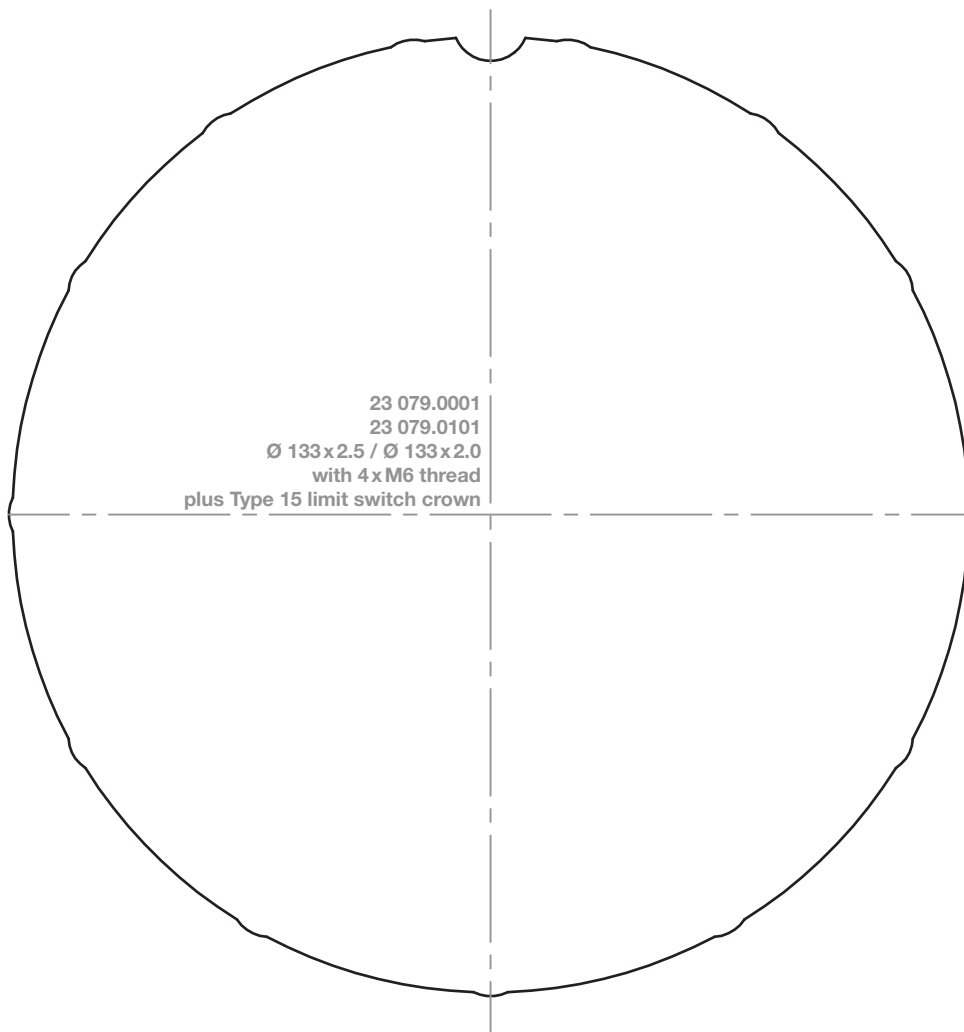
1:1 scale / Dimensions in millimeters

Round tubes



1:1 scale / Dimensions in millimeters

RevoLine L
Round tubes



RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio controls, radio sensors

Hardwired controls sensors

Door drives

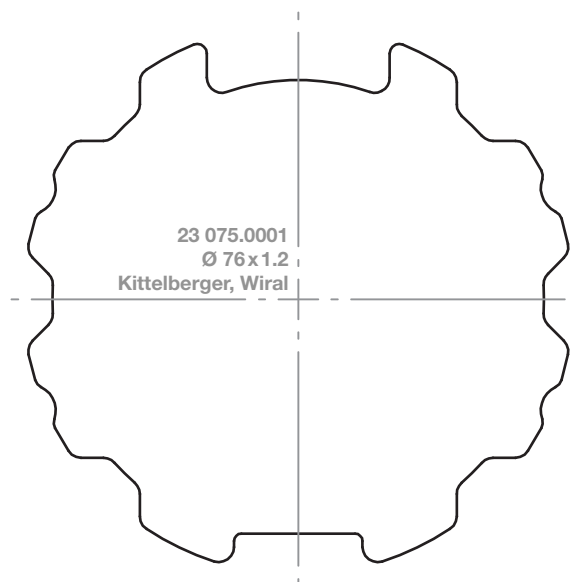
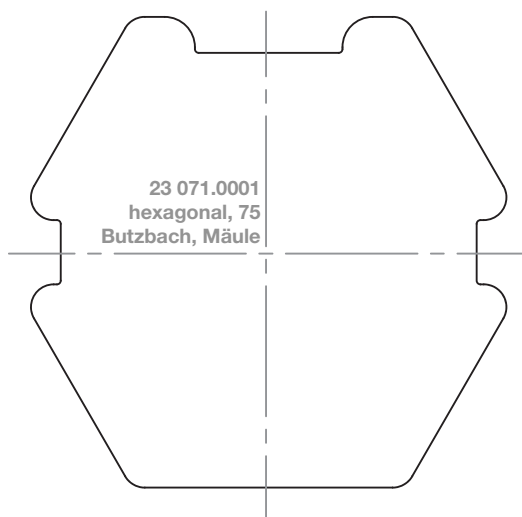
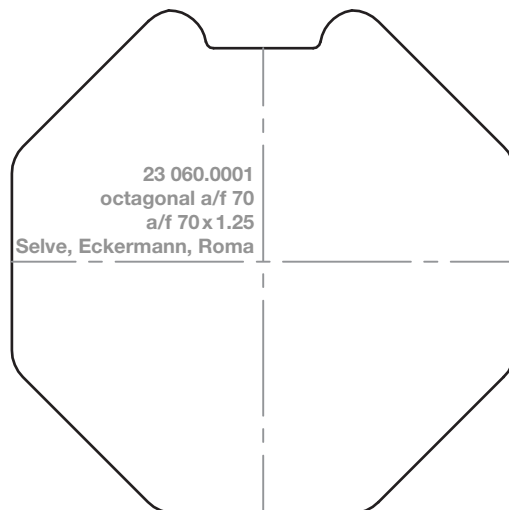
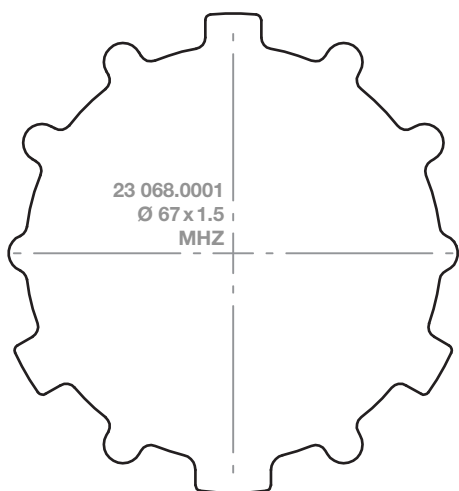
Door controls

Adapter profiles

RevoLine L

1:1 scale / Dimensions in millimeters

Profile tubes



1:1 scale / Dimensions in millimeters

RevoLine L
Profile tubes

RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

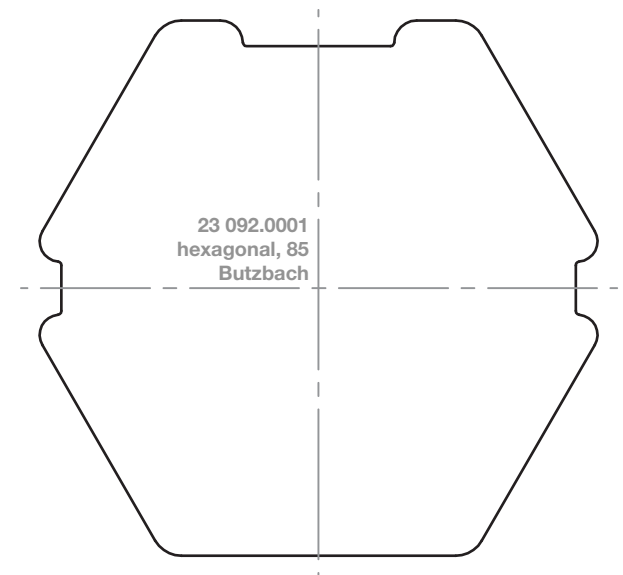
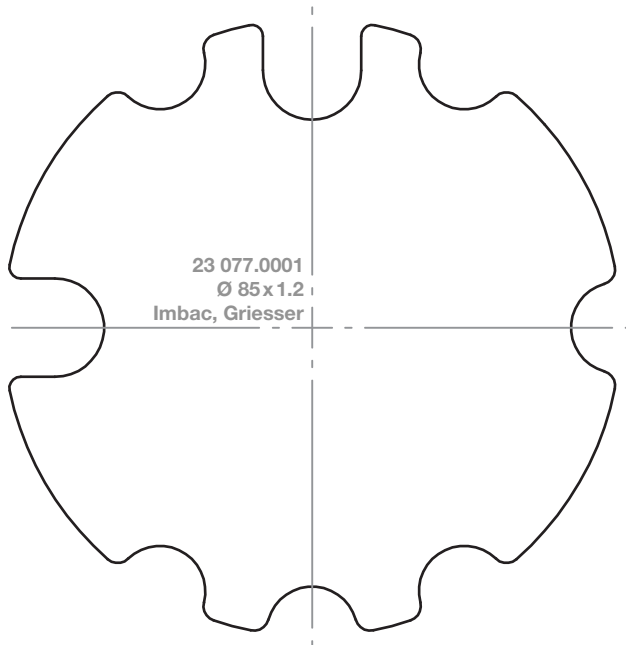
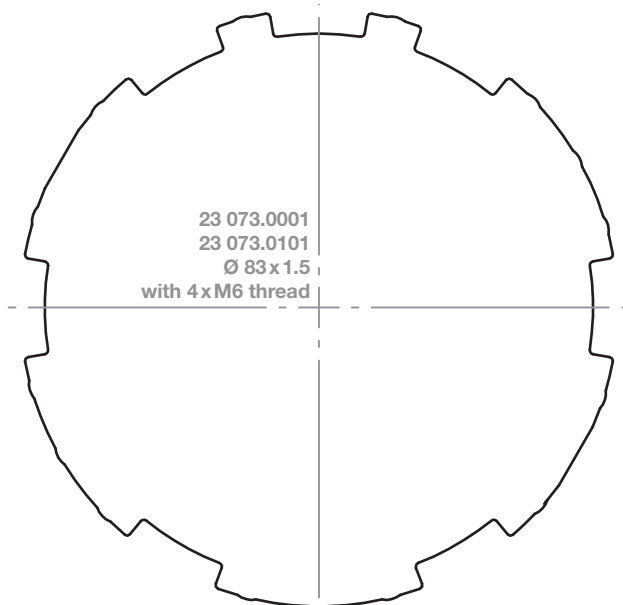
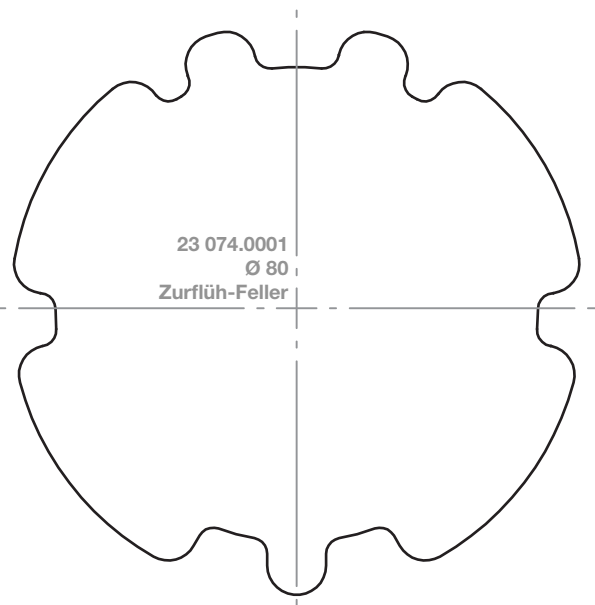
Hausautomation, radio controls, radio sensors

Hardwired controls sensors

Door drives

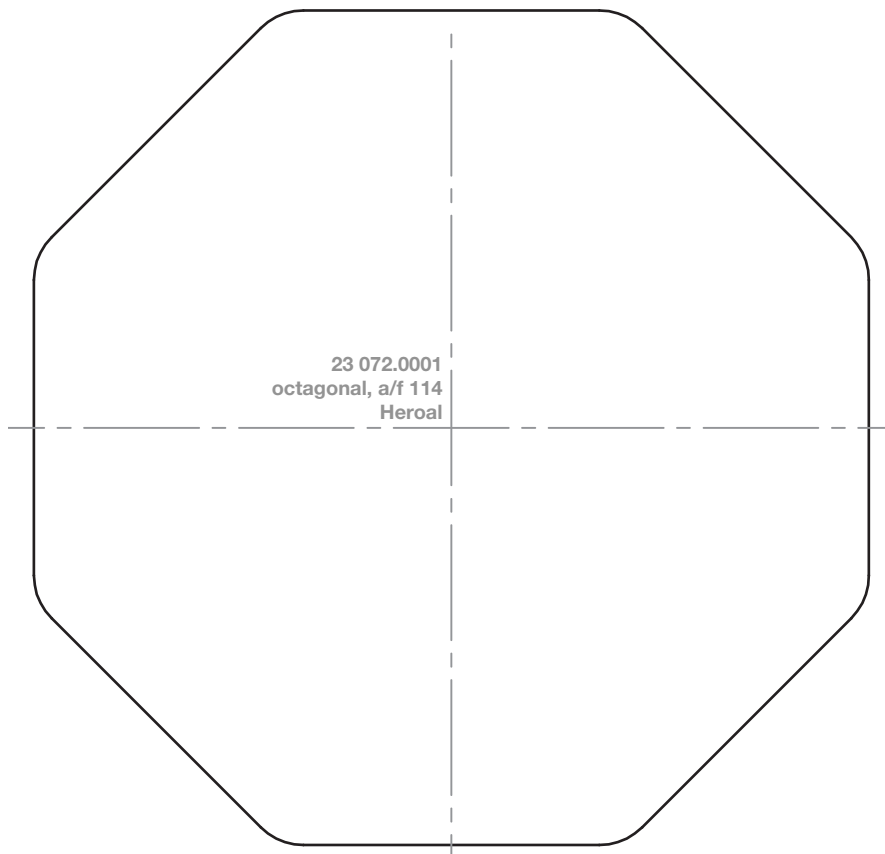
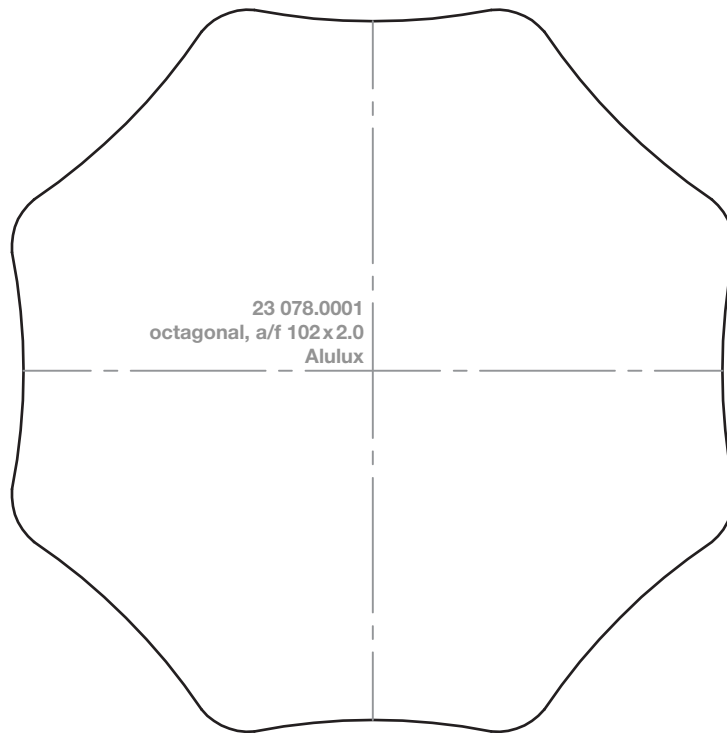
Door controls

Adapter profiles



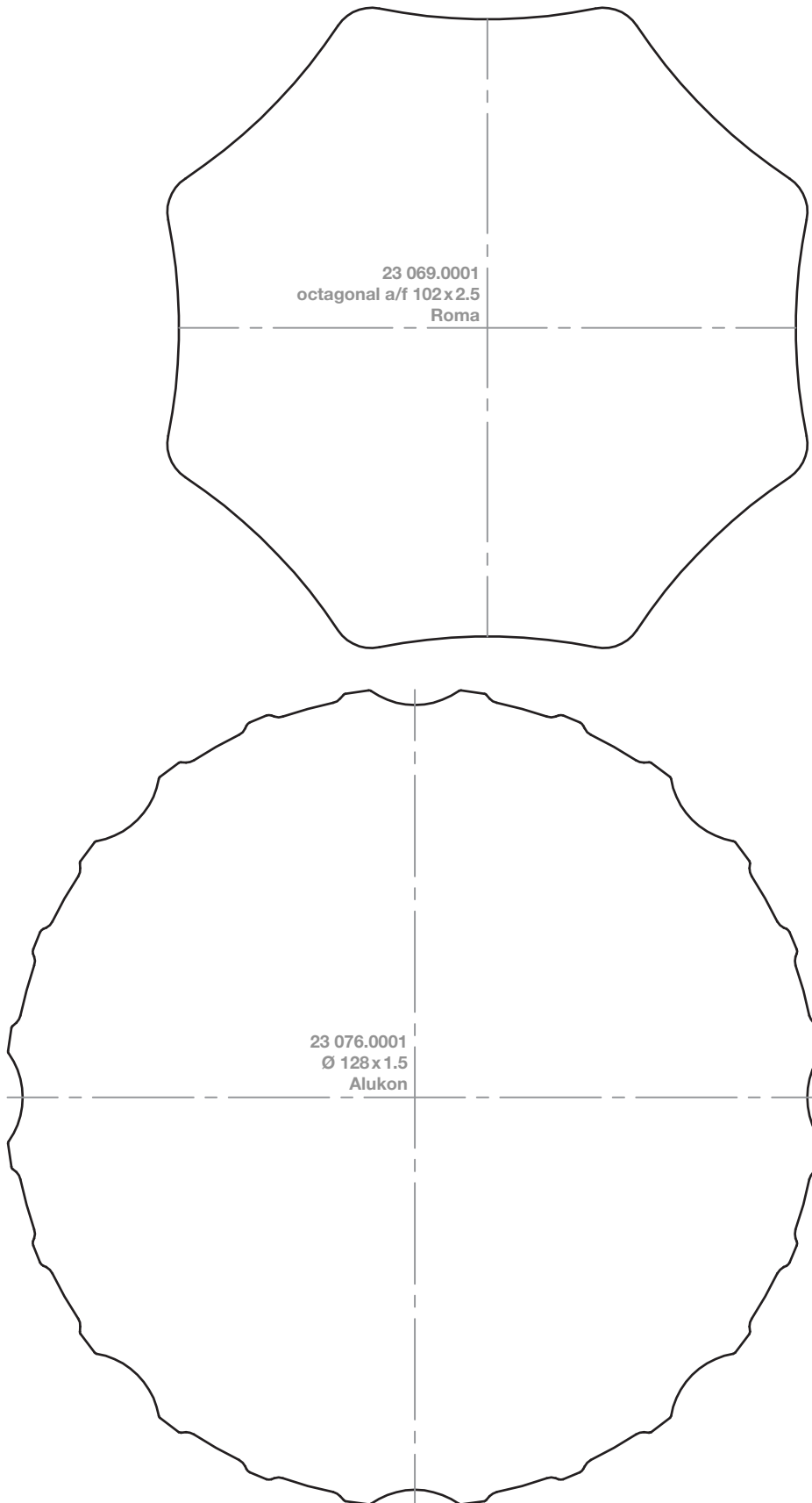
RevoLine L Profile tubes

1:1 scale / Dimensions in millimeters



1:1 scale / Dimensions in millimeters

RevoLine L
Profile tubes



RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio controls, radio sensors

Hardwired controls sensors

Door drives

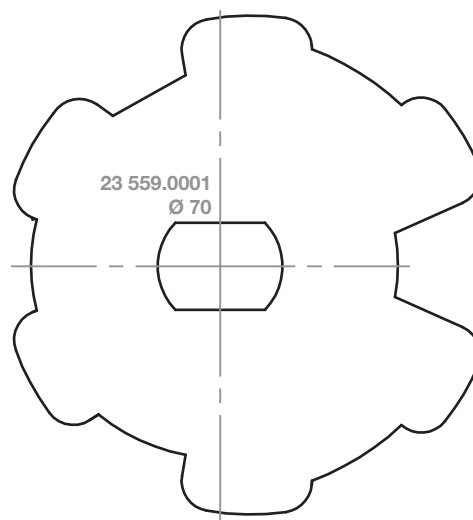
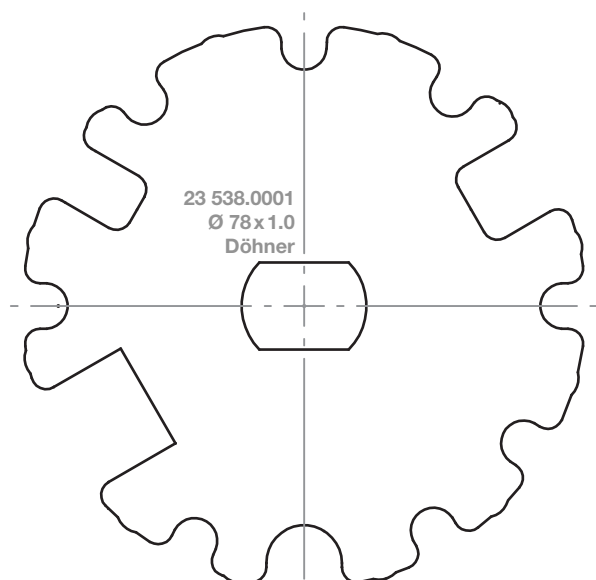
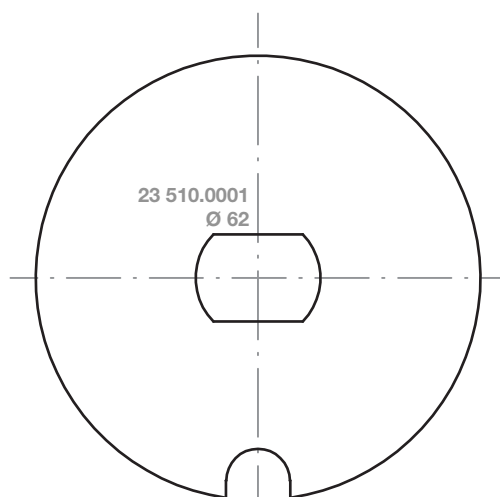
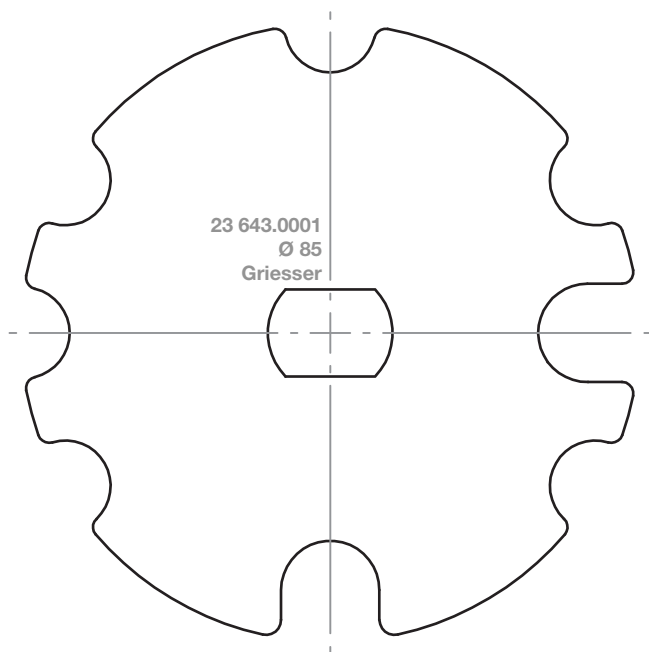
Door controls

Adapter profiles

Type 9 NHK

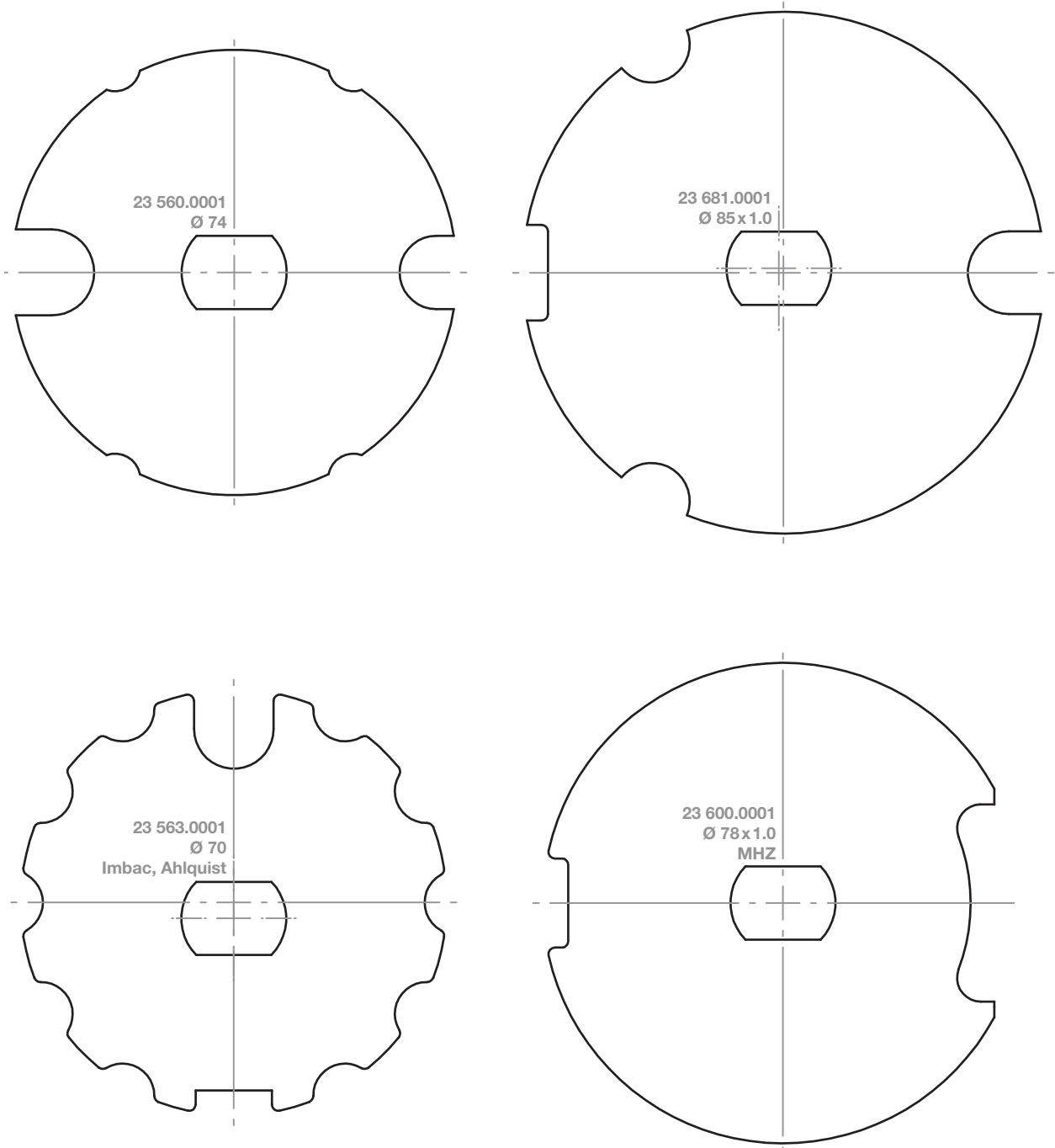
Notch tubes

1:1 scale / Dimensions in millimeters



1:1 scale / Dimensions in millimeters

Type 9 NHK
Notch tubes



RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio controls, radio sensors

Hardwired controls sensors

Door drives

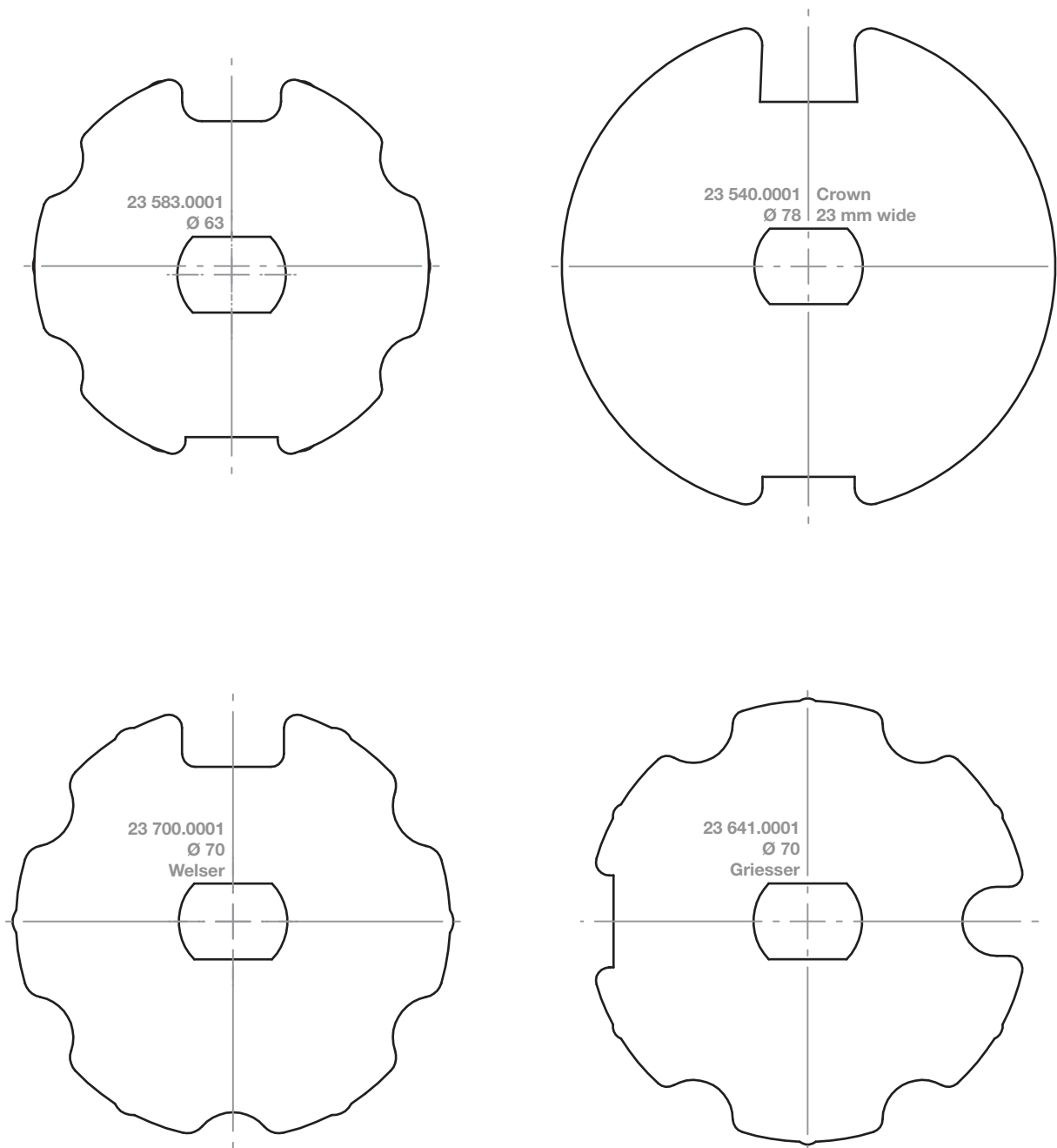
Door controls

Adapter profiles

Type 9 NHK

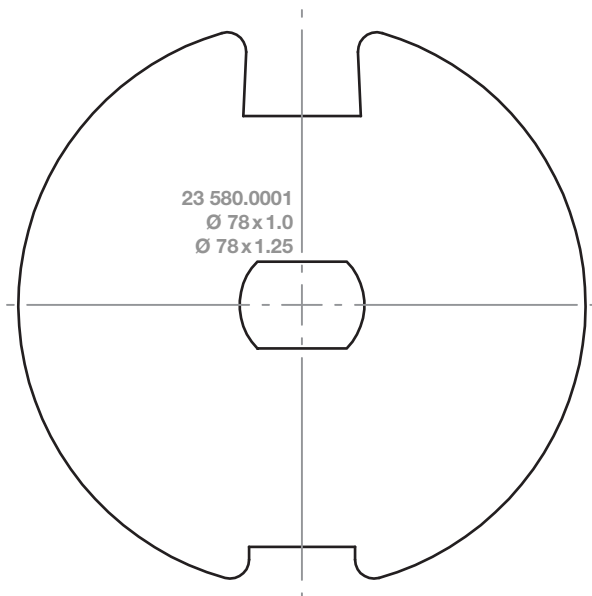
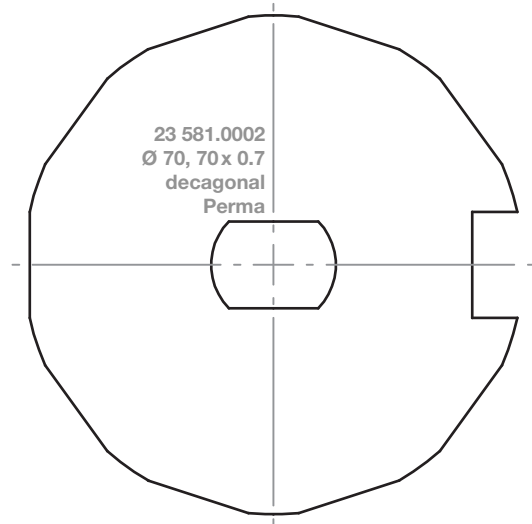
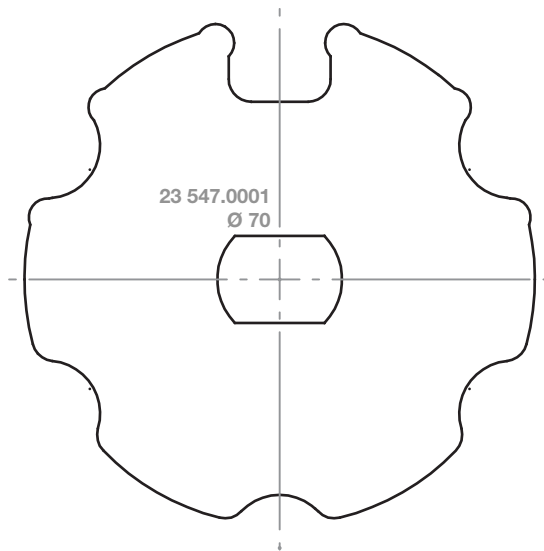
1:1 scale / Dimensions in millimeters

Notch tubes



1:1 scale / Dimensions in millimeters

Type 9 NHK
Notch tubes



RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio controls, radio sensors

Hardwired controls sensors

Door drives

Door controls

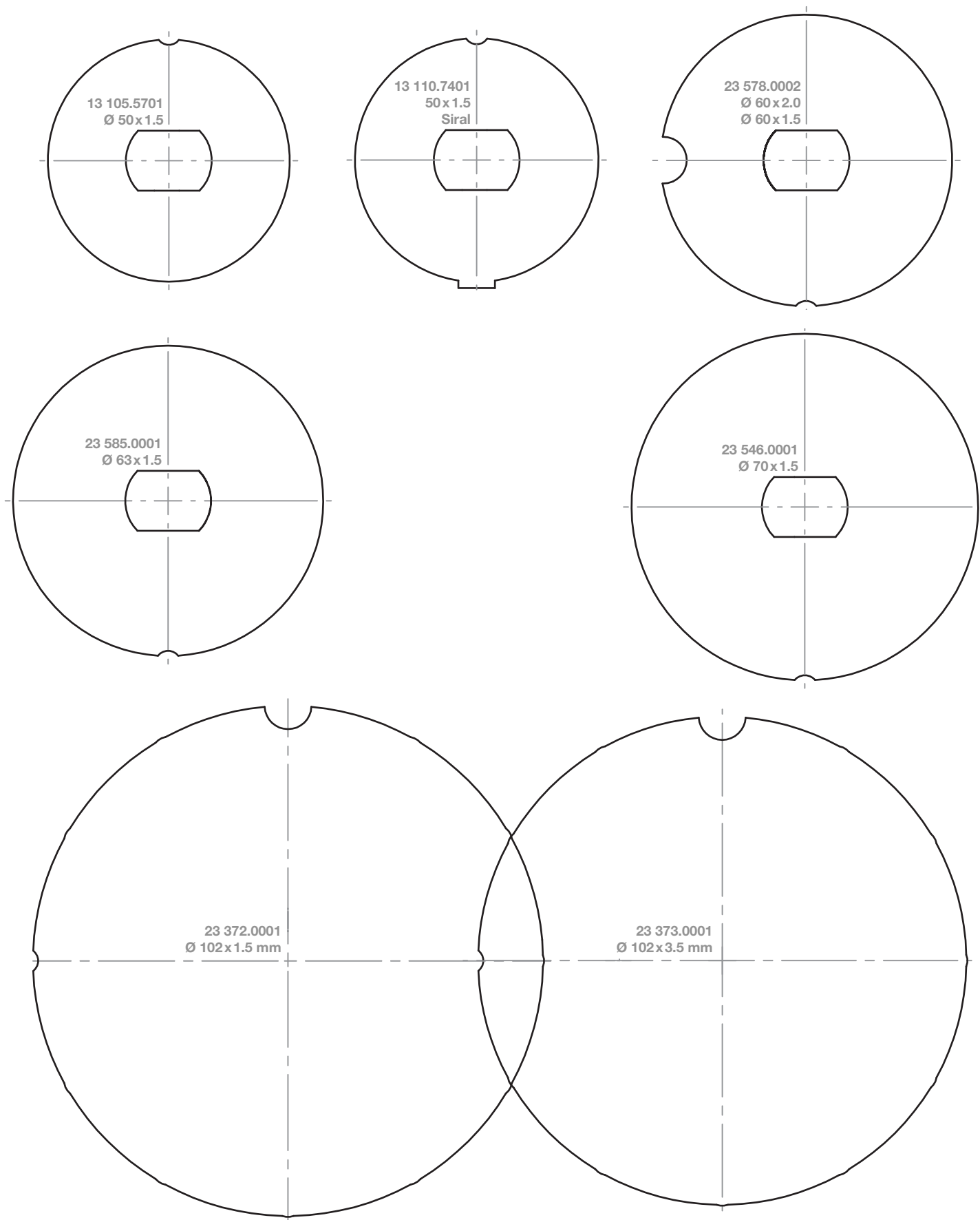
Adapter profiles

Profiles of the drive adapters

Type 9 NHK

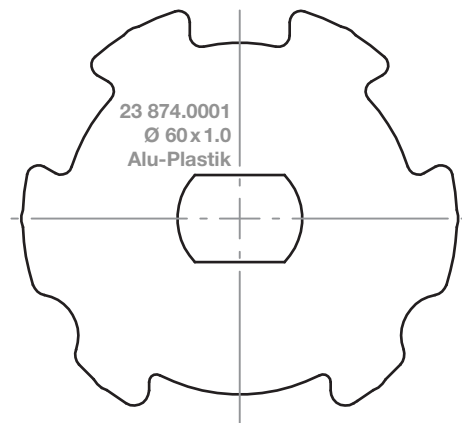
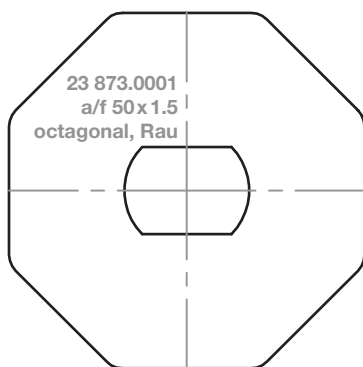
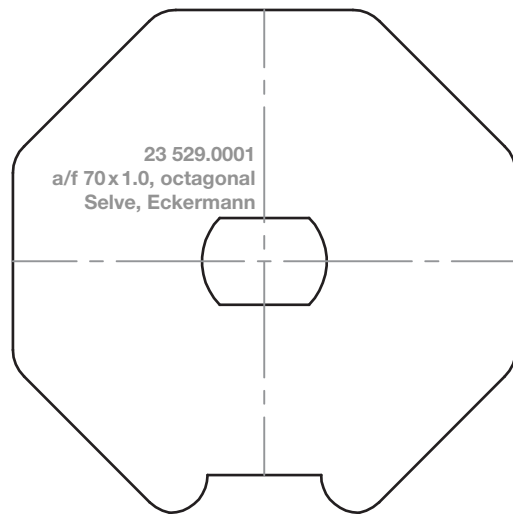
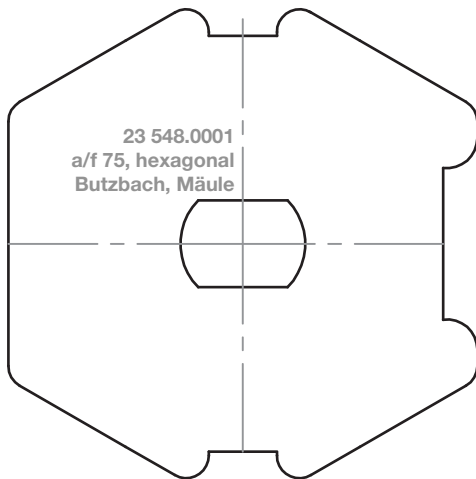
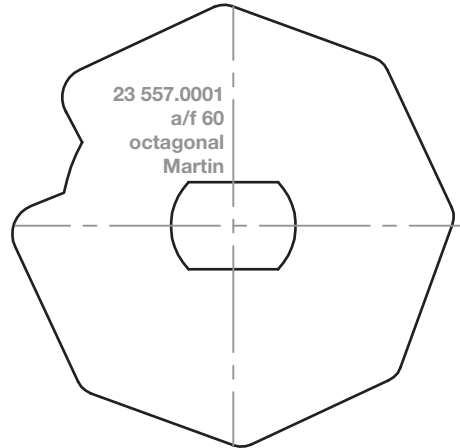
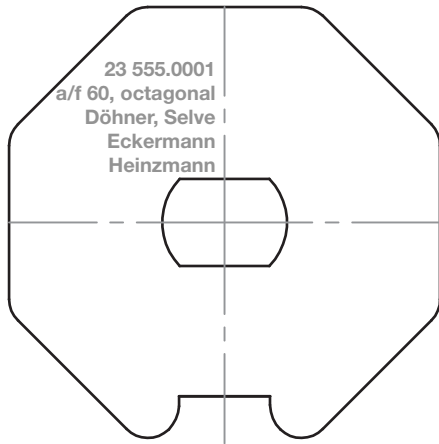
1:1 scale / Dimensions in millimeters

Round tubes



1:1 scale / Dimensions in millimeters

Type 9 NHK
Profile tubes



RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio
controls, radio sensors

Hardwired controls
sensors

Door drives

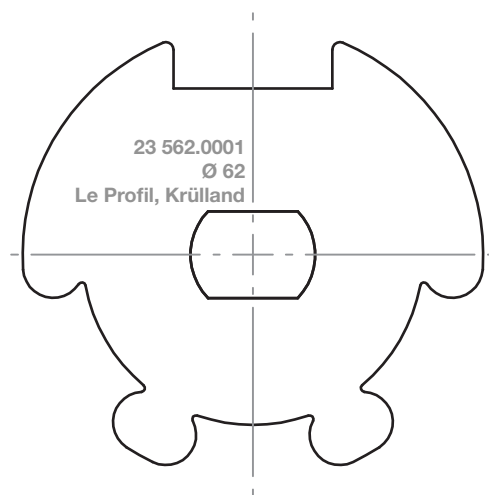
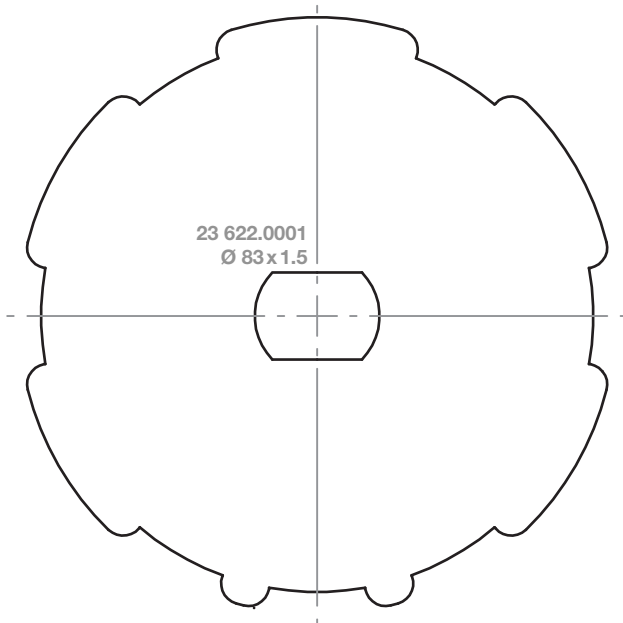
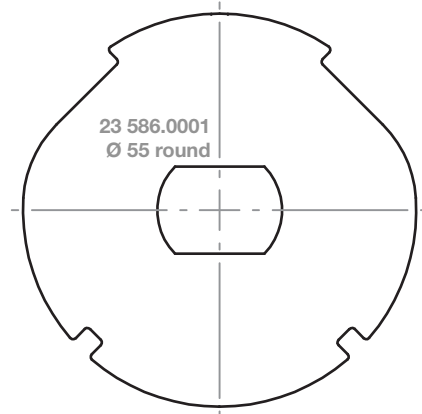
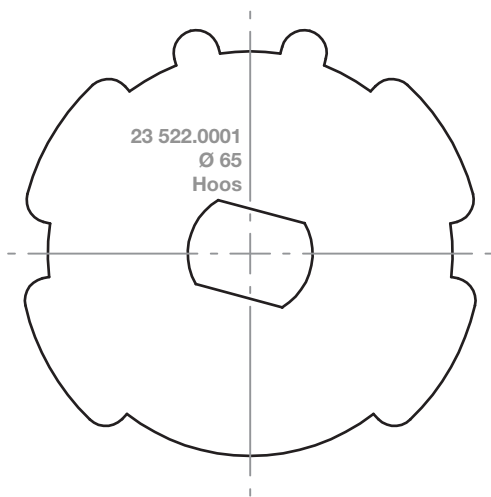
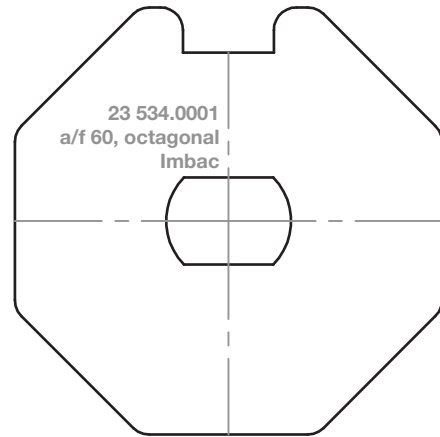
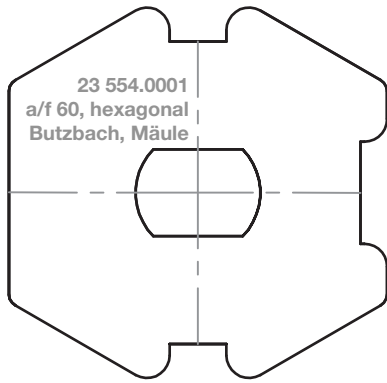
Door controls

Adapter profiles

Type 9 NHK

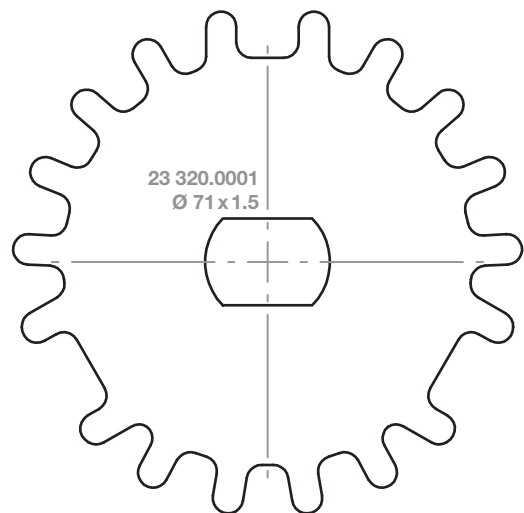
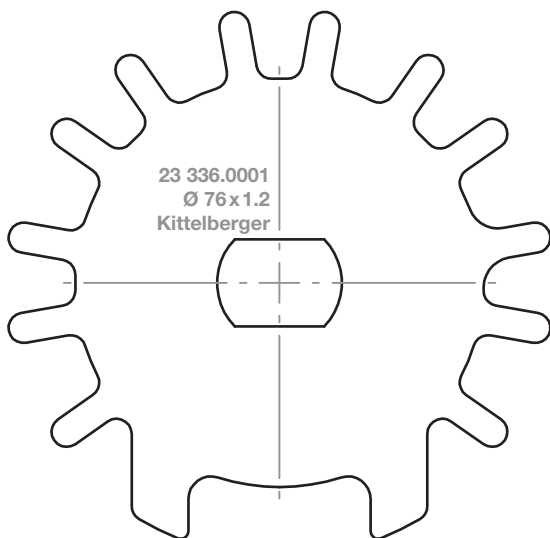
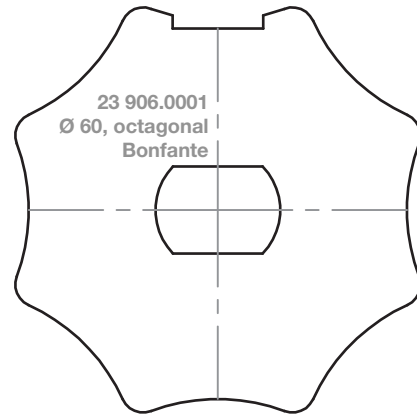
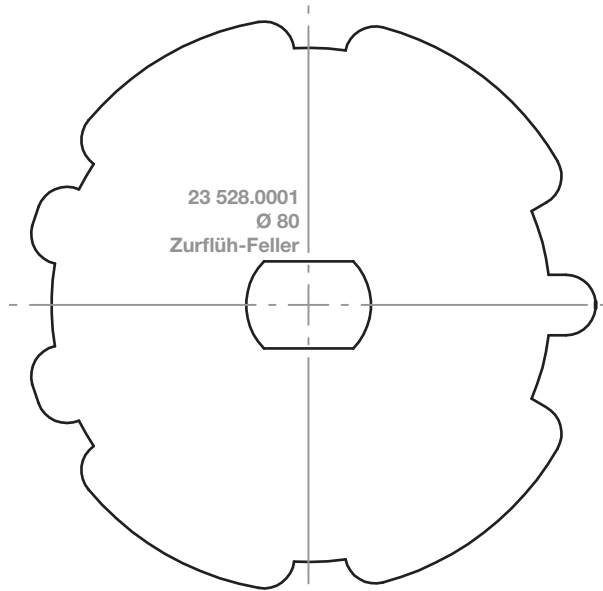
1:1 scale / Dimensions in millimeters

Profile tubes



1:1 scale / Dimensions in millimeters

Type 9 NHK
Profile tubes



RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio controls, radio sensors

Hardwired controls sensors

Door drives

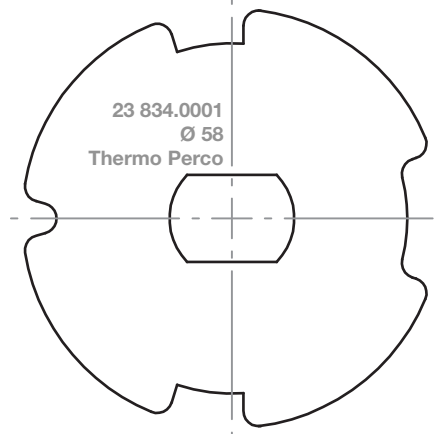
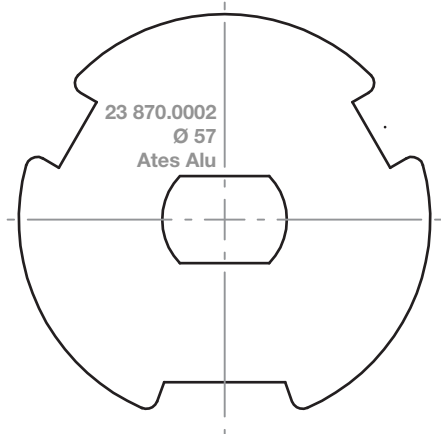
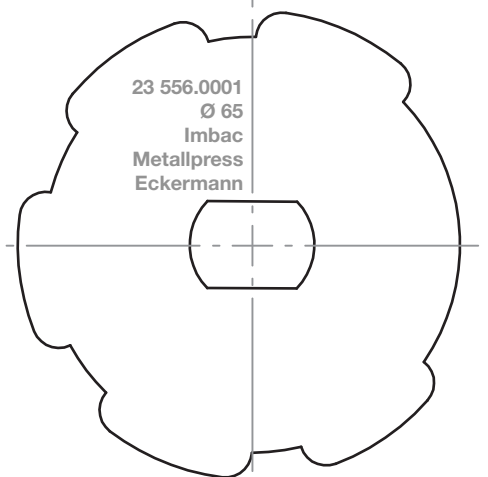
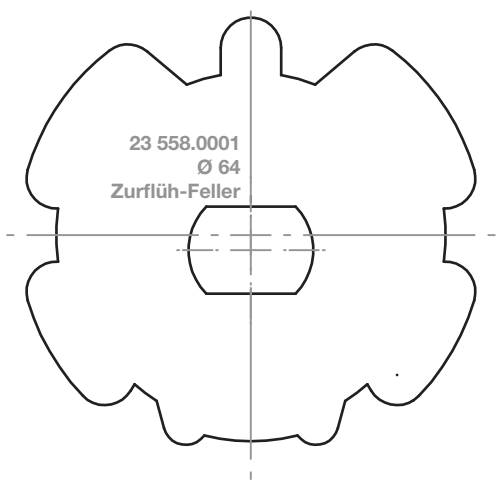
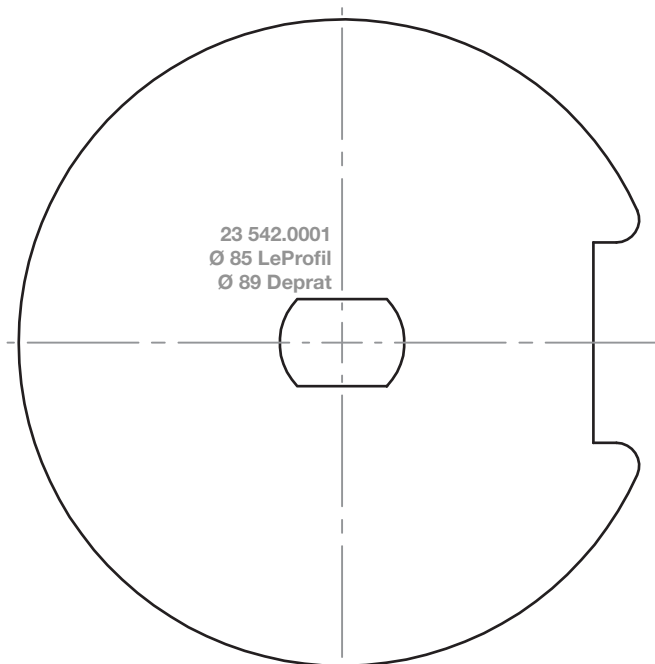
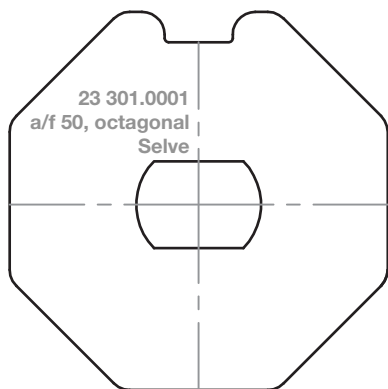
Door controls

Adapter profiles

Type 9 NHK

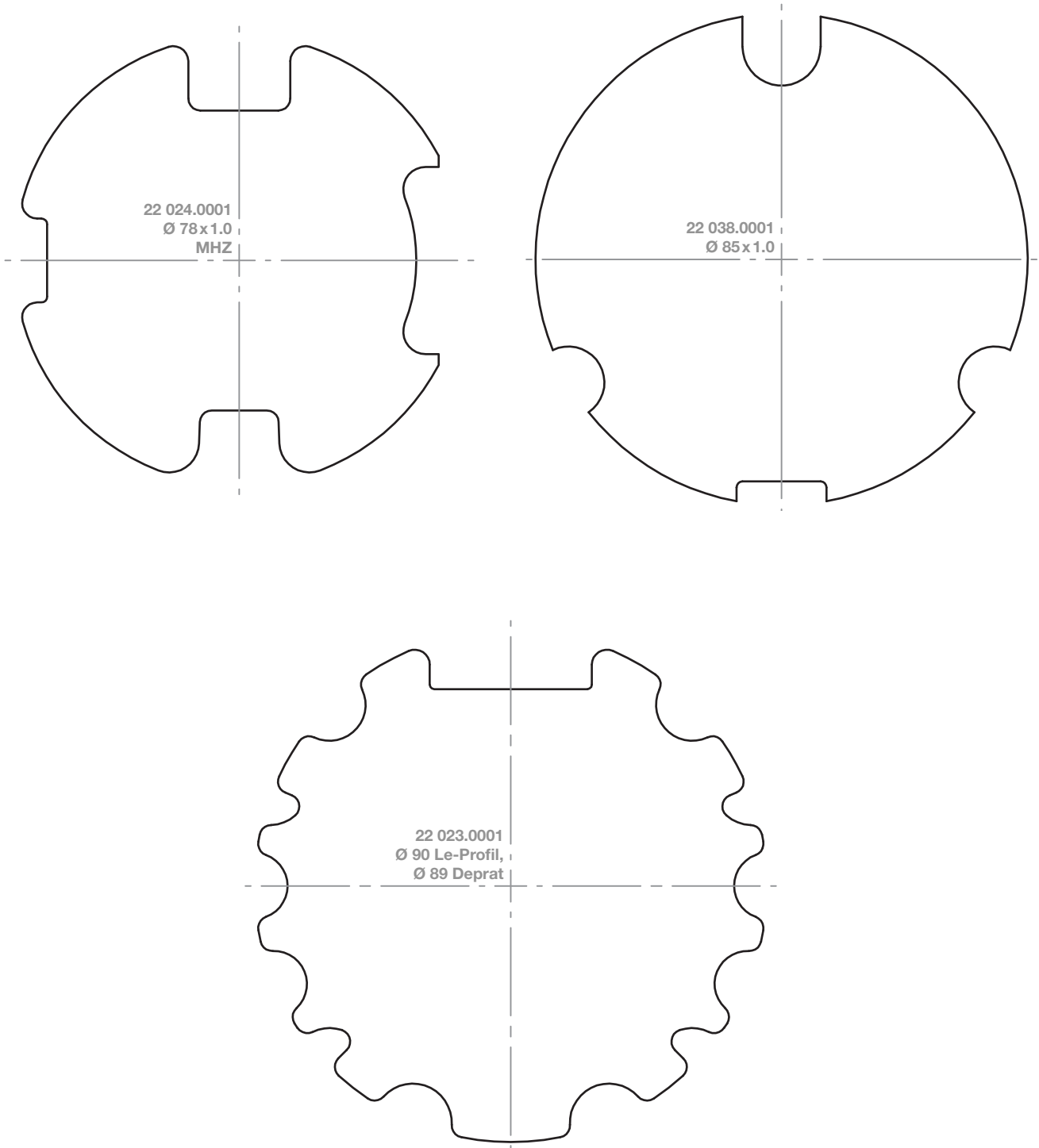
Profile tubes

1:1 scale / Dimensions in millimeters



1:1 scale / Dimensions in millimeters

Type 11 /NHK
Notch tubes



RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio controls, radio sensors

Hardwired controls sensors

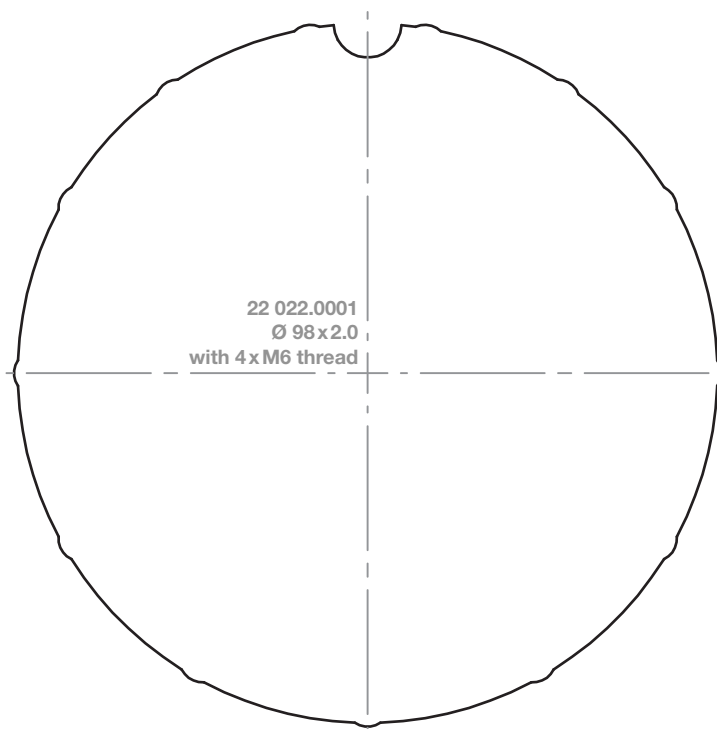
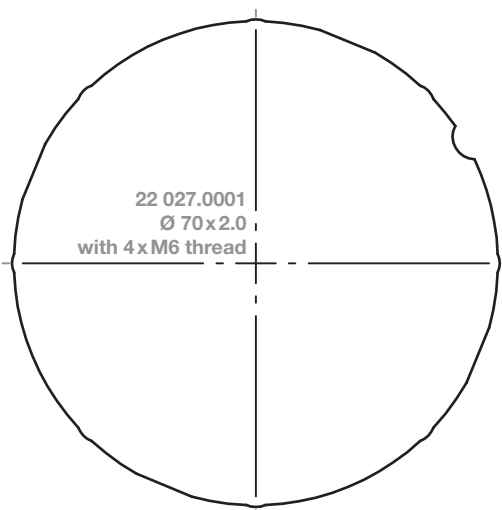
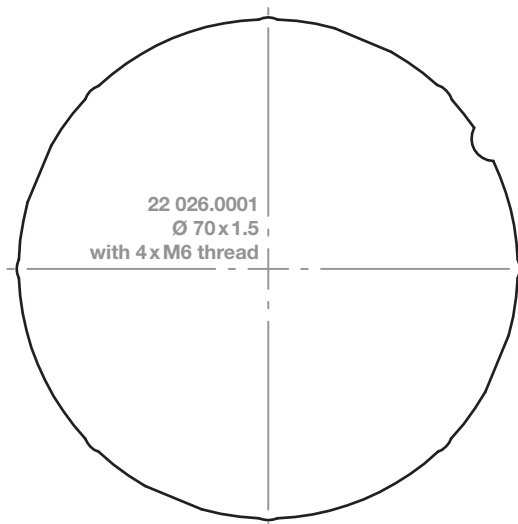
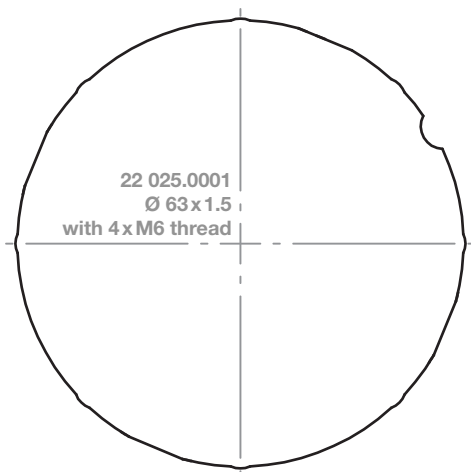
Door drives

Door controls

Adapter profiles

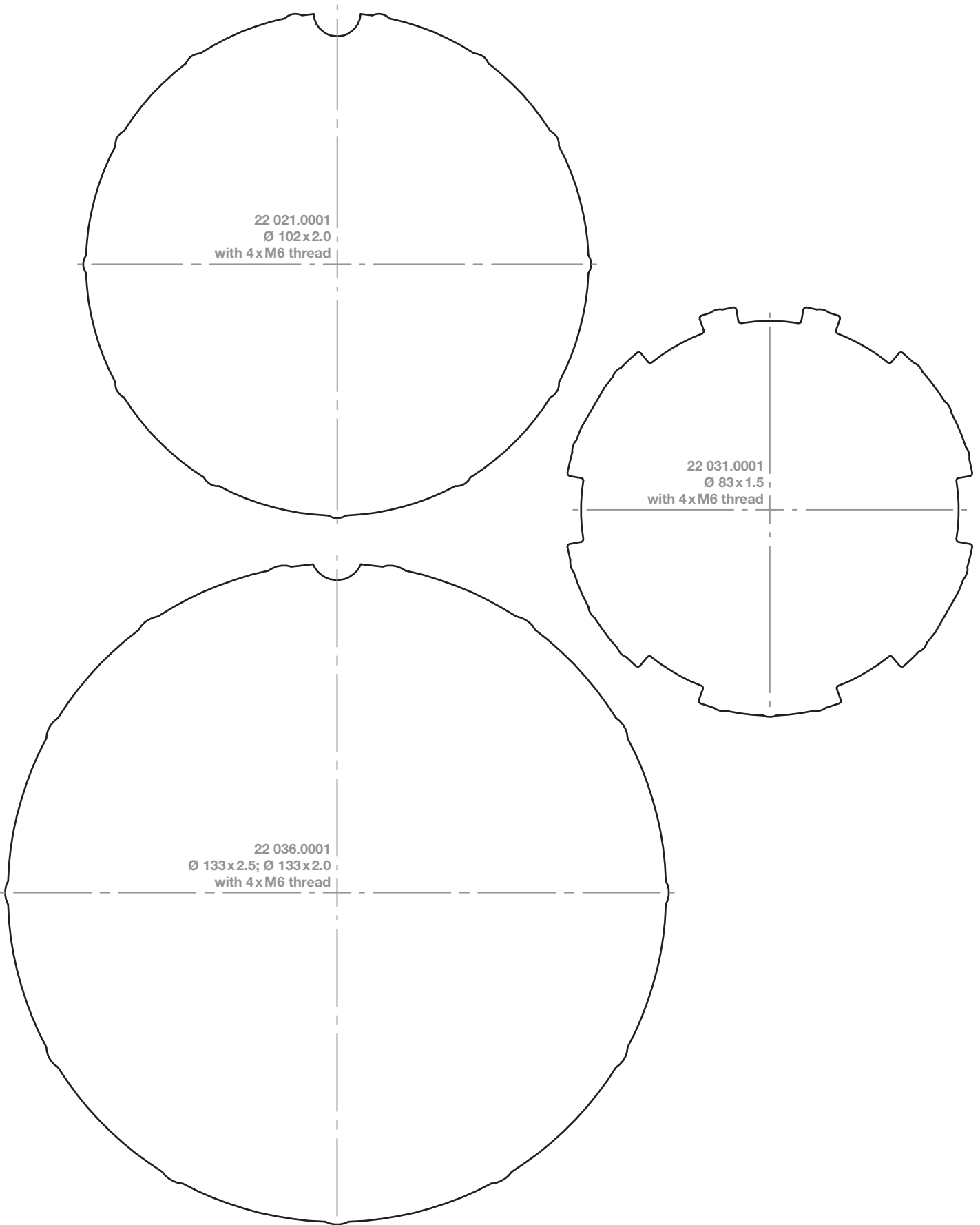
Type 11 /NHK

Round tubes



1:1 scale / Dimensions in millimeters

Type 11 /NHK
Round tubes



RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio controls, radio sensors

Hardwired controls sensors

Door drives

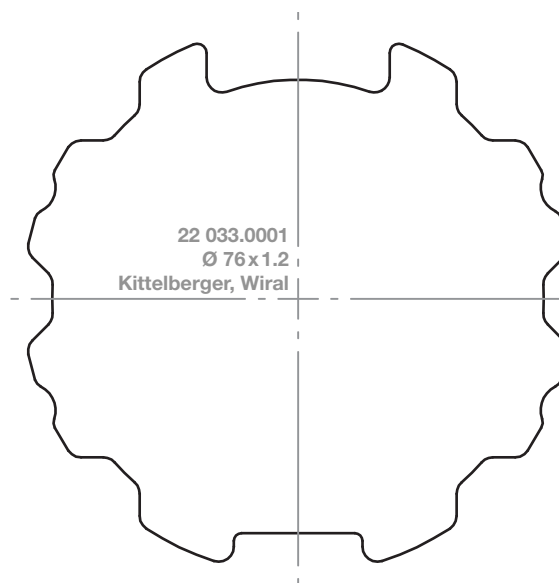
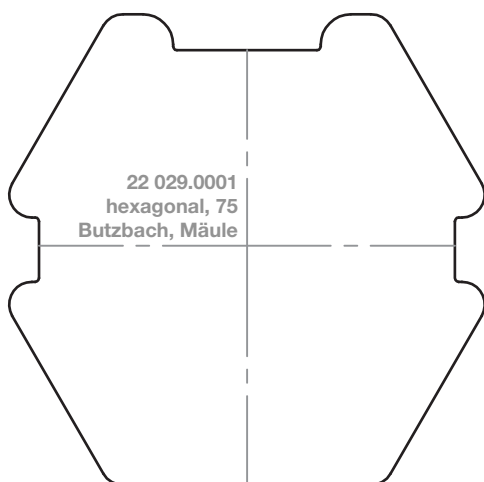
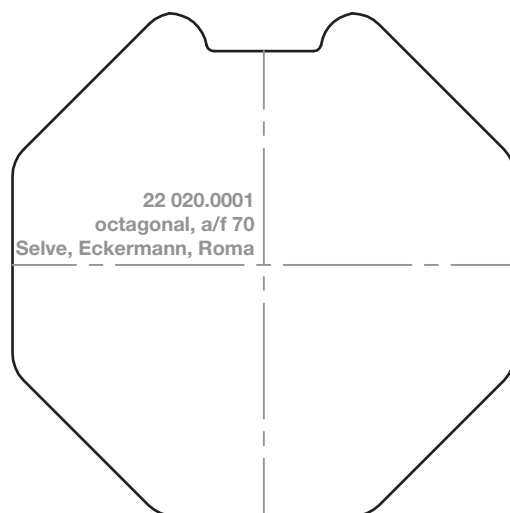
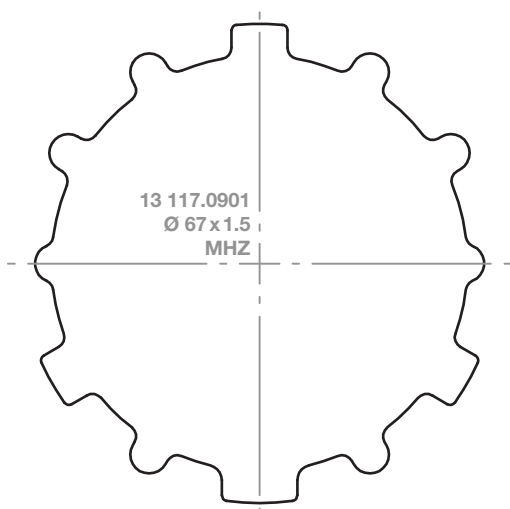
Door controls

Adapter profiles

Type 11 /NHK

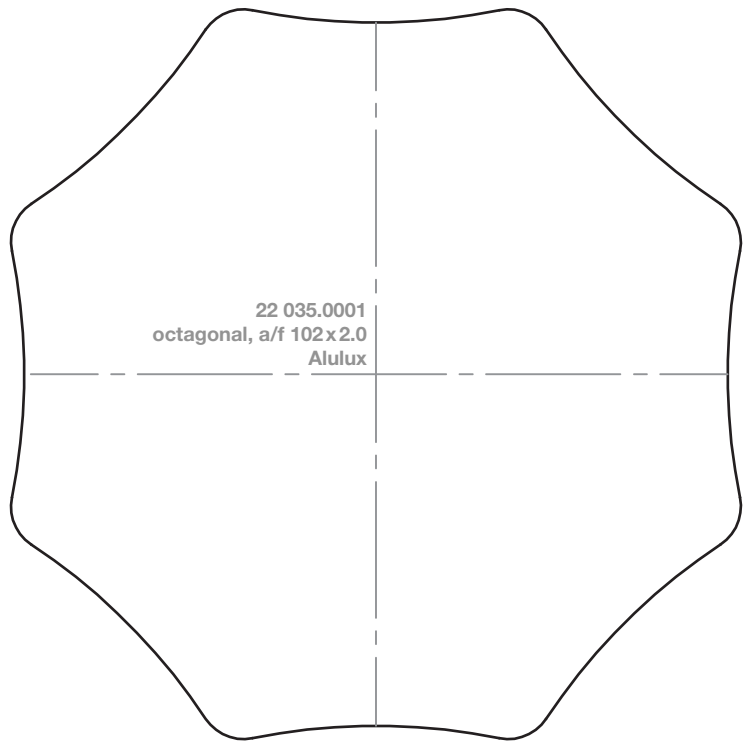
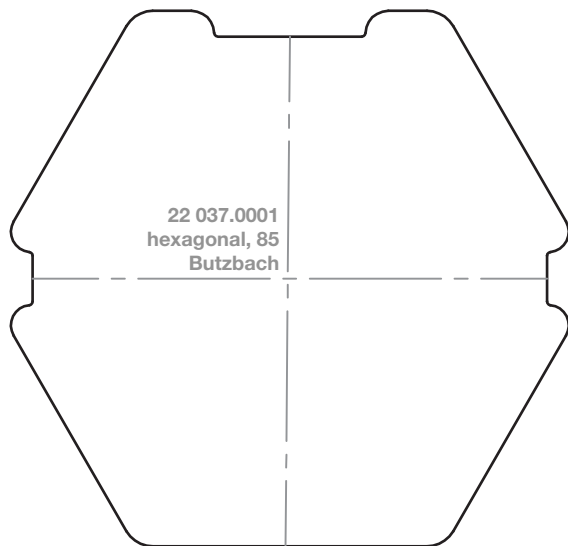
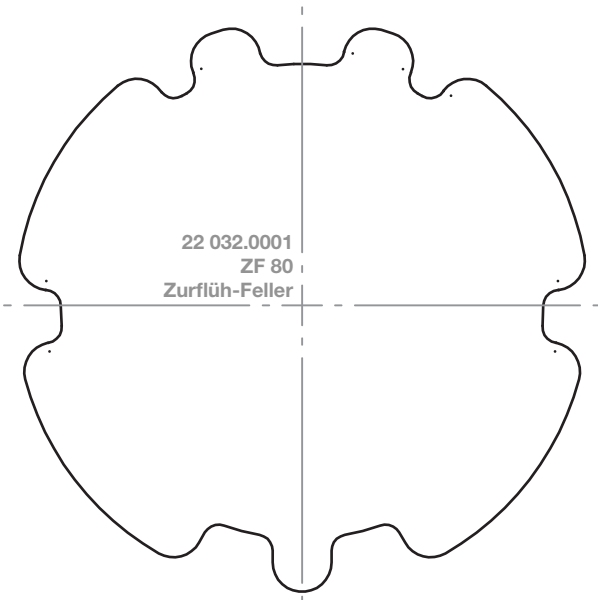
1:1 scale / Dimensions in millimeters

Profile tubes



1:1 scale / Dimensions in millimeters

Type 11 /NHK
Profile tubes



RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio controls, radio sensors

Hardwired controls sensors

Door drives

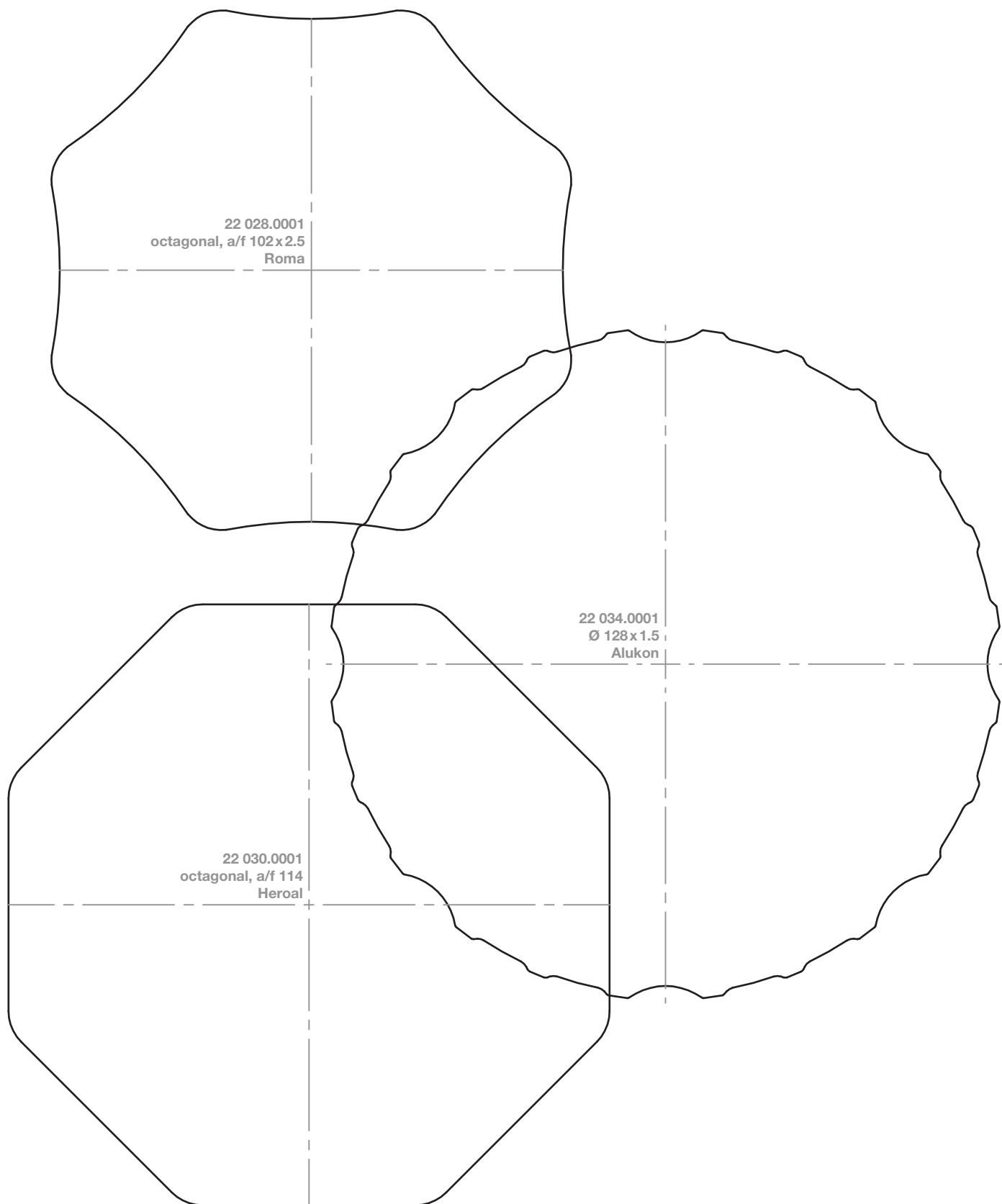
Door controls

Adapter profiles

Type 11 /NHK

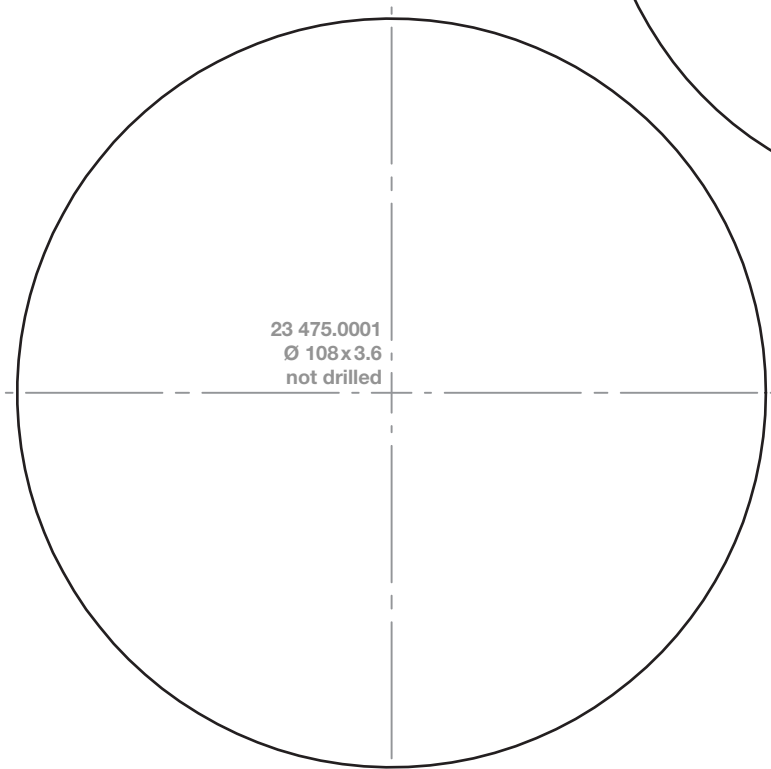
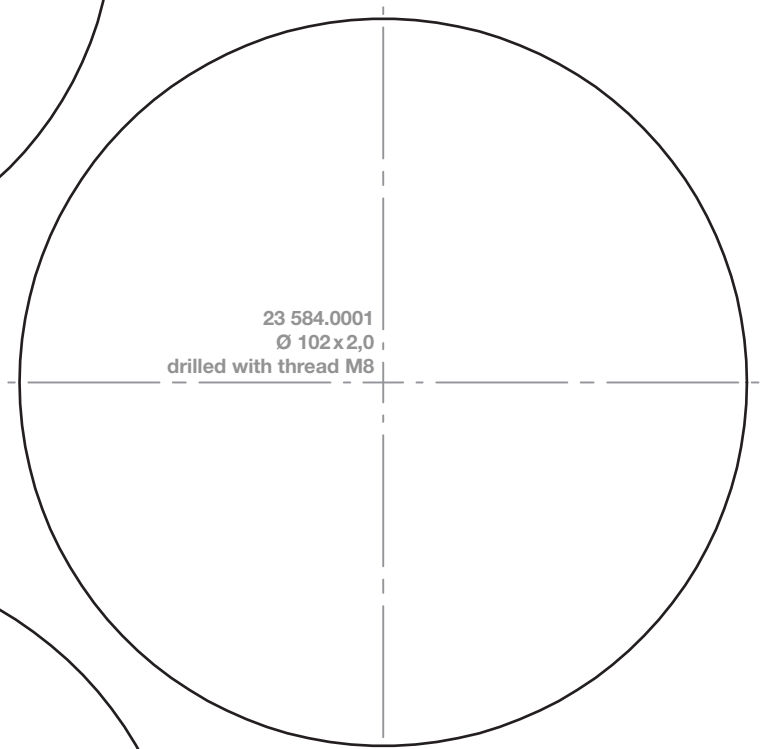
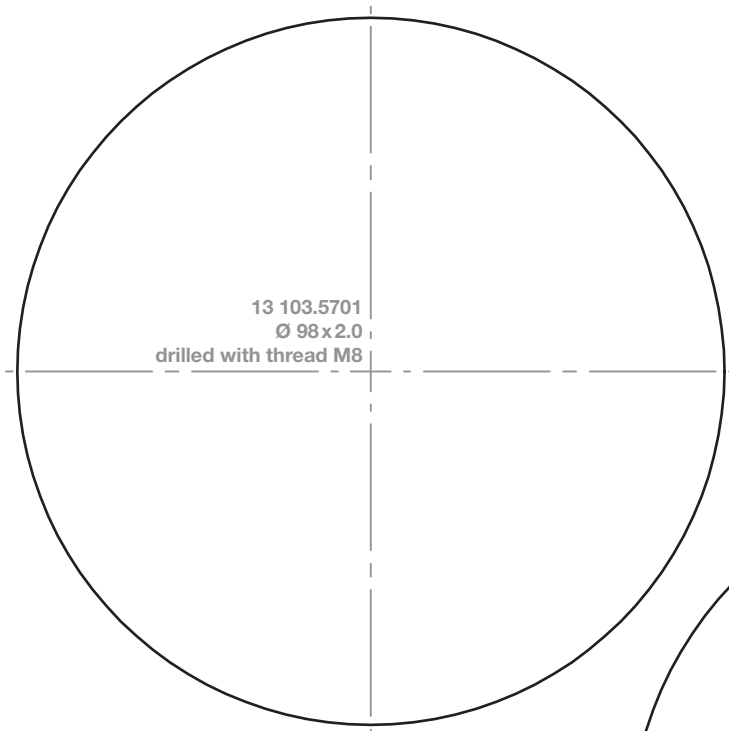
1:1 scale / Dimensions in millimeters

Profile tubes



1:1 scale / Dimensions in millimeters

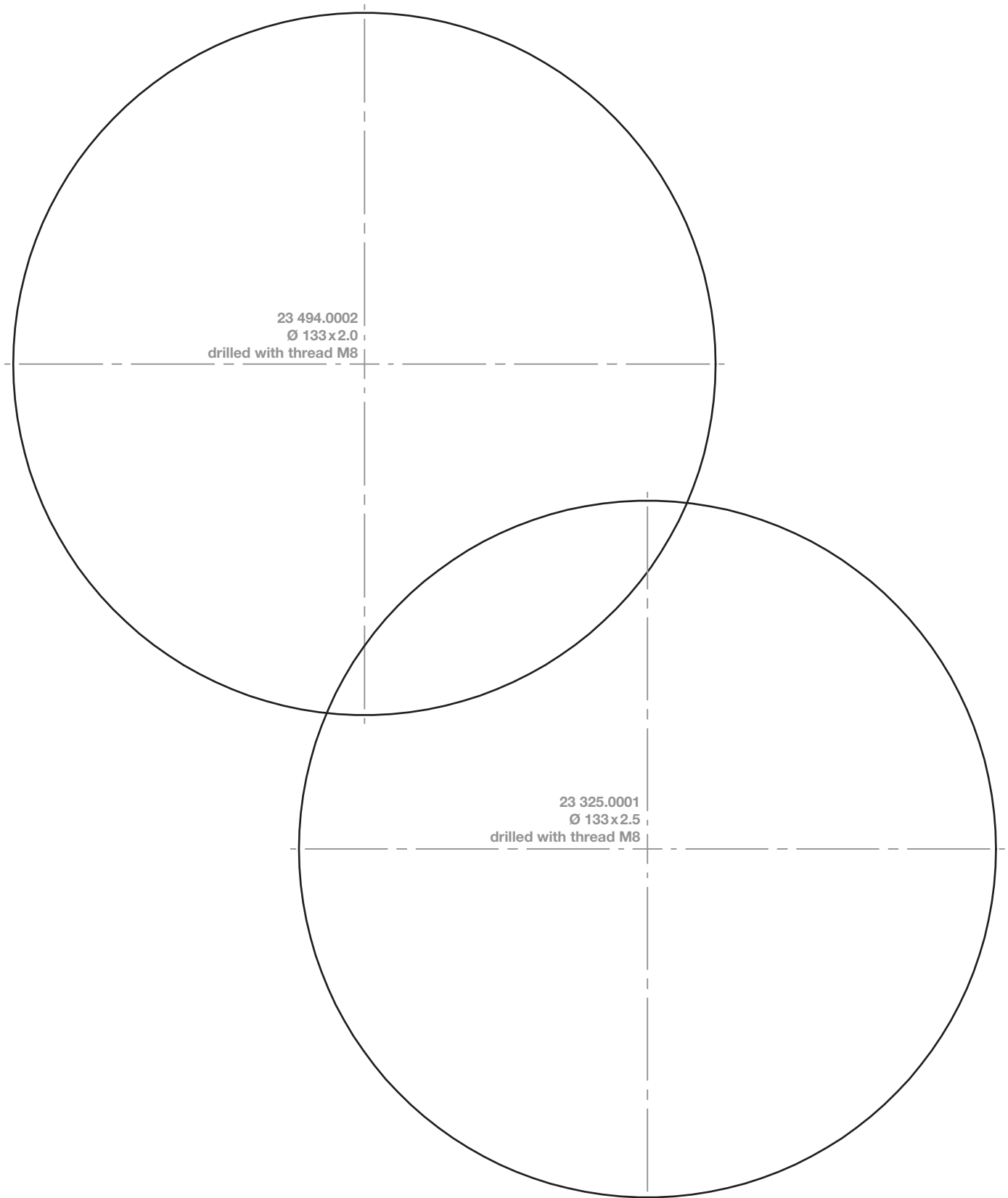
Type 15 W ...
Round tubes



Adapter profiles
Door controls
Door drives
Hardwired controls sensors
Hausautomation, radio controls, radio sensors
Speciality drives
Venetian blind drives
Type 9 + 11
RevoLine

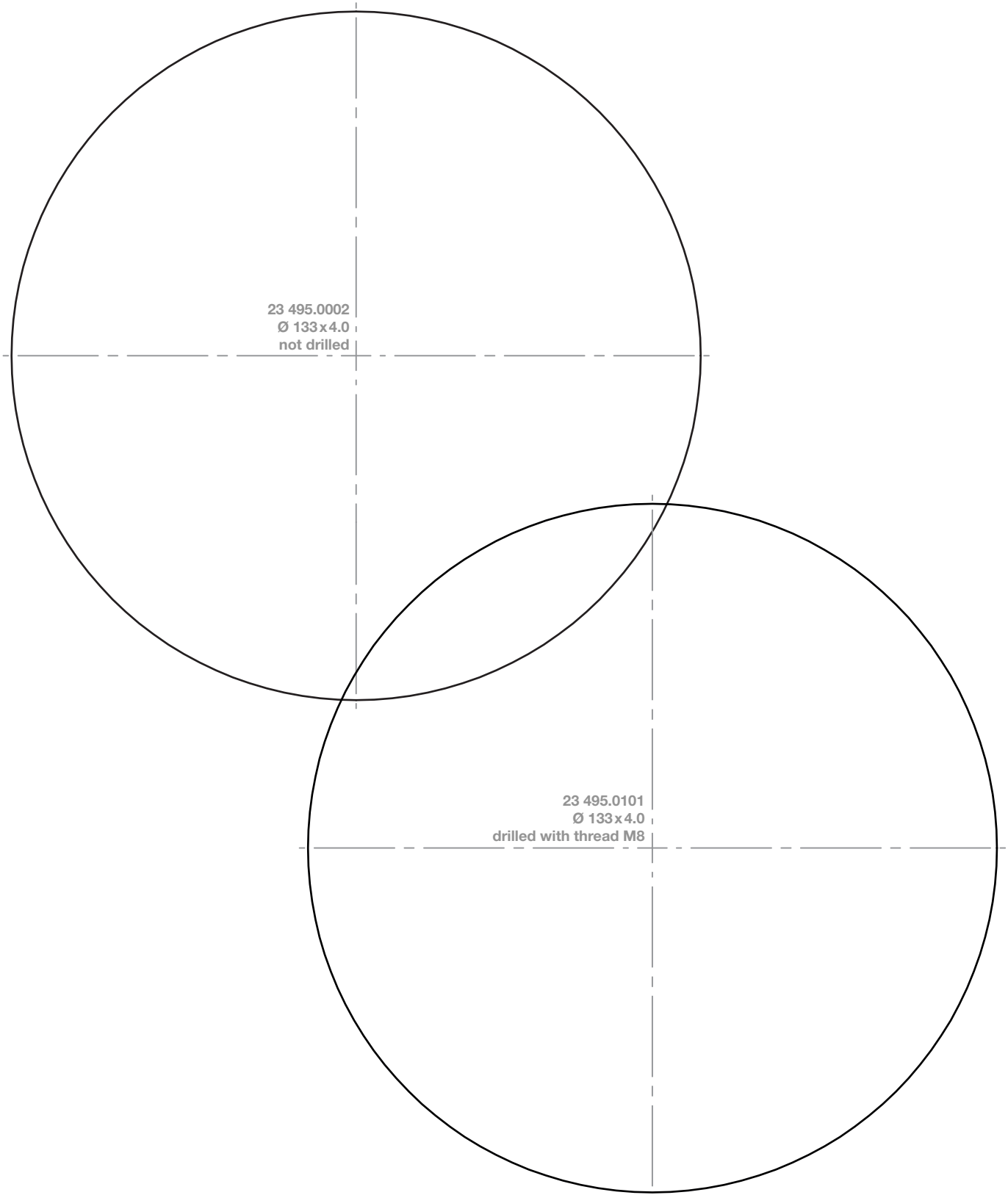
Type 15 W ... Round tubes

1:1 scale / Dimensions in millimeters



1:1 scale / Dimensions in millimeters

Type 15 W ...
Round tubes



RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio controls, radio sensors

Hardwired controls sensors

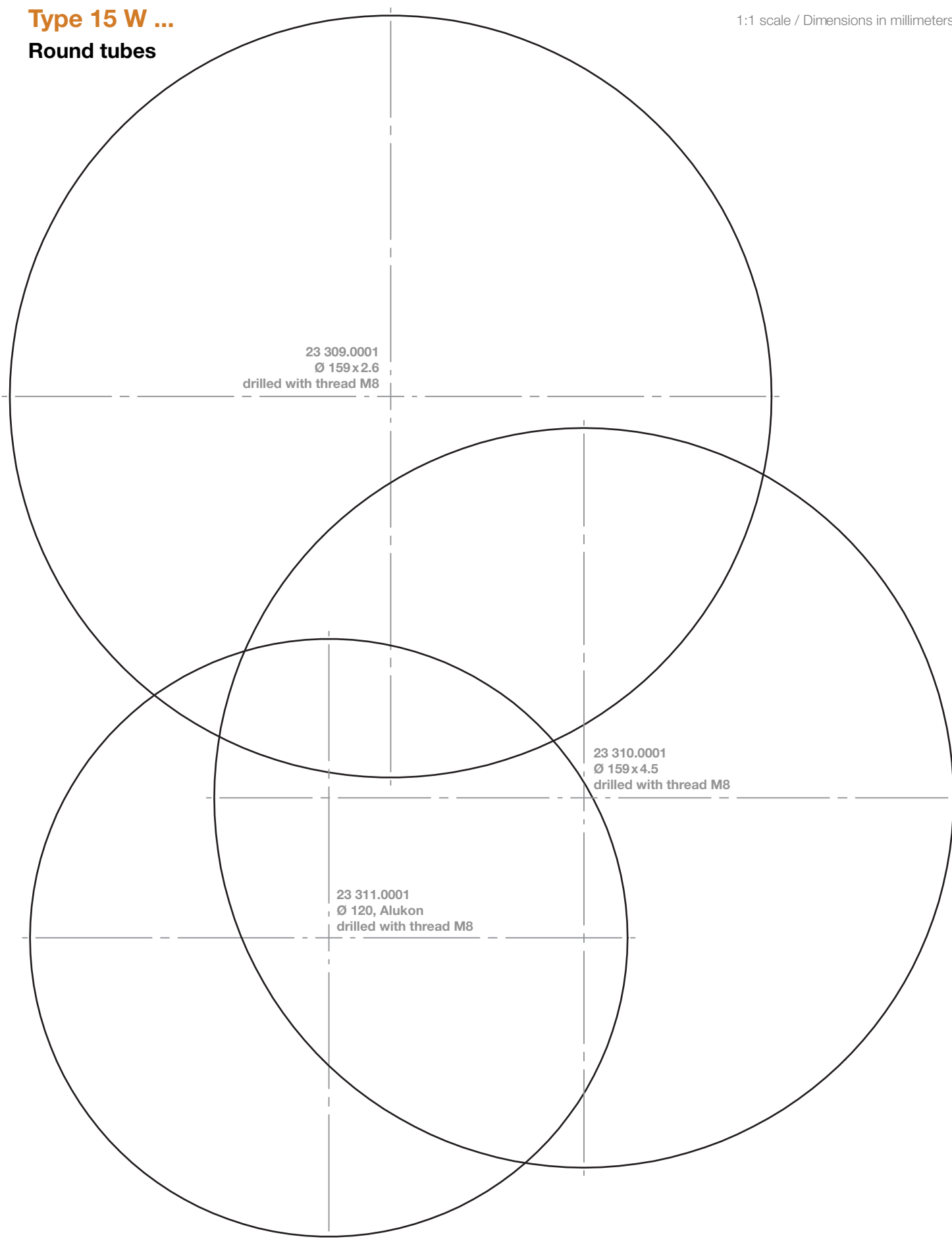
Door drives

Door controls

Adapter profiles

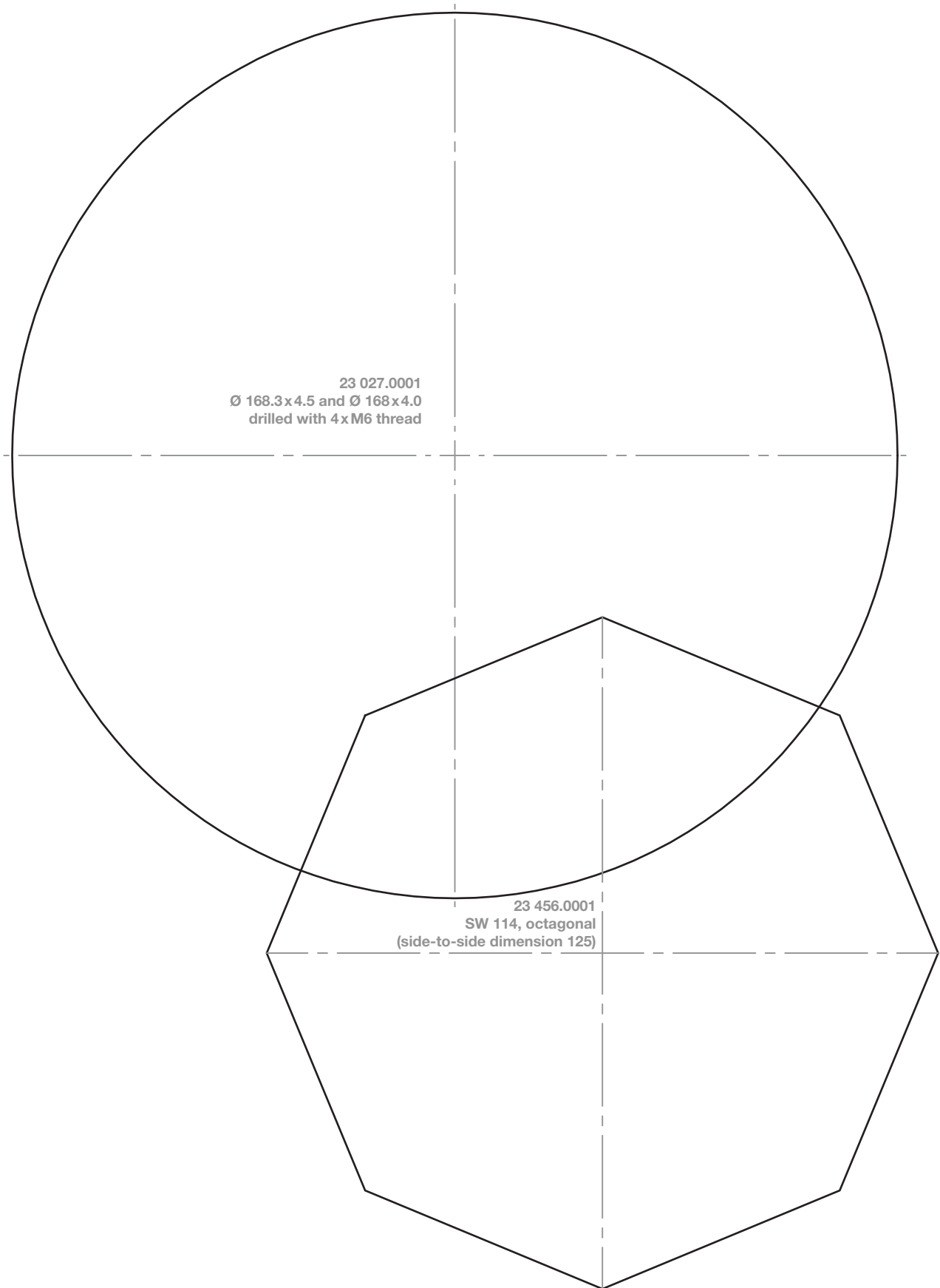
Type 15 W ... Round tubes

1:1 scale / Dimensions in millimeters



1:1 scale / Dimensions in millimeters

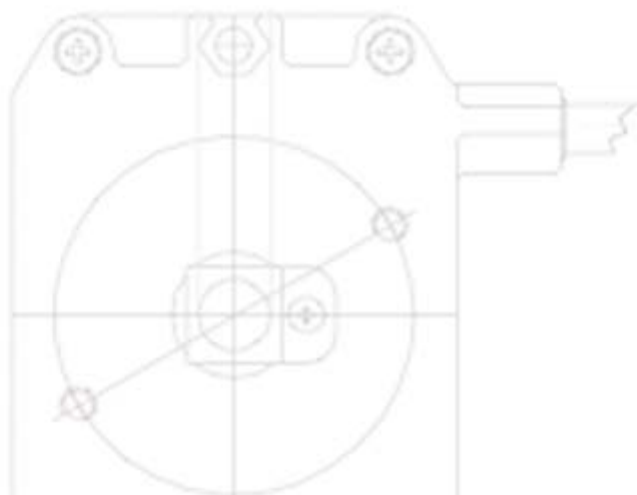
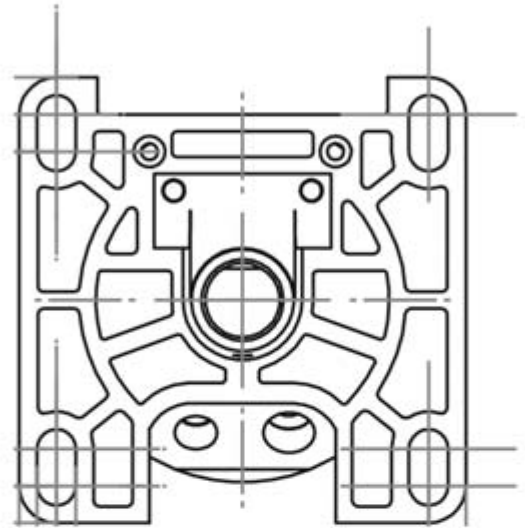
Type 15 W ...
Round tubes



Adapter profiles
Door controls
Door drives
Hardwired controls sensors
Hausautomation, radio controls, radio sensors
Speciality drives
Venetian blind drives
Type 9 + 11
RevoLine



Lifting capacity tables



Selection table for the determination of the suitable drive on the basis of the rated torque

Determine the necessary rated torque of the drive from the system data.

Roller shutter

RoITop / RoITop-868 RoISmart-K / VariEco / Type 11

Torque (Nm)	Octagonal shaft (mm)	Roller shutter height/Bar thickness (mm)					
		1.5 m			2.5 m		
		8	11	14	8	11	14
(kg)							
5	40	14	-	-	12	-	-
8	40	22	-	-	19	-	-
12	40	33	-	-	28	-	-
6	60	-	13	12	-	11	10
7	60	-	16	14	-	13	12
10	60	-	22	20	-	19	17
12	60	-	25	24	-	22	20
20	60	-	43	40	-	37	34
30	60	-	65	60	-	56	51
40	60	-	86	80	-	75	68
50	60	-	108	100	-	93	85
40	70	-	-	74	-	-	64
60	70	-	-	110	-	-	97
80	70	-	-	147	-	-	129
100	70	-	-	184	-	-	161
120	70	-	-	221	-	-	193

The specified values include a 15% allowance for friction

Note:

Please make sure that you check and comply with the maximum winding shaft load. These details are guideline values only and are given without any liability! You can obtain the data from the respective manufacturer. For the determination of an individual drive we recommend our drive calculation program. You can download the software at www.elero.com or simply order the program by phoning +49 (0)7025/13-367

Textile sun protection

SunTop / SunTop-868 VariEco / Type 11 /-CSM-E

Torque (Nm)	Round-/Notch-shaft Ø (mm)		Lifting capacity at the shaft (kg)			
	50	78	85	24	15	14
1.5	42					7
3	42					14
5	42					24
8	42					38
12	42					57
6	50	78	85	24	15	14
7	50	78	85	28	18	16
10	50	78	85	40	26	24
12	50	78	85	48	30	28
20	50	78	85	80	51	47
30	-	78	85	-	77	71
40	-	78	85	-	103	94
50	-	78	85	-	128	118
40	-	78	85	-	103	94
60	-	78	85	-	154	141
80	-	78	85	-	205	188
100	-	78	85	-	256	235
120	-	78	85	-	308	282

Example of the determination of the rated torque and drive for a roller shutter:

1. Determine the roller shutter data. (e.g.)

- Winding shaft 60 octagonal
- Rod thickness 14 mm
- Curtain data: h 2,20 m x w 2,00 m = 4.4 m²
- Curtain weight: 5 kg/m² x 4.4 m² = 22 kg

2. Determine the rated torque of the drive

A rated torque of 20 Nm is determined from the table column 2.50 m/14 mm.

3. Select the drive

Now select a suitable drive type with the determined torque. e.g. RoITop M20-868

These details are guideline values only and are given without any liability!

Roller shutter

Type 9 NHK / Type 11 NHK

Torque	Octagonal shaft	Roller shutter height/Bar thickness (mm)			
		1.5 m		2.5 m	
		11	14	11	14
(Nm)	(mm)	(kg)			
8	60	17	16	15	14
13	60	28	26	24	22
20	60	43	40	37	34
25	60	54	50	47	42
30	60	65	60	56	51
40	60	86	80	75	68
50	60	108	100	93	85
40	70	-	74	-	64
60	70	-	110	-	97
80	70	-	147	-	129
100	70	-	184	-	161
120	70	-	221	-	193

The specified values include a 15% allowance for friction.

Note:

Please make sure that you check and comply with the maximum winding shaft load. You can obtain the data from the respective manufacturer. For the determination of an individual drive we recommend our drive calculation program. You can download the software at www.elero.com or simply order the program by phoning +49 (0)7025/13-367.

The drives for markisolettes, conservatory shading, fabric tension system etc. will need to be determined separately for your system.

Notes:

The permissible load of the winding shaft must not be exceeded!
These details are guideline values only and are given without any liability!

Awnings and blinds

Type 9 NHK

Torque	Speed	Shaft Ø	Lifting capacity at the shaft
(Nm)	(Upm)	(mm)	(kg)
8	14	50	32
		78	21
13	14	50	52
		78	33
20	14	78	51
		85	47
25	14	78	64
		85	59
30	14	78	77
		85	71
40	14	78	103
		85	94
50	14	78	128
		85	118

Type 11 /-CSM-E /-NHK

Torque	Speed	Shaft Ø	Lifting capacity at the shaft
(Nm)	(Upm)	(mm)	(kg)
40	15	78	103
		85	94
60	12	78	154
		85	141
80	15	78	205
		85	188
100	12	78	256
		85	235
120	12	78	308
		85	282

Selection table for the determination of the suitable drive on the basis of the rated torque

Determine the necessary rated torque of the drive from the system data.

Roller shutter and door

Type 15 / Type 15 NMA

Torque (Nm)	Shaft-Ø (mm)	Nominal bar thickness	Max. blind weight with a rolling door/ roller shutter height up to		
			2.5	3.5	5.0
120	133	19	138	130	117
	133	23	131	123	109
	168	19	115	113	117
	168	23	114	108	101
150	133	19	172	162	146
	133	23	164	154	137
	168	19	144	141	133
	168	23	142	135	126
180	133	19	206	194	176
	133	23	196	185	164
	168	19	172	169	160
	168	23	170	162	151
230	133	19	264	248	224
	133	23	251	236	203
	168	19	220	216	204
	168	23	218	207	193
300	133	19	344	324	293
	133	23	327	308	273
	168	19	287	281	266
	168	23	284	270	252

This values are in relation to the complete roller shutter/rolling door in kg. 15% friction is taken into account. The friction can be greater due to additional door seals, wind loads etc. Carry out necessary corrections.

Calculation of the mean lifting speed in cm/second.

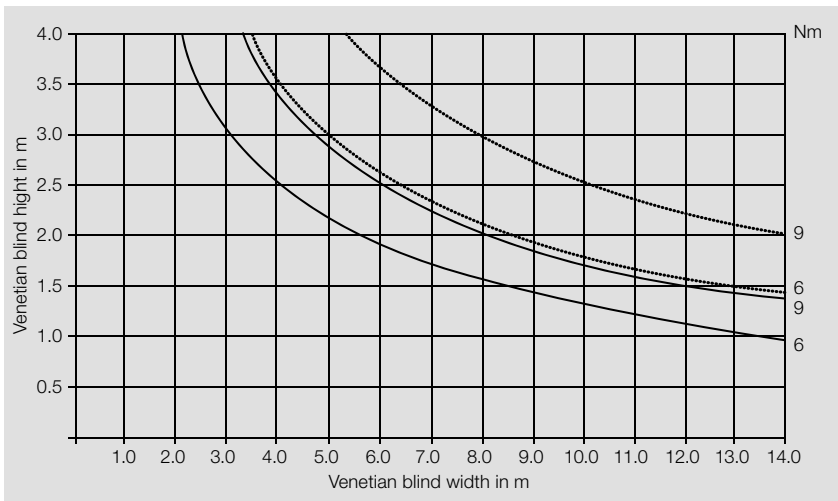
$$V_m = \frac{D + d \cdot 3,14 \cdot n}{2 \cdot 60}$$

- V_m = Mean lifting speed in cm/second.
- D = Roll diameter in cm.
- d = Tube diameter in cm.
- n = Revolutions per min.

These values are guide values. No liability can be accepted!

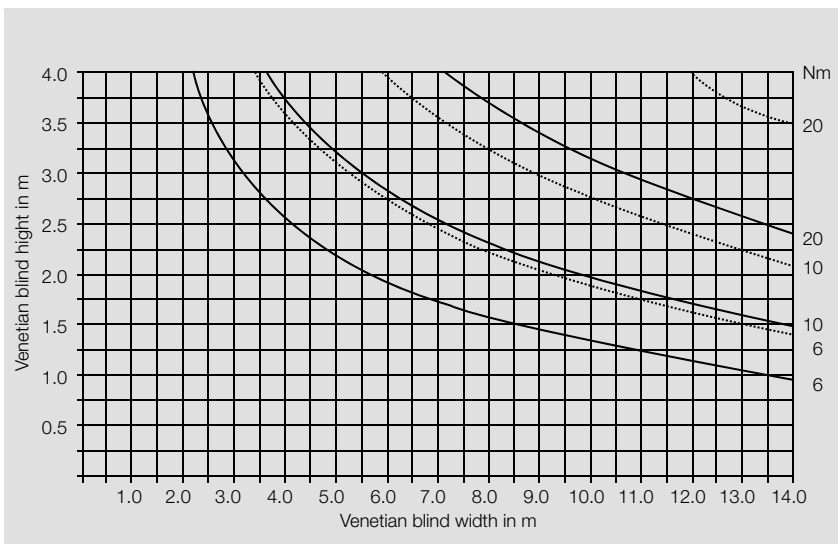
Venetian blind drive

JA Soft/JAR Soft



— Flanged slats; Unflanged slats

JAe/JAdk/JA NHK/JARdk



— Flanged slats; Unflanged slats

Chart calculations based on	Flanged slats	Unflanged slats
Slat width (mm)	60 – 90	50
Winding pulley diameter (mm)	22	
Ribbon thickness (mm)	0.34	
Weight (incl. drop bar) (kg/m ²)	2.0	1.2

These values are guide values. No liability can be accepted!

RevoLine

Type 9 + 11

Venetian blind drives

Speciality drives

Hausautomation, radio controls, radio sensors

Hardwired controls sensors

Door drives

Door controls

Lifting capacity tables

Selection table for the determination of the suitable drive on the basis of the rated torque

Determine the necessary rated torque of the drive from the system data.

Shaft mounted drives

DFM							
Drives with rated torque	up to shaft -Ø	Nominal bar thickness in m up to					
		20 mm door height up to			30 mm door height up to		
(Nm)	(mm)	3.0	5.0	7.0	3.0	5.0	7.0
170	108	205	173	153	175	146	127
	133	186	163	146	164	139	122
	168	162	149	136	147	130	118
	219	126	125	120	124	115	107
250	133	273	240	214	242	204	180
	168	239	219	200	216	191	173
	219	186	185	176	182	169	157
350	133	382	336	300	338	286	252
	168	334	307	280	303	268	243
	219	260	258	247	254	237	220
500	133	546	479	429	484	408	360
	168	478	439	401	433	383	347
	219	371	369	352	363	339	315
	244	335	335	326	328	318	301
750	133	819	719	643	725	613	540
	168	716	658	601	649	574	520
	219	557	554	528	545	508	472
	244	502	502	489	492	477	452

These data relate to the complete door weight in kg (1 kg ~ 9.81 N). 15 % friction is taken into account. The friction can be greater due to additional door seals, wind loads etc. Carry out necessary corrections.

Pole-reversible three-phase shaft mounted drives

DFM 400/32-16							
Size	Shaft -Ø	Nominal bar thickness in m up to					
		20 mm, door height up to			30 mm, door height up to		
(Nm)	(mm)	3.0	5.0	7.0	3.0	5.0	7.0
400	133	436	384	344	386	326	288
	159	396	346	328	356	310	280
	168	382	350	320	346	306	278
	193	334	320	300	324	292	264
	219	296	296	282	290	262	252

The above data is for the complete door weight in kg, with 15 % allowance for friction. These values are guide values. No liability can be accepted!

Chain wheel mounted drives

DKM

Drives with rated torque	up to shaft -Ø	Chain wheel reduction 2 : 1						Chain wheel reduction 2.53 : 1						Chain wheel reduction 3.05 : 1					
		Nominal bar thickness in m up to																	
		20 mm			30 mm			20 mm			30 mm			20 mm			30 mm		
		3.0	5.0	7.0	3.0	5.0	7.0	3.0	5.0	7.0	3.0	5.0	7.0	3.0	5.0	7.0	3.0	5.0	7.0
(Nm)	(mm)	(kg)																	
170	133	372	326	292	328	278	244	471	412	369	415	352	309	567	497	445	500	424	372
	168	324	298	272	294	260	236	410	377	344	372	329	299	494	454	415	448	397	360
	193	284	272	256	276	248	224	359	344	324	349	314	283	433	415	390	421	378	342
	219	252	250	240	248	230	214	319	316	304	314	291	271	384	381	366	378	351	326
250	133	546	480	428	484	408	360	691	607	541	612	516	455	833	732	653	738	622	549
	168	478	438	400	432	382	346	605	554	506	546	483	438	729	668	610	659	583	528
	193	418	400	376	406	364	330	529	506	476	514	460	417	637	610	573	619	555	503
	219	372	370	352	364	338	314	471	468	445	460	428	397	567	564	537	555	515	479
350	133	764	672	600	676	572	504	966	850	759	855	724	638	1165	1025	915	1031	872	769
	168	668	614	560	606	536	486	845	777	708	767	678	615	1019	936	854	924	817	741
	193	586	562	526	568	510	462	741	711	665	719	645	584	894	857	802	866	778	705
	219	520	516	494	508	474	440	658	653	625	643	600	557	793	787	753	775	723	671
	298	386	386	386	380	380	372	488	488	488	481	481	471	589	589	589	580	580	567
500	168	956	878	802	866	766	694	1209	1111	1015	1095	969	878	1458	1339	1223	1321	1168	1058
	193	838	802	750	810	730	660	1060	1015	949	1025	923	835	1278	1223	1144	1235	1113	1007
	219	742	738	704	726	678	630	939	934	891	918	858	797	1132	1125	1074	1107	1034	961
	244	670	670	652	656	636	602	848	848	825	830	805	762	1022	1022	994	1000	970	918
	298	552	552	552	544	544	530	698	698	698	688	688	670	842	842	842	830	830	808
	355	466	466	466	460	460	460	589	589	589	582	582	582	711	711	711	702	702	702
750	168	1432	1316	1202	1298	1148	1040	1811	1665	1521	1642	1452	1316	2184	2007	1833	1979	1751	1586
	193	1256	1202	1126	1216	1094	988	1589	1521	1424	1538	1384	1250	1915	1833	1717	1854	1668	1507
	219	1114	1108	1056	1090	1016	944	1409	1402	1336	1379	1285	1194	1699	1690	1610	1662	1549	1440
	244	1004	1004	978	984	954	904	1270	1270	1237	1245	1207	1144	1531	1531	1491	1501	1455	1379
	298	828	828	828	814	814	796	1047	1047	1047	1030	1030	1007	1263	1263	1263	1241	1241	1241
	355	698	698	698	690	690	690	883	883	883	873	873	873	1064	1064	1064	1052	1052	1052

Note the maximum limit switch range of the drive! These data relate to the complete door weight in kg (1 kg ~ 9.81 N). 15 % friction is taken into account. The friction can be greater due to additional door seals, wind loads etc. Carry out necessary corrections. These values are guide values. No liability can be accepted!

Calculation of the mean lifting speed in cm/second.

$$V_m = \frac{D + d \cdot 3,14 \cdot n}{2 \cdot 60}$$

- V_m = Mean lifting speed in cm/sec.
- D = Roll diameter in cm.
- d = Tube diameter in cm.
- n = Revolutions per min.



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Visit our website at www.elero.com for further information.

Information:

All product information in the catalogue is based on products available on the 01.01.2016. We reserve the right to change technical specifications, documentation and design of the products.

Our products are only to be installed/commissioned by authorized and qualified persons. There are high risks to objects and persons if the products are installed or commissioned incorrectly.



Linear actuator technology/ louvre system drives



Linear actuator technology

More than 50 years experience in constructing motors

Decades of experience

elero, the name which stands for high-quality electric precision linear actuators. Our products are based on more than 50 years of experience in the construction of electric motors. Manufacturing high-quality products

is part of our philosophy. We achieve this level of quality by applying a sophisticated quality control system complying with the requirements of the international DIN ISO EN 9001 standard.

elero Linear Drive Technology is a business unit of elero GmbH, one of the most important manufacturers of electric drives and controls for roller shutters, sun protection systems and doors. elero Linearantriebstechnik is well-known for customer dialogue, innovation and highest quality standards.

The company offers

- A wide range of electric push-rod actuators (linear actuators)
- The linear actuator solution for individual requirements – also in small quantities
- Short delivery times
- Highest quality and an optimum price/performance ratio

With more than 50 years experience in constructing motors, elero develops and manufactures reliable actuators with extremely compact design meeting the requirements especially in the mechanical engineering and plant manufacturing sectors. elero actuators for permanent outside use combine extreme robustness with elegance and are therefore ideally suitable for actuator solutions in the modern facade architecture.



elero building in Poesneck/Thuringia

Compared to their pneumatic and hydraulic „colleagues“ electric linear actuators have many assets:

Features:

- constant stroke speed
- no loss of oil
- mechanical self-locking
- almost maintenance free
- many speed variants
- exact positioning capability

If you are looking to combine energy efficiency, reliability and a long life expectancy, elero drives are the one to look for. We regard ourselves as being not just a supplier of linear actuators, but also a partner for the successful implementation of your ideas. Your requirements of our products are the measure of our quality.

Following an overview of our most common drives. More drives in more details can be found on: www.elero-linear.com

Overview

Piccolo (Industry/Facade)

The linear actuator for louvre adjustments in commercial architecture

Features:

- with its particularly slim construction, Piccolo can easily be integrated into a variety of modern facade styles
- space-saving linear actuator with innovative design for the adjustment of photovoltaic louvres and large louvres made of glass, aluminium or stainless steel
- thanks to the weather-resistant construction, the mounting position is flexible
- integrated, easily adjustable limit switches



	Piccolo 0	Piccolo XL	
Load (N)	100 – 1,800	1,200	
Stroke speed (mm/s)	approx. 2 – 16	approx. 6	approx. 5
Stroke length (mm)¹	75 – 800	max. 600	
Operating voltage	12 V DC/ 24 V DC	230 V 1 AC 50 Hz ²	24 V DC
Rating (min)	S2/5		S3/15 %
Temperature range (°C)	–20 to +80		
Connecting cable length (m)	2		
Protection type	IP 67	IP 65	
Mounting position	flexible		
Housing diameter (mm)	35	48	
Housing + fasteners	stainl. steel 1.4571 / anodised aluminium	stainless steel 1.4301	

Veco (Industry/Facade)

The economic solution for modern facade architecture

Features:

- the aluminium housing, electronic limit switches for individual stroke adjustment and the flexible mounting position highlight the efficiency and the economical characteristics of this actuator
- integration into building facades, for the adjustment of sun protection louvres, photovoltaic panels, daylighting systems
- slim and cylindrical actuator design



	Veco
Load (N)	1,600
Stroke speed (mm/s)	approx. 5
Stroke length (mm)¹	max. 300
Operating voltage	230 V 1 AC, 50 Hz ²
Rating (min)	S2/5 min
Temperature range (°C)	–20 to +60
Connecting cable length (m)	2
Protection type	IP 65
Limit switches	electronic limit switches
Mounting position	flexible
Fixing on piston and housing end	articulated lug
Housing diameter (mm)	50
Housing + fasteners	anodised aluminium

¹ Stroke lengths available in steps of 100 mm.

² All AC data (Stroke speed and power) based on 50Hz.

Drives can be operated on 60Hz as well, however Power is about 20% less and speed about 20% higher. Please contact us for detailed technical data.

Linear actuator technology

Overview


Econom (Industry/Facade)

The linear actuators of the Econom series have the following outstanding features

Features:

- can be used for lifting platforms, locking devices, tilting devices, slat adjustment, points switching and many other applications
- steel or stainless steel versions
- high static and dynamic load capacity
- almost maintenance-free, low-noise operation, robust



	Econom 0 UL	Econom 0	Econom 01	Econom 1	Econom 2
Load (N)	100 – 3,000	100 – 3,000	500 – 5,000	900 – 10,000	5,000 – 20,000
Stroke speed (mm/s)	0.6 – 70 (6 mm/sec on facade model)	0.6 – 70	0.7 – 90	0.5 – 70	1.0 – 45
Stroke length (mm)	50 – 400	max. 400	max. 750		
Operating voltage	120V/60 Hz	24 V DC/230 V 1 AC ¹ /400 V 3 AC ¹			400 V 3 AC ¹
Rating (min)	S3/ 15%; S1/100 %				S3/ 15%; S3/60 %
Temperature range (°C)	–20 to +80				
Connecting cable length (m)	1.50				
Protection type	IP 65s	IP 54 or IP 65			IP 54 or IP 65s
Limit switches	adjustable, with status signal				
Housing	black primer coating, alternatively in stainless steel				
Certification		–	–	–	–

Agron (Agricultural)

Electromechanical linear actuator for electrically operated positioning

Features:

- Compact design
- Maintenance-free
- Ingress protection IP69K
- Precise distance measurement
- High reliability
- Multiple mounting possibilities
- Integrated absolute encoder, LIN-Bus control



	Agron
Load (N)	200 / 400
Stroke speed (mm/s)	approx. 10 / approx. 20
Stroke length (mm)	100 / 150
Operating voltage	12 V DC
Rating (min)	S3/ 15 %
Temperature range (°C)	–20 to +60
Connecting cable length (m)	1.5
Protection type	69K
Mounting position	flexible
Housing diameter (mm)	35 × 57
Housing + fasteners	Aluminium anodised/Plastics PA

¹ All AC data (Stroke speed and power) based on 50Hz. Drives can be operated on 60Hz as well, however Power is about 20 % less and speed about 20 % higher. Please contact us for detailed technical data.

Overview

Junior (Industry)

Some outstanding features of this linear actuator

Features:

- versatile push rod drive with compact design for easy mounting
- reliable use for gas adjustment, etering equipment, points switching, tilting devices, hatch actuation and valve and slider operation
- Easy control, Start up ramp



	Junior 0E	Junior 1E-VA	Junior 1	Junior 1S	Junior 2 (24 V)	Junior 2 (230 V)	Junior 2 MSP
Load (N)	150 – 550		50 – 2,000	150 – 4,000	200 – 10,000	50 – 5,000	1,000 – 10,000
Stroke speed (mm/s)	1.6 – 30		0.9 – 50	2.1 – 50	1.2 – 85	2.5 – 70	1.2 – 19
Stroke length (mm)	max. 200				max. 350		
Operating voltage	24 V DC					230 V AC ¹	24 V DC
Voltage of the digital inputs and outputs	24 V DC		–				24 V DC
Rating (min)	S3/15 % S3/40 % S1/100 %		S3/40 % S3/60 % S1/100 %			S2/5 min	S3/15 %
Temperature range (°C)	–20 to +50		–10 to +50				
Connecting cable length (m)	plug contact		1.50				
Protection type	IP 54	IP 65	IP 54				
Limit switches	electronic limit switches		mechanical limit switches				
Housing	aluminium	stainless steel 1.4301	alu/plastic				
Overcurrent protection	yes		no				yes

Kompakt (Industry)

The compact push-rod actuator

Features:

- tailor-made and extremely compact design thanks to special elero technology
- versatile push rod drive for locking devices (rolling doors), tilting devices, operable windows, lifting platforms and many other applications
- adjustable limit switches with status signal
- torsion-lock piston rod



	Kompakt	
Load (N)	400 – 15,000	
Stroke speed (mm/s)	1.5 – 65	
Stroke length (mm)	max. 500	max. 1,000
Operating voltage	400 V 3 AC ¹ or 24 V DC	
Control voltage	–	24 V DC
Rating (min)	S3/15 %; S1/100 %	
Temperature range (°C)	–10 to +50	
Connecting cable length (m)	1.50	
Protection type	IP 54	
Limit switches	mechanical limit switches	electronic limit switches
Housing	aluminium/plastic	

¹ All AC data (Stroke speed and power) based on 50Hz. Drives can be operated on 60Hz as well, however Power is about 20 % less and speed about 20 % higher. Please contact us for detailed technical data.

Overview

LIMAline (Facade)

The louvre actuator system for maximum architectural freedom

Features:

- makes top technology invisible in the facade architecture
- operates vertically and horizontally facade louvres of different materials
- shading, darkening, light deflection and sun position tracking are possible
- rotary movements of up to 360° allow for many design possibilities on the facade
- fits into fixed structures starting from 50 mm width
- all the actuator components are maintenance-free and resistant to corrosion
- For more information:
www.elero-linear.com / Service / Downloads / Products for facade construction/LIMAline / Facade Catalog LIMAline



	LIMAline
Rotation angle (°)	up to 360
Weight (kg)	0.33
Operation time (sec.)	65
Pause time (sec.)	180
Temperature range (°C)	-20 to +60
Speed profile shaft (min⁻¹)	max. 30
Transmission ratio	i = 28
Mounting position	flexible
Housing	plastic
Profile bush	anodised aluminium
Profile shaft	stainless steel
Lifetime	10,000 × 180° cycles (right and left)

Lockmaster (Industry/Facade)

The electromechanical linear actuator for locking mechanisms

Features:

- applications under extreme ambient conditions (outdoors),
in underground sewer systems, underwater
- for simple locking functions: locking of manhole covers, for access systems and doors,
for increased security in buildings through the integration into centralised building
management systems, locking of machine and plant components
- maintenance-free operation allows the use under extreme ambient conditions
and in areas with limited accessibility



	Lockmaster
Load (N)	50
Stroke speed (mm/s)	30
Stroke length (mm)	50
Operating voltage	230 V 1 AC; 50 Hz ¹
Rating (min)	S2/1.0
Temperature range (°C)	-20 to +80
Protection type	IP 67 at 0.1 bar (equivalent to a water depth of 1.0 m)
Limit switches	preset, no adjustment necessary
Mounting position	flexible
Fixing on piston end	clevis end
Housing diameter (mm)	61.5
Housing length	168
Housing + fasteners	stainless steel 1.4301

Overview

Herkules (Industry)

The linear actuators of the Herkules series have the following outstanding features



Features:

- suitable for heavy-duty applications
- protection against dirt, dust and other environmental influences
- combination of high pushing/pulling forces and low space requirement
- for lifting platforms, locking devices, tilting devices, slat adjustment, points switching and many other applications
- low maintenance lubrication system

	Herkules 01	Herkules 1
Load (N)	14,000 – 30,000	28,000 – 50,000
Stroke speed (mm/s)	1 – 9	
Stroke length (mm)	up to 275	up to 320
Operating voltage	400 V 3 AC 50 Hz ¹	
Rating (min)	S3/15 %	
Temperature range (°C)	–20 to +50	
Connecting cable length (m)	1.50	
Protection type	IP 54	
Housing	galvanised, chromed	

Insolis (Solar/Photovoltaic systems)

The actuator series for solar photovoltaic systems

Features:

- extremely high static loads compared to required dynamic loads
- corrosion resistance against environmental influences over long periods
- modular system, flexible integration into existing and new systems
- option for Insolis 3: electronically programmable limit switches with integrated overload protection



Vario (Industry)

The linear actuators of the Vario series have the following outstanding features

Features:

- combination of high performance and low space requirement
- flexible concept thanks to a versatile modular system
- optimum protection against dirt, dust and other environmental influences
- robust construction, for special machine construction, materials handling technology, overhead catenary construction, shipbuilding or communications engineering



	Insolis 2	Insolis 3
Dynamic load peak (N)	5,000	10,000
Static load peak (N)	15,000	up to 60,000
Stroke speed (mm/s)	2.5 DC / 4.5 AC	1.5
Stroke lengths (mm)	500 – 1,000	600 / 800 / 1,000
Operating voltage	24 V DC / 230 V AC ¹	
Rated current	3.3 A DC / 1.3 A AC	4.5 A DC / 0.8 A AC
Power	79 W / 290 VA	108 W / 185 VA
Rating (min)	S2/12 ; S2/8	S2/12
Fixing on piston end	joint rod head	
Fixing on housing end	pivot	
Temperature range (°C)	–20 to +60	
Connecting cable length (m)	1.50	
Protection type	IP 65	
Mounting position	cable glands always facing downwards	
Housing	anodised aluminium	
Special features	self-locking ability	

	Vario 1	Vario 2
Load (kN)	4 – 50	10 – 100
Stroke speed (mm/s)	1 – 70	
Stroke length (mm)	max. 800	max. 1,000
Operating voltage	400 V 3 AC, 50 Hz	400 V 3 AC, 50 Hz
Control voltage electronic limit switches	24 V DC	
Voltage supply analogue output	24 V DC / 20 mA	
Rating (min)	S3/15 %	
Temperature range (°C)	–10 to +50	
Connecting cable length (m)	1.50	
Protection type	IP 54	
Housing	black primer coating	

Terms and conditions of sale

§ 1 Scope of validity

1. Our terms and conditions of sales apply exclusively. They apply for this and all future transactions with the ordering party unless otherwise expressly agreed between the parties. We do not recognise conflicting or differing terms and conditions of the customer. The business terms and conditions of the ordering party or of third parties have no validity irrespective of whether this validity is specifically rejected or is taken into account in correspondence, or correspondence contains or refers to the terms and conditions of the ordering party or a third party. Exceptions must be agreed in writing between the parties.
2. Unless otherwise stated in the contract terms, the terminology and definitions of INCOTERMS 2000 apply.

§ 2 Contract signing

1. Our quotations are non-binding. Technical descriptions and other details in brochures and other information are non-binding unless they are expressly identified as binding
2. We reserve our copyrights and title rights to samples and brochures, technical descriptions, calculations and other documents. These may not be made accessible to third parties without written approval.
3. The acceptance declaration and all confirmations require the written form to be valid.
4. If the order is to qualify as an offer according to § 145 of the German Civil Code (BGB) we can accept this within 12 working days.
5. Details in samples, brochures, technical descriptions and in public announcements on our part, by manufacturers and their agents (§ 434 para. 1 p. 3 BGB) are an inherent part of the performance description when expressly taken into account in the contract.
6. With the exception of the managing director and sales manager our (sales) employees are not authorised to make verbal side agreements which differ from these terms and conditions or to give verbal assurances which transcend the content of the written contract.

§ 3 Prices and sales conditions

1. The agreed prices apply. These are understood to be "ex works" plus packaging, statutory VAT, duty in the case of exports plus fees and other public levies and additional payments, e.g. for insurance. The statutory VAT is itemised separately in the invoice at the valid rate at the time of billing.
2. If substantial cost elements vary before the day of the delivery, a price increase is possible if the delivery or performance is more than four months after the contract signing. The price increase shall take place taking into account the mutual interests of the contract parties.
3. Invoice amounts are within eight days – 3 % discount, within 14 days – 2 % discount and within 30 days net of receipt of the goods. The invoice shall be paid in cash or by bank transfer. It is considered as having been paid once we have received the amount without extra cost.
4. Other payment methods require our written consent. The costs arising on either side shall be paid by the ordering party. Payment by exchange is not admissible. Checks are valid only after payment has been transferred.
5. The ordering party has a right to offsetting or retention only in the case of undisputed or legally verified debts or accounts.

§ 4 Delivery and duties of cooperation

1. The scope of our duty to deliver is exclusively defined by the respective contract. We reserve the right to make changes to construction, form and colour as a result of technical improvement or legal requirements, provided such changes are not substantial or otherwise unreasonable for the ordering party.
2. We are entitled to partial delivery if – the partial delivery can be used by the ordering party within the context of the contractually designated purpose, – the delivery of the remainder of the goods ordered is guaranteed and – the ordering party is not faced with considerable secondary or additional costs as a result.
3. Deliveries shall be carried out "ex works" unless otherwise agreed in writing between the parties.
4. The delivery dates are agreed in principle subject to the cooperation of the ordering party in accordance with the contract. Dates and deadlines set for deliveries and performances always apply as approximate unless agreed as "final". Compliance with our delivery duty assumes that the ordering party fulfils its obligations promptly and properly.
5. If our suppliers deliver incorrectly or fail to deliver on time, even though we have issued orders to reliable suppliers which cover the demand at least, we shall be exempt from our performance obligation and may withdraw from the contract unless the delivery delay is only temporary.
6. If it transpires after the signing of the contract that the ordering party has no guarantee of creditworthiness and our payments are threatened we are entitled to refuse delivery until the ordering party makes payment or provides assurance thereof. If the payment or security provision is not provided within 12 working days after a request has been made, we are entitled to withdraw from the contract.
7. If the ordering party falls behind with acceptance or collection or is responsible for a delay in dispatch or delivery we are entitled, without prejudice to further

claims, to demand a fixed cost amounting to the standard local costs of storage, irrespective of whether the goods are stored by us or a third party. The burden of proof that less or no damage was caused lies with the ordering party.

§ 5 Delay in delivery

1. If the date for the delivery agreed with the ordering party cannot be complied with for reasons beyond our control, particularly operating interruptions of any kind, difficulties in the procurement of materials or energy, transport delays, strikes, legal lockouts, shortages of workforce, shortages of energy or raw materials, difficulties in the procurement of the required official approvals and/or official measures within our sphere or in the sphere of our supplier, the delivery period shall be extended by the duration of the obstacle plus an appropriate lead time.
2. If the circumstances delaying the delivery last for a month after the agreed delivery deadline, either party may withdraw from the contract. Further claims due to delivery times being exceeded for reasons which are not unintentional or are due to gross negligence on our part are excluded. Damage claims are limited to the contract-typical foreseeable damage.

§ 6 Place of fulfilment and transfer of risk

The place of fulfilment for all obligations from the contract relationship in the case of orders in the field of drive technology is our registered office in 72660 Beuren, and for orders in linear technology it is our registered office in 07381 Pößneck.

§ 7 Packing

We pack all goods appropriately. The costs for the disposal of transport and sales packaging shall be borne by the ordering party.

§ 8 Dispatch

1. If dispatch is agreed between the parties the risk of the loss of the subject of the delivery transfers to the ordering party at the latest with hand-over of the subject of the delivery to the shipper, freight carrier or other third party appointed for the delivery. This applies equally if we have made part-deliveries and have also taken on other performances.
2. If the delivery or hand-over is delayed due to circumstances for which the ordering party is responsible, the risk transfers to the ordering party from the day on which the subject of the delivery is ready for dispatch and we have indicated this to the ordering party.
3. Storage costs after the transfer of the risk shall be paid for by the ordering party. If stored by us, the storage costs are 0.5% of the invoice amount for the subjects of the delivery being stored per week of delay. We reserve the right of assertion and proof of greater or lesser storage costs.
4. The shipment is insured against theft, breakage, transport, fire and water damage or other risks by us only at the express preference and cost of the ordering party.

§ 9 Material defect

1. The ordering party is subject with reference to material defect to the legal obligation to inspect and report defects according to § 377 HGB.
2. Wear and tear on batteries, battery packs and other consumables is not included as material defect. The legal warranty for the normal, generally-expected quality and as-intended usability of these articles is not affected hereby. If we provide a guarantee for certain products which transcends the legal liability for defects, particularly an extended period for defect-related cost-free replacement of materials, these do not count as wear or tear articles.
3. The ordering party cannot derive rights from material defects which do not or do not substantially affect the value and fitness for use as intended
4. If the items exhibit a material defect at the time of the transfer of risk, we are entitled and obliged to offer supplementary performance. Supplementary performance shall, at our discretion, be in the form of repair or replacement.
5. If the supplementary performance fails, does not take place within a suitable period set by the ordering party or is refused, the ordering party is entitled at its discretion to withdraw from the contract, to demand a lowering (reduction) of the purchase price appropriate to the defect and value or, within the limits of the following conditions, compensation in place of performance.
6. Should a material defect lead to damage according to the legal provisions, we are liable insofar as this relates to personal damage, for damage under the product liability law or damage caused by intent or gross neglect.
7. If the damage is based on a culpable violation of a substantial contractual duty or a "cardinal duty" we are liable, with exception of the cases in section 3, only for foreseeable, contract-typical damage.
8. Further contract- and tort-related claims of the ordering party are excluded. We are particularly not liable for the cases named in para. 6, for damage which has not resulted from the subject of the delivery itself or for lost profit or other damage to the assets of the ordering party.

§ 10 Other damage liability

1. The provisions in § 9 para. 6-8 also apply for damage claims due to other obligatory duties. In the event of the violation of a contractual duty or a performance obstacle existing at the time of the contract signing (§§ 311 para. 2, 311a BGB) our compensatory duty is limited to the negative interest.
2. Our tort liability is subject to the provisions in § 9 para. 6-8.
3. Insofar as our liability is excluded or limited, this also applies for personal liability of our employees, staff, colleagues, agents and vicarious agents.

§ 11 Retention of title

1. The title of the goods supplied is retained until our total accounts against the ordering party from the business relationship including future accounts arising from contracts signed at the same time or later have been settled. The same applies when accounts are made in a running invoice and the balance is brought forward and acknowledged. Title transfers to the ordering party when the total liabilities for whatever reason have been settled. We are obliged to release our securities insofar as their value exceeds our accounts by more than 10 %.
2. The ordering party is entitled to sell or process the goods in a proper business transaction. This right is cancelled on cessation of payment or application for or commencement of an insolvency process. Any processing is carried out by the ordering party on our behalf without our being obligated in any way. In the event of processing, joining or mixing the reserved products with other products we automatically receive shared ownership of the new item at a value in the event of processing, in relation of the value (= gross invoice value including side costs and taxes) of the reserved products to the value of the new item, and in the event of processing, joining or mixing the reserved products with other products, in relation of the value of reserved products to the value of the other products.
3. The ordering party herewith cedes to us all accounts derived from the resale of the goods. The ordering party is also authorised to collect these accounts after cessation. Our authorisation to collect the accounts ourselves is unaffected by this. However we shall make no use of this right, provided the ordering party meets its payment and other obligations. On request the ordering party shall disclose to us the ceded accounts and their debtors plus all details required for collections, provide us with the related documents and instruct the debtors of the cessation.

4. In the event of contract-infringing behaviour on the part of the ordering party, particularly payment arrears, we are entitled to withdraw from the contract and take back the goods. For the purpose of taking back the goods the ordering party herewith irrevocably consents to our entering its business and storage premises and taking the goods away.
5. While we still have title, the ordering party may neither offer for security nor pledge the goods or items manufactured from said goods without our consent.
6. In the case of pledging and other third party interventions the ordering party shall notify us in writing. The ordering party is not permitted to make any agreements with its receivers which might affect our rights.
7. We are obliged to release the security due us at the request of the ordering party and at our discretion insofar as the realisable value of the security exceeds the claim to be secured by more than 10 % or its nominal value by more than 50 %.

§ 12 Final provisions

1. The invalidity of individual provisions shall not affect the validity of the remainder.
2. If the ordering party is a merchant, the legal venue for all disputes is the registered office of elero GmbH in 72660 Beuren. The legal venue is not exclusive.
3. German law applies to the exclusion of the UN purchasing law (CISG).
4. We refer to the fact, in accordance with the provisions of the German data protection act, that we store personal data about the ordering party (name, address) by EDP for internal purposes only.

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