

2016 | 2017

Drives and controls

for intelligent building technology





2016 | 2017 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 Einkhamatzen-Wokele und Reperaturenheim Prade erhalte die bei den Rollsdengunt durch einen Motor zu einstein.

Es toigt en komplettes Motorenprogramm für Rollkoan, Marksen und Rollton

1970 Erster elektrischer Garagentor-Antreib mit Funkternsteurung









11967197019719721974

turn your life, since 1964. www.elero.com



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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









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 Centero app for the simple mobile operation of the building services. And delighted customers worldwide.









Made in Germany

More than a half century of company history – with all its highs and lows, many innovations and constant "Germanmade" 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.

elero

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.



elefo





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 | | • | | | • | | | | | | | • | • | | | | | | |
| VariEco S-K | 48 | | • | | | • | | | | | | | | • | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| RevoLine M | | | | | | | | | | | | | | | | | | | | |
| RolTop M-868 /K /RH /SH | 60 | | | • | • | • | • | • | | | • | | | • | | | | | | |
| RolTop M-868 Fast run.vers. /RH | | • | | • | • | • | • | • | | | | | | • | | | | | | |
| RolTop M /K /RH /SH | 64 | | | | | • | • | • | | • | • | | | • | | | | | | |
| RolTop M Fast run.vers. /RH | 66 | • | | | | • | • | • | | • | | | | • | | | | | | |
| RolSmart M10-K | 68 | • | | | | • | • | • | | | • | | | • | | | | | | |
| RolSmart M20 | 68 | • | | | | • | • | • | | | • | | | • | | | | | | |
| RolTop/D+ M-868 /SH | 70 | • | | • | • | • | • | • | | | • | | | • | | | | | | |
| RolTop/D+ M /SH | 72 | • | | | | • | • | • | | • | • | | | • | | | | | | |
| RolTop s_onro M-868 | 74 | • | | • | • | • | • | • | | | | • | | | | | | | | |
| RolTop s_onro M | 76 | • | | | | • | • | • | | • | | • | | | | | | | | |
| RolTop/J M-868 | 78 | • | | • | • | • | • | • | | | | | | | | • | | | | |
| RolTop/J M | 80 | • | | | | • | • | • | | • | | | | | | • | | | | |
| SunTop M-868 /RH /SH | 82 | • | | • | • | • | • | • | | | | | • | • | | | | | | |
| SunTop M /RH /SH | 84 | • | | | | • | • | • | | • | | | • | • | | | | | | |
| SunTop/Z M-868 RH | 86 | • | | | | • | • | • | | | | | | | | | • | | | |
| SunTop/Z M RH | 88 | • | | | | • | • | • | | • | | | | | | | • | | | |
| VariEco M-868 | 90 | | • | • | • | • | | | | | • | | • | • | | | | | | |
| VariEco+ M-868 | 90 | | • | • | • | • | | | | | • | | • | • | | | | | | |
| VariEco M | 92 | | • | | | • | | | | | • | | • | • | | | | | | |
| VariEco+ M | 92 | | • | | | • | | | | | • | | • | • | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| RevoLine L | | | | | | | | | | | | | | | | | | | | |
| RolTop L-868 | 104 | • | | • | • | | | • | | | • | | | • | | | | | | |
| RolTop L | 106 | • | | | | | | • | | • | • | | | • | | | | | | |
| SunTop L-868 | 108 | • | | • | • | | | • | | | | | • | • | | | | | | |
| SunTop L | 110 | • | | | | | | • | | • | | | • | • | | | | | | |
| VariEco L-868 | 112 | | ٠ | • | • | | | | | | • | | • | • | | | | | | |
| VariEco L | 114 | | • | | | | | | | | • | | • | • | | | | | | |

20

| | | Electronic limits with Soft Stop on end position approach | Mechanical limit switches | Uni-directional radio system | Bi-directional radio system | ft brake * | ow drive ** | lo | ide | Parallel connection possible | _ | shutter | | .een | | r Inction | | Б | | er drive |
|--------------------------|------|--|---------------------------|------------------------------|-----------------------------|----------------------|--------------------------|----------------|-----------------|------------------------------|----------------|----------------------|--------|------------------|-------------|--|------------|----------------|---------------|-----------------------|
| | Page | Electronic limits with Soft Stop on end position appr | Mechanical li | Uni-direction | Bi-directiona | Noiseless soft brake | Integrated slow drive ** | Torque control | Manual override | Parallel conn | 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 | 122 | • | | • | | | | • | | | | | • | • | | | | | | |
| Type 11 CSM-F-868 | 122 | • | | • | | | | • | | | | | • | • | | | | | | |
| Type 11 CSM-E | 124 | • | | | | | | • | | • | | | • | • | | | | | | |
| Type 11 | 126 | | • | | | | | | | | • | | • | • | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| Type 9 NHK / Type 11 NHK | | | | | | | | | | | | | | | | | | | | |
| Type 9 NHK | 132 | | • | | | | | | • | | • | | • | • | | | | | • | |
| Type 11 NHK | 134 | | • | | | | | | • | | • | | • | • | | | | | • | |
| Type 15 | | | | | | | | | | | | | | | | | | | | |
| Type 15 W | 254 | | • | | | | | | | | • | | • | | | | | | • | |
| Type 15 W NMA | 256 | | • | | | | | | • | | • | | • | | | | | | • | |
| v | | | | | | | | | | | | | | | | | | | | |
| Venetian blind drives | 1 10 | | | | | | | | | | | | | | | | | | | |
| JA | 146 | | • | | | | | | | | | | | | | | | • | | |
| JA Soft JAR | 146 | | • | | | • | | | | | | | | | | | | • | | |
| JAR Soft | 148 | | - | | | | | | | | | | | | | | | • | | |
| | | | • | | | • | | | | | | | | | | | | | | |
| JA NHK | 150 | | • | | | | | | • | | | | | | | | | • | | |
| Speciality drives | | | | | | | | | | | | | | | | | | | | |
| Folder shutter drive | 158 | • | | | | | | • | | • | | | | | | | | | | • |
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| Solar drive systems | 160 | | | | | | | | | | | | | | | | | | | |
| VariEco M DC | 162 | | • | _ | | • | | | | | • | | • | • | | | | | | |
| VariEco M-868 DC | 162 | | • | • | • | • | | | | | • | | • | • | | | | | | |
| SunTop L-868 DC | 162 | | | | | | | • | | • | | | • | • | | | | | | |
| JA Soft DC | 162 | | • | | | • | | | | | | | | | | | | • | | |

 $^{^{\}ast}$ 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

| | | Pro | grammak combii | ole end li | imits | | ly adjustable limits | Self learn | ning limits |
|--|-----------------|------------------|-----------------------------|------------------|-----------------------------|-----------------------------|-----------------------------|--------------------|--------------------|
| | | | er limit itch | | er limit ritch | Upper limit switch | Lower limit switch | Upper limit switch | Lower limit switch |
| | Page | on limit stop | freely program- mable | on limit stop | freely program- mable | frei freely programmable | frei freely programmable | on limit stop | on limit stop |
| RevoLine S | | | | | | | | | |
| RolTop S-868 | 30 | • | | • | | | | | |
| RolTop S | 32 | • | | | • | | | | |
| | | | • | • | | | | | |
| | | | • | | • | | | | |
| RolTop/D+ S-868 RolTop/D+ S | 34 36 | | | | | | | • | • |
| RolTop/T S-868 | 38 | • | | • | | | | | |
| | | • | | | • | | | | |
| | | | • | • | | | | | |
| | | | • | | • | | | | |
| SunTop S-868 SunTop S | 40 42 | • | | • | | | | | |
| | | • | | | • | | | | |
| | | | • | • | | | | | |
| VariEco S-868 | 44 | | • | | • | | | | |
| VariEco S | 46 | | | | | • | • | | |
| VariEco S-K | 48 | | | | | | | | |
| | | | | | | | | | |
| RevoLine M | | | | | | | | | |
| RolTop M-868 /K /RH /SH RolTop M-868 fast run. /RH | 60 62 | • | | • | | | | | |
| RolTop M /K /RH /SH | 64 | • | | | • | | | | |
| RolTop fast run. /RH | 66 | | • | • | | | | | |
| RolSmart M10-K | 68 | • | • | • | · | | | | |
| RolSmart M20 | 68 | • | | | | | | | |
| | | | | • | | | | | |
| RolTop/D+ M-868 /SH | 70 | | | | | | | | |
| RolTop/D+ M /SH | 72 | | | | | | | • | • |
| RolTop s_onro M-868 RolTop s_onro M | 74 76 | • | | • | | | | | |
| TIOTIOP S_UITO IN | 10 | • | | | • | | | | |
| | | | • | • | | | | | |
| B IT (111 000 | 70 | | • | | • | | | | |
| RolTop/J M-868 RolTop/J M | 78 80 | • | | • | | | | | |
| | | • | | | • | | | | |
| | | | • | · | | | | | |
| SunTop M-868 /RH /SH | 82 | • | | • | | | | | |
| SunTop M /RH /SH | 84 | • | | | • | | | | |
| | | | • | • | | | | | |
| | | | • | | • | | | | |
| SunTop/Z M-868 /RH | 86 | • | | • | | | | | |
| SunTop/Z M /RH | 88 | • | | | • | | | | |
| | | | • | • | | | | | |
| | | | • | | • | | | | |
| VariEco M-868 /+ M-868 VariEco M-868 DC VariEco M /+ M | 90 162 92 | | | | | • | • | | |
| VariEco M DC | 162 | | | | | | | | |

22

| | | Pro | grammal combi | ole end l nations | imits | | ly adjustable limits | Self learn | ing limits |
|---|-------------------|------------------|-----------------------------|----------------------|-----------------------------|-----------------------------|-----------------------------|--------------------|--------------------|
| | | | er limit vitch | | er limit vitch | Upper limit switch | Lower limit switch | Upper limit switch | Lower limit switch |
| | Page | on limit stop | freely program- mable | on limit stop | freely program- mable | frei freely programmable | frei freely programmable | on limit stop | on limit stop |
| RevoLine L | | | | | | | | | |
| RolTop L-868 RolTop L | 104 106 | • | • | • | • | | | | |
| SunTop L-868 SunTop L-868 DC SunTop L | 108 162 110 | • | | • | • | | | | |
| VariEco L-868 VariEco L | 112 114 | | | | | • | • | | |
| Type 11 | | | | | | | | | |
| Type 11 CSM-868 | 122 | • | | • | • | | | | |
| Type 11 CSM-F-868 | 124 | | • | | • | | | | |
| Type 11 CSM-E | 124 | • | • | • | • | | | | |
| Type 11 | 126 | | | | | • | • | | |
| Type 9 NHK / Type 11 NH | ıĸ | | | | | | | | |
| Type 9 NHK Type 11 NHK | 132 134 | | | | | • | • | | |
| Type 15 | | | | | | | | | |
| Type 15 W Type 15 W NMA | 252 254 | | | | | • | • | | |
| Venetian blind drives | | | | | | | | | |
| JA JA Soft JA Soft DC | 146 146 162 | | | | | • | • | | |
| JAR JAR Soft | 148 148 | | | | | • | • | | |
| JA NHK | 150 | | | | | • | • | | |
| Speciality drives | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | |
| Centero | 168 | • | • | • | • | • | | | 15¹ | | • | | • | • | | • | • | • | • | • | • |
| MultiTec Touch-868 | 172 | • | • | • | • | • | | | 20 | | • | | • | • | | • | | • | • | • | • |
| TempoTel 2 * | 174 | • | 0 | | • | 0 | | | 10 | | | | | | | • | | • | • | | • |
| MultiTel 2 | 176 | • | • | • | • | • | | | 15 | | | | • | • | | | | | | | |
| VarioTel 2 | 176 | • | • | | • | • | | | 5 | | | | | • | | | | | | | |
| LumeroTel 2 | 178 | • | • | • | • | • | | | 1 | | | | • | • | | | | | | | |
| MonoTel 2 | 178 | • | 0 | 0 | • | | | | 1 | | | | | • | | | | | | | |
| SoloTel 2 | 178 | • | 0 | 0 | • | • | | | 1 | | | | | • | | | | | | | |
| AstroTec-868 /bidi | 180 | | 0 | • | • | 0 | | | 1 | | | | | | | • | | • | • | | |
| MemoTec-868 | 182 | • | 0 | | • | 0 | | | 1 | | | | | • | | | | | | | |
| UniTec-868 | 184 | • | | • | • | | | | 1 | | | | | • | | | | | | | |
| Invio-868 | 186 | • | 0 | 0 | • | | | | 1 | | • | • | | | | | | | | | |
| VarioTec-868 | 188 | • | | | | | | | | | | | | • | | | | | | | |
| AeroControl-868 | 190 | | • | • | | | • | | | • | • | • | | | | | | | | | |
| Revio-868 | 192 | | | • | | | | | | | • | • | | | | | | | | | |
| Revio-868 P | 192 | • | • | | | | • | | | • | • | | | | | | | | | | |
| Revio-868 SW | 192 | • | | • | • | | | • | | • | • | • | | | | | | | | | |
| Unio-868 | 194 | | | | • | • | • | | | • | • | | | • | | | | | | | |
| Combio-868 JA | 196 | | | | | | | | | | • | | | | | | | | | | |
| Combio-868 JA Pulse | 196 | | | • | | | • | | | • | • | | | | | | | | | | |
| Combio-868 RM | 196 | • | | | | | | | | • | • | | | | | | | | | | |
| Combio-868 HE | 198 | | | | | • | • | | | • | • | | | | | | | | | | |
| Combio-868 LI | 198 | | | | • | | • | | | | • | | | | | | | | | | |
| Combio-868 SW | 198 | | | | • | | • | | | • | • | | | | | | | | | | |
| Sensero-868 AC/ Sensero-868 AC Plus | 200 | 0 | • | • | | | | | 1 | | • | | | • | | | | | | | |
| Aero-868 | 202 | | • | | | | | | 1 | | | | | • | | | | | | | |
| Aero-868 Plus | 202 | | • | • | | | | | 1 | | | | | • | | | | | | | |
| Aero-868 AC | 202 | | • | • | | | | | 1 | | • | | | • | | | | | | | |
| Ventero-868 | 202 | | • | | | | | | 1 | | | | | • | | | | | | | |
| Protero-868 | 204 | | • | | | | | | 1 | | | | | • | | | | | | | |
| Lumero-868 | 206 | • | • | • | | | | | 1 | | | | | • | | | | | | | |
| Lumo-868 | 208 | • | 0 | 0 | | | | | 1 | | | | 0 | • | | | | | | | |
| AeroTec | 212 | 0 | • | • | | | • | • | | | • | • | • | • | | | | | | | |
| AstroTec | 214 | • | 0 | • | • | | • | • | | | • | • | • | • | | • | • | • | • | • | • |
| ТетроТес | 214 | • | 0 | • | | | • | | | | • | | • | • | | • | | • | • | • | • |
| MemoTec | 216 | • | 0 | 0 | | | • | | | | • | | • | • | • | | | | | | |
| VarioTec | 218 | • | • | • | | | • | • | | | • | • | • | • | | | | | | | |
| MonoTec | 220 | • | • | • | | | | • | | | | | | • | | | | | | | |
| TimeTec | 222 | • | | | | | • | | | | • | | | • | | | | | | | |

o 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 imput/ 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 automa- tic date of installation, relay activa- tion counter, motor running time | Storage dimm value | Fixed dimm value | Transmitter/receiver for bidirectional mode ° | Transmitter/receiver for unidirectional mode |
|--|------|--|---|---|--|-----------------------|-----------------------------|----------------------------|-------------------------|--|-------------------------------|-------------------------------------|---------------------------------|-------------------------------|---|----------------------|-----------------------------|-----------------------------|--|--------------------|------------------|---|--|
| Control units | | | | | | | | | | | | | | | | | | | | | | | |
| Centero | 168 | | • | | | | | | • | • | | | • | • | • | | | | | | | | |
| MultiTec Touch-868 | 172 | • | 0 | | | | | | • | • | • | • | • | • | • | | | | | | | • | |
| TempoTel 2 * | 174 | | 0 | | | | | | | | | | • | | • | | | | | | | • | |
| MultiTel 2 | 176 | | | | | | | | • | • | • | | | | | | | | | | | • | |
| VarioTel 2 | 176 | | | | | | | | | | | | | | | | | | | | | | |
| LumeroTel 2 | 178 | | | | | | | | | | | | | | | | | | | | | • | |
| MonoTel 2 | 178 | | | | | | | | | | | | | | | | | | | | | | |
| SoloTel 2 | 178 | | | | | | | | | | | | | | | | | | | | | | |
| AstroTec-868 /bidi | 180 | | | | | | | | | | | | • | | | | | | 0 | | | •+ | • " |
| MemoTec-868 | 182 | | | | | | | | | | | | | | | | | | | | | | |
| UniTec-868 | 184 | | | | | | | | | | | | | | | | | | | | | | |
| Invio-868 | 186 | | | | | | | | | | | | | | | | | | | | | | |
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| Combio-868 LI | 198 | | | | | | | | | | | | | | | | | | | | | | |
| Combio-868 SW | 198 | | | | | | | | | | | | | | | | | | | • | | | |
| Sensero-868 AC/ Sensero-868 AC Plus | 200 | | | | • | • | | • | | | | | | | | | | | | | | • | • |
| Aero-868 | 202 | | | | | • | | • | | | | | | | | | | | | | | • | |
| Aero-868 Plus | 202 | | | | | • | | | | | | | | | | | | | | | | | |
| Aero-868 AC | 202 | | | | | • | | • | | | | | | | | | | | | | | | |
| Ventero-868 | 202 | | | | | | | • | | | | | | | | | | | | | | • | |
| Protero-868 | 204 | | | | | | | • | | | | | | | | | | | | | | • | • |
| Lumero-868 | 206 | | | | | • | | | | | | | | | | | | | | | | | |
| Lumo-868 | 208 | | | | | • | • | | | | | | | | | | | | | | | • | |
| AeroTec | 212 | • | | | | | | | • | • | | | | | • | | • | | | | | | |
| AstroTec | 214 | • | • | • | • | • | | | | • | • | | • | | • | • | • | • | • | | | | |
| TempoTec | 214 | • | | | | | | | • | • | | | | | • | | | | | | | | |
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| With restrictions/Partiall | | | es/Suit | abl- | * T. | | 0.0 | ups + (| 00-1 | | ot - | | bidi o | n li r | II ^ | -tT | - 000 | 0 : | I. routing | | | | |

ProLine 2 – bidirectional transmitter programming

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 <i>bidi</i> rectional programming mode (at least one <i>bidi</i> rectional receiver is also in programming mode) |
| Orange and then green | Channel is bidi rectionally programmed and the receiver has received the signal |
| Orange and then red | Channel is bidi rectionally programmed and one of the receivers has not received the signal |
| Red and then green | Channel is bidi rectionally programmed and the receiver has received the signal. Batteries are low! |
| Red and then red | Channel is bidi rectionally programmed and one of the receivers has not received the signal. Batteries are low! |
| Green | Channel is in <i>uni</i> directional 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 | | Press for approx. 3 sec. | Transmitter already programmed | | | | | |
| (time: 5 min.) | | 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) | ٠ | Press for approx. 6 sec. → until LED flashes orange | Programming mode was started with this transmitter | | | | | |
| Stop programming mode | | Тар | Transmitter already programmed | | | | | |
| Programme transmitter | 1. 2. | Briefly press the UP button im (< 1 sec.) after the start of any 'u ment' and briefly press the DOW the start of any 'downward move acknowledged by the drive briefly | pward move- N button after ement'. This is The drive is in programming mode and the blind constantly drives UP and DOWN for a short | | | | | |
| 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 additionally 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 | | | | | |



^{*} 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.







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 From $\emptyset = 38 \text{ mm}$

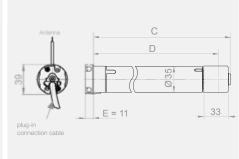
Shaft size: From $\emptyset = 38 \text{ mm}$ Features: Noiseless soft brake up to 8 Nm

Radio system: Bi-directional 868 MHz radio including routing

* Drive might stop on heavy wind load to protect drive

| switch modes |
|---------------------|
| Lower limit switch |
| Freely programmable |
| On limit stop |
| On limit stop |
| Freely programmable |
| |





Technical data and dimensions





| Туре | RolTop \$1.5/70-868 | RolTop S3/30-868 | RolTop \$5/30-868 | RolTop S5-868 | RolTop S8-868 | RolTop S10-868 FL | RolTop S12-868 FL | RolTop S12/11-868 FL |
|---|------------------------|---------------------|----------------------|------------------|--|----------------------|----------------------|-------------------------|
| Max. torque (Nm) | 1.5 | 3 | į. | 5 | 8 | 10 | | 12 |
| Speed (rpm) | 70 | 3 | 0 | | 1 | 7 | | 11 |
| Roller shutter | - | | | | • | • | | |
| Blinds | | • | | | | - | | |
| Operating Voltage (V) | | | | 1 ~ | 230 | | | |
| Frequency (Hz) | | | | Ę | 50 | | | |
| Noiseless soft brake | | | • | | | | - | |
| Fast-running version | | • | | | | _ | | |
| Current (A) | 0.5 | 55 | 0.73 | 0.55 | 0.73 | 0.6 | 0.73 | 0.6 |
| Power (W) | 13 | 30 | 168 | 130 | 168 | 140 | 168 | 140 |
| Shaft Ø (mm) | | | | 3 | 38 | | | |
| Ingress protection (IP) | | | | 4 | 14 | | | |
| Max. limit switch range in Revolutions of the shaft | 160 | 8 | 0 | | | 40 | | |
| Operating mode (KB in min.) | 5 | 5 | 4 | 5 | | | 4 | |
| Length C (mm) | | | 534 | | | 514 | 534 | 514 |
| Length D (mm) | | | 517.5 | | | 497.5 | 517.5 | 497.5 |
| Length E (mm) | | | | <u> </u> | = 11 | | | |
| Weight (kg) | 1.3 | 1.2 | 1.3 | 1.2 | 1.3 | 1.2 | 1.3 | 1.2 |
| Temperature range (°C) | | | | -20 t | to +60 | | | |
| Conformity | | | | CE 4 | <u> </u> | | | |
| Connecting cable, pluggable (m) | | | | 2 | 2.0 | | | |
| White motor head | | • | | | | - | | |
| Accessories included | | - | | Type 8 (restor | ncluded (only on es backwards co item no. 99 000.7 | mpatibility to Typ | e 8 motors). Re | voLine head for |

| | RolTop S1.5/70-868 | RolTop S3/30-868 | RolTop \$5/30-868 | | | |
|-------------|-----------------------|---------------------|----------------------|--|--|--|
| Item Number | 30 222.0006 | 30 212.0006 | 30 232.0006 | | | |

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

| New | New |
|-----|-----|
|-----|-----|

| 4 | | | RolTop S5-868 | RolTop S8-868 | RolTop S10-868 FL | RolTop S12-868 FL | RolTop S12/11-868 FL |
|---|-------------|--|------------------|------------------|----------------------|----------------------|-------------------------|
| | Item Number | | 30 234.0006 | 30 254.0006 | 30 824.0006 | 30 814.0006 | 30 812.0006 |

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

Accessories





RolTop S

Tubular drives for roller blinds and sun protection systems

RolTop S (230 V/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

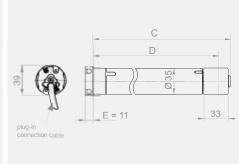
Shaft size: From $\emptyset = 38 \text{ mm}$

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 |





Technical data and dimensions





| Туре | RolTop S1.5/70 | RolTop S3/30 | RolTop S5/30 | RolTop S5 | RolTop S8 | RolTop S10 FL | RolTop S12 FL | RolTop S12/11 FL |
|---|-------------------|-----------------|-----------------|-----------------|--|--------------------|------------------|---------------------|
| Max. torque (Nm) | 1.5 | 3 | | 5 | 8 | 10 | 1 | 12 |
| Speed (rpm) | 70 | 3 | 80 | | 1 | 7 | | 11 |
| Roller shutter | - | - | | | • | | | |
| Blinds | | • | | | | - | | |
| Operating Voltage (V) | | | | 1 ~ | 230 | | | |
| Frequency (Hz) | | | | 5 | 50 | | | |
| Noiseless soft brake | | | • | | | | - | |
| Fast-running version | | • | | | | _ | | |
| Current (A) | 0. | 55 | 0.73 | 0.55 | 0.73 | 0.6 | 0.73 | 0.6 |
| Power (W) | 13 | 30 | 168 | 130 | 168 | 140 | 168 | 140 |
| Shaft Ø (mm) | 38 | | | | | | | |
| Ingress protection (IP) | | | | . 4 | 14 | | | |
| Max. limit switch range in Revolutions of the shaft | 160 | 8 | 30 | | | 40 | | |
| Operating mode (KB in min.) | | 5 | 4 | 5 | | | 4 | |
| Length C (mm) | | | 534 | | | 514 | 534 | 514 |
| Length D (mm) | | | 517.5 | | | 497.5 | 517.5 | 497.5 |
| Length E (mm) | | | | <u> </u> | = 11 | | | |
| Weight (kg) | 1.3 | | 1.2 | | 1.3 | 1.2 | 1.3 | 1.2 |
| Temperature range (°C) | | | | -20 t | 0 +60 | | | |
| Conformity | | | | C € 4 | <u> </u> | | | |
| Connecting cable pluggable (m) | | | | 2 | .0 | | | |
| White motor head | | • | | | | - | | |
| Accessories included | | - | | Type 8 (restore | ncluded (only on ⁻ es backwards co tem no. 99 000.7 | mpatibility to Typ | e 8 motors). Rev | oLine head for |

| • • | | RolTop S1.5/70 | RolTop S3/30 | RolTop 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.





| | | RolTop S5 | RolTop S8 | RolTop S10 FL | RolTop S12 FL | RolTop S12/11 FL | |
|-------------|--|--------------|--------------|------------------|------------------|---------------------|--|
| Item Number | | 30 233.0001 | 30 253.0001 | 30 823.0001 | 30 813.0001 | 30 811.0001 | |

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

Accessories

| • | Cables Page 50 | | Brackets (M) Page 52 | | Brackets (S) in comb. with RevoLine head for motor Page 53 |
|---|---|------------|-----------------------------|------------|--|
| • | ProLine control units from page 211 | (+) | Bracket adapters Page 53 | 4 | L-brackets and bearings Page 54 |
| | Radio receivers from page 188 | 373- | Sensors from page 235 | @ O | Drive adapter sets Page 51 |



RolTop/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)

RolTop/D+ S-868 (230 V/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 From \emptyset = 38 mm

Shaft size: From $\emptyset = 38 \text{ mm}$ Features: Noiseless soft brake up to 8 Nm

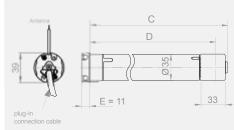
Only possible to use with torque stops in both directions!

Radio system: Bi-directional 868 MHz radio including routing

| Possible limit switch modes | | | | | | | | |
|-----------------------------|-------------|--|--|--|--|--|--|--|
| Upper limit | Lower limit | | | | | | | |
| switch | switch | | | | | | | |

On limit stop On limit stop





Technical data and dimensions

| Туре | 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) | 0.9 | 55 | 0.73 | | |
| Power (W) | 13 | | 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 | | CE 🕸 🗓 | | | |
| Connecting cable pluggable (m) | | 2.0 | | | |
| Accessories included | to suit older Type 8 (motors). RevoLine | (only on 17 rpm drives restores backwards co head for motor (item es use of RevoLine bra | ompatibility to Type 8 no. 99 000.7501) | | |

| 4 | | 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





RolTop/D+S

Tubular drives for roller shutters and sun protection systems

Torque mode only motor

No limit setting required!

No limit setting required!

(requires torque stop in both directions)

RolTop/D+ S (230 V/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 From $\emptyset = 38 \text{ mm}$

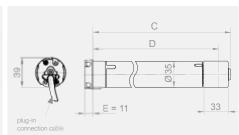
Shaft size: From $\emptyset = 38 \text{ mm}$ Features: Noiseless soft brake up to 8 Nm

Possible limit switch modes

Upper limit Lower limit switch switch

On limit stop On limit stop

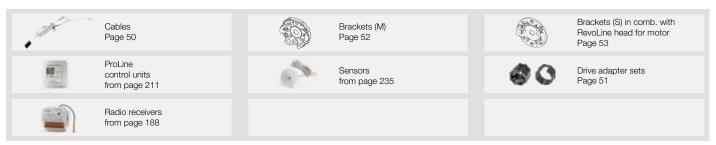




| Туре | RolTop/D+ S5 | RolTop/D+ S8 | RolTop/D+ S12 |
|---|---|---|--|
| Max. torque (Nm) | 5 | 8 | 12 |
| Speed (rpm) | | 17 | |
| Operating Voltage (V) | | 1 ~ 230 | |
| Frequency (Hz) | | 50 | |
| Noiseless soft brake | • | | _ |
| Fast-running version | | _ | |
| Current (A) | 0.55 | 0.1 | 73 |
| Power (W) | 130 | 16 | 58 |
| 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) | | (a) = 11 | |
| Weight (kg) | 1.2 | 1. | .3 |
| Temperature range (°C) | | -20 to +60 | |
| Conformity | | CE 🕸 🗓 | |
| Connecting cable pluggable (m) | | 2,0 | |
| Accessories included | to suit older Type 8 (motors). RevoLine | (only on 17 rpm drives restores backwards co e head for motor (item es use of RevoLine bra | ompatibility to Type 8 no. 99 000.7501) |

| | 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.





RolTop/T S-868

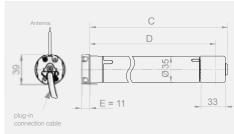
Radio tubular drives for Dual Screen

RolTop/T S-868 (230 V/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 $\emptyset = 38 \text{ mm}$ 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 | | |





| Туре | RolTop/T S1.5/70-868 | RolTop/T S3/30-868 | RolTop/T S5/30-868 |
|---|-------------------------|-----------------------|-----------------------|
| Max. torque (Nm) | 1.5 | 3 | 5 |
| Speed (rpm) | 70 | 3 | 0 |
| Operating Voltage (V) | | 1 ~ 230 | |
| Frequency (Hz) | | 50 | |
| Noiseless soft brake | | • | |
| Fast-running version | | • | |
| Current (A) | 0.8 | 55 | 0.73 |
| Power (W) | 130 168 | | 168 |
| Shaft Ø (mm) | 38 | | |
| Ingress protection (IP) | 44 | | |
| Max. limit switch range in Revolutions of the shaft | 160 | 8 | 0 |
| 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 | C€ | | |
| Connecting cable pluggable (m) | | 2.0 | |

| | RolTop/T S1.5/70-868 | RolTop/T S3/30-868 | RolTop/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.





SunTop S-868

Radio tubular drives for awnings

SunTop S-868 (230 V/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

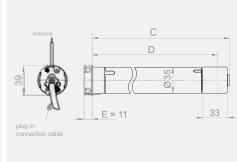
Shaft size: From $\emptyset = 38 \text{ mm}$

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 |





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| Туре | SunTop S5/30-868 | SunTop S7/30-868 FL | |
|---|---------------------|------------------------|--|
| Max. torque (Nm) | 5 | 7 | |
| Speed (rpm) | 3 | 0 | |
| Operating Voltage (V) | 1 ~ | 230 | |
| Frequency (Hz) | 5 | 0 | |
| Noiseless soft brake | • | - | |
| Fast-running version | • | • | |
| Current (A) | 0.7 | 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 | 7.5 | |
| Length E (mm) | (≟) (€ | = 11 | |
| Weight (kg) | 1.3 1.4 | | |
| Temperature range (°C) | -20 to +60 | | |
| Conformity | CE 🕸 🗓 | | |
| 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.

| 4 | | SunTop S7/30-868 FL |
|---|-------------|------------------------|
| | Item Number | 30 752.0006 |

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





SunTop S

Tubular drives for awnings

SunTop S (230 V/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

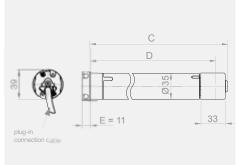
Plug-able cable

Shaft size: From $\emptyset = 38 \text{ mm}$

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 |





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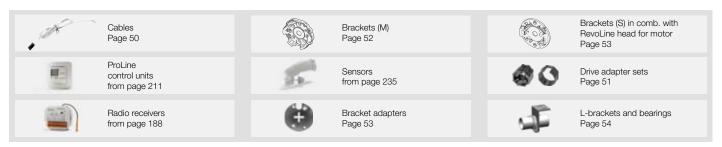
| Туре | SunTop S5/30 | SunTop S7/30 FL | |
|---|-----------------|--------------------|--|
| Max. torque (Nm) | 5 | 7 | |
| Speed (rpm) | 3 | 0 | |
| Operating Voltage (V) | 1 ~ | 230 | |
| Frequency (Hz) | 5 | 0 | |
| Noiseless soft brake | • | - | |
| Fast-running version | • | | |
| Current (A) | 0.7 | 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) | 53 | 34 | |
| Length D (mm) | 517 | 7.5 | |
| Length E (mm) | | | |
| Weight (kg) | 1.2 1.3 | | |
| Temperature range (°C) | -20 to +60 | | |
| Conformity | CE 🕸 🗓 | | |
| White motor head | • – | | |
| Connecting cable pluggable (m) | 2. | .0 | |

| 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.





VariEco S-868

Radio tubular drives for roller shutters and sun protection systems

VariEco S-868 (230 V/50 Hz)

Application: Roller shutter and textile sun protection

Limit switch: Mechanical limit switches Shaft size: From $\emptyset = 38 \text{ mm}$

Features: Noiseless soft brake up to 8 Nm

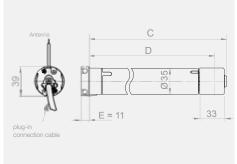
Radio system: Bi-directional 868 MHz radio including routing

Possible limit switch modes

Upper limit Lower limit switch switch

Freely programmable Freely programmable





| Туре | VariEco \$1.5/70-868 | VariEco S3/30-868 | VariEco \$5/30-868 | VariEco S5-868 FL | VariEco S8-868 | VariEco S8-868 FL | VariEco S12-868 FL |
|---|-------------------------|----------------------|-----------------------|----------------------|--|----------------------|-----------------------|
| Max. torque (Nm) | 1.5 | 3 | | 5 | 1 | 8 | 12 |
| Speed (rpm) | 70 | 3 | 0 | | 1 | 7 | |
| 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) | 10 | 30 | 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) | | | | | | | |
| Weight (kg) | | | 1 | .3 | | | 1.4 |
| Temperature range (°C) | | | | -20 to +60 | | | |
| Conformity | | | | CE 🕸 🗓 | | | |
| Connecting cable pluggable (m) | | | | 2.0 | | | |
| White motor head | | • | | | | - | |
| Accessories included | | - | | suit older Type | cluded (only on 17 i 8 (restores backwa ad for motor (item r RevoLine | rds compatibility to | Type 8 motors). |

| | | 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.

| 4 | | | 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.





VariEco S

Tubular drives for roller shutters and sun protection systems

VariEco S (230 V/50 Hz)

Application: Roller shutter and textile sun protection

Limit switch: Mechanical limit switches Shaft size: From $\emptyset = 38 \text{ mm}$

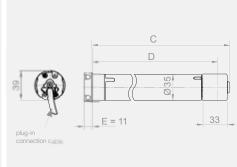
Features: Noiseless soft brake up to 8 Nm

Possible limit switch modes

Upper limit Lower limit switch switch

Freely programmable Freely programmable





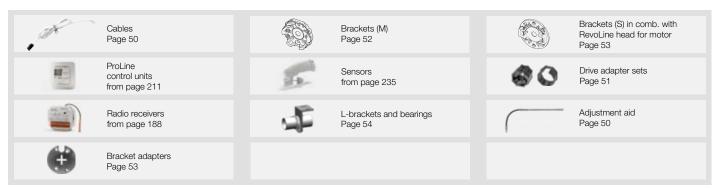
| Туре | VariEco S1.5/70 | VariEco S3/30 | VariEco S5/30 | VariEco S5/30 FL | VariEco S5 FL | VariEco S8 | VariEco S8 FL | VariEco S12 FL |
|---|--------------------|------------------|------------------|---------------------|---------------------------------|---|------------------------------------|-----------------------------------|
| Max. torque (Nm) | 1.5 | 3 | | 5 | | | 3 | 12 |
| Speed (rpm) | 70 | | 30 | | | 1 | 7 | |
| Roller shutter | - | | | | • | | | |
| Textile sun protection | | | | | • | | | |
| Operating Voltage (V) | | | | 1 ~ | 230 | | | |
| Frequency (Hz) | | | | . 5 | 50 | | | |
| Noiseless soft brake | | • | | | _ | • | | - |
| Fast-running version | | • | • | | | | - | |
| Current (A) | 0. | 55 | 0.73 | 0. | .60 | 0.73 | 0.60 | 0.73 |
| Power (W) | 10 | 30 | 168 | 1- | 40 | 168 | 140 | 168 |
| Shaft Ø (mm) | | | | 3 | 38 | | | |
| Ingress protection (IP) | | | | 4 | 14 | | | |
| Max. limit switch range in Revolutions of the shaft | | | | 4 | 12 | | | |
| Operating mode (KB in min.) | | 5 | | | 4 | 4 | | |
| Length C (mm) | | 534 | | | 5 | 14 | | 534 |
| Length D (mm) | | 517.5 | | | 49 | 7.5 | | 517.5 |
| Length E (mm) | | | | <u> </u> | = 11 | | | |
| Weight (kg) | 1 | .3 | | 1.2 | | | 1.4 | |
| Temperature range (°C) | | | | −20 t | to +60 | | | |
| Conformity | | | | C€ 4 | <u> </u> | | | |
| Connecting cable pluggable (m) | | | | 2 | 2.0 | | | |
| White motor head | | | | | | | - | |
| Accessories included | | | - | | to suit older Ty motors). Re | luded (only on 17 pe 8 (restores ba voLine head for r enables use of R | ckwards compa motor (item no. 9 | tibility to Type 8 9 000.7501) |

| 0. | | 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.





VariEco S-K

Tubular drives for roller shutters and sun protection systems

VariEco S-K (230 V/50 Hz)

Application: Roller shutter and textile sun protection

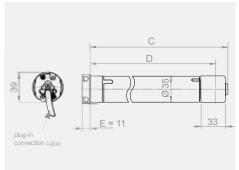
Limit switch: Mechanical limit switches Shaft size: From $\emptyset = 38 \text{ mm}$

Features: Noiseless soft brake up to 8 Nm

Possible limit switch modes

Upper limit Lower limit switch switch Freely programmable





| Baugröße/Typ | VariEco S1.2/70-K | VariEco S3/30-K | VariEco S5-K | | | | |
|---|----------------------|---------------------|-----------------|--|--|--|--|
| Max. torque (Nm) | 1.2 | 3 | 5 | | | | |
| Speed (rpm) | 70 30 17 | | | | | | |
| Roller shutter | - | • | • | | | | |
| Textile sun protection | • | | - | | | | |
| Operating Voltage (V) | | 1 ~ 230 | | | | | |
| Frequency (Hz) | | 50 | | | | | |
| Noiseless soft brake | | • | | | | | |
| Current (A) | | 0.52 | | | | | |
| Power (W) | | 120 | | | | | |
| Shaft Ø (mm) | | 38 | | | | | |
| Ingress protection (IP) | 44 | | | | | | |
| Max. limit switch range in Revolutions of the shaft | | 33 | | | | | |
| Operating mode (KB in min.) | | 4 | | | | | |
| Length C (mm) | | 410 | | | | | |
| Length D (mm) | | 393 | | | | | |
| Length E (mm) | | = 11 | | | | | |
| Weight (kg) | 1.2 | | | | | | |
| Temperature range (°C) | -20 to +60 | | | | | | |
| Conformity | C€ ⚠ 🗓 | | | | | | |
| Connecting cable pluggable (m) | | 3.0 | | | | | |
| White motor head | | • | | | | | |
| Accessories included | with 3.0 m c | onnecting cable (no | ot pluggable) | | | | |

| | | VariEco S1.2/70-K | VariEco S3/30-K | VariEco S5-K |
|-----|-------------|----------------------|--------------------|-----------------|
| -31 | Item Number | 30 971.0101 | 30 991.0101 | 30 981.0101 |

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



Cables and accessories

It is not possible to return connecting cables.





| 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 |

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 |

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 |





Special cable lengths in combination with the drive (standard 2.0 m), ${\bf black}$

| 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, ${\bf black}$

| 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 |









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 272.













| 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.

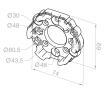
RevoLine motor bearings in combination with mounting plate



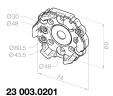
23 004.0001 Universal wall bracket (plastic) max. 50 Nm



23 615.4401 Disengageable max. 30 Nm



23 003.0001 48/60 mm centres (Alloy)



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

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 right

screwless left



23 615.8301 For built-on roller shutters, size 150 mm d = 70.7 mmup 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 right

23 003.1401 For Heroal elements FMR/FME/FMB size125-205 mm

screwless left + right



23 003.1601 For Heroal elements FMR/FME/FMB size 125-205 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

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

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, Brügmann)

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



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

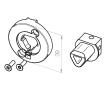


22 042.0001
Round motor head add-on white, complete, including mounting accessories

Kit square bolt



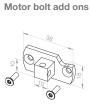
22 042.0101
Round motor head add-on white, complete, including mounting accessories



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



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

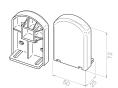


22 080.0001 (Slot 15 x 3 mm), Benthin including mounting accessories

Only the *
signed adapter
plates are suitable
for VariEco S-K
drives.

Blinds accessories - bearings

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



Only while stocks last!

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

Blinds accessories - shaft height 42 mm

Motor bearings complete



23 095.0001With 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



23 096.0001With outer Ø 35.5 mm standard version 42 mm

Blinds accessories - shaft height 60 mm

Motor bearings complete



23 095.0101With 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



23 096.0101With 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 assessories

Plaster-in bracket



13 300.9202 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)

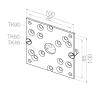


13 302.7801 48/60/78 mm centres for Weru

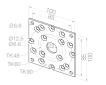


23 457.0001 Universal adapter plate for Shutter side plate

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





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

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)

| Type/Item Description |
|---------------------------------|
| MaxiClick, 1 section |
| MaxiClick, 2 sections |
| MaxiClick, 3 sections |
| |
| MaxiClick profile insert |
| MaxiClick profile spacer insert |
| |

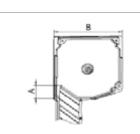
MiniClick selection table

| Shaft fastener | By box depth B¹ (mm) | Number/ shutter | Shutter weight (kg) | Application range |
|----------------|----------------------|-------------------------------------|----------------------------|----------------------------------|
| 1 section | 115 – 150 | | | |
| 2 sections | 155 – 180 | Use minimum 1 fastener | max. 8 / shaft fastener | Mini- / Maxi-Profil ¹ |
| 3 sections | 185 – 210 | every 60 cm or 4 Nm drive torque | | |
| 4 sections | 215 – 240 | | | |

MaxiCLick selection table

| Shaft fastener | By box depth B¹ (mm) | Number/ shutter | Shutter weight (kg) | Application range |
|----------------|----------------------|------------------------|-----------------------------|----------------------------------|
| 1 section | 125 – 160 | Use minimum 1 fastener | | |
| 2 sections | 160 – 200 | every 60 cm or 6 Nm | max. 12 / shaft fastener | Mini- / Maxi-Profil ¹ |
| 3 sections | 200 – 250 | drive torque. | | |

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

Fixing rings



13 301.9401 for 40 mm octagonal shaft



13 302.1501 for 50 mm octagonal shaft





various third-party providers.







RolTop M-868 /-K

Radio tubular drives for roller shutters

RolTop M-868 /-K

Application: Roller shutter*

Limit switch: Electronic limits with Soft Stop on end position approach

(on motors with soft brake) Smart force measurement

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 $\emptyset = 50 \text{ mm}$

Features: Noiseless soft brake up to 20 Nm

Radio system: Bi-directional 868 MHz radio including routing

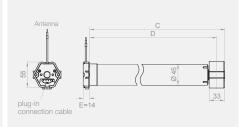
* Drive might stop on heavy wind load to protect drive.

| 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



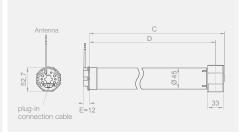
- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets



RolTop M-868 RH



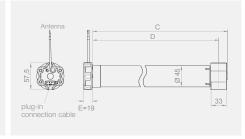
- Elero round head
- Can be over wound
- Minimal side gap
- Very versatile



RolTop M-868 SH



- Somfy star head design
- Same side gap like Somfy



| Туре | RolTop M6-868 | RolTop M7/23-868 | RolTop M10-868 | RolTop M10-868-K | RolTop M12/23-868 | RolTop M20-868 | RolTop M30-868 | RolTop M40-868 | RolTop M50-868 |
|---|------------------|---------------------|-------------------|---------------------|----------------------|-------------------|-------------------|-------------------|-------------------|
| Max. torque (Nm) | 6 | 7 | 1 | 10 | 12 | 20 | 30 | 40 | 50 |
| Speed (rpm) | 14 | 23 | 1 | 14 | 23 | | 1 | 4 | |
| Operating Voltage (V) | 1 ~ 230 | 230 – 2 | 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 | | | 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 | 5 | 4 | 5 | 4 | 1 | 5 | 4 |
| Length C (mm) | 445 | 46 | 66 | 391 | 526 516 | | | 546 | |
| Length D (mm) | 428.5 | 44 | 19 | 374.5 | 509 | 9.5 | 499.5 | 52 | 9.5 |
| 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 | | | | | C€♠Œ | | | | |
| Connecting cable pluggable (m) | | | | | 2.0 | | | | |

| | RolTop M6-868 | RolTop M7/23-868 | RolTop M10-868 | RolTop M10-868-K | RolTop M12/23-868 | RolTop M20-868 | RolTop M30-868 | RolTop M40-868 | RolTop 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.

| • | | RolTop M7/23-868 RH | RolTop M10-868 RH | RolTop M10-868-K RH | RolTop M12/23-868 RH | RolTop M20-868 RH | RolTop 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 98!

| | | RolTop M6-868 SH | RolTop M10-868 SH | | RolTop M20-868 SH | RolTop M30-868 SH | RolTop M40-868 SH | RolTop 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.







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 $\emptyset = 50 \text{ mm}$

Features: Noiseless soft brake up to 20 Nm

Radio system: Bi-directional 868 MHz radio including routing

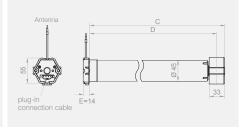
* Drive might stop on heavy wind load to protect drive.

| 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



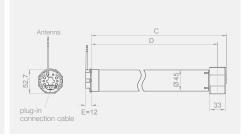
- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets



RolTop M-868 RH fast running version



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



| Туре | RolTop M2.5/90-868 | RolTop M4/60-868 | RolTop M6/35-866 | RolTop M7/23-868 | RolTop M9/35-868 | RolTop 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) | | | 5 | 0 | | | | |
| 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) | | | 4 | 4 | | | | |
| Max. limit switch range in Revolutions of the shaft | | | 4 | 0 | | | | |
| Operating mode (KB in min.) | | | 5 | 5 | | | | |
| Length C (mm) | | 526 | | 466 | 516 | 526 | | |
| Length D (mm) | | 509 | | 449.5 | 499.5 | 509 | | |
| Length E (mm) | | | _ = 14 | (1) = 12 | | | | |
| Weight (kg) | | 1.9 | | 1.8 | 2.0 | 1.9 | | |
| Temperature range (°C) | -20 to +60 | | | | | | | |
| Conformity | (€♠ <u></u> | | | | | | | |
| Connecting cable pluggable (m) | | | 2. | .0 | | | | |

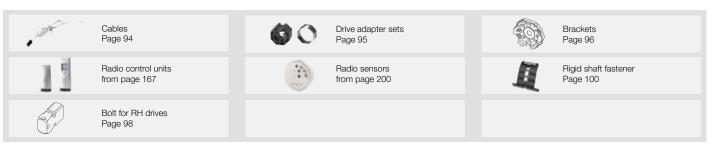
| | | RolTop M2.5/90-868 | RolTop M6/35-868 | RolTop M7/23-868 | RolTop M9/35-868 | RolTop M12/23-868 |
|--|-------------|-----------------------|---------------------|---------------------|---------------------|----------------------|
| | Item Number | 34 160.0006 | 34 238.0006 | 34 226.0006 | 34 248.0006 | 34 236.0006 |

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

| 6 | | RolTop M2.5/90-868 RH | RolTop M4/60-868 RH | RolTop M6/35-868 RH | RolTop M7/23-868 RH | RolTop M9/35-868 RH | RolTop 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 98!

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







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 $\emptyset = 50 \text{ mm}$

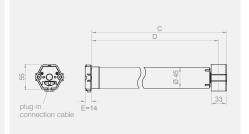
Features: Noiseless soft brake up to 20 Nm

* 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 | | | | | | | |

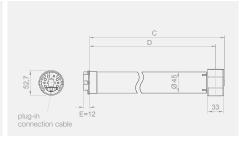


- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets



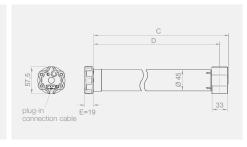


- Elero round head
- Can be over wound
- Minimal side gap
- Very versatile





- Somfy star head design
- Same side gap like Somfy



| Туре | RolTop M6 | RolTop M7/23 | RolTop M10 | RolTop M10-K | RolTop M12/23 | RolTop M20 | RolTop M30 | RolTop M40 | RolTop M50 |
|---|--------------|-----------------|---------------|-----------------|------------------|-----------------|---------------|---------------|---------------|
| Max. torque (Nm) | 6 | 7 | 1 | 0 | 12 | 20 | 30 | 40 | 50 |
| Speed (rpm) | 14 | 23 | 1 | 4 | 23 | | . 1 | 4 | |
| 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 | 4 | | 5 | 4 |
| Length C (mm) | 446 | 46 | 66 | 391 | 52 | 26 | 516 | 5 | 46 |
| Length D (mm) | 429.5 | 449 | 9.5 | 374.5 | 50 | 9.5 | 499.5 | 52 | 9.5 |
| Length E (mm) | | | | a = 14 | (6) = 12 | (3) = 19 | | | |
| Weight (kg) | 1.6 | 1. | .7 | 1.9 | 2 | .2 | 2.3 | 2.5 | 3.1 |
| Temperature range (°C) | | | | | -20 to +60 | | | | |
| Conformity | | C€♠₽ | | | | | | | |
| Connecting cable pluggable (m) | | | | | 2.0 | | | | |

| | | RolTop M6 | RolTop M7/23 | RolTop M10 | RolTop M10-K | RolTop M12/23 | RolTop M20 | RolTop M30 | RolTop M40 | RolTop 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.

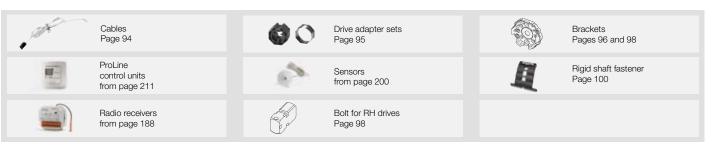
| | | RolTop M7/23 RH | RolTop M10 RH | RolTop M10-K RH | RolTop M12/23 RH | RolTop M20 RH | RolTop M30 RH | |
|--|-------------|--------------------|------------------|--------------------|---------------------|------------------|------------------|--|
| | Item Number | 38 225.0001 | 38 221.0001 | 38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

Mounting explanation on page 98!

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

| 0 | | RolTop M6 SH | RolTop M10 SH | | RolTop M20 SH | RolTop M30 SH | RolTop M40 SH | RolTop 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.







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 $\emptyset = 50 \text{ mm}$

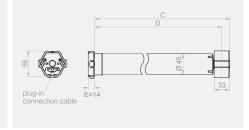
Features: Noiseless soft brake (excl. RolTop M12/23)

| 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



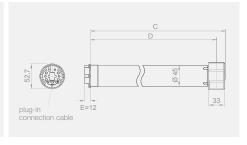
- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets



RolTop M RH fast running version



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



| Туре | RolTop M2.5/90 | RolTop M4/60 | RolTop M6/35 | RolTop M7/23 | RolTop M9/35 | RolTop 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) | | | 5 | 50 | | | | |
| Noiseless soft brake | | | • | | _ | • | | |
| Fast-running version | | • | | | | | | |
| Current (A) | | 0,9 | | 0,6 | C | ,9 | | |
| Power (W) | 200 140 200 | | | | | | | |
| Shaft Ø (mm) | 50 | | | | | | | |
| Ingress protection (IP) | 44 | | | | | | | |
| Max. limit switch range in Revolutions of the shaft | | | 4 | 10 | | | | |
| Operating mode (KB in min.) | | | | 5 | | | | |
| Length C (mm) | | 526 | | 466 | 516 | 506 | | |
| Length D (mm) | | 509 | | 449.5 | 499 | 509 | | |
| Length E (mm) | | | a = 14 | (a) = 12 | | | | |
| Weight (kg) | | 1.9 | | 1.7 | 2.0 | 2.2 | | |
| Temperature range (°C) | -20 to +60 | | | | | | | |
| Conformity | (€ <u>♠</u> ∭ | | | | | | | |
| Connecting cable pluggable (m) | | | 2 | .0 | | | | |

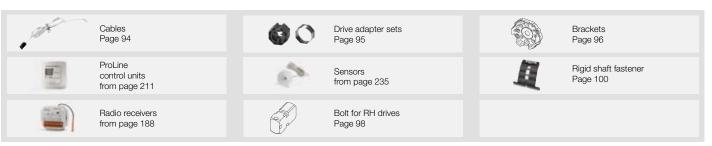
| | | RolTop M2.5/90 | RolTop M6/35 | RolTop M7/23 | RolTop M9/35 | RolTop M12/23 |
|--|-------------|-------------------|-----------------|-----------------|-----------------|------------------|
| | Item Number | 34 169.0001 | 34 237.0001 | 34 225.0001 | 34 247.0001 | 34 235.0001 |

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

| 4 | | RolTop M2.5/90 RH | RolTop M4/60 RH | RolTop M7/23 RH | RolTop M12/23 RH |
|---|-------------|----------------------|--------------------|--------------------|---------------------|
| | Item Number | 38 169.0001 | 38 469.0001 | 38 225.0001 | 38 235.0001 |

Mounting explanation on page 98!

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





RolSmart M /-K

Tubular drives for roller shutters K-Version as short model

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

Application: Roller shutter

Shaft size:

Features:

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

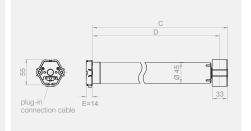
Plug-able cable From Ø = 50 mm Noiseless soft brake

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 |



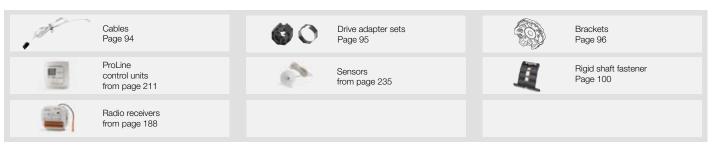
- elero standard RevoLine motor head
- Minimal side gap
- Suitable for all elero RevoLine wall brackets



| Туре | RolSmart M10-K | RolSmart M20 | |
|---|-------------------|-----------------|--|
| Max. torque (Nm) | 10 | 20 | |
| Speed (rpm) | 1 | 4 | |
| Operating Voltage (V) | 1 ~ | 230 | |
| Frequency (Hz) | 5 | 0 | |
| 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 | 1 | |
| 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 | 0+60 | |
| Conformity | C€₫ | <u>r</u> | |
| Connecting cable pluggable (m) | 2. | 0 | |

| | RolSmart M10-K | RolSmart M20 |
|-------------|-------------------|-----------------|
| Item Number | 34 011.0001 | 34 131.0002 |

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





RolTop/D+ M-868

Tubular drives for roller shutters - torque mode only motor

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

RolTop/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

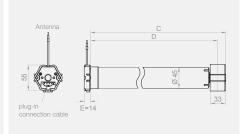
Upper limit Lower limit switch switch

On limit stop On limit stop

RolTop/D+ M-868



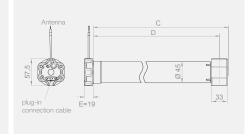
- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets



RolTop/D+ M-868 SH



- Somfy star head design
- Same side gap like Somfy



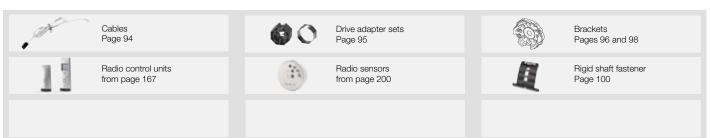
| Туре | RolTop D+ M6-868 | RolTop D+ M10-868 | RolTop D+ M20-868 | RolTop D+ M30-868 |
|---|---------------------|----------------------|----------------------|----------------------|
| Max. torque (Nm) | 6 | 10 | 20 | 30 |
| Speed (rpm) | | 1 | 4 | |
| Operating Voltage (V) | 1 ~ 230 | | | 230 |
| Frequency (Hz) | | 5 | 0 | |
| Noiseless soft brake | | • | | _ |
| Fast-running version | | - | - | |
| Current (A) | 0.52 | 0.6 | 0 | .9 |
| Power (W) | 118 140 200 | | 00 | |
| Shaft Ø (mm) | | 5 | 0 | |
| Ingress protection (IP) | | 4 | 4 | |
| Max. limit switch range in Revolutions of the shaft | 40 | | | |
| Operating mode (KB in min.) | 4 5 4 | | | 4 |
| Length C (mm) | 446 | 466 | 526 | 516 |
| Length D (mm) | 429,5 | 449.5 | 509.5 | 499.5 |
| Length E (mm) | | @ = 14 | a = 19 | |
| Weight (kg) | 1.4 | 1.8 | 2.2 | 2.3 |
| Temperature range (°C) | | -20 to | 04+60 | |
| Conformity | | C € & | ₽ | |
| Connecting cable pluggable (m) | | 2 | .0 | |

| | RolTop D+ M6-868 | RolTop D+ M10-868 | RolTop D+ M20-868 | RolTop 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.

| 4 | | RolTop D+ M10-868 SH | RolTop D+ M20-868 SH | RolTop 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.





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 $\emptyset = 50 \text{ mm}$

Features: Noiseless soft brake up to 20 Nm

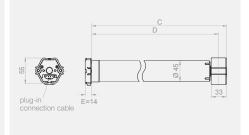
Limitations: Only possible to use with torque stops in both directions

| Possible limit switch modes | | | | |
|-----------------------------|-------------|--|--|--|
| Upper limit | Lower limit | | | |
| switch | switch | | | |

On limit stop On limit stop

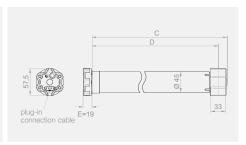


- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets



RolTop/D+ M SH

- Somfy star head design
- Same side gap like Somfy



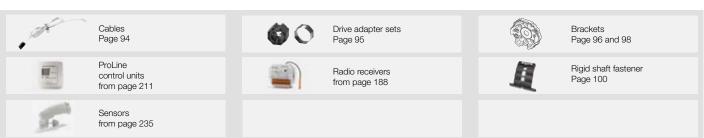
| Туре | RolTop/D+ M6 | RolTop/D+ M10 | RolTop/D+ M20 | RolTop/D+ M30 | |
|---|-----------------------------|------------------|------------------|------------------|--|
| Max. torque (Nm) | 6 | 10 | 20 | 30 | |
| Speed (rpm) | | . 1 | 4 | | |
| Operating Voltage (V) | 1 ~ 230 | 230 – 240 V ~ | 1 ~ | 230 | |
| Frequency (Hz) | | 5 | 0 | | |
| Noiseless soft brake | | ē | | - | |
| Fast-running version | | - | - | | |
| Current (A) | 0.52 | 0.6 | 0.9 | | |
| Power (W) | 118 | 118 140 200 | | | |
| Shaft Ø (mm) | | 5 | 0 | | |
| Ingress protection (IP) | | 4 | 4 | | |
| Max. limit switch range in Revolutions of the shaft | | 4 | 0 | | |
| 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) | a = 14 b = 19 | | | | |
| Weight (kg) | 1.4 | | | | |
| 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.

| 0 | | 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.





RolTop s_onro M-868

Radio tubular drives with soft stop downwards for s_onro roller shutters

RolTop s_onro 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 $\emptyset = 50 \text{ mm}$ Features: Soft stop downwards

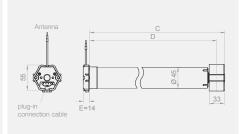
Noiseless soft brake up to 20 Nm

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 |



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



| Туре | RolTop s_onro M10-868 | RolTop s_onro M20-868 | RolTop s_onro M30-868 | | |
|---|--------------------------|--------------------------|--------------------------|--|--|
| Max. torque (Nm) | 10 | 20 | 20 | | |
| Speed (rpm) | | 14 | | | |
| Operating Voltage (V) | 230 – 240 V~ | 1 ~ | 230 | | |
| Frequency (Hz) | | 50 | | | |
| Noiseless soft brake | | | _ | | |
| Current (A) | 0.6 | 0.6 | | | |
| Power (W) | 140 | 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 | 516 | | |
| Length D (mm) | 449.5 | 509.5 | 449.5 | | |
| Length E (mm) | ● = 14 | | | | |
| Weight (kg) | 1.9 2.2 2.3 | | | | |
| Temperature range (°C) | -20 to +60 | | | | |
| Conformity | C€♠₤ | | | | |
| Connecting cable pluggable (m) | | 2.0 | | | |

| | RolTop s_onro M10-868 | RolTop s_onro M20-868 | RolTop s_onro M30-868 |
|-------------|--------------------------|--------------------------|--------------------------|
| Item Number | 34 222.5606 | 34 232.5606 | 34 242.5606 |

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





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

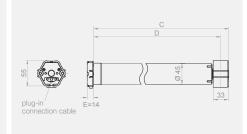
Shaft size: From $\emptyset = 50 \text{ mm}$ Features: Soft stop downwards

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



| Туре | RolTop s_onro M10 | | | | |
|---|----------------------|-------|-------|--|--|
| Max. torque (Nm) | 10 | 20 | 30 | | |
| Speed (rpm) | | 14 | | | |
| Operating Voltage (V) | 230 – 240 V~ | 1 ~ | 230 | | |
| Frequency (Hz) | | 50 | | | |
| Noiseless soft brake | | | - | | |
| Current (A) | 0.6 | | | | |
| 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 | 516 | | |
| Length D (mm) | 449.5 | 509.5 | 499.5 | | |
| Length E (mm) | ● = 14 | | | | |
| Weight (kg) | 1.9 2.2 2.3 | | | | |
| Temperature range (°C) | -20 to +60 | | | | |
| Conformity | (€♠۩ | | | | |
| Connecting cable pluggable (m) | | 2.0 | | | |

| | RolTop s_onro M10 | RolTop s_onro M20 | RolTop s_onro M30 |
|-------------|----------------------|----------------------|----------------------|
| Item Number | 34 221.5601 | 34 231.5601 | 34 241.5601 |

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





RolTop/J M-868

Radio tubular drives for special roller shutters with louvre function

RolTop/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 $\emptyset = 50 \text{ mm}$

Features: Noiseless soft brake up to 20 Nm

Drive suitable for tilt-able roller shutters

Includes special 2nd lower end position for opening shutter

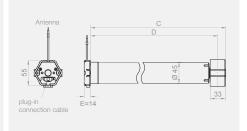
to tilt position

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



| Туре | RolTop/J M10-868 | RolTop/J M20-868 | RolTop/J M30-868 | RolTop/J M40-868 | RolTop/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 | |
| Power (W) | 140 | 21 | 00 | 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 | 54 | 46 | |
| Length D (mm) | 449.5 | 509.5 | 499.5 | 52 | 9.5 | |
| Length E (mm) | | | a = 14 | | | |
| Weight (kg) | 1.8 | 1.9 | 2.2 | 2.6 | 3.1 | |
| Temperature range (°C) | -20 to +60 | | | | | |
| Conformity | (€♠Д | | | | | |
| Connecting cable pluggable (m) | | | 2.0 | | | |

| | | RolTop/J M10-868 | RolTop/J M20-868 | RolTop/J M30-868 | RolTop/J M40-868 | RolTop/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.





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 $\emptyset = 50 \text{ mm}$

Features: Noiseless soft brake up to 20 Nm

Drive suitable for tilt-able roller shutters

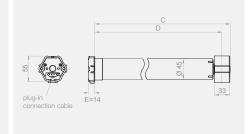
Includes special 2nd lower end position for opening shutter

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 |



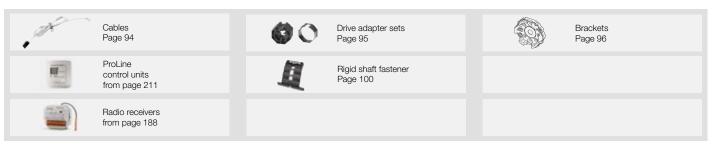
- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets



| Туре | RolTop/J M10 | RolTop/J M20 | RolTop/J M30 | RolTop/J M40 | RolTop/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 | 20 | 00 | 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 | 1 | 5 | 4 | | | |
| Length C (mm) | 466 | 526 | 516 | 54 | 16 | | | |
| Length D (mm) | 449.5 | 509.5 | 499.5 | 529 | 9.5 | | | |
| Length E (mm) | | | _ = 14 | | | | | |
| Weight (kg) | 1.8 | 2.1 | 2.3 | 2.5 | 3.1 | | | |
| Temperature range (°C) | | | -20 to +60 | | | | | |
| Conformity | | | C€♠҈҈ | | | | | |
| Connecting cable pluggable (m) | | | 2.0 | | | | | |

| | RolTop/J M10 | RolTop/J M20 | RolTop/J M30 | RolTop/J M40 | RolTop/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.







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 $\emptyset = 50 \text{ mm}$

Features: Noiseless soft brake up to 20 Nm

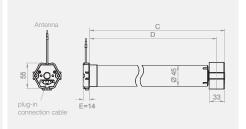
Radio system: Bi-directional 868 MHz radio including routing

| 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



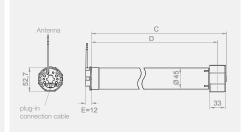
- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets



SunTop M-868 RH



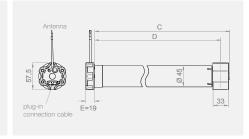
- elero round head
- Can be over wound
- Minimal side gap
- Very versatile



SunTop M-868 SH



- Somfy star head design
- Same side gap like Somfy



| Туре | 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 | | . 1 | 4 | |
| Operating Voltage (V) | 230 – 2 | 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) | 14 | 10 | 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) | 46 | 66 | 52 | 26 | 516 | 54 | 46 |
| Length D (mm) | 449 | 9.5 | 509 | 9.5 | 499.5 | 52 | 9.5 |
| 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.







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

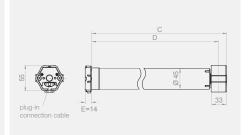
Shaft size: From $\emptyset = 50 \text{ mm}$

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 |

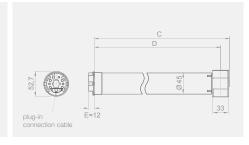


- elero standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets



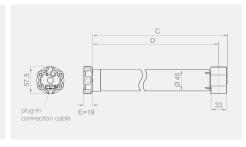


- elero round head
- Can be over wound
- Minimal side gap
- Very versatile





- Somfy star head design
- Same side gap like Somfy



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| Туре | 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 | | . 1 | 4 | |
| Operating Voltage (V) | 230 – 2 | 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) | 14 | 10 | 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 | 4 | 5 | 4 |
| Length C (mm) | 46 | 66 | 5 | 26 | 516 | 5- | 46 |
| Length D (mm) | 449 | 9.5 | 50 | 9.5 | 499.5 | 52 | 9.5 |
| Length E (mm) | | | @ = 14 | 1 | (19 = 19 | | |
| Weight (kg) | 1. | 7 | 2.2 | 2.1 | 2.2 | 2.5 | 2.7 |
| Temperature range (°C) | | | | -20 to +60 | | | |
| Conformity | | | | C€∰⊞ | | | |
| Connecting cable pluggable (m) | | | | 2.0 | | | |

| Item Number | 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 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.





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 $\emptyset = 50 \text{ mm}$

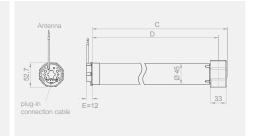
Features: Noiseless soft brake up to 20 Nm

Possible limit switch modes

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



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



| Туре | 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 – 2 | 240 V~ | 1 ~ 230 | | | |
| Frequency (Hz) | | | | 50 | | | | |
| Noiseless soft brake | | | | | | | _ | |
| Fast-running version | | • | | - | • | - | - | |
| Current (A) | 0. | 9 | 0. | .6 | | 0.9 | | |
| Power (W) | 20 | 00 | 14 | 40 | | 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 | 1 | |
| Length C (mm) | 527 | 526 | 46 | 66 | 516 | 527 | 516 | |
| Length D (mm) | 510.5 | 509.5 | 449 | 9.5 | 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 | | | | C€♠Œ | | | | |
| 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.





SunTop/Z M RH

Tubular drives for textile sun protection

SunTop/Z M RH

Features:

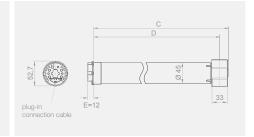
Application: Textile sun protection Limit switch: Highlights: Electronic limits with Soft Stop on end position approach Smart force measurement Stand still detection in up direction Obstacle detection and fabric protection in down direction Will re-try once and move in top position if obstacle remains 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 Ø = 50 mm

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

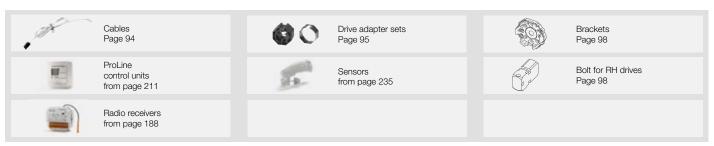


| Туре | SunTop/Z M2.5/90 RH | SunTop/Z M4/60 RH | SunTop/Z M7/23 RH | SunTop/Z M10 RH | SunTop/Z M12/23 RH | SunTop/Z M20 RH | SunTop/Z M30 RH | | |
|---|------------------------|----------------------|----------------------|--------------------|-----------------------|--------------------|--------------------|--|--|
| Max. torque (Nm) | 2.5 | 2.5 4 7 10 | | 12 | 20 | 30 | | | |
| Speed (rpm) | 90 | 60 | 23 14 | | 23 14 | | | | |
| Operating Voltage (V) | 1 ~ | 230 | 230 – 2 | 240 V ~ | 1 ~ 230 | | | | |
| Frequency (Hz) | 50 | | | | | | | | |
| Noiseless soft brake | | | | | | _ | | | |
| Fast-running version | | • | | - | • | - | - | | |
| Current (A) | 0. | .9 | 0 | .6 | | 0.9 | | | |
| Power (W) | 20 | 00 | 14 | 40 | | 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 | 1 | | |
| Length C (mm) | 527 | 526 | 46 | 66 | 516 | 527 | 516 | | |
| Length D (mm) | 510.5 | 509.5 | 44 | 9.5 | 499.5 | 510.5 | 499.5 | | |
| Length E (mm) | | | | (() = 12 | | | | | |
| Weight (kg) | | 1 | .9 | | | 2.2 | | | |
| Temperature range (°C) | -20 to +60 | | | | | | | | |
| Conformity | C€♠£ | | | | | | | | |
| Connecting cable pluggable (m) | | | | 2.0 | | | | | |

| 4 | | 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.









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 $\emptyset = 50 \text{ mm}$

Features: Noiseless soft brake up to 20 Nm

Radio system: Bi-directional 868 MHz radio including routing

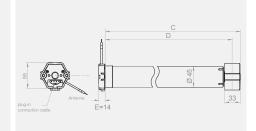
Possible limit switch modes

Upper limit Lower limit switch switch switch
Freely programmable

VariEco M-868



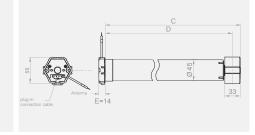
- elero Standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets



VariEco+ M-868



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



| Туре | 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 | | 1 | 4 | |
| 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 | 4 | 5 | 4 |
| Length C (mm) | 537 | 477 | 527 | 477 | 53 | 37 | 527 | 55 | 57 |
| Length D (mm) | 520.5 | 460.5 | 510.5 | 460.5 | 520 | 0.5 | 510.5 | 540 | 0.5 |
| Length E (mm) | | | | | = 14 | | | | |
| Weight (kg) | | | 1 | .9 | | | | 2.4 | |
| Temperature range (°C) | | | | | -20 to +60 | | | | |
| Conformity | | | | | C€♠Œ | | | | |
| 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.









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 $\emptyset = 50 \text{ mm}$

Features: Noiseless soft brake up to 20 Nm

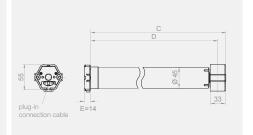
Possible limit switch modes

Upper limit Lower limit switch switch
Freely programmable Freely programmable

VariEco M



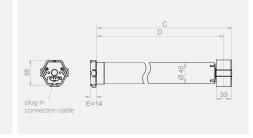
- elero Standard RevoLine motor head
- Small side gap
- Suitable for all elero RevoLine wall brackets



VariEco+ M



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



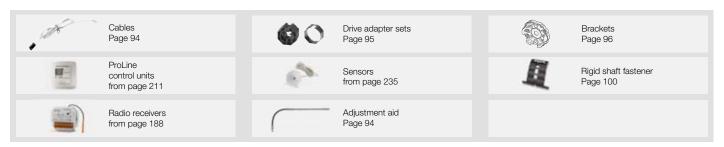
| Туре | VariEco M6/35 | VariEco M7/23 | VariEco M9/35 | VariEco M10 | VariEco M12/23 | VariEco M20 | VariEco M30/10 | VariEco M30 | VariEco M40 | VariEco M50 |
|---|------------------|------------------|------------------|----------------|-------------------|----------------|-------------------|----------------|----------------|----------------|
| Max. torque (Nm) | 6 | 7 | 9 | 10 | 12 | 20 | 3 | 0 | 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) | | | | | 5 | 0 | | | | |
| 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 | | 20 | 00 | | 270 | 300 |
| Shaft Ø (mm) | | | | | 5 | 0 | | | | |
| Ingress protection (IP) | | | | | 4 | 4 | | | | |
| Max. limit switch range in Revolutions of the shaft | | | | | 3 | 5 | | | | |
| Operating mode (KB in min.) | | | 5 | | | 4 | | 5 | | 4 |
| Length C (mm) | 537 | 477 | 527 | 477 | 50 | 37 | 52 | 27 | 55 | 57 |
| Length D (mm) | 520.5 | 460.5 | 510.5 | 460.5 | 52 | 0.5 | 510 | 0.5 | 540 | 0.5 |
| Length E (mm) | | | | | ⊕ | = 14 | | | | |
| Weight (kg) | | | 1 | .9 | | | 2. | .3 | 2. | .6 |
| Temperature range (°C) | | | | | -20 t | 0+60 | | | | |
| Conformity | | | | | C€₫ | <u> </u> | | | | |
| Connecting cable pluggable (m) | | | | | 2 | .0 | | | | |

| | VariEco M6/35 | VariEco M7/23 | VariEco M10 | VariEco M12/23 | VariEco M20 | VariEco M30/10 | VariEco M30 | VariEco M40 | VariEco 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.

| | VariEco+ M6/35 | VariEco+ M7/23 | VariEco+ M9/35 | VariEco+ M10 | VariEco+ M12/23 | VariEco+ M20 | VariEco+ M30/10 | VariEco+ M30 | VariEco+ M40 | VariEco+ 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.



Cables and accessories

It is not possible to return connecting cables.





| 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 | | | |

Connecting cables without drive, \boldsymbol{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 | | | |

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 | | | |





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, 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 | | | | |









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 274.













| 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 | | | |

Motor bearings





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



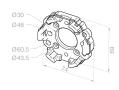
23 615.4401 Disengageable max. 30 Nm



23 003.0001 48/60 mm centres (Alloy)



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 max. 30 Nm

For roller bearing bracket



23 615.8201

For built-on roller shutters, d = 64 - 65.5 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



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



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

screwless left



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

screwless left



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

screwless right



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

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,



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

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



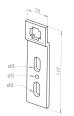
13 300.0801 Wall bracket, limbus Ø 48 mm



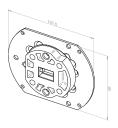
13 106.1701 Wall bracket, limbus Ø 60 mm M8 thread



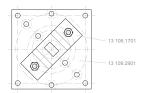
13 301.7001 Flat wall bracket, limbus Ø 48 mm



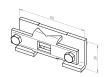
13 301 4601 Wall bracket cross,



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



Bearing bracket opposite side ϕ 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



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 pullring), TK 48



23 003.1801 Without safety clip



13 123.4501 Safety clip with large pullring

Mounting plates and mounting assessories

Plaster-in bracket



13 300.9202 max. 80 Nm

Mounting plates



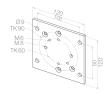
24 554.0001 For wall bracket (23 004.0001 and 23 615.4401)



13 302.2601 For Motor bearing (Stakusit)



13 302.7801 48/60/78 mm centres for Weru

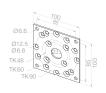


23 457.0001 Mounting plate for cover cap

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



13 110.5101



13 110.5201

Roller bearing holder brackets



23 852.0001

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 | |

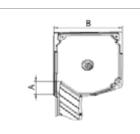
MiniClick selection table

| Shaft fastener | By box depth B¹ (mm) | Number/ shutter | Shutter weight (kg) | Application range |
|----------------|----------------------|-------------------------------------|----------------------------|-----------------------------------|
| 1 section | 115 – 150 | | | |
| 2 sections | 155 – 180 | Use minimum 1 fastener | max. 8 / shaft fastener | Mini- / maxi profile ¹ |
| 3 sections | 185 – 210 | every 60 cm or 4 Nm drive torque | | |
| 4 sections | 215 – 240 | | | |

MaxiCLick selection table

| Shaft fastener | By box depth B¹ (mm) | Number/ shutter | Shutter weight (kg) | Application range |
|----------------|----------------------|------------------------|-----------------------------|-----------------------------------|
| 1 section | 125 – 160 | Use minimum 1 fastener | | |
| 2 sections | 160 – 200 | every 60 cm or 6 Nm | max. 12 / shaft fastener | Mini- / maxi profile ¹ |
| 3 sections | 200 – 250 | drive torque | 2.12 130101101 | |

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

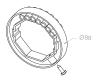


13 301.9201 4 sections

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







RolTop L-868

Radio tubular drives for roller shutters

RolTop L-868 (230 V/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 $\emptyset = 58 \text{ mm}$

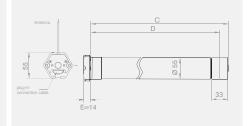
Radio system: Bi-directional 868 MHz radio including routing

* depending on drive

| Possible limit switch modes | | | | |
|-----------------------------|--|--|--|--|
| Lower limit switch | | | | |
| Freely programmable | | | | |
| On limit stop | | | | |
| On limit stop | | | | |
| Freely programmable | | | | |
| | | | | |



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



Ter o

Technical data and dimensions

| Туре | RolTop L60-868 | RolTop L80-868 | RolTop L60-868 without reversion on obstacle | RolTop L80-868 without reversion on obstacle |
|--|----------------|----------------|--|--|
| Max. torque (Nm) | 60 | 80 | 60 | 80 |
| Speed (rpm) | | 1 | 4 | |
| 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) | a = 14 | | | |
| Weight (kg) | 3.3 | 3.6 | 3.3 | 3.6 |
| Temperature range (°C) | -20 to +60 | | | |
| Conformity | C€ | | | |
| Connecting cable pluggable (m) | 2.0 | | | |

| | RolTop L60-868 | RolTop L80-868 | RolTop L60-868 without reversion on obstacle | RolTop 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.





RolTop L

Tubular drives for roller shutters

RolTop L (230 V/50 Hz)

Shaft size:

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

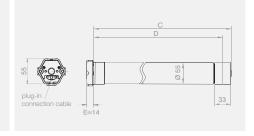
Plug-able cable From \emptyset = 63 mm

* 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

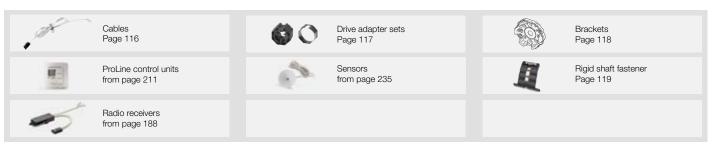


| 106 | elero.com 2016 | 2017

| Туре | RolTop L60 | RolTop L80 | RolTop L60 without reversion on obstacle | RolTop L80 without reversion on obstacle |
|--|---------------|------------|--|--|
| Max. torque (Nm) | 60 | 80 | 60 | 80 |
| Speed (rpm) | | 1 | 4 | |
| 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 | C€ | | | |
| Connecting cable pluggable (m) | 2.0 | | | |

| | | RolTop L60 | RolTop L80 | RolTop L60 without reversion on obstacle | RolTop 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.





SunTop L-868

Radio tubular drives for sun protections systems

SunTop L-868 (230 V/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

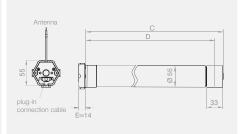
Shaft size: From $\emptyset = 63 \text{ mm}$

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



eler o

Technical data and dimensions

| Туре | 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 | | 75 |
| Length D (mm) | 498.5 558.5 | | 8.5 |
| Length E (mm) | • = 14 | | |
| Weight (kg) | 3.2 | 3.3 | 3.6 |
| Temperature range (°C) | -20 to +60 | | |
| Conformity | C€ | | |
| 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.





SunTop L

Tubular drives for sun protections systems

SunTop L (230 V/50 Hz)

Shaft size:

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

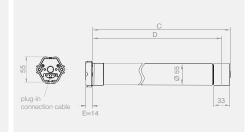
Plug-able cable

From $\emptyset = 63 \text{ mm}$

| switch modes |
|---------------------|
| Lower limit switch |
| Freely programmable |
| On limit stop |
| On limit stop |
| Freely programmable |
| |



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



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Technical data and dimensions

| Туре | 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 | 55 | 8.5 |
| Length E (mm) | (a) = 14 | | |
| Weight (kg) | 3.0 | 3.3 | 3.6 |
| Temperature range (°C) | -20 to +60 | | |
| Conformity | | C€ | |
| 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.









VariEco L-868

Radio tubular drives for roller shutters and sun protection systems

VariEco L-868 (230 V/50 Hz)

Application: Roller shutter and textile sun protection

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

Radio system: Bi-directional 868 MHz radio

including routing

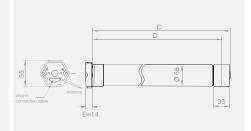
Possible limit switch modes

Upper limit Lower limit switch switch swotch

Freely programmable Freely programmable



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



Technical data and dimensions

| Туре | 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 | 35 | | |
| Operating mode (KB in min.) | 4 | | |
| Length C (mm) | 527 586 | | 36 |
| Length D (mm) | 510.5 569.5 | | 9.5 |
| Length E (mm) | a = 14 | | |
| Weight (kg) | 3.3 3.4 | | |
| Temperature range (°C) | -20 to +60 | | |
| Conformity | C€ | | |
| 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.









VariEco L

Tubular drives for roller shutters and sun protection systems

VariEco L (230 V/50 Hz)

Application: Roller shutter and textile sun protection

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

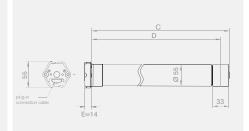
Possible limit switch modes

Upper limit Lower limit switch switch swotch

Freely programmable Freely programmable



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



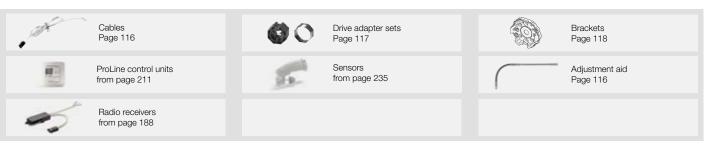
eler o

Technical data and dimensions

| Туре | 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 | 58 | 36 |
| Length D (mm) | 510.5 569.5 | | 9.5 |
| Length E (mm) | @ = 14 | | |
| Weight (kg) | 3.3 3.4 | | |
| Temperature range (°C) | -20 to +60 | | |
| Conformity | C€ | | |
| 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.



Cables and accessories

It is not possible to return connecting cables.





| 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 |

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 |
| | |

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 |





Special cable lengths in combination with the drive (standard 2.0 m), ${\bf black}$

| 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, **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 |









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 283.









| 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 | | | • |

Motor bearings



23 003.0001 48/60 mm centres (Alloy)



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



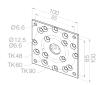
23 374.2501 Motor head add-on with motor bolt 16 x 16 mm, pin 22 mm

Mounting plates and mounting assessories

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

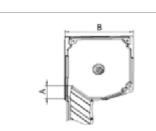
For mini profiles and octagonal shafts size SW 60 (0.9 mm) and SW 70 (1.0 / 1.2 and 1.5 mm)

| 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 |



| Shaft fastener | By box depth B¹ (mm) | Number/ shutter | Shutter weight (kg) | Application range |
|-------------------|----------------------|---|-------------------------------|--------------------------|
| 1 section | 125 – 160 | Use minimum 1 fastener every 60 cm or 6 Nm | | |
| 2 sections | 160 – 200 | | max. 12 per shaft fastener | Maxi-Profil ¹ |
| 3 sections | 200 – 250 | drive torque | , | |

¹ Select 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 standard profile



13 301.8801 2 sections



13 301.9001 3 sections



13 301.9201

Fixing ring



13 301.9601For 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 $\emptyset = 63 \text{ mm}$

Radio system: Uni-directional 868 MHz radio

Type 11 CSM-868 Possible limit switch modes

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

Type 11 CSM-F-868 Possible limit switch modes

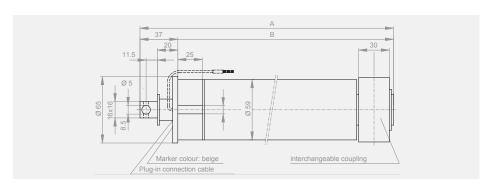
Upper limit Lower limit switch switch
Freely programmable

Type 11 CSM-868

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



Textile sun protection (awning systems without torque stop)



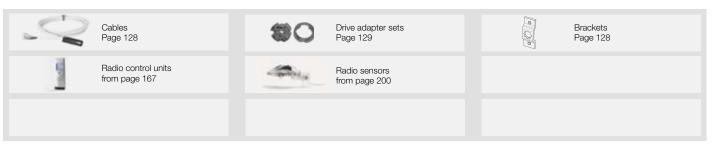
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Technical data and dimensions

| Туре | 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) | | 1 | 2 | |
| Operating Voltage (V) | | 1 ~ | 230 | |
| Frequency (Hz) | | 5 | 0 | |
| Noiseless soft brake | - | | | |
| Current (A) | 1.9 | | | |
| Power (W) | 430 | | | |
| Shaft Ø (mm) | | 6 | 3 | |
| Ingress protection (IP) | | 4 | 4 | |
| Max. limit switch range in Revolutions of the shaft | 21 | | | |
| Operating mode (KB in min.) | | 2 | 1 | |
| Length A (mm) | | 69 | 94 | |
| Length B (mm) | 618 | | | |
| Weight (kg) | 4.9 | | | |
| Temperature range (°C) | -20 to +60 | | | |
| Conformity | C€ | | | |
| 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.





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

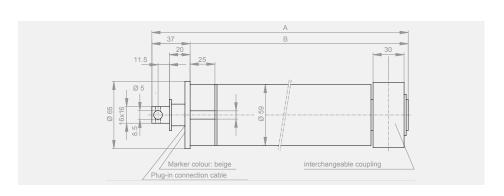
Plug-able cable

Shaft size: From $\emptyset = 63 \text{ mm}$

| 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)



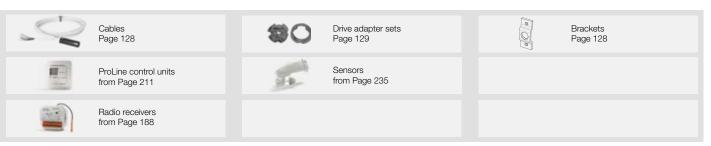
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Technical data and dimensions

| Туре | Type 11/10 CSM-E | Type 11/12 CSM-E | |
|---|---------------------|---------------------|--|
| Max. torque (Nm) | 100 | 120 | |
| Speed (rpm) | 1 | 2 | |
| Operating Voltage (V) | 1 ~ | 230 | |
| Frequency (Hz) | 5 | 0 | |
| Noiseless soft brake | - | - | |
| Current (A) | 1. | .9 | |
| Power (W) | 43 | 30 | |
| Shaft Ø (mm) | 63 | | |
| Ingress protection (IP) | 4 | 4 | |
| Max. limit switch range in Revolutions of the shaft | 21 | | |
| Operating mode (KB in min.) | 4 | 1 | |
| Length A (mm) | 69 | 94 | |
| Length B (mm) | 61 | 18 | |
| Weight (kg) | 4.9 | | |
| Temperature range (°C) | -20 to +60 | | |
| Conformity | C€ | | |
| 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.







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

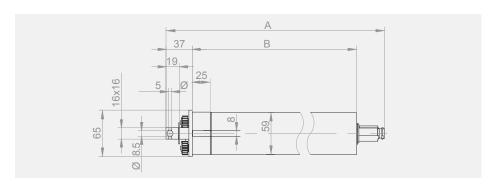
Limit switch: Mechanical limit switches Shaft size: From \emptyset = 63 mm Features: Plug-able cable

Possible limit switch modes

Upper limit Lower limit switch switch switch
Freely programmable



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



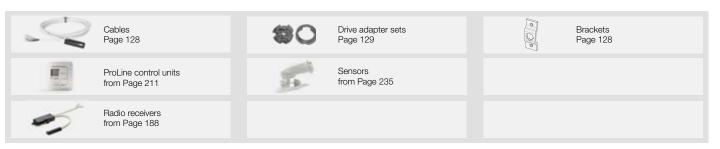
| 126 | elero.com 2016 | 2017

Technical data and dimensions

| Туре | 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) | | 1 | 2 | |
| Operating Voltage (V) | | 1 ~ | 230 | |
| Frequency (Hz) | | 5 | 0 | |
| Noiseless soft brake | | - | - | |
| Current (A) | 1.9 | | | |
| Power (W) | 430 | | | |
| Shaft Ø (mm) | | 6 | 3 | |
| Ingress protection (IP) | | 4 | 4 | |
| Max. limit switch range in Revolutions of the shaft | 2 | 1 | 3 | 2 |
| Operating mode (KB in min.) | | 4 | 1 | |
| Length A (mm) | | 69 | 94 | |
| Length B (mm) | | 6- | 18 | |
| Weight (kg) | | 4. | 9 | |
| Temperature range (°C) | | -20 to | +60 | |
| Conformity | C€ 🕸 🗓 | C€ | C € 🕸 🗓 | C€ |
| 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.



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 |
| 99 000.0501 | 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

| 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) |

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



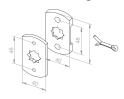
13 301.0801 Star

Distance plate



13 110.5601 for 13 103.3901

Flat motor bearing



23 109.000148 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 mn 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 299.





| 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 | | | • |







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 $\emptyset = 50 \text{ mm}$ Features: Plug-able cable

Manual override

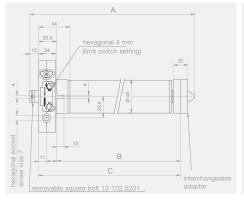
Possible limit switch modes

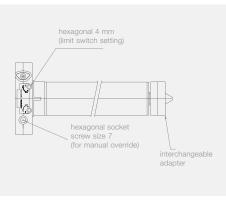
Upper limit Lower limit switch switch freely programmable freely programmable

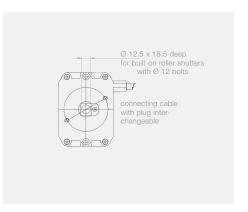


- Plug-able cable
- Manual override via 7 mm hexagonal shaft

Dimensions







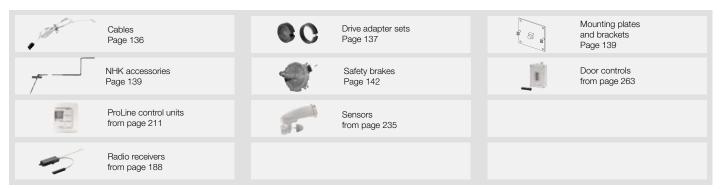
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Technical data and dimensions

| Туре | 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) | | | 1 | 14 | | | 10 |
| Operating Voltage (V) | | | | 1 ~ 230 | | | |
| Frequency (Hz) | | | | 50 | | | |
| Noiseless soft brake | | | | _ | | | |
| Current (A) | 0.0 | 64 | 0.85 | 0.92 | 1.1 | 1.: | 22 |
| Power (W) | 14 | 15 | 190 | 200 | 260 | 28 | 30 |
| 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) | | 6- | 17 | | 651 | 67 | ' 1 |
| Length B (mm) | | 55 | 59 | | 593 | 61 | 3 |
| Length C (mm) | | 58 | 35 | | 619 | 63 | 39 |
| Weight (kg) | 2. | 75 | 2.63 | 2.74 | 3.1 | 3.5 | 25 |
| Temperature range (°C) | | | | -20 to +60 | | | |
| Conformity | | C | € | | | (€逾∄ | |
| 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 |
|-------|-------------|------------------|-------------------|-----------------|-------------------|-----------------|-----------------|-----------------|
| , E ; | 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.





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 $\emptyset = 63 \text{ mm}$

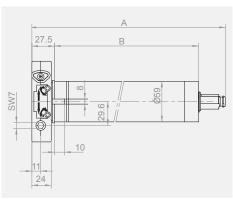
Possible limit switch modes

Upper limit Lower limit switch switch freely programmable freely programmable



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

Dimensions



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Technical data and dimensions

| Туре | 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) | 30 | 30 | | 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 | C | € | CE 4 | <u> </u> | C€ |
| 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 |
|-----|-------------|------------------|------------------|------------------|-------------------|-------------------|
| IX. | 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.



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 |



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Drive adapter sets for Type 9 NHK

Profiles of the drive adapter sets in 1:1 scale on page 290.









| 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,



13 103.4001 60 mm centres, flat



13 301.0801 Star



Distance plate

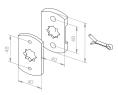
13 110.5601 for 13 103.3901



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

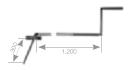
Universal adapter plate set



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



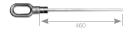
23 731.0002 Link bearing with awning eyelet



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



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





23 199,5701 For Type 9/Type 11 NHK



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

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

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)

| 40 000 4004 | | |
|-------------|---------------------------------|--|
| 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 | |

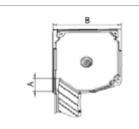
MiniClick selection table

| Shaft fastener | By box depth B¹ (mm) | Number/ shutter | Shutter weight (kg) | Application range |
|----------------|----------------------|-------------------------------------|----------------------------|-----------------------------------|
| 1 section | 115 – 150 | | | Mini- / maxi profile ¹ |
| 2 sections | 155 – 180 | Use minimum 1 fastener | max. 8 / shaft fastener | |
| 3 sections | 185 – 210 | every 60 cm or 4 Nm drive torque | | |
| 4 sections | 215 – 240 | | | |

MaxiClick selection table

| Shaft fastener | By box depth B¹ (mm) | Number/ shutter | Shutter weight (kg) | Application range | |
|----------------|----------------------|------------------------|-----------------------------|-----------------------------------|--|
| 1 section | 125 – 160 | Use minimum 1 fastener | | Mini- / maxi profile ¹ | |
| 2 sections | 160 – 200 | every 60 cm or 6 Nm | max. 12 / shaft fastener | | |
| 3 sections | 200 – 250 | drive torque | | | |

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



3 sections



13 301.9101

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 octagonal shaft



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

Tubular drives Type 9 and Type 11 NHK - Accessories

Safety brakes TA0-RD/X

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



24 031.0001

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 | | | • |









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-toset 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

146

| Туре | JA 06 Soft | JA 09 Soft | JA 06e | JA 06dk | JA 10dk | JA 20dk |
|---|-------------|------------|--------------------|---------------------|---------|---------|
| Max. torque (Nm) | 6 | 9 | 6 | 6 | 10 | 2 x 10 |
| Speed (rpm) | | | 2 | 6 | | |
| Operating Voltage (V) | | | 1 ~ | 230 | | |
| Frequency (Hz) | | | 5 | 0 | | |
| Noiseless soft brake | • | • | | - | - | |
| Current (A) | 0.5 | 0.68 | 0. | .5 | 0.55 | 1.0 |
| Power (W) | 115 | 156 | 11 | 15 | 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 | C€ <u>@</u> | | | | | |
| Connecting cable (m) | | 0.8 | 3 (with Hirschmann | plug Stas 3, with c | lip) | |

| 0 | | JA 06 Soft | JA 09 Soft | JA 06e | JA 06dk | JA 10dk | JA 20dk |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 0 | 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





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)





noiseless soft brake drive shaft output on both sides

JARdk



drive shaft output on both sides electromagnetic brake

148

| Туре | 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 | | | 2.31 | |
| Temperature range (°C) | -20 to +60 | | | | |
| Conformity | | | CE 🕸 🗓 | | |
| Accessories included | Cor | nnecting cable 0.8 | m with Hirschmann | plug Stas 4 (with | clip) |

| • | | JAR 06 Soft | JAR 09 Soft | JAR 06dk | JAR 10dk | JAR 20dk |
|----------|-------------|-------------|-------------|-------------|-------------|-------------|
| O | 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





JA NHK

Venetian blind drive JA NHK

JA NHK drives (230V/50 Hz)

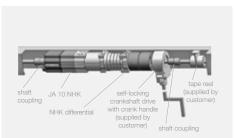
Application: Venetian blind/roman shades/speciality applications

Limit switch: Mechanical limit switches Features: Manuall operation



drive shaft output on both sides electromagnetic brake

In the window



Outwith the window



| 150 elero.com 2016 | 2017

| Туре | JA 10 NHK | | | | |
|---|---|---|--|---|--|
| | In the window for SW 11 mm/ hexagonal | Outwith the window forSW 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) | | 20 | 6 | | |
| Operating Voltage (V) | | 1 ~ : | 230 | | |
| Frequency (Hz) | | 50 |) | | |
| Suitable for | SW 11 mm | n hexagonal | SW 12 n | nm 4-side | |
| In the window | • | - | • | - | |
| Outwith the window | - | • | - | • | |
| Current (A) | | 0.5 | 55 | | |
| Power (W) | | 12 | 5 | | |
| Ingress protection (IP) | 44 | | | | |
| Max. limit switch range in Revolutions of the shaft | | 88 | 5 | | |
| Operating mode (KB in min.) | | 5 | | | |
| Length A (mm) | | 32 | 8 | | |
| Weight (kg) | | 2. | 1 | | |
| Temperature range (°C) | | -20 to | +60 | | |
| Conformity | | C | € | | |
| Accessories included | | Installation cable with H | irschmann plug Stas 3 | | |

| S 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 |
|-----|-------------|---|--|--|---|
| 23 | Item Number | 35 417.0401 | 35 418.0401 | 35 417.2401 | 35 418.2401 |

| Installation cable with Hirschmann plug Stak 3 | |
|--|-------------|
| Item Number | 23 246.0001 |

Accessories

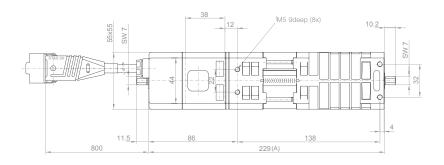




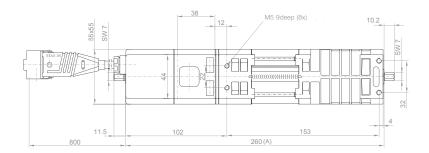
Mounting dimensions

JA drives

JA 06 Soft



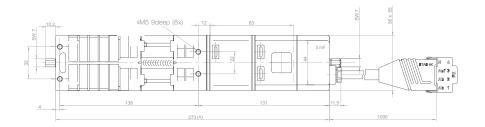
JA 09 Soft



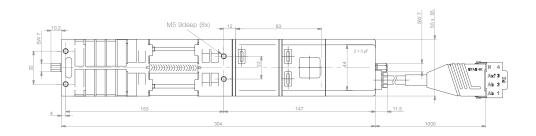
Dimension sheets for Venetian blind drives JARdk on request.

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

JAR 06 Soft



JAR 09 Soft

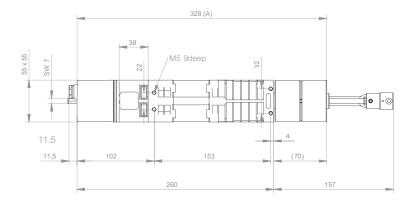


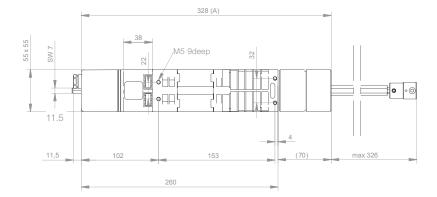
| 152 | elero.com 2016 | 2017

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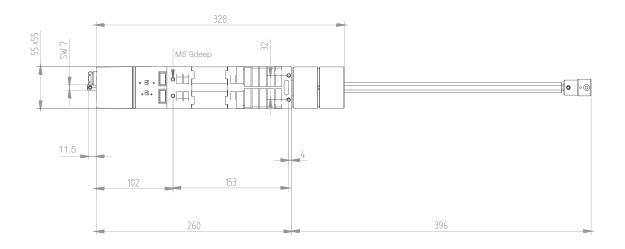
JA drives

JA 10 NHK in the window





JA 10 NHK outwith the window



Drive shaft adapters



| 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 \varnothing 12.0 mm, with drilling 3.3 mm |



- 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 |
| 0 / | 26 618.2001 | 10.00 m |

Extension cable with female Hirschmann socket 13 701.5301 and male Hirschmann plug 23 846.0001



delivery period following consultation

Hirschmann plugs male



23 846.0001 (motor side)

Hirschmann plugs female



13 701.5301



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



cable trough

Rubber insert to close hole in head rail to allow Hirschmann plug and



(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

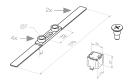


26.843.0002 for JAR drives with Hirschmann plug Stak 4

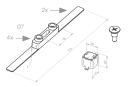
elero

Mechanical assembly accessories

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

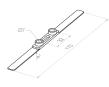


26 520.0002 for 29.5 mm shaft height



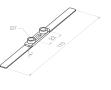
26 521.0002 for 35.5 mm shaft height (Faber)

Screws



Dampers

16 101.6001Height: 2.0 mm
hole distance: 32.0 mm



16 101.6101Height: 2.0 mm
hole distance: 22.0 mm



16 101.6201Height: 8.0 mm hole distance: 32.0 mm

Damper



16 101.6301Height: 8.0 mm
hole distance: 22.0 mm



16 300.7301 Screws for 2.0 mm damper height



16 300.7402 Screws for 8.0 mm damper height



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

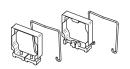


16 101.4501Safety cut-out extension, 10.0 mm

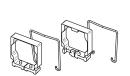


26 200.1101Safety cut-out left (white)

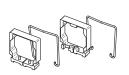
Spring clip fixing kits for venetian blind drives



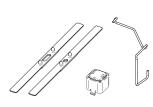
26 611.0001 for head box 68 x 66 mm; shaft height: 35 mm, black (Griesser)



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

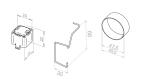


26 613.0002 Set of 10 for head box 58 x 56 mm; shaft height: 29 mm



26 529.0001 for head box 57 × 51, shaft height 29.5 mm Set includes: 2 × 16 302.3201 Spring clip 1 × 16 103.1801 Rubber damper with knobs 1 × 16 103.1901 Rubber damper with knobs

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

1×26 200.3601 Safety cut-off right



16 103.1801 Height: 2.0 mm knobs distance: 32.0 mm



16 103.1901Height: 2.0 mm
knobs distance: 22.0 mm



Speciality drives Folding shutter drive



As a decorative and stylish element for façades, folding shutters are particularly suitable for the restauration 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.



Folding shutter drive

with adjustable torque limiting

Folding shutter drive

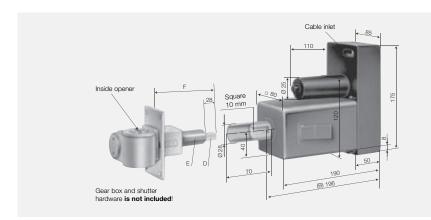
Application: Folding shutter drive

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:

Dimension F of the inside opener = total wall thickness – 196 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.

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| Туре | 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 | C€ |
| 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:

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

Accessories





Solar drive systems

Saving energy and green electricity are very fashionable at present, but the possible applications of solar energy are also diverse. The power of the sun is utilized by the new DC drives from elero. These may be used in roller shutters and blinds, awnings and Venetian blinds, and are simple to install as independent systems.

The radio receiver Combio-868 JA DC allows to convert the JA DC drive to a JA DC drive with radio receiver. The solar module with the attractive design can be affixed to an awning, for example, without the need for complex installation work; the cables are pluggable. The angle of the solar module is adjustable.



Solar drive systems 12V DC

Drives

VariEco M DC / -868 DC

Application: Roller shutter and textile sun protection

Mechanical limit switch Noiseless soft brake Shaft size from \emptyset = 50 mm Connection cable 3.0 m pluggable Uni-directional 868 MHz radio (only 868 MHz version)

SunTop L-868 DC

Application: Textile sun protection

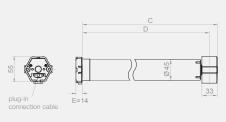
Electronic limits with Soft Stop on end position approach, smart force measurement, Blockage detection Up/ Down, Limits can be adjusted via radio remote control or installation lead Shaft size from Ø = 63 mm Connection cable 3.0 m pluggable Uni-directional 868 MHz radio

JA Soft DC

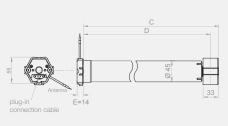
Application: Venetian blind/ roman shades

Mechanical limit switch Noiseless soft brake Connection cable 0.8 m with Quickon-tail (QuickConnect)

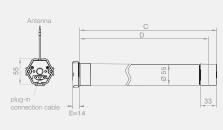




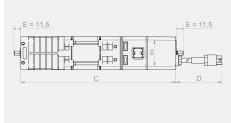












| Туре | VariEco M10 DC | VariEco M12 DC | VariEco M10-868 DC | VariEco M12-868 DC | SunTop L40-868 DC | JA 04 Soft DC | JA 10 Soft DC |
|--|-------------------|-------------------|-----------------------|-----------------------|----------------------|-----------------------------------|-------------------|
| Max. torque (Nm) | 10 | 12 | 10 | 12 | 40 | 4 | 10 |
| Speed (rpm) | | 1 | 6 | | 12 | 33 | 26 |
| Operating voltage (V) | | | | 12 (DC) | | | |
| Noiseless soft braike | | | • | | - | • | • |
| Current (A) | 4.0 | 3.5 | 4.0 | 3.5 | 10 | 4.0 | 8.5 |
| Power (W) | 48 | 42 | 48 | 42 | 120 | 48 | 102 |
| Shaft (mm) | | 5 | 50 | | 63 | - | - |
| Ingress protection (IP) | | | | 44 | | | |
| Max. limit switch range in Revolutions of the shaft | 35 | | | 40 | 85 | | |
| Operating mode (KB in min.) | | | | 10 | | | |
| Length C (mm) | 477 | 497 | 477 | 497 | 542 | 26 | 60 |
| Length D (mm) | 460 | 460 480 460 480 | | | 525 | 80 Connection cable (QuickC | with Quickon-tail |
| Length E (mm) | | 1 | 4 | | 16 | 11 | .5 |
| Weight (kg) | 1.6 | 1.7 | 1.6 | 1.7 | 3.78 | 1. | 6 |
| Temperature range (°C) | | | | -20 to +60 | | | |
| Conformity | | | | C€ | | | |
| Connecting cable (m) | | | 3.0 (pluggable) | | | - | - |

| | VariEco | VariEco | VariEco | VariEco | SunTop | JA 04 | JA 10 |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | M10 DC | M12 DC | M10-868 DC | M12-868 DC | L40-868 DC | Soft DC | Soft DC |
| Item Number | 34 621.0101 | 34 611.0101 | 34 622.0101 | 34 612.0101 | 36 352.0001 | 35 113.0001 | 35 093.0002 |

For RevoLine SunTop L40-868 DC please use Type 11 drive adapters on page 129.

Accessories





Solar drive systems 12V DC

Controls, power unit and accessories

DC drives (12V) accessories

Application: Roller shutter, textile sun protection, venetian blind and

roman shade



Unidirectional radio receiver for venetian blind DC drives (with connecting cables and double-sided tape) only suitable for elero DC drives



Power unit: solar module incl. battery pack with protection circuit (preloaded and ready for use), plug-in connector and 2 wall brackets

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| Туре | Combio-868 JA DC | Power unit | |
|-----------------------------|--------------------------------------|------------|--|
| Max. torque (Nm) | _ | | |
| Speed (rpm) | _ | | |
| Operating Voltage (V DC) | 12 – 13.5 13.2 | | |
| Current (A) | 3.75 | | |
| Power (W) | 45 – | | |
| Current consumption (mA) | 100 – | | |
| Ingress protection (IP) | 56 44 | | |
| Max. number of transmitters | 16 – | | |
| Operating mode (KB in min.) | | 5 | |
| Dimensions (mm) | L 100 x W 40 x H 15 L 615 x W 98 x F | | |
| Weight (g) | 260 1,400 | | |
| Temperature range (°C) | -20 to +70 | -10 to +60 | |
| Conformity | C€ | | |

| | Combio-868 JA DC | Power unit |
|-------------|------------------|-------------|
| Item Number | 28 506.0005 | 22 050.0002 |

Compatible accessories

| | Spare battery incl. protect | ction circuit (LiFePo 13.2V 2,300 mAh) | | |
|-----|---|---|--|--|
| 4 | Item Number | 13 709.8102 | | |
| | | | | |
| | Plug-in connector power | unit/drive spare part (for tubular drives) | | |
| | Item Number | 13 306.9601 | | |
| | | | | |
| | Pluggable cable 3.0 m (fo | Pluggable cable 3.0 m (for tubular drives), spare | | |
| -00 | Item Number | 23 395.6001 | | |
| | | | | |
| | QuickConnect (required when using the drives without control unit and power unit) | | | |
| | Item Number | 23 395.2701 | | |
| | | | | |
| | Installation cable DC | | | |

Accessories

Item Number

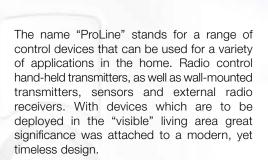


23 279.0001



Radio control units

for roller shutters and sun protection systems



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.

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elero

Technical data and dimensions

| Туре | 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) | 2 | 20 | | | |
| Temperature range (°C) | 0 to | 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 | | <u>.</u> - | | | |
| Bidirectional | | • | | | |
| Interface | USB 2.0, LAN, WLAN USB 2.0 | | | | |
| Content | Centero Server, Centero Transmit | Centero Server, Centero Transmitter Stick, Adapter, Cable, Manual | | | |

Centero Set 28 795.0001

28 799.0001

| Centero Server (excl. Transmitter Stick) | |
|--|-------------|
| Item Number | 28 785.0001 |
| | |
| Centero Transmitter Stick | |
| Item Number | 22 125.0001 |
| | |
| Centero Power Pack | |

Functional principle

Item Number

Item Number



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.



Window contact RTS16 28 895.0101

Status monitoring for windows, doors and gates.



Motion detector RTS40 28 895.0001

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



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.

| 170

| Туре | USB stick Easywave RX09 | Window contact RTS16 | Motion detector RTS40 | Humidity sensor SH01 |
|----------------------------|-----------------------------------|--|---|---|
| Frequency (MHz) | 868.30 | 868.30 | 868.30 | 868.30 |
| 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 (µA) | _ | 1,6 | _ | max. 15 |
| Measuring range (rF) | - | - | - | 1-99% |
| Accuracy | - | - | _ | ±5% (bei 30%-70% rF) |
| Switching values | - | - | | |
| Data logging (mins.) | _ | | | every 2 |
| Operating temperature (°C) | 0 to +40 | | -20 to +60 | |
| Radio range (m) | | outdoors: a indoors: a | | |
| Brightness range (lx) | - | - | 10 to 500 | - |
| Follow-up time | _ | _ | 1 sec. to 131 mins. | _ |
| Monitoring range (m²) | - | - | approx. 16 | - |
| Ingress protection (IP) | 20 | 54 | 30 | 30 |
| Dimensions (mm) | 24 x 8 x 75 | Transmitter: 65 x 12 x 28 Magnet: 18 x 18 x 13 | Cover: 55 x 55 x 12 Plate: 71 x 71 x 1.5 | Cover: 55 x 55 x 10 Plate: 71 x 71 x 1.5 |
| Weight (g) | 13 | Transmitter: 20.6 Magnet: 2.2 | 34.0 | 32.0 incl. Battery |
| Scope of supply | USB transceiver, operating manual | Radio-controlled window contact RTS16 incl. battery, bracket with magnet, 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 Centero 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







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elero

Technical data and dimensions

| Туре | 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) | П | | | | | | |
| 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 | | unit with wall bracket, ope pack with 2 screws and r | | | | | |

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





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



elero.com 2016 | 2017

elero

Technical data and dimensions

| Туре | | 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 | | wall bracket, batteries and mounting cked ready to mount in display packag | | | | |

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

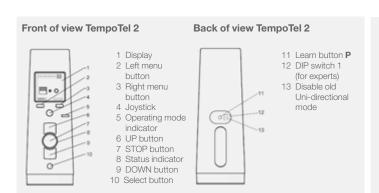
Language version 1:

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

| Item Number Language version 2 | 28 465 0002 | 28 466 0002 | 28 467 0002 |
|--------------------------------|-------------|-------------|-------------|

Language version 2:

German, English, Hungarian, Czech, Slovenian, Turkish







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





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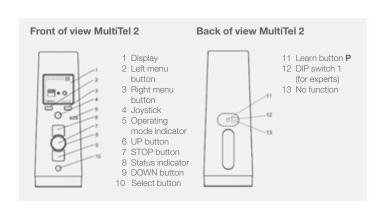
ler o

Technical data and dimensions

| Туре | | MultiTel 2 | | VarioTel 2 | | | |
|--|---------------------|--------------------------|-----------------------|-------------------------|----------------------|---------------|--|
| Operating Voltage (V DC) | | 3 | | | | | |
| Battery type | | | 2 x LR06 (A | A Mignon) | | | |
| Ingress protection (IP) | | | 2 | 0 | | | |
| Temperature range (°C) | | | 0 to | +50 | | | |
| Radio frequency (MHz) | | | 86 | 8 | | | |
| 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 | n max. 5 individual cha | annels) | - | | | |
| Master channel | | | 1 | | | | |
| Manual/automatic switch | | | • | | | | |
| Unidirectional | - | | | • | | | |
| Bidirectional | | | • | | | | |
| Colours | white | silver | titanium grey | white | silver | titanium grey | |
| Accessories included | Magn | etic wall bracket, batte | eries and mounting ma | terial (packed ready to | mount in display pac | kage) | |

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

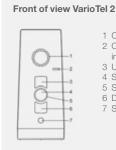
Available language selection on MultiTel: German, English, French, Spanish, Italian, Portuguese, Dutch, Danish, Swedish, Polish, Hungarian, Czech, Slovenian, Turkish



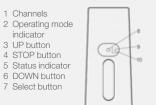
indicator

6 DOWN button 7 Select button





Back of view VarioTel 2



- 8 Learn button P 9 DIP switch 1 (for experts)
- 10 Disable old Uni-directional mode

Wall bracket



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 $% \left(1\right) =\left(1\right) \left(1$
- 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







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| Туре | LumeroTel 2 | | | MonoTel 2 | | | SoloTel 2 | | |
|--|---|-----------|-------------|---------------------|----------|---------------|---|-------------|-------|
| Operating Voltage (V DC) | | 3 <u></u> | | | | | | | |
| Battery type | | | 2 x LR06 (A | A 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) | | | | | mounting | vall bracket, ba material (packe t in display pac | ed ready to | |

| | LumeroTel 2 | | | | MonoTel 2 | | SoloTel 2 | | |
|-------------|-------------|-------------|------------------|-------------|-------------|------------------|-------------|-------------|-------------|
| | white | silver | titanium grey | white | silver | titanium grey | white | silver | black |
| Item Number | 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 |



1 Operating mode indicator
2 UP button

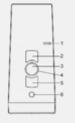
3 STOP button 4 Status indicator

5 DOWN button

6 Select button

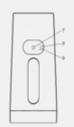
1 UP button 2 STOP button

4 DOWN button



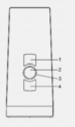
Back of view LumeroTel 2

Back of view MonoTel 2



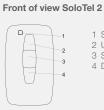
- 7 Learn button **P** 8 DIP switch 1
- (for experts)
 9 Disable old
- Uni-directional mode

Front of view MonoTel 2



- 3 Status indicator
- 5 Learn button **P**6 DIP switch 1
 (for experts) 7 Disable old
- Uni-directional mode

Back of view SoloTel 2



- 1 Status indicator 2 UP button
- 3 STOP button
- 4 DOWN button



Wall bracket

Wall bracket



Wall bracket





AstroTec-868/AstroTec-868 bidi

Timer as comfort wall transmitter

Comfortable 1-channel-timer with astro program

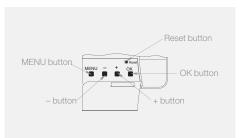
- · Integrated timer
- · Single-, group- or central unit
- Uni- or bidirectional
- · Astro function
- · Manual/automatic switch
- ext. Light sensor usable
- Transmission-secure radio frequency 868 MHz

Note:

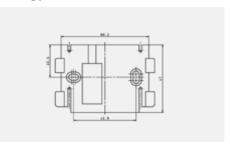
The AstroTec-868 bidi is a radio wall transmitter for exclusive use with bidirectional receivers (use of the AstroTec-868 bidi with unidirectional transmitters and receivers is not possible – in this use please use the unidirectional AstroTec-868 (item no. 28 320.0001).



Buttons under the cover



Mounting plate

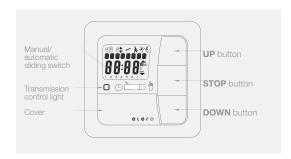


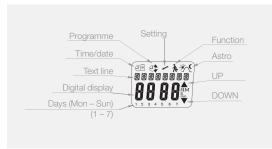
| 180 | elero.com 2016 | 2017

| Туре | AstroTec-868 | AstroTec-868 bidi |
|--------------------------|---------------------------------------|------------------------------------|
| Operating Voltage (V DC) | | 3 |
| Battery type | 2 x LR (| 03 (AAA) |
| Ingress protection (IP) | 2 | 0 |
| 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 | s (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. 236) | |
|----------------------|-------------|
| Item Number | 28 080.0001 |
| | |
| Lumo 10.0 m (P. 236) | |
| Item Number | 28 090.0001 |











MemoTec-868

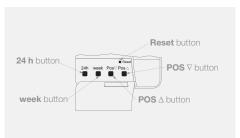
Intelligent comfort wall transmitter

Intelligent comfort transmitter with daily or weekly switching time

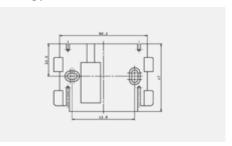
- Fixed daily or weekly switching times programmable
- Large keys
- · Unidirectional only
- · Manual/automatic switch
- Transmission-secure radio frequency 868 MHz



Buttons under the cover



Mounting plate

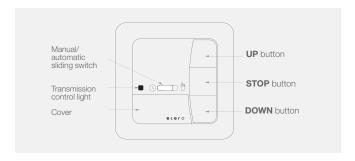


elero

Technical data and dimensions

| Туре | 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

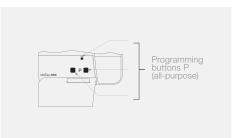
UniClic-868

- · 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

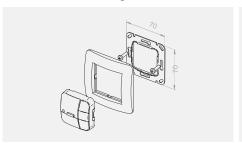


UniTec-868, UniClic-868

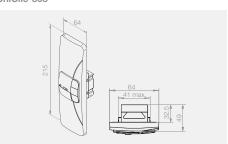
Buttons under the cover



Wall fixture has been changed in the new model



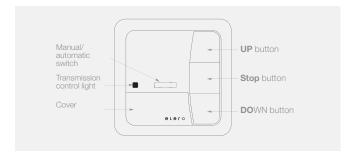
UniClic-868



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| Туре | UniTec-868 | UniClic-868 |
|--------------------------|--|----------------------------------|
| Operating Voltage (V DC) | 3 | |
| Battery type | CR 2 | 2032 |
| Ingress protection (IP) | 2 | 0 |
| Temperature range (°C) | 0 to | +50 |
| Radio frequency (MHz) | 86 | 68 |
| 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 |

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







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
- · Uni- and bidirectional



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| Туре | 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 52 x W 48 x H 27 | |
| Weight (g) | 43 | |
| 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 | 28 380.0006 |





VarioTec-868

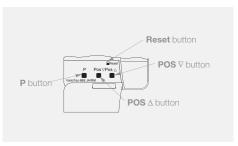
Motor or master/group control unit

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



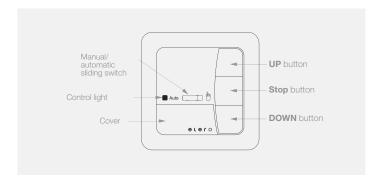
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Technical data and dimensions

| Туре | VarioTec-868 | |
|--|--|-----------|
| Operating Voltage (V) | 1 ~ 230 – 240 | |
| Frequency (Hz) | 50 - | - 60 |
| Maximum switching current (A) (250V AC at $\cos \varphi = 1$) | 5 (resistive load) | |
| Ingress protection (IP) | 2 | 0 |
| Protection class (only after correct installation) | Ш | |
| 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 | |

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







AeroControl-868

Control unit for awnings and venetian blinds

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

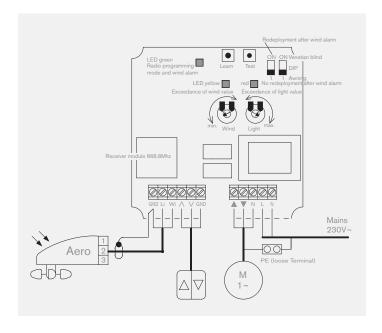
- · Radio receiver module 868 MHz
- · Robust and simple construction for problem-free retrofitting
- Transmission-secure radio frequency 868 MHz
- Operation is through a optionally connected push button or a hand-held transmitter
- Connection options: Aero, Ventero, Lumero, mains lead, 1 alternating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



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| Туре | AeroControl-868 | |
|--|----------------------|--|
| Operating Voltage (V) | 1 ~ 230 | |
| Frequency (Hz) | 50 – 60 | |
| Maximum switching current (A) (250V AC at $\cos \varphi = 1$) | 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 | |

| | AeroControl-868 |
|-------------|-----------------|
| Item Number | 28 370.0001 |







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

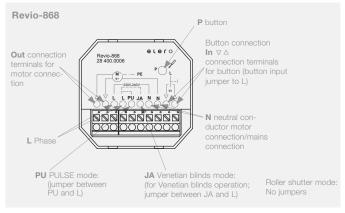


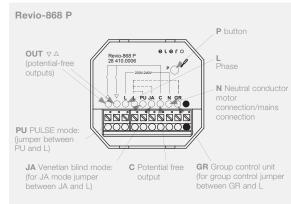
Revio-868, Revio-868 P, Revio-868 SW

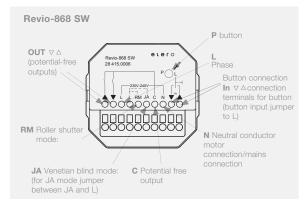
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| Туре | Revio-868 | Revio-868 P | Revio-868 SW | | | |
|-------------------------------|---------------|---|--------------------------|--|--|--|
| Operating Voltage (V) | 1 ~ 230 – 240 | | | | | |
| Frequency (Hz) | | 50 - 60 | | | | |
| Maximum switching 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 | | quires at least Ø 58 mm flush mount b Exposed: in appropriate exposed casing | | | | |
| Potential-free output | - | • | • | | | |
| Unidirectional | | • | | | | |
| Bidirectional | | • | | | | |
| Group controller | - · | | | | | |
| Limit switch detection | · - | | | | | |
| | | | | | | |
| | Revio-868 | Revio-868 P | Revio-868 SW | | | |

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











Unio-868

Radio power socket

Convenient operation of electrical appliances by radio command

- $\boldsymbol{\cdot}$ 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





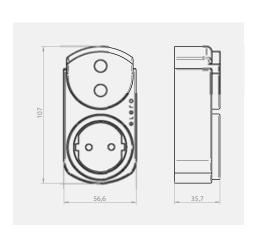




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| Туре | Unio-868 |
|------------------------------|---------------------|
| Operating Voltage (V) | 1 ~ 198 – 253 |
| Frequency (Hz) | 50 – 60 |
| Switching capacity (VA) | 2,300 |
| Ingress protection (IP) | 20 |
| Temperature range (°C) | 0 to +55 |
| 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 |









Combio-868 JA /Pulse /RM

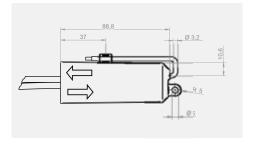
Radio receiver for venetian blind drives and roller shutters

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





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

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Technical data and dimensions

| Туре | 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) | | | 5 | 50 | | | |
| Max. connected power (W) | | | 4 | 50 | | | |
| Ingress protection (IP) | | | 5 | 66 | | | |
| Temperature range (°C) | | | -20 to | o +70 | | | |
| Radio frequency (MHz) | | | 86 | 68 | | | |
| Power supply cable (m) | 0.5 with Hirschn | nann plug Stas 3 | 3 0.085 with Hirsch mann plug STAS | | | | |
| Motor side cable (m) | 0.25 with Hirschma | ann coupling Stak3 | 0.25 with NHK motor plug | 0.25 with RevoLine motor plug | 0.25 with Hirsch- mann plug Stak3 | 0.095 with Hirsch- mann 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) | 26 | 60 | 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 |

| 7. | Mounting clamp | |
|------|--------------------------------|-------------|
| 47 | Item Number | 16 302.3701 |
| | | |
| 1979 | Cable bushing for plug guiding | |
| 33 | Item Number | 16 101.0101 |
| | | |
| 2 | Cable clip | |
| | Item Number | 13 707.5701 |





Combio-868 HE /LI /SW

Radio receiver for heating and light systems

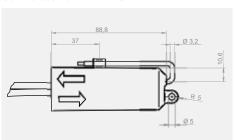
Radio receiver for heating and light systems

- 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 LI/ET LI/MT SW



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| Туре | 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 | 0.49 with Hirschmann plug Stas 3 | | | | | |
| Motor cable (m) | 0.235 with Hirschmann coupling Stak3 | 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 | | - | • | - |





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





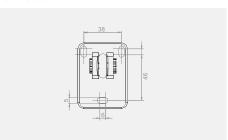


Wall bracket
The device can be fastened to the upper side of the roof or to the façade using the tilting wall bracket.

Pole support
As an alternative, mount the device to a pole of 27 mm diameter.

Pole or corner support
Use the corner or pole support
to attach the device to the corner
of the façade or to the pole.

Wall bracket



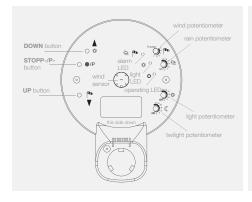
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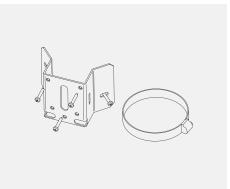
| Туре | Sensero-868 AC | Sensero-868 AC Plus |
|--|-----------------------|---------------------|
| Operating Voltage (V) | 1 ~ | 230 |
| Frequency (Hz) | 50 - | - 60 |
| Ingress protection (IP) | 4 | 4 |
| Temperature range (°C) | -20 to | 0 +60 |
| Radio frequency (MHz) | 86 | 68 |
| Detection angle (°) (Light/twilight sensor) | 15 | 50 |
| 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

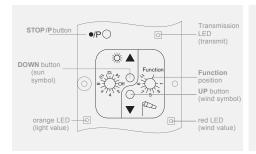
Solar powered light and wind sensor for awnings and venetian blinds

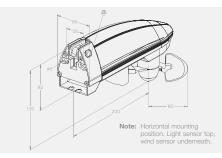
Radio sensors for all situations

- · 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

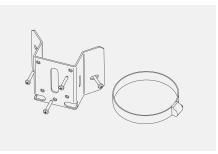
Aero-868 and Ventero-868 are not suitable for applications which require view protection during night time due to the limited power reserves!







Pole and corner adapter



| Туре | Aero-868 Plus | Aero-868 | Aero-868 AC | Ventero-868 |
|--|---------------|-------------|------------------------|-------------|
| Power supply | so | lar | 1 ~ 230 V / 50 – 60 Hz | solar |
| Ingress protection (IP) | | 4 | 3 | |
| Temperature range (°C) | | -20 to | +60 | |
| Radio frequency (MHz) | | 86 | 68 | |
| Unidirectional | • | | | |
| Bidirectional | | • | • | |
| Detection angle (°) (Light/wind sensor) | | 18 | 50 | |
| Standby (h) | ~24 | ~12 | _ | ~12 |
| Dimensions (mm) | | L 280 x W 1 | 30 x H 130 | |
| Weight (g) | 38 | 30 | 36 | 60 |

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

| (Ø 60 – 80 mm) | |
|-------------------------|--|
| Pole and corner adapter | |





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



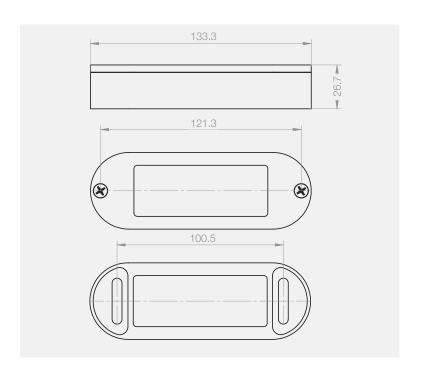
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elero

Technical data and dimensions

| Туре | Proter | o-868 |
|--------------------------|---------------------------|--------------|
| Operating Voltage (V) | 3 | 3 |
| Battery type | 2 x LR0 | 3 (AAA) |
| Ingress protection (IP) | 54 | 4 |
| 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 | |

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





Lumero-868

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

Lightsensor for shading systems

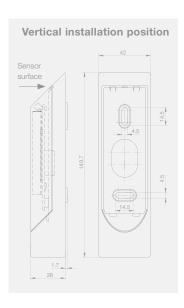
- · Wireless sun sensor
- · Uni- and bidirectional
- Integrated solar cells
- · Manual operation with a hand-held/wall transmitter
- Only in combination with radio receivers from the elero ProLine and ProLine 2 radio system
- Bidi operation only with receivers from Version 75 (Combio-868) or from Version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

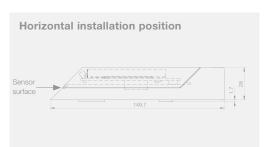


| 206 elero.com 2016 | 2017

| Туре | 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

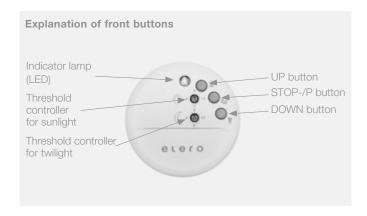
- · Wireless light-, twilight and glas breakage sensor
- · Sticks to glass using suction cup
- · Uni- and bidirectional
- · Manual operation with a hand-held/wall transmitter
- UP-, STOP-/P, DOWN keys
- · Control according to adjusted threshold values
- Bidi operation only with receivers from Version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



| 208 elero.com 2016 | 2017

| Туре | 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 |





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

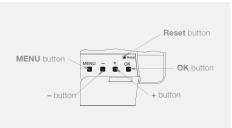
Control unit for sun protection systems

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



| 212 elero.com 2016 | 2017

| Туре | 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) | | | |

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









AstroTec/TempoTec/AstroClic

Timer

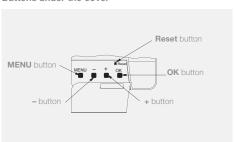
Timer with and without astro program

- AstroTec:
 Usable as a master, group or motor control unit
 Integrated timer
 Together with the Lumo (p. 236), 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. 236)
 light and twilight sensor is also
 possible.

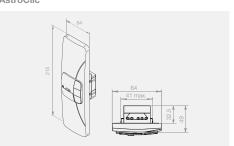


AstroTec/TempoTec, AstroClic

Buttons under the cover



AstroClic



| 214 elero.com 2016 | 2017

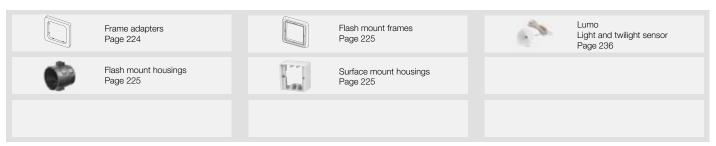


| Туре | AstroTec | | | TempoTec | | | AstroClic |
|---|---|-------|-------|----------|------------------|-------|-----------|
| Operating Voltage (V) | 1 ~ 230 - 240 | | | | | | |
| Frequency (Hz) | 50 – 60 | | | | | | |
| Maximum switching current (A) (250V AC at cos φ =1) | 5 | | | | | | |
| Ingress protection (IP) | 20 | | | | | | |
| Protection class (only after correct installation) | II | | | | | | |
| Temperature range (°C) | 0 to +55 | | | | | | |
| ProLine frame included | - • (set) - | | | - | • (set) | - | |
| Colours | white | ivory | white | white | ivory | 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 | | |

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











MemoTec

Intelligent switch

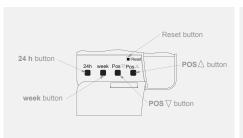
Suitable for large range of switch programmes

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

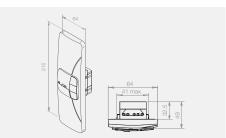


MemoTec, UniClic frame

Buttons under the cover



UniClic



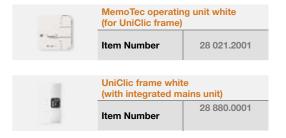
| 216 elero.com 2016 | 2017

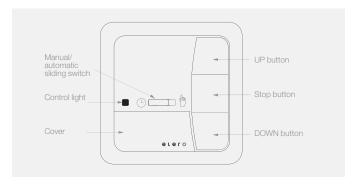
eler<u>o</u>

Technical data and dimensions

| Туре | MemoTec | | |
|--|--|---------------|-------|
| Operating Voltage (V) | | 1 ~ 230 – 240 | |
| Frequency (Hz) | | 50 – 60 | |
| Maximum switching current (A) | | 5 | |
| (250V AC at cos φ =1) | | 3 | |
| 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) | | |

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









VarioTec

Motor or central/group control unit

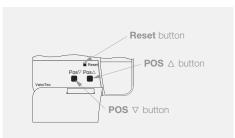
The variable control unit

- $\boldsymbol{\cdot}$ It may be used as a central-, group- or as an end device
- Manual/automatic switch
- Large UP, STOP and DOWN keysSuitable for a large range of switch programmes

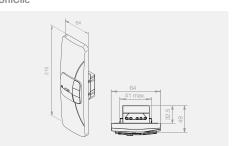


VarioTec, UniClic frame

Buttons under the cover



UniClic



218 elero.com 2016 I 2017

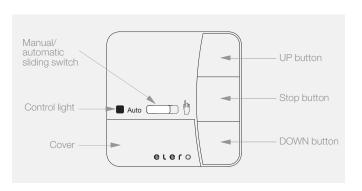
eler<u>o</u>

Technical data and dimensions

| Туре | VarioTec | | |
|--|--|---------------|---------|
| Operating Voltage (V) | | 1 ~ 230 – 240 | |
| Frequency (Hz) | | 50 – 60 | |
| Maximum switching current (A) | | 5 | |
| (250V AC at cos φ =1) | | 0 | |
| 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) |

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









MonoTec

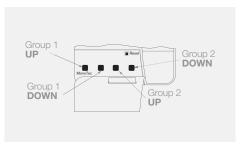
Comfort control switch

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

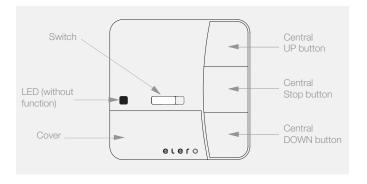


| 220 elero.com 2016 | 2017

Technical data and dimensions

| Туре | 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) | | • (set) |

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







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



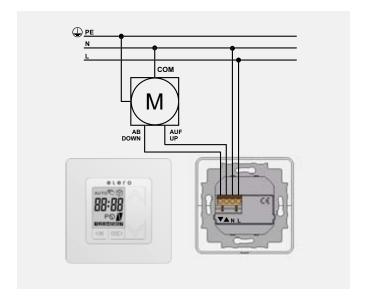
| 222 elero.com 2016 | 2017

elero

Technical data and dimensions

| Туре | 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 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 | Туре |
|-------------|--|
| 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 |







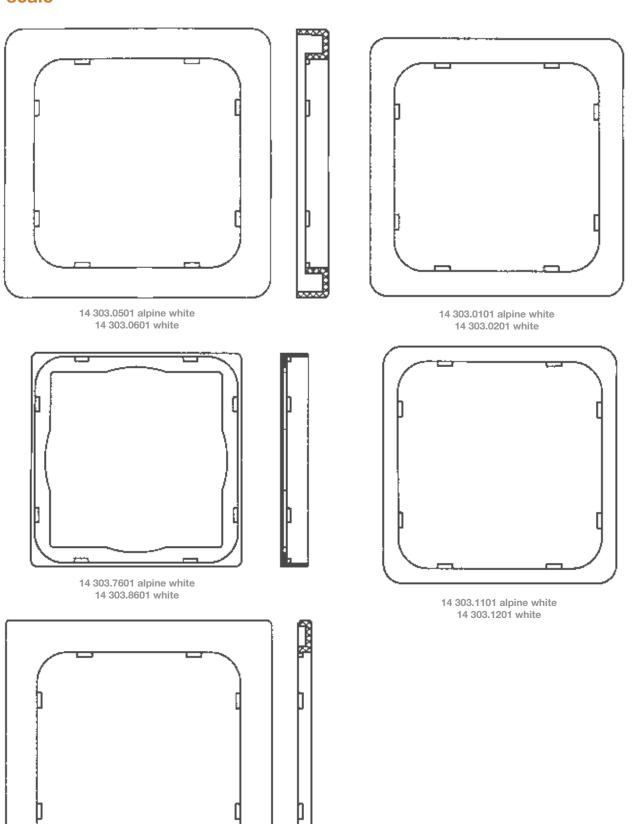








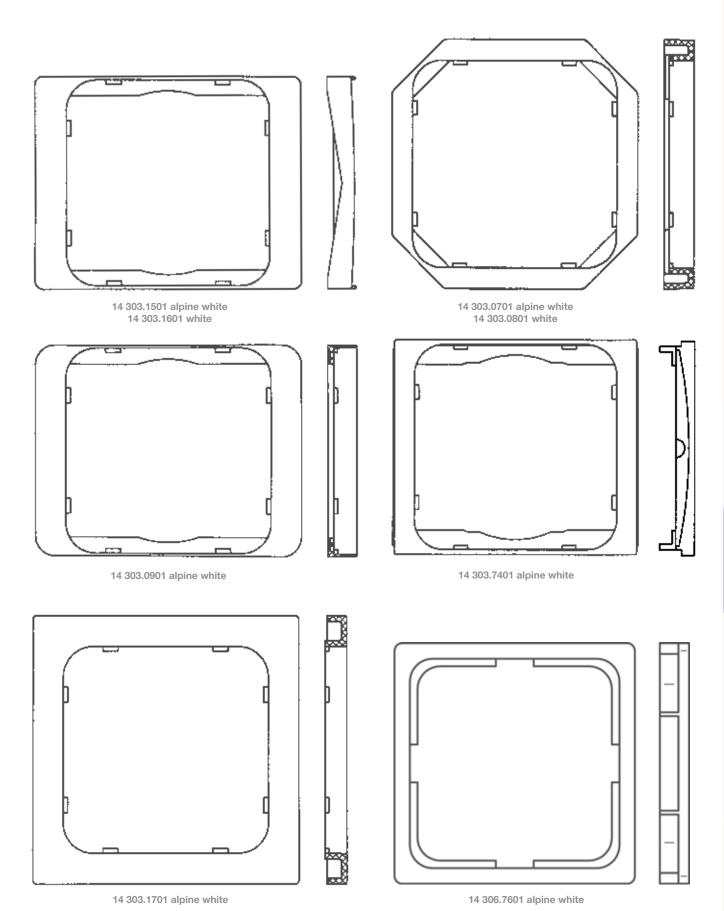
1:1 scale



14 303.1301 alpine white 14 303.1401 white

226

1:1 scale





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



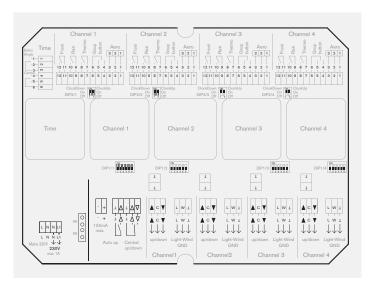
| 230 elero.com 2016 | 2017

Technical data and dimensions

| Туре | 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 |







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

| 236 elero.com 2016 | 2017

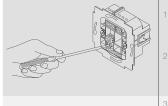
Door controls

Technical data and dimensions

| Туре | Lui | Lumo | | 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 | - | - |

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

Connecting the Lumo to the AstroTec

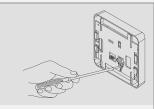


- Cut the wire to the desired length.
- Bare approx. 5 mm of the wire.
 Remove the connecting terminal using a screwdriver.



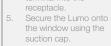
Secure the Lumo onto the window using the suction cap.

Fitting the Lumo into the AstroTec-868

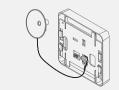


- Cut the wire to the desired length.
- Bare approx. 5 mm of the wire.
 Remove the connecting terminal using a screwdriver.











Aero/Ventero

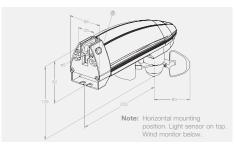
Solar powered light and wind sensors

Comfortable living inside and outside

- Aero:
 Light- and wind sensor
 Continuous measurement of wind
 and light values
 In combination with AeroTec (p. 212)
 and AeroControl-868 (p. 190)
- Ventero:
 Wind sensor
 In combination with AeroTec (p. 212)
 and AeroControl-868 (p. 190)
 Continuous measurement of wind
 values



Aero, Ventero



Pole and corner adapter



| 238 elero.com 2016 | 2017

Door controls

elero

Technical data and dimensions

| Туре | Aero | Ventero |
|-------------------------|------------------|--------------------|
| Ingress protection (IP) | 4 | 3 |
| Temperature range (°C) | -25 to | 0 +60 |
| Pole support | Ø 60 – 80 mm (op | otional accessory) |
| Detection angle (°) | 150 | |
| Dimensions (mm) | L 280 x W 1 | 130 x H 130 |
| Weight (g) | 28 | 36 |
| Wind sensor | | |
| Light sensor | • | - |
| Colours | wh | nite |

| | Aero | Ventero |
|-------------|-------------|-------------|
| Item Number | 28 160.0001 | 28 170.0001 |

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



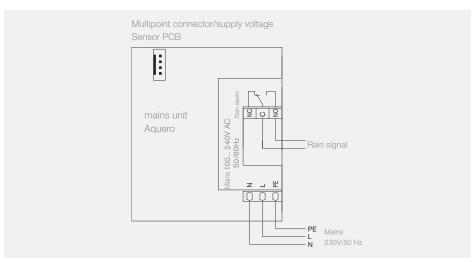
Aquero

Rain sensor

Our elegant sensor with claim

- In combination with AeroTec (p. 212)
- $\boldsymbol{\cdot}$ Precipitation measuring at intervals via the sensor surfaces
- Response threshold presetPotential-free changeover contact



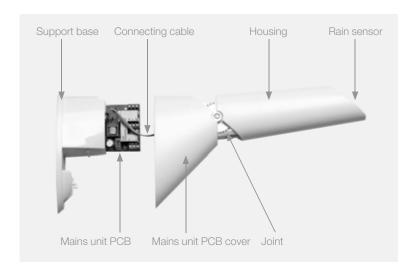


240 elero.com 2016 | 2017

Technical data and dimensions

| Туре | 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 |

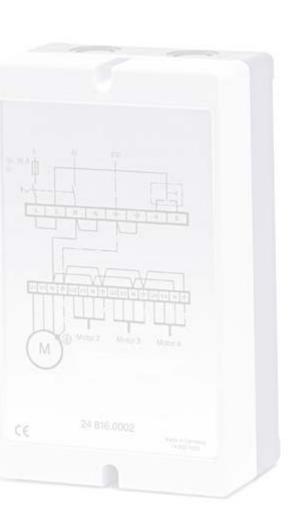








The common control of several drives via one switching point is required for some applications. This is simple to implement with suitable relays or controllers.









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

| 244 elero.com 2016 | 2017

elero

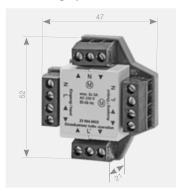
Technical data and dimensions

| Туре | 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 ~ 23 | 0 – 240 | |
| Frequency (Hz) | | 50 | - 60 | |
| Current consumption (mA) | 10 in relay mode | on re | quest | 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 |
| | | | | |
| | 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 |

24 816.0002

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

Item Number



Central control unit for up to 4 singlephase motors without individual control

23 994.0002



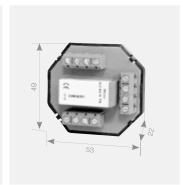
Multi-point control relay



23 845.0001

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

23 995.0201









Control Unit DC

DC controller

Control of 24V DC drives

- The Control Unit DC can be controlled by the following controllers
 - AstroTec (p. 214)
 - AeroTec (p. 212)
 - VarioTec-868 (p. 188)
 - VarioTec (p. 218)
 - Revio-868 P (p. 192)

These devices have a potential-free relay output

 You can also connect an interlocked push button (p. 248) instead of a ProLine device for controlling the Control Unit DC



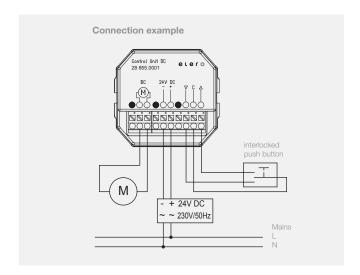
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Technical data and dimensions

| Туре | 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 |





Switches and push-buttons







Rotary switch



Interlocked switches



Venetian blind switch surface mount

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

| Item Number | Туре | |
|-------------|---|--|
| 24 051.0001 | enetian 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 | Туре |
|-------------|--|
| 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 | Туре | | |
|-------------|------------------------------------|--|--|
| 23 250.0001 | ord 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 | Туре |
|---|--|
| 14 701.1701 | Venetian blind switch surface mount, water-protected |
| 14 701.2101 Venetian blind push-button surface mount, water-protected | |

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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.







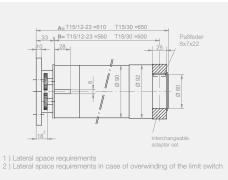
Type 15 W

Tubular drive for doors

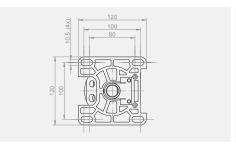
Tubular drive Type 15 W

- Changeable couplings (adapters) for tubes of Ø 98 x 2.0 to 168 x 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

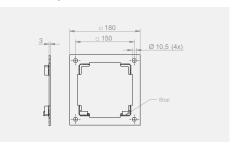




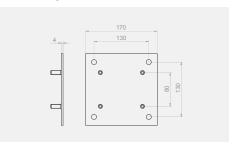
Head girth



Wall bracket pocket



Wall bracket plate



Technical data and dimensions

| Туре | 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 ±7 h⁻¹ * | 6 | | | | |
| Length A (mm) | | 6 | 10 | | 650 |
| Length B (mm) | | 5 | 60 | | 600 |
| Weight (kg) | | 1 | 1.4 | | 13 |
| Temperature range (°C) | -20 to +60 | | | | |
| Conformity | C€ ⊜ | | | | |
| Connecting cable (m) | | | 3.0 | | |

^{*} One door cycle is: 5 revolutions OPEN - 30 sec. pause - CLOSE

| Down C | | Type 15/12 W | Type 15/15 W | Type 15/18 W | Type 15/23 W | Type 15/30 W |
|--------|-------------|--------------|--------------|--------------|--------------|--------------|
| 202 | 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 | | |





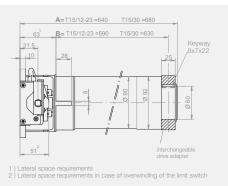
Type 15 W NMA

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 Ø 98 x 2.0 to 168 x 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



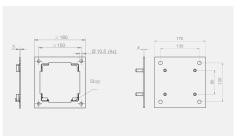


Head girth

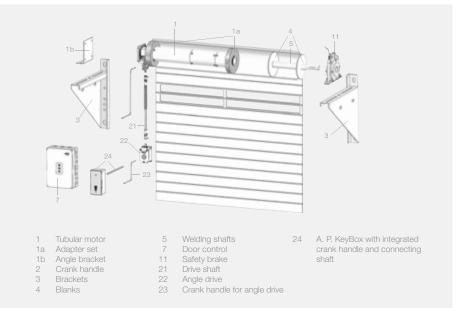
185.5 120 190 80 13 13 Connection handle

Wall bracket pocket

Wall bracket plate



Mounting example



Technical data and dimensions

| Туре | 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 ₹ h-1 * | | | 6 | | | | | | |
| Length A (mm) | | 64 | 40 | | 680 | | | | |
| Length B (mm) | | 59 | 90 | | 630 | | | | |
| Weight (kg) | | 12 | 2.1 | | 13.8 | | | | |
| Temperature range (°C) | -20 to +60 | | | | | | | | |
| Conformity | | C€ ≅ | | | | | | | |
| Connecting cable (m) | | | 3.0 | | | | | | |

^{*} One door cycle is: 5 revolutions OPEN - 30 sec. pause - CLOSE

| Min. | | 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 |
|------|-------------|------------------|------------------|------------------|------------------|------------------|
| 25 | Item Number | 32 312.0002 | 32 292.0002 | 32 332.0002 | 32 362.0002 | 32 382.0002 |

| Item Number | 23 100.0001 |
|--------------------|-------------|
| | |
| | |
| | |
| Wall bracket plate | |
| Item Number | 13 301.4901 |

Accessories

Wall bracket pocket





Drive adapter sets for Type 15 W ...

Profiles of the drive adapter sets in 1:1 scale on page 305.









| Item Number | Туре | 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



| Item Number | Туре |
|-------------|---|
| 23 100.0001 | Wall bracket pocket (with axial securing) |
| 13 301.4901 | Angle bracket |
| 13 305.9201 | Mounting bracket |

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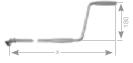
Door controls

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 | Туре |
|-------------|--------------------|
| 23 243.0002 | Installation cable |



Safety brakes

with electrical switch off, IP 65, TÜV-Süd certified





24 541.0002 TA 1/2 RD with bracket for wall mounting \varnothing 30 mm max. torque : 332 Nm max. operating speed: 22 rpm test number: 02165

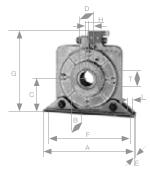
Pedestal bearing



24 552.0003

Z4 302.0003
TA 1/2 RD Ø 30 mm
max. torque: 332 Nm
max. operating speed: 22 rpm
test number: 02165

Delivery time on request



Choice of safety brake

| | 24 541.0002 TA 1/2 RD | 24 552.0003 TA 1/2 RD | | | |
|----------------------|--------------------------|--------------------------|--|--|--|
| Doorsize h x b mm | 3,000 | c 3,000 | | | |
| 108.0 x 4.0 | 4 | 75 | | | |
| 133.0 x 4.0 | 450 | | | | |
| 168.3 x 4.5 | 370 | | | | |
| 193.7 x 5.4 | 3 | 25 | | | |
| 219.1 x 5.9 | 2 | 82 | | | |
| 244.5 x 5.9 | 2 | 46 | | | |
| 298.5 x 8.0 | 190 | | | | |
| 323.9 x 8.0 | | | | | |
| 355.6 x 8.0 | | | | | |

These data relate to the complete door weight in kg.

| Item number | Α | В | С | D ^{H7} | E | F | G | H _{J9} | 1 | Т | kg |
|-------------|-----|----|----|-----------------|----|-----|-----|-----------------|----|------|-----|
| 24 552.0003 | 210 | 44 | 80 | 30 | 38 | 180 | 185 | 8 | 12 | 33.3 | 4.5 |

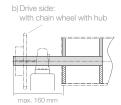
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| Item number | Shaft Ø (mm) | Key (mm) | Length (mm) | | | |
|-------------|-------------------------|------------|-------------|--|--|--|
| 24 045.0001 | 30 | 8 x 7 x 50 | 500 | | | |
| | a) Safety brake TA ½ | | | | | |
| | b) Chain wheel with hub | | | | | |





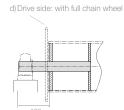
Delivery time on request

Welding shaft bearing side

| Item number | Shaft Ø (mm) | Length (mm) | | | | |
|-------------|--------------------------------|-------------|--|--|--|--|
| 14 110.8001 | 30 | 500 | | | | |
| | c) For pedestal/flange bearing | | | | | |
| | d) Full chain wheel | | | | | |

c) Bearing side:







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 |

Brackets

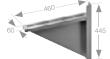
Wallbrackets



max. load: 3,000 N



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

Screw-on angle



24 553.0101

For pedestal bearing, safety brake TA 1/2 RD and TA 2/3 RD

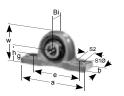
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Door controls



Pedestal bearings and flange bearings

Pedestal bearings



13 300.7701 With set screw fastening Ø 30 mm



13 300.3701

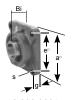
Plate bearings

Delivery time on request



13 300.3101

Flange bearings



13 300.3201

| Item number | h | а | е | b | S1Ø | S2 | g | w | Bi | kg |
|-------------|------|-----|-----|----|-----|----|----|----|------|-----|
| 13 300.7701 | 42.9 | 165 | 121 | 48 | 17 | 21 | 15 | 84 | 38.1 | 1.3 |

| Item number | a | е | g | SØ | Bi | kg |
|-------------|-----|----|----|----|------|-----|
| 13 300.3201 | 108 | 83 | 13 | 12 | 38.1 | 1.1 |

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)



Door controls

- safety first!



Control selection table

Safe- und DoorControl

| Control selection | SafeControl | DoorControl | | | |
|---|-----------------------|-------------------|-----------|------------------------|--|
| | for rolling doors and | for rolling doors | | for roller grilles *2) | |
| | roller grilles | without radio | 868.8 MHz | 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 K Ω 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 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 </= 1.5VA. Standby delay ≦ 250 ms





DoorControl

Convenient door controllers

DoorControl

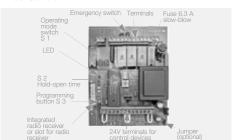
for tubular drives Type 9-15 W NHK and NMA with mechanical limit stop 1 x 230V/50 Hz

- · 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





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Technical data and dimensions

| Туре | 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) | r | max. 10 | |
| Switched current (A) | | max. 6 | |
| Switching capacity (VA) | m | ax. 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. | | |

| 1000 | | DoorControl for rolling doors | | | DoorControl for roller grilles |
|------|-------------|-------------------------------|-------------|-------------|--------------------------------|
| - 1 | Item Number | 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





SafeControl

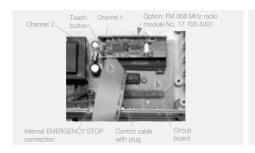
Convenient door controllers for tubular drives

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







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Technical data and dimensions

| Туре | 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 |

| TW | 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





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

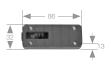
Evaluation device for mains voltage 230V/50 Hz, switching contact, potential-free (in plastic housing IP 66)



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

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

Range: 1.0 - 20.0 m,

Opening angle: < 4°,

Rated current: 70 mA

Rated voltage:

10 - 30V DC

Note: The reflectors for the reflection light barriers can fog up outdoors due to weather efreducing their range. Recommendation: One-way

fects, frost etc, thus drastically 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

Light barrier test unit for pull up protection



17 700.5401

unctions only with BoxCard Premium for 2 one-way light barriers item no. 24 961.0002 or 24 960.0301

Timers and traffic lights



14 700.3801 Lamp red



14 700.3901

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

Surface mount key switch IP 54



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





14 701.2401 Single pole, Push-button

Push-button surface mount, water-protected IP 54



14 701.2501 UP-DOWN



14 701.2901

Surface mount combined key and pushbutton switch



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 (momentary contact), surface mount, aluminium housing

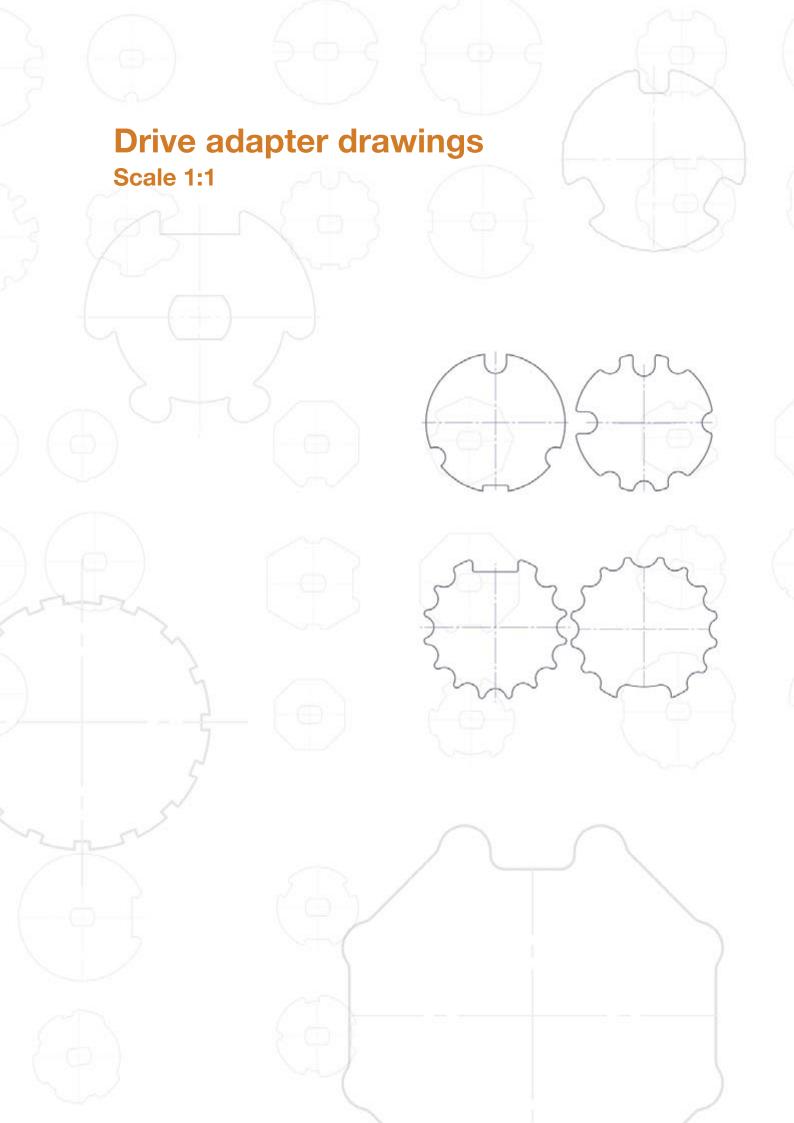


14 703.2601 Lockable main switch, surface mount, 4-pole 400V 4 kW



14 703.2701 Emergency shut down button, surface mount

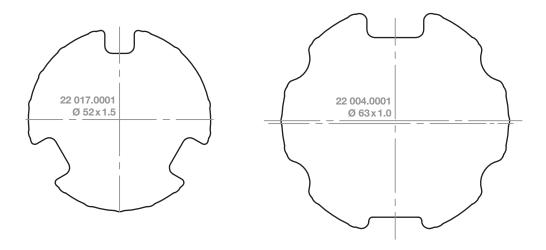




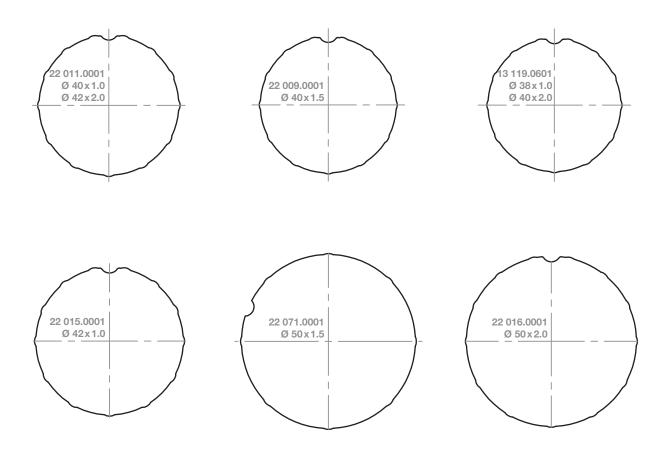
RevoLine S

Notch tubes

1:1 scale / Dimensions in millimeters



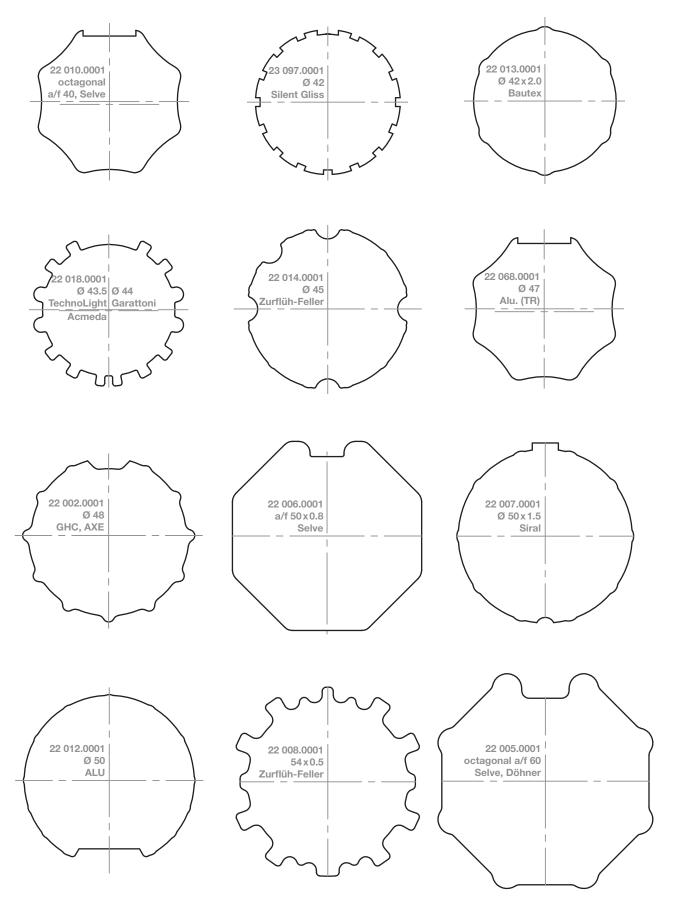
Round tubes



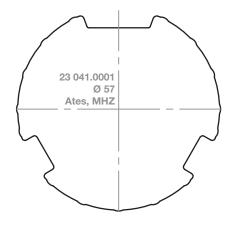
1:1 scale / Dimensions in millimeters

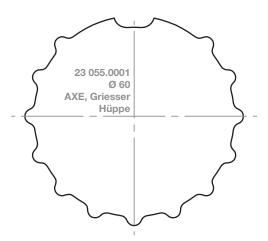
RevoLine S

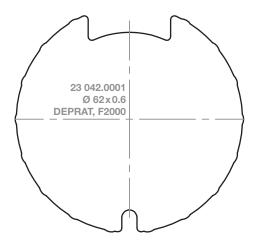
Profile tubes

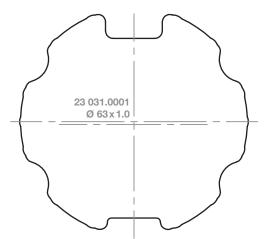


Notch tubes



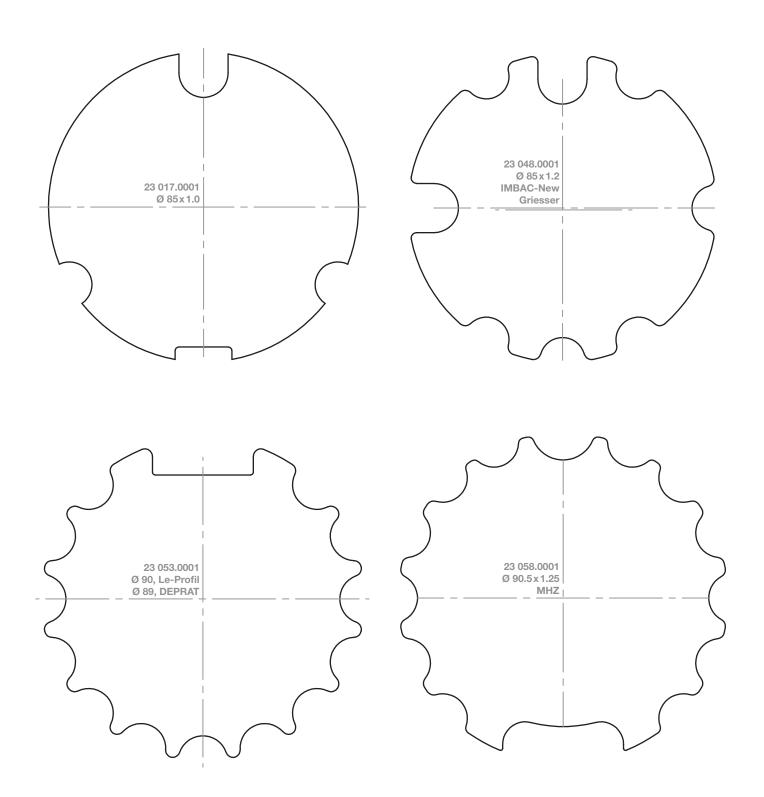




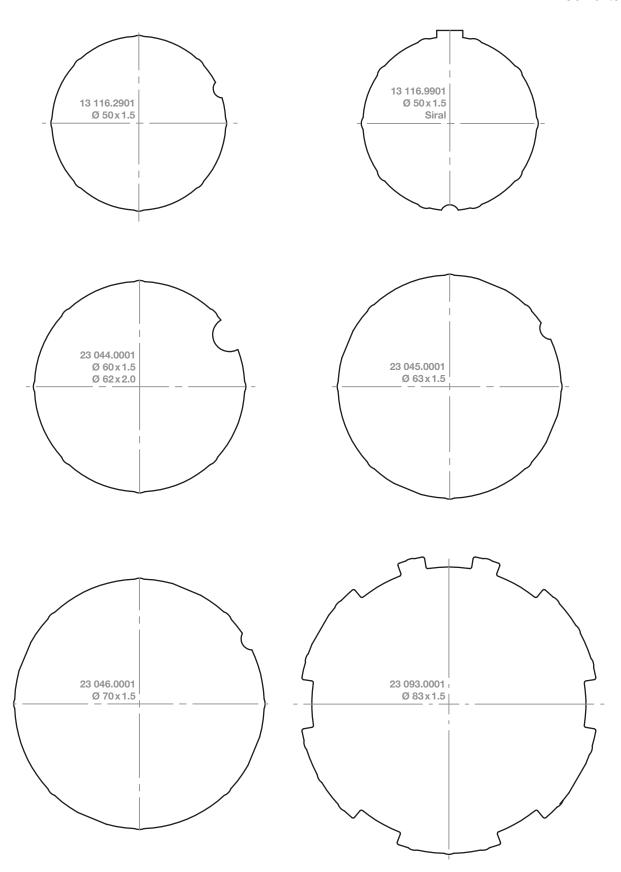


Notch tubes 23 018.0001 Ø 70, round notch 23 020.0001 Ø 70 IMBAC, Ahlquist flat notch, Welser 23 065.0001 23 054.0001 Ø 70 Ø 71 x 1.5 23 015.0001 | 23 026.0001 Ø 78 x 1.0/1.25 | Ø 78 x 1.0 for flat- and round notch | Rau 23 040.0001 Ø 78 x 1.0, Döhner

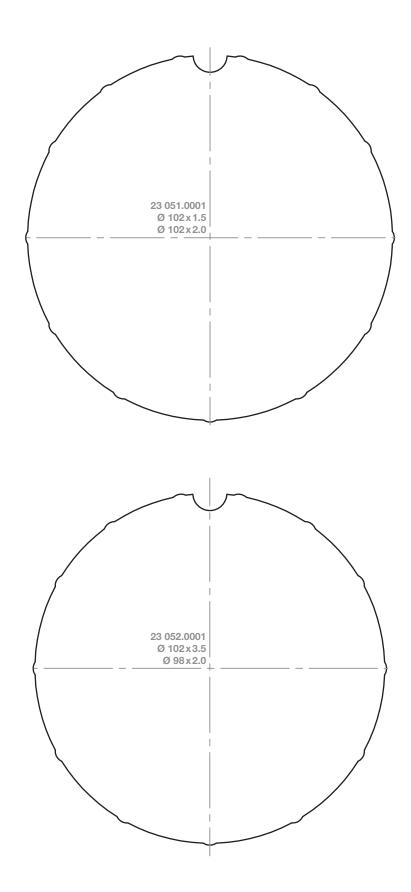
Notch tubes



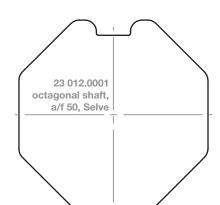
Round tubes

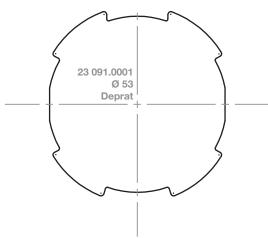


Round tubes

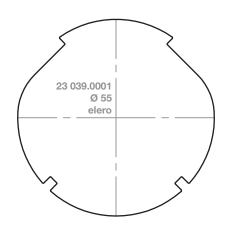


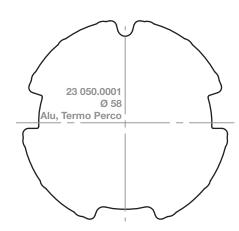
1:1 scale / Dimensions in millimeters 13 117.8501 Ø 50 Soprofen



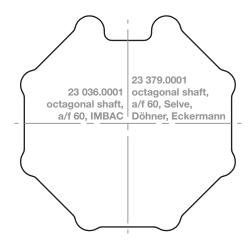


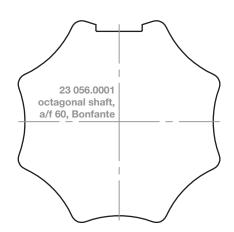


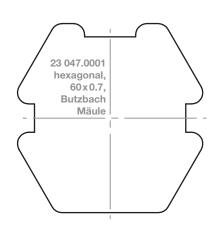


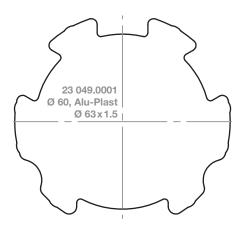


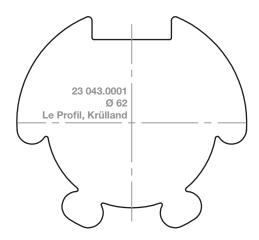
Profile tubes

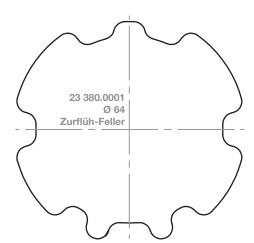






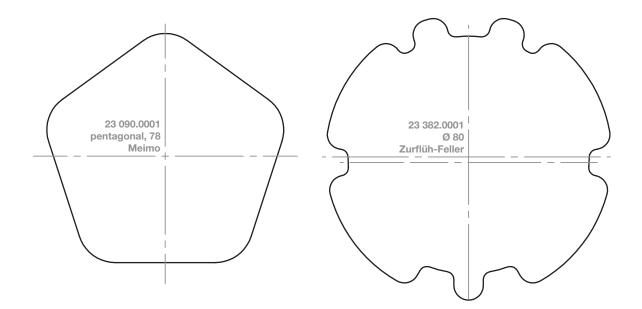




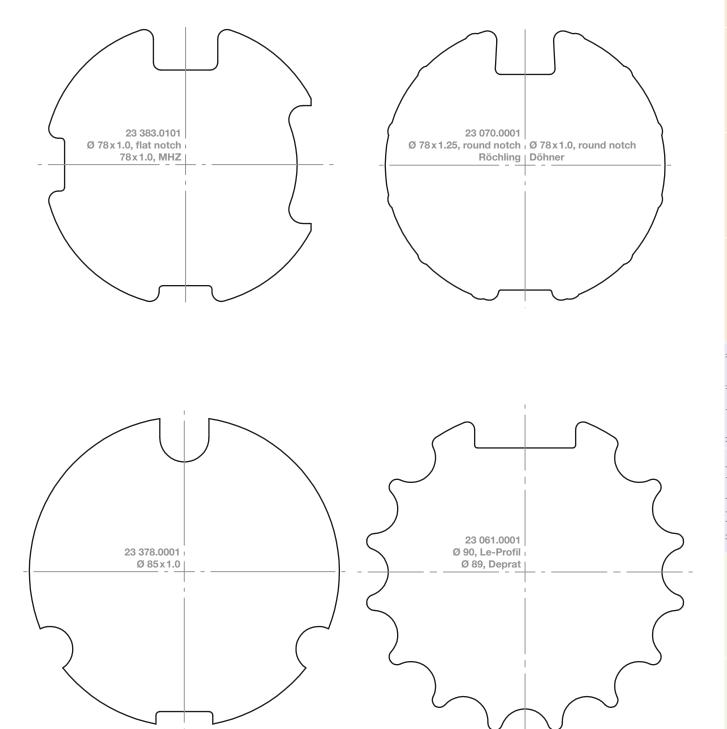


Profile tubes 23 032.0001 Ø 65 23 033.0001 Ø 65 IMBAC, Eckermann Metallpress Hoos 23 011.0001 23 057.0001 Ø 67 x 1.5 octagonal shaft, a/f 70 Selve, Döhner, MHZ Eckermann 23 034.0001 Ø 76 x 1.2 23 059.0001 | hexagonal, x 75 Butzbach, Mäule Kittelberger, Wiral

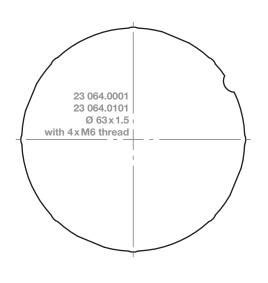
Profile tubes

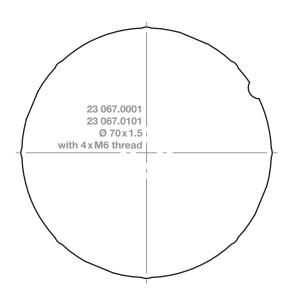


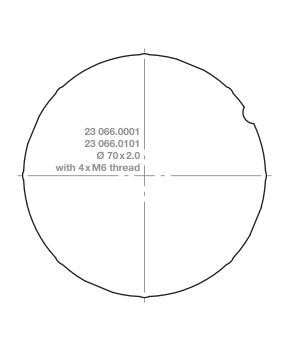
Notch tubes

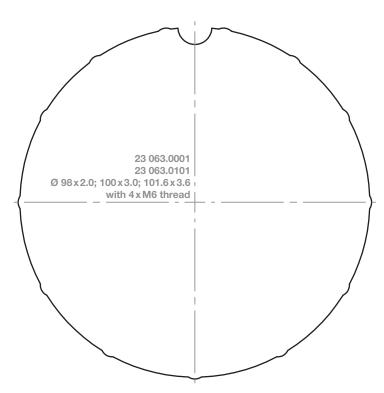


Round tubes

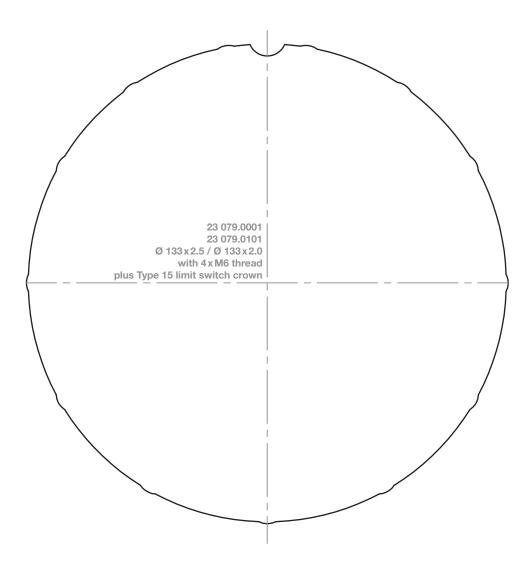




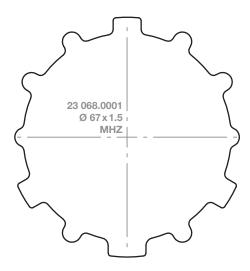


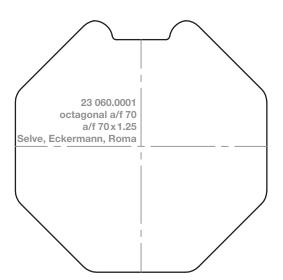


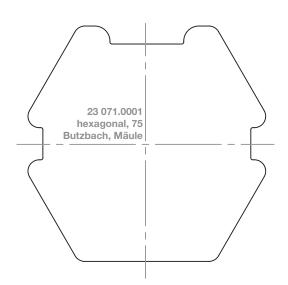
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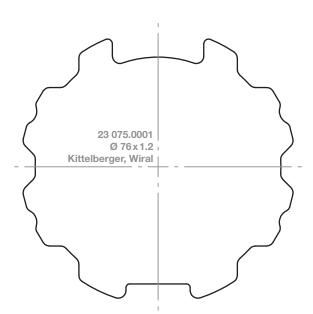


Profile tubes

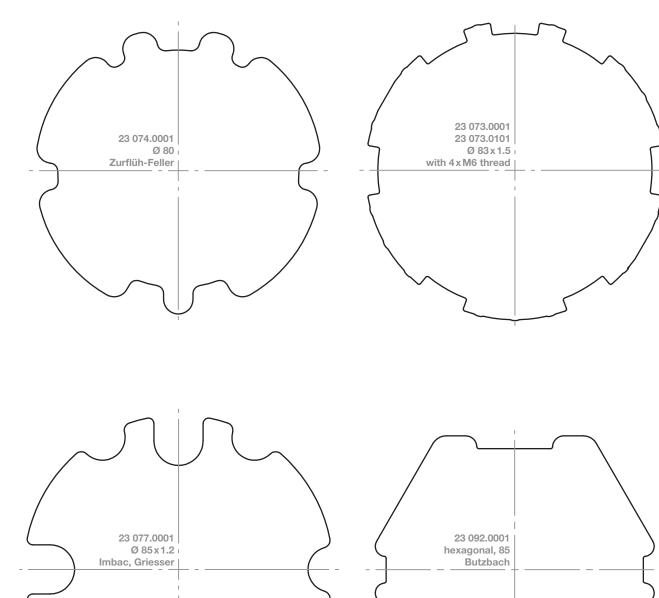




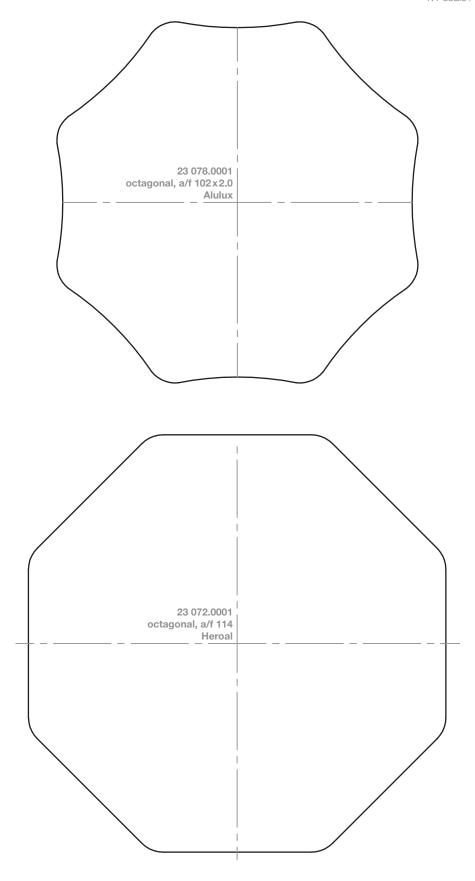




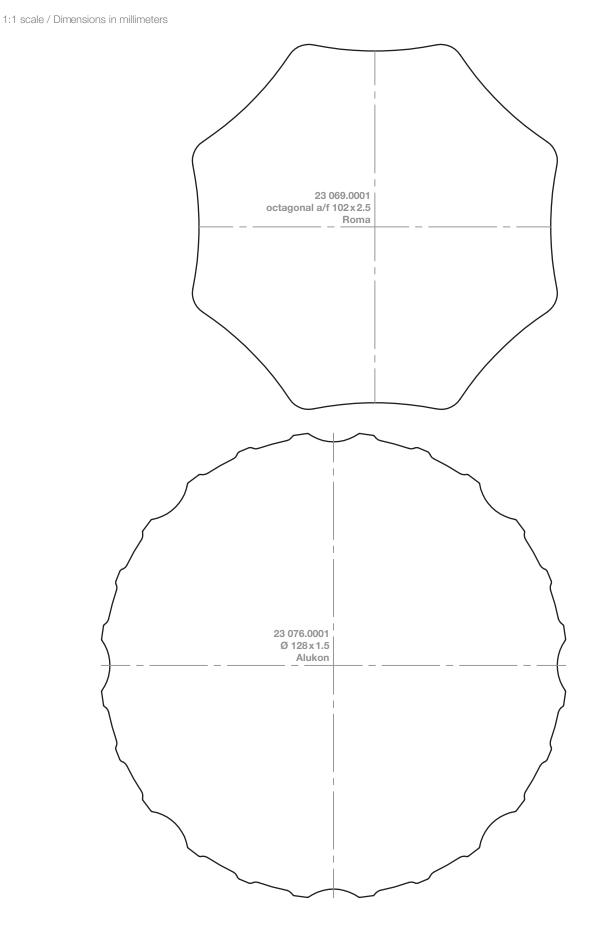
Profile tubes



Profile tubes

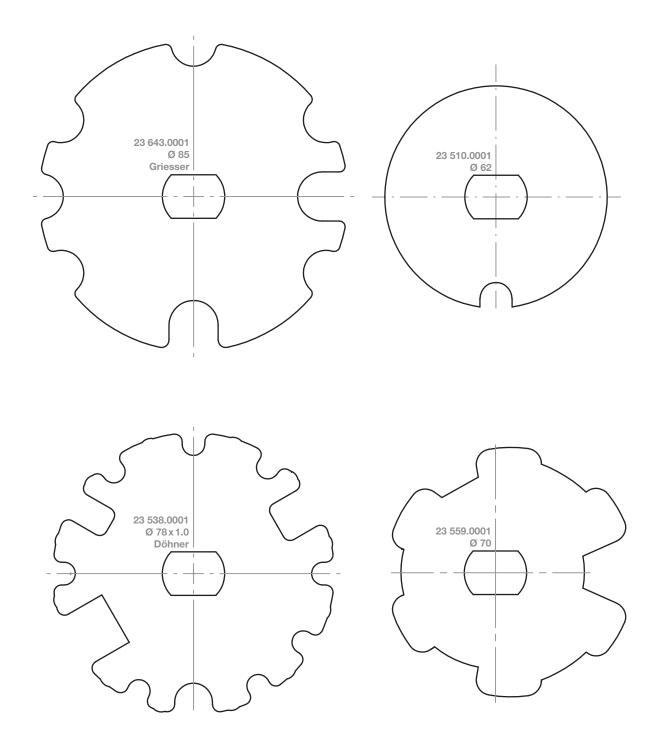


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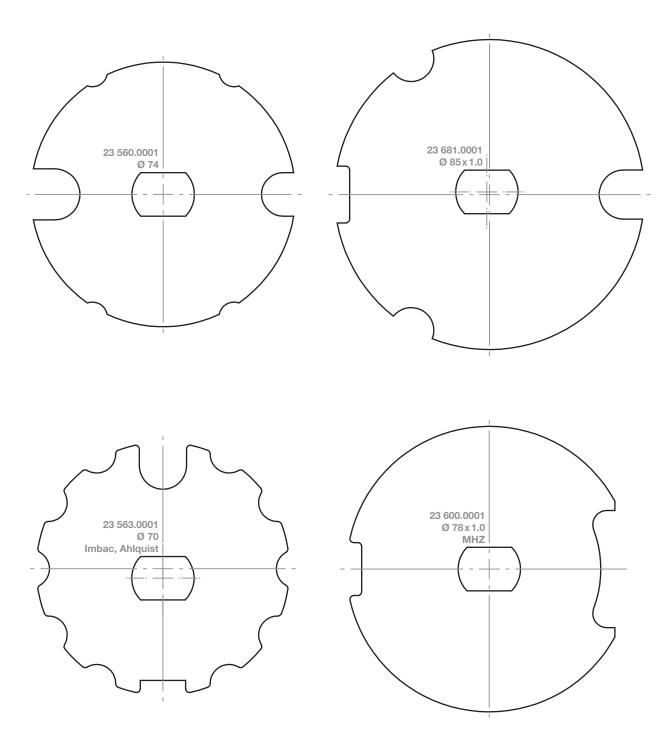


Type 9 NHK

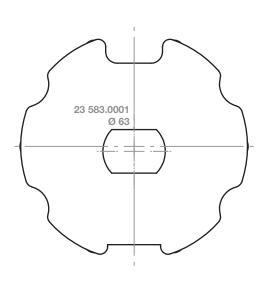
Notch tubes

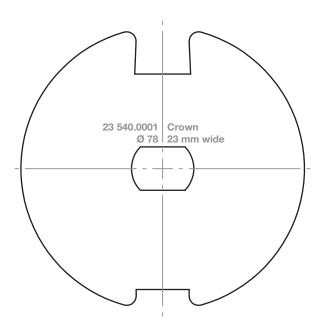


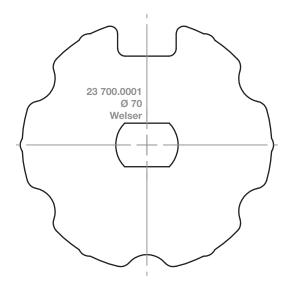
Notch tubes

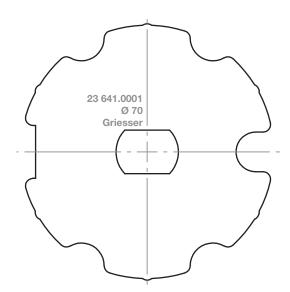


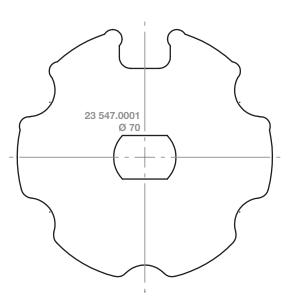
Notch tubes

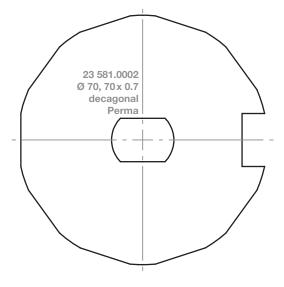


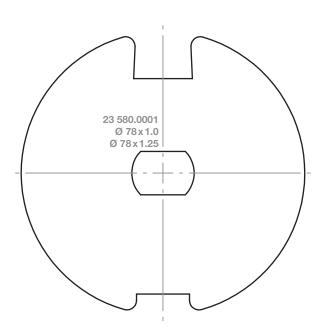




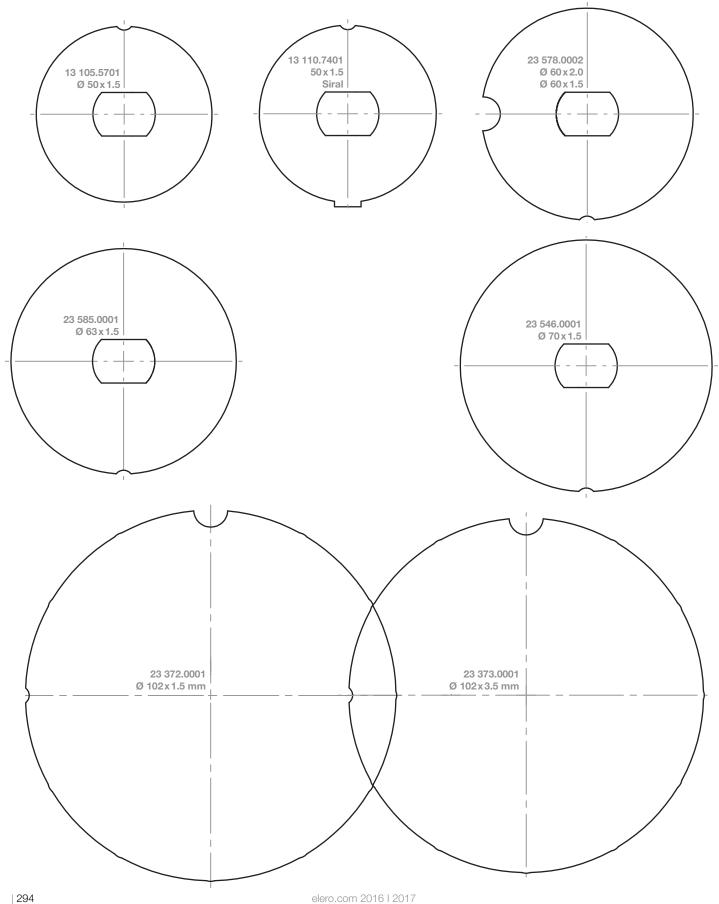


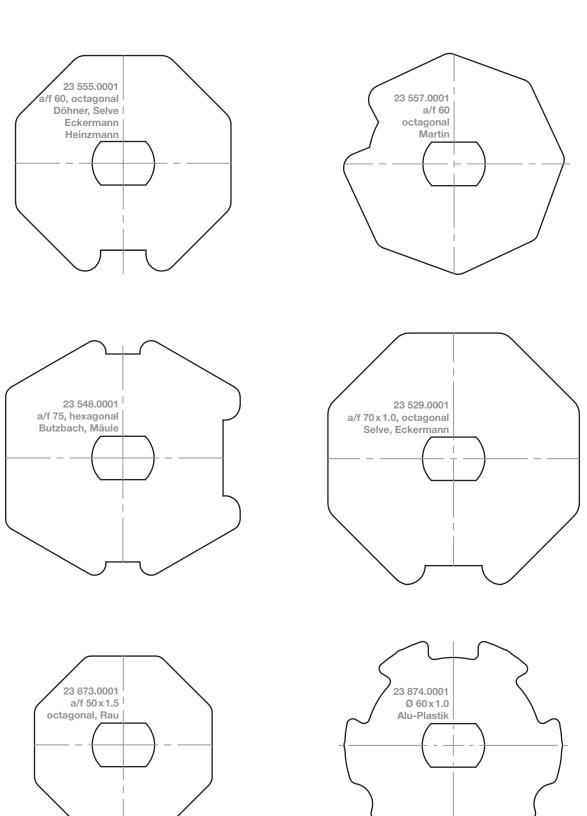




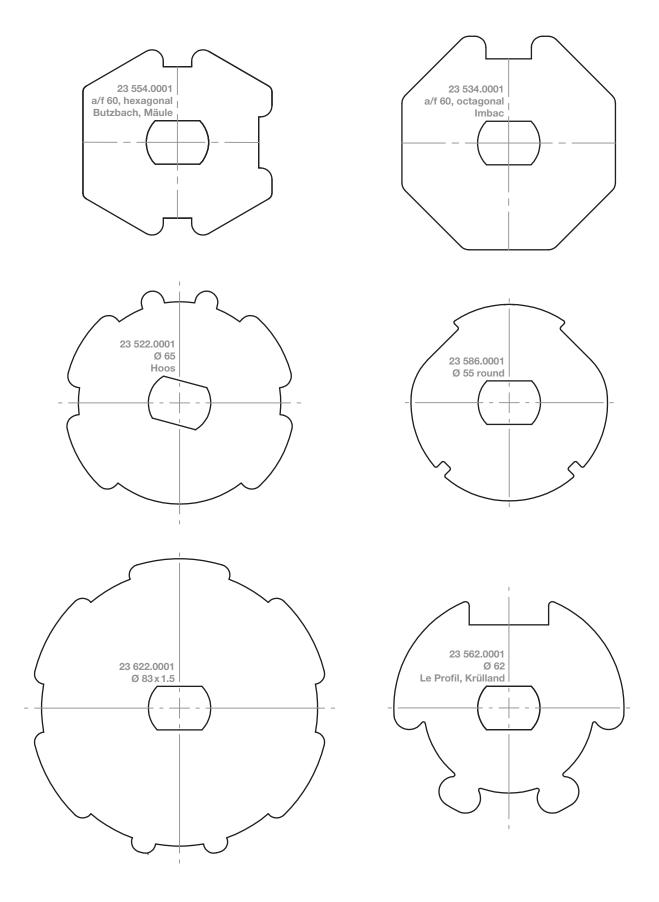


Round tubes

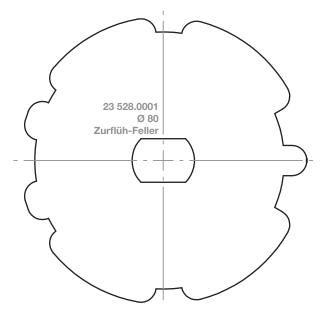


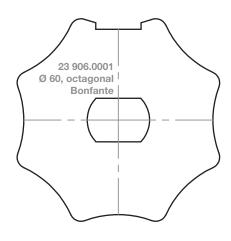


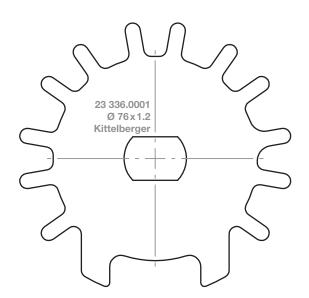
Profile tubes

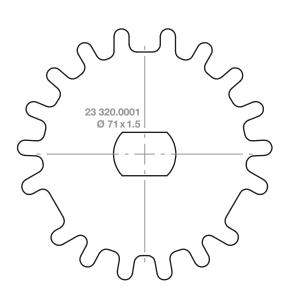


Profile tubes

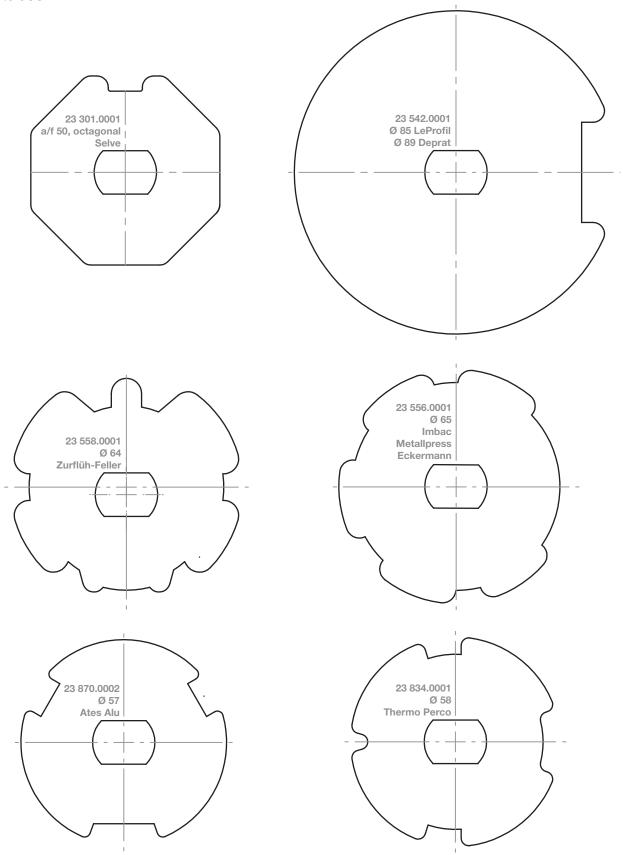






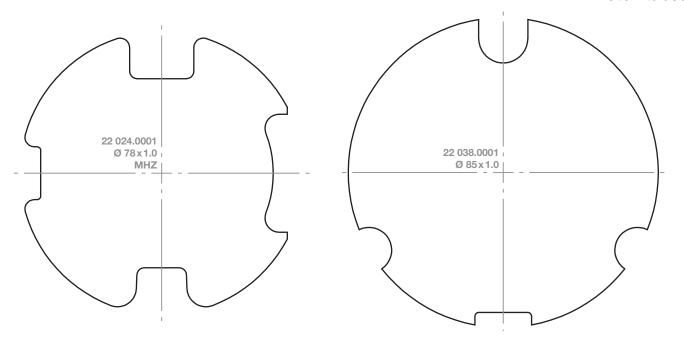


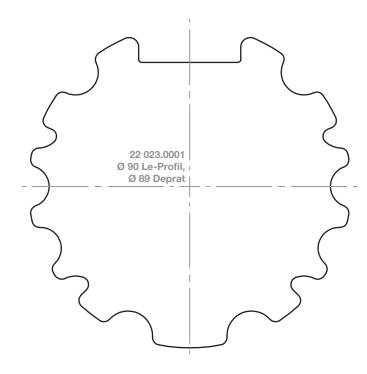
Profile tubes



Type 11 /NHK

Notch tubes

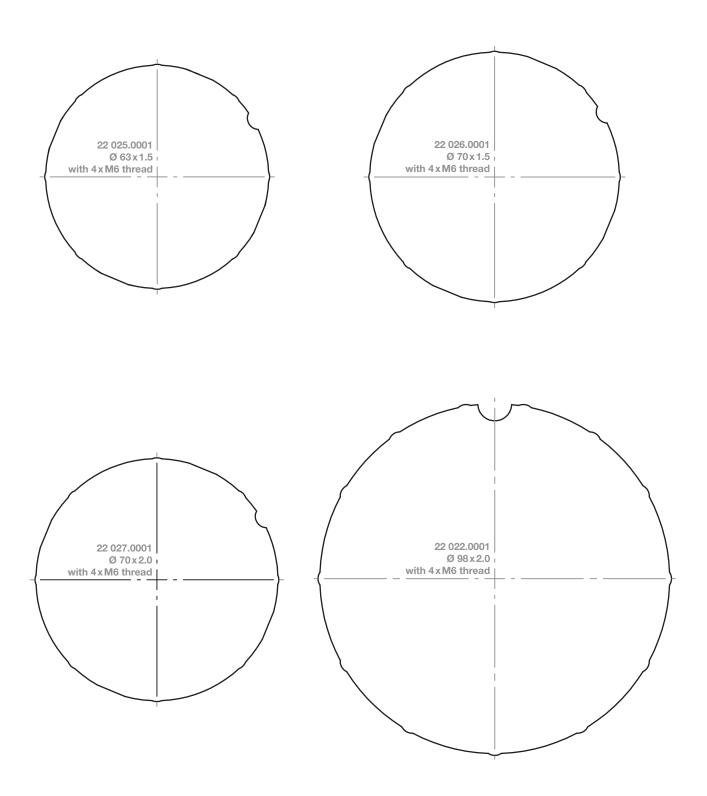




1:1 scale / Dimensions in millimeters

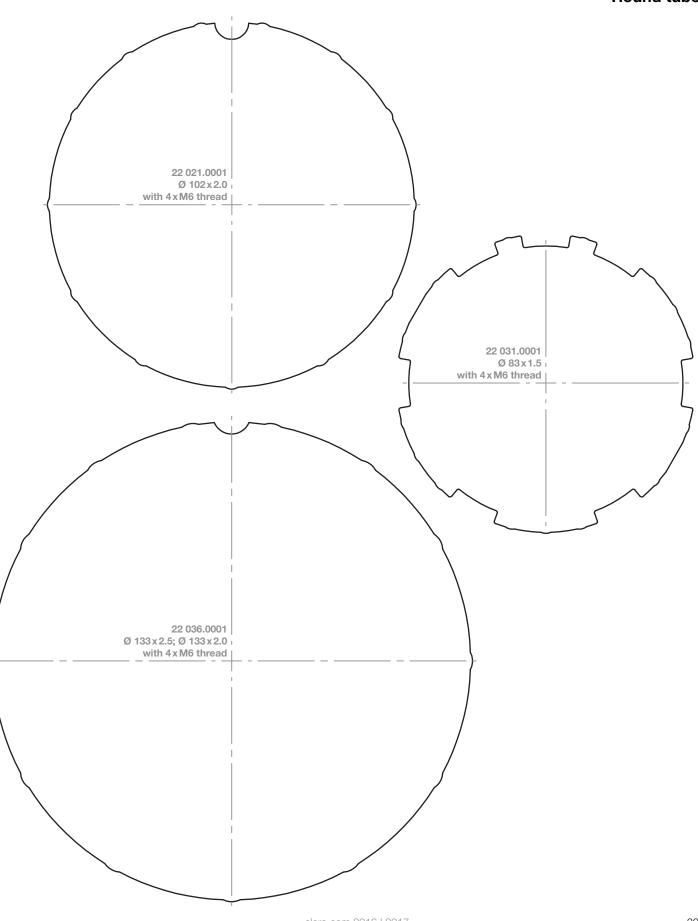
Type 11 /NHK

Round tubes



Type 11 /NHK

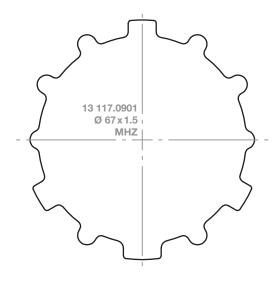
Round tubes

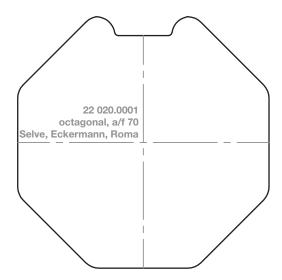


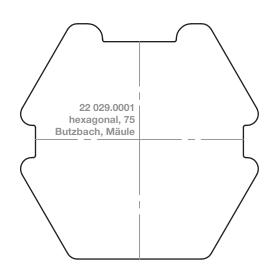
Type 11 /NHK

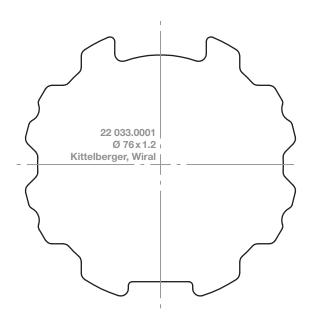
Profile tubes

1:1 scale / Dimensions in millimeters



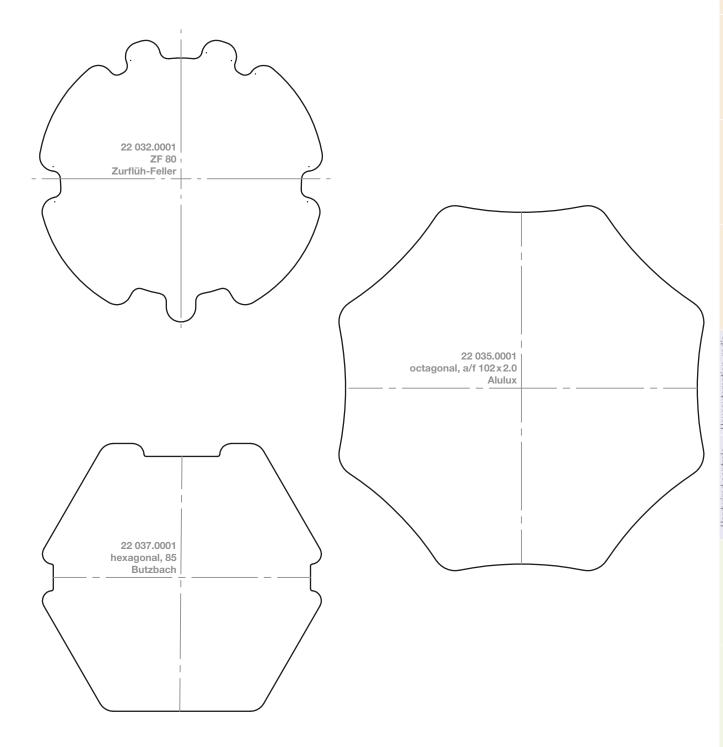






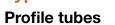
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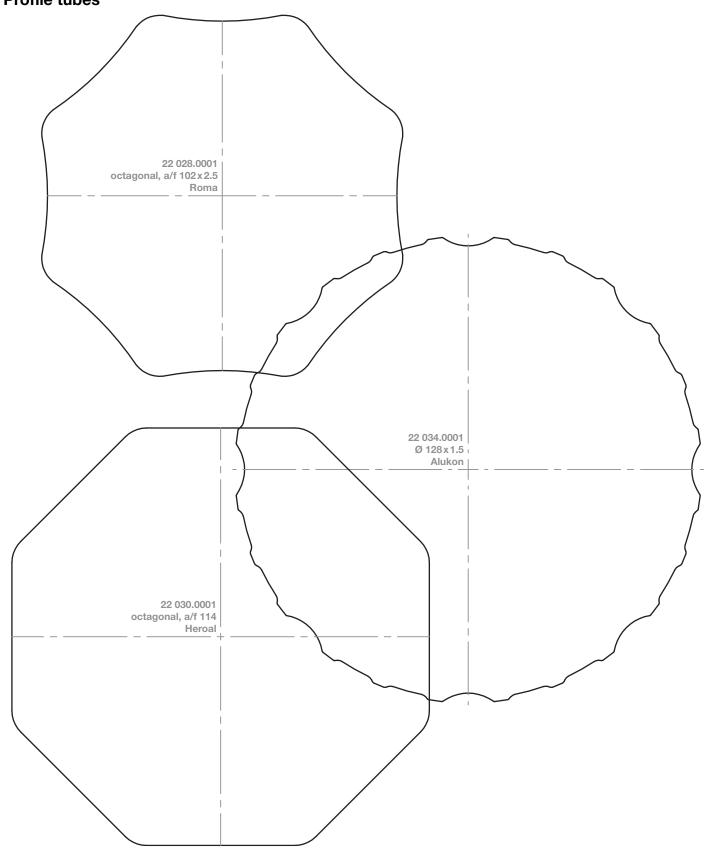
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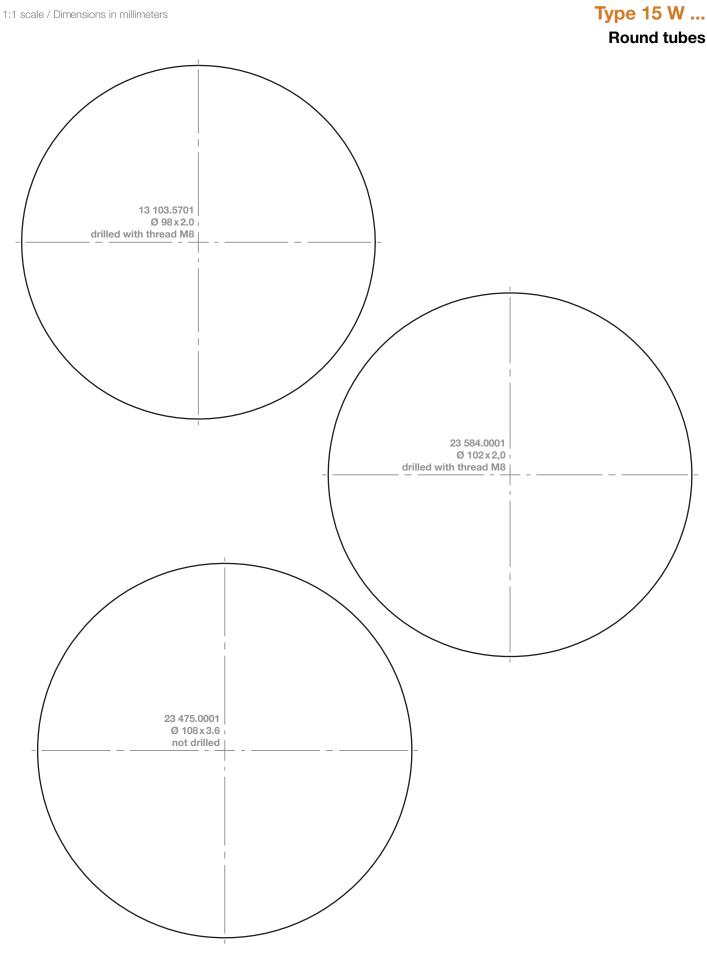
Type 11 /NHK

1:1 scale / Dimensions in millimeters





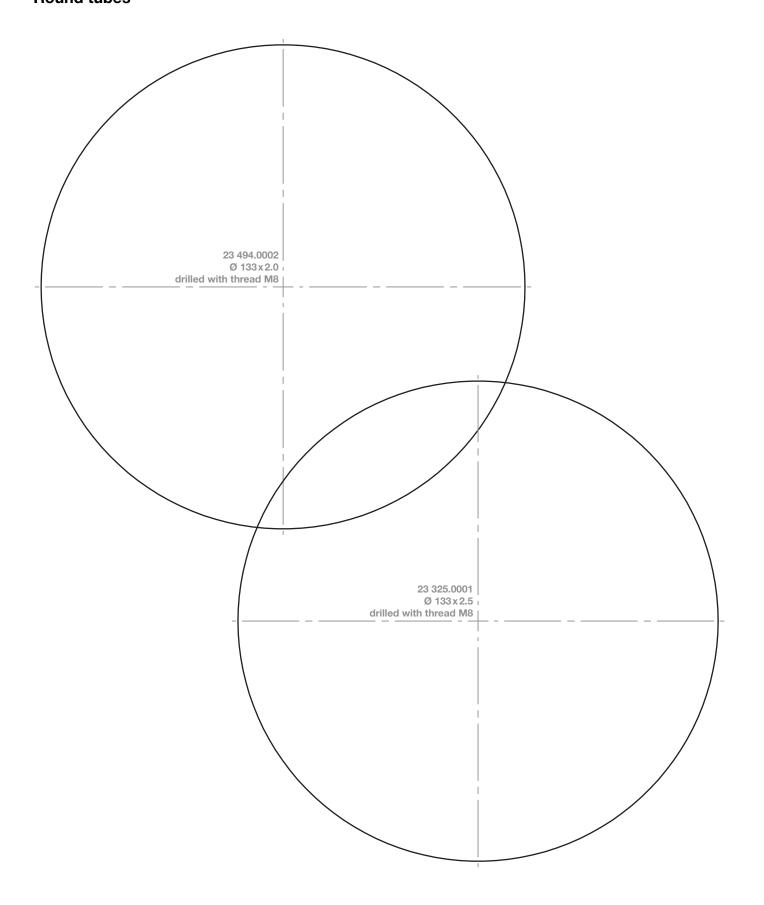
304



Type 15 W ...

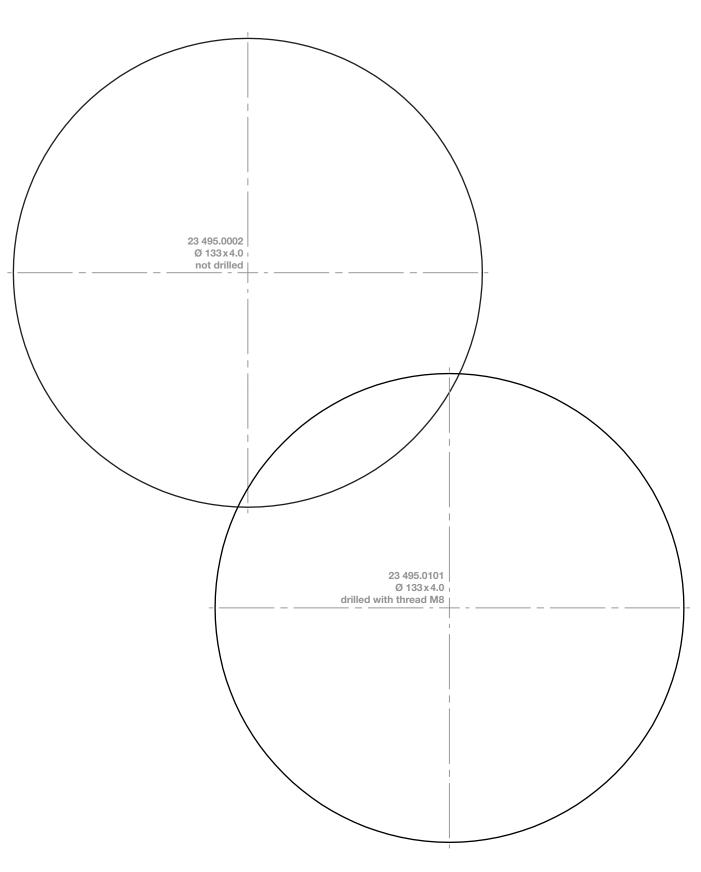
Round tubes

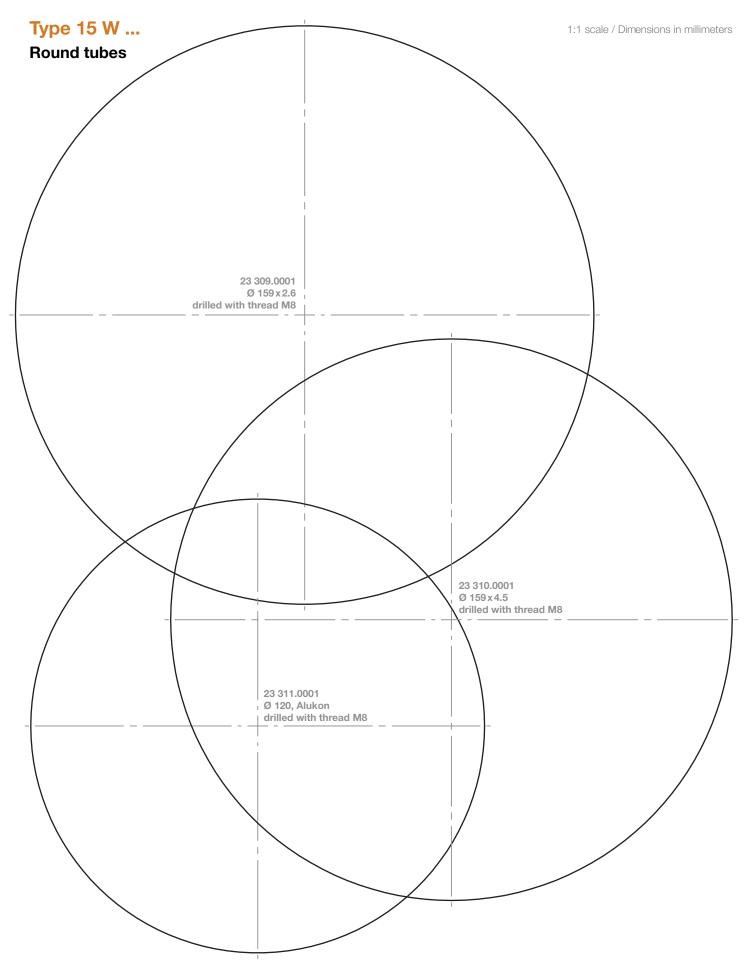
1:1 scale / Dimensions in millimeters

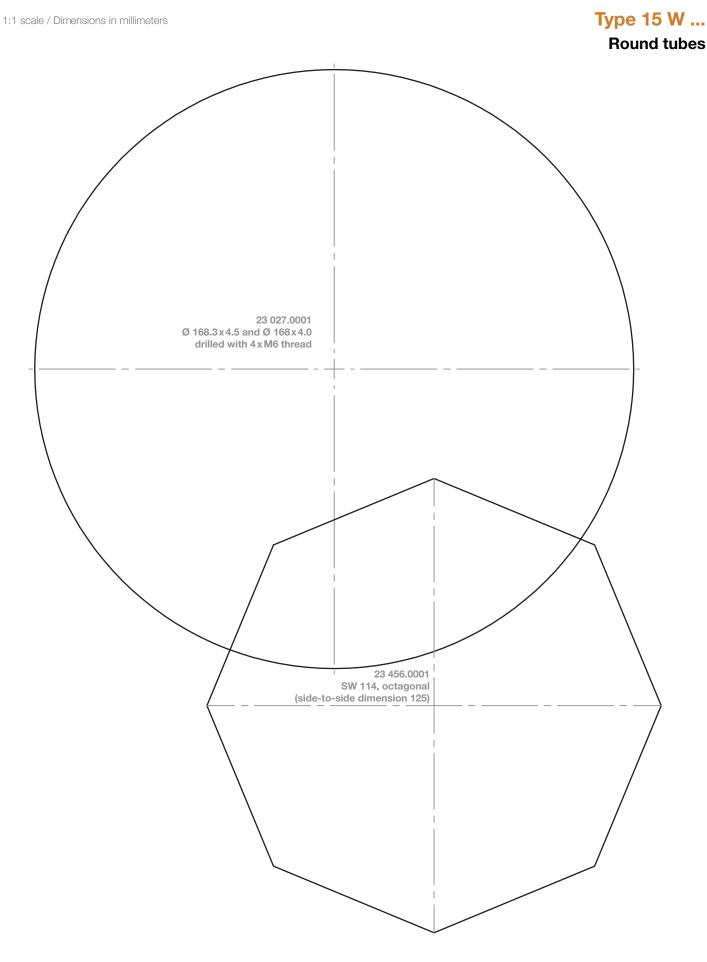


306

RevoLine

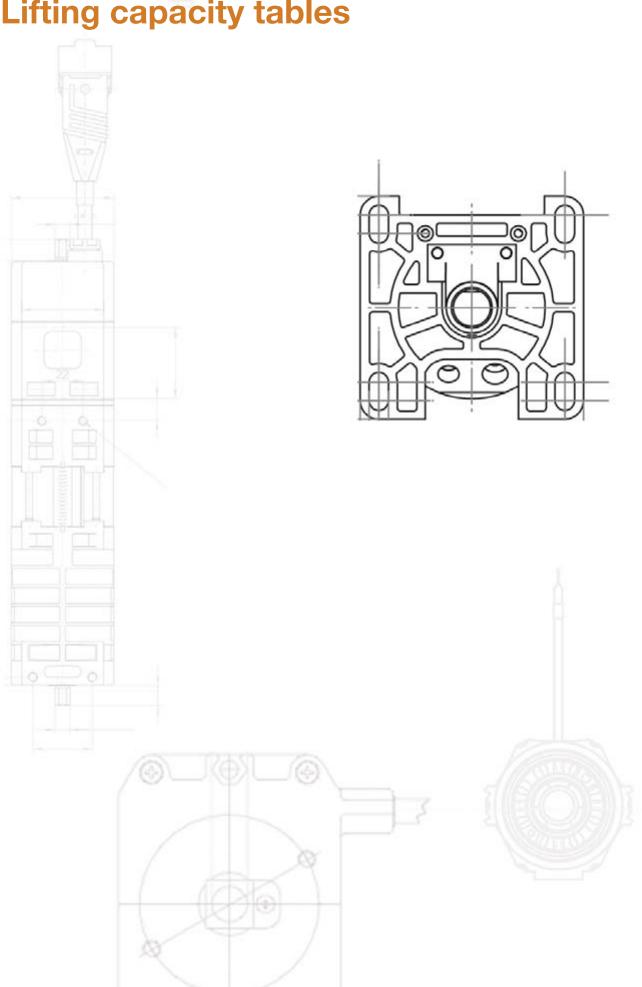








Lifting capacity tables



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 -

RolTop / RolTop-868 RolSmart-K / VariEco / Type 11

| Torque | Octagonal shaft | Roller shutter height/Bar thickness (mm) | | | | | |
|--------|-----------------|--|-------|-----|----|-------|-----|
| | | | 1.5 m | | | 2.5 m | |
| | | 8 | 11 | 14 | 8 | 11 | 14 |
| (Nm) | (mm) | | | (k | g) | | |
| 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 | Round-/Notch- shaft Ø | | | Lifting capacity at the shaft | | | |
|--------|--------------------------|------|----|-------------------------------------|------|-----|--|
| (Nm) | | (mm) | | | (kg) | | |
| 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: $5 \text{ kg/m}^2 \times 4.4 \text{ m}^2 = 22 \text{ kg}$

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. RolTop M20-868 $\,$

These details are guideline values only and are given without any liability!

Roller shutter

Type 9 NHK / Type 11 NHK

| Torque | Octago- nal shaft | Roller shutter height/Bar thickness (mm) | | | | |
|--------|----------------------|--|-----|-----|-----|--|
| | | 1.5 | i m | 2.5 | m | |
| | | 11 | 14 | 11 | 14 | |
| (Nm) | (mm) | | (k | g) | | |
| 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.

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.

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 |
| • | 14 | 78 | 21 |
| 13 | 14 | 50 | 52 |
| 13 | 14 | 78 | 33 |
| 20 | 14 | 78 | 51 |
| 20 | 14 | 85 | 47 |
| 25 | 14 | 78 | 64 |
| 25 | 14 | 85 | 59 |
| 30 | 14 | 78 | 77 |
| 30 | 14 | 85 | 71 |
| 40 | 14 | 78 | 103 |
| 40 | 14 | 85 | 94 |
| 50 | 14 | 78 | 128 |
| 30 | 14 | 85 | 118 |

Type 11 /-CSM-E /-NHK

| Torque | Speed | Shaft Ø | Lifting capacity at the shaft |
|--------|-------|---------|-------------------------------------|
| (Nm) | (Upm) | (mm) | (kg) |
| 40 | 15 | 78 | 103 |
| 40 | 10 | 85 | 94 |
| 60 | 12 | 78 | 154 |
| 60 | 12 | 85 | 141 |
| 80 | 15 | 78 | 205 |
| 80 | 10 | 85 | 188 |
| 100 | 12 | 78 | 256 |
| 100 | 12 | 85 | 235 |
| 100 | 10 | 78 | 308 |
| 120 | 12 | 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 | Shaft-Ø | Nominal bar | | eight with a shutter heigh | rolling door/ t up to |
|--------|---------|----------------|-----|-------------------------------|--------------------------|
| | | thickness | 2.5 | 3.5 | 5.0 |
| (Nm) | (m | m) | | (kg) | |
| | 133 | 19 | 138 | 130 | 117 |
| 120 | 133 | 23 | 131 | 123 | 109 |
| 120 | 168 | 19 | 115 | 113 | 117 |
| | 168 | 23 | 114 | 108 | 101 |
| | 133 | 19 | 172 | 162 | 146 |
| 150 | 133 | 23 | 164 | 154 | 137 |
| 150 | 168 | 19 | 144 | 141 | 133 |
| | 168 | 23 | 142 | 135 | 126 |
| | 133 | 19 | 206 | 194 | 176 |
| 180 | 133 | 23 | 196 | 185 | 164 |
| 100 | 168 | 19 | 172 | 169 | 160 |
| | 168 | 23 | 170 | 162 | 151 |
| | 133 | 19 | 264 | 248 | 224 |
| 230 | 133 | 23 | 251 | 236 | 203 |
| 230 | 168 | 19 | 220 | 216 | 204 |
| | 168 | 23 | 218 | 207 | 193 |
| | 133 | 19 | 344 | 324 | 293 |
| 300 | 133 | 23 | 327 | 308 | 273 |
| 300 | 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.

$$Vm = D + d \cdot 3,14 \cdot n$$
$$2 \cdot 60$$

Vm = Mean lifting speed in cm/second.

D = Roll diameter in cm.d = Tube diameter in cm.

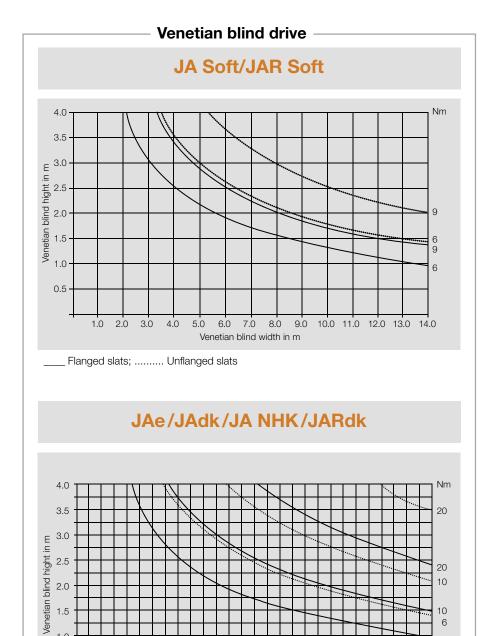
n = Revolutions per min.

These values are guide values. No liability can be accepted!

6

10.0 11.0 12.0 13.0 14.0





Flanged slats; Unflanged slats

3.0 4.0

2.0

1.0

0.5

| 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/m²) | 2.0 1.2 | | | |

Venetian blind width in m

6.0 7.0 8.0 9.0

These values are guide values. No liability can be accepted!



Your direct line







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Contact, order and support

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| Phone: | |
|---|--|
| Sales | +49 7025 13-567 |
| Outside business hours you can send us a fax, an e-mail | or leave a message on our answering machine: |
| per Fax: | |
| Sales | +49 7025 13-290 |
| | |
| Phone: | |
| Reception (mailbox) | +49 7025 13-01 |
| | |
| E-Mail: | |
| Request: | Anfrage@elero.de |
| Order: | Bestellung@elero.de |
| | |
| You can reach our technical service staff during business | s hours via phone or e-mail: |
| Phone: | |
| Technical support | +49 7025 13-550 |
| | |
| E-Mail: | |
| Technical support | Technik@elero.de |

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

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 mor 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 app-lying 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 Poessneck/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.

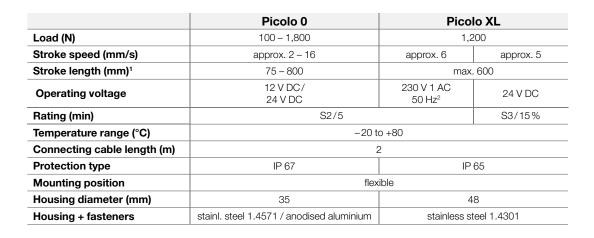
Following an overview of our most common drives. More drives in more details can be found on: www.elero-linear.com

Overview

Picolo (Industry/Facade)

The linear actuator for louvre adjustments in commercial architecture

- with its particularly slim construction, Picolo 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

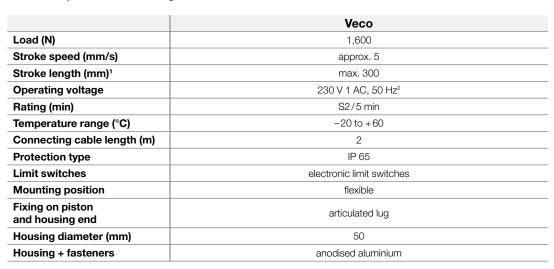


Veco (Industry/Facade)

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





Stroke lengths available in steps of 100 mm.
 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. 400 max. 750 | | | |
| Operating voltage | 120 V / 60 Hz | 24 V | 400 V 3 AC1 | | | |
| Rating (min) | \$3/15%; \$1/100% \$3, | | | | | |
| 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 | c FL °us | _ | _ | _ | _ | |

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 | 69 K | | | |
| Mounting position | flexible | | | |
| Housing diameter (mm) | 35×57 | | | |
| Housing + fasteners | Aluminium anodised/Plastics PA | | | |

¹ All AC data (Stroke speed and power) based on 50 Hz. Drives can be operated on 60 Hz 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 AC1 | 24 V DC |
| Voltage of the digital inputs and outputs | 24\ | DC – | | | 24 V DC | | |
| Rating (min) | S3/15% S3/40% S1/100% | | \$3/40% \$3/60% \$1/100% | | 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 lir | limit switches mechanical limit switches | | | | | |
| Housing | aluminium | stainless steel 1.4301 alu/plastic | | | | | |
| Overcurrent protection | y€ | es | | r | 10 | | yes |

Compakt (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



| | Compakt | | | | | |
|-----------------------------|---|------------|--|--|--|--|
| 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 AC1 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 | alumini | um/plastic | | | | |

¹ All AC data (Stroke speed and power) based on 50 Hz. Drives can be operated on 60 Hz as well, however Power is about 20 % less and speed about 20 % higher. Please contact us for detailed technical data.

Linear actuator technology

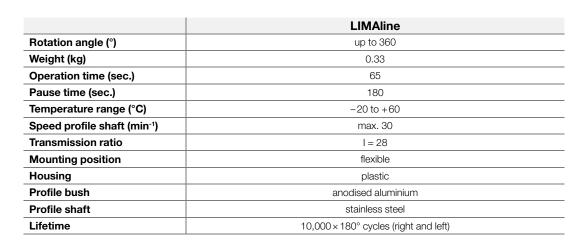
Overview

LIMAline (Facade)

The louvre actuator system for maximum architectural freedom

- 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



Lockmaster (Industry/Facade)

The electromechanical linear actuator for locking mechanisms

Features:

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- 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
- maintenance-free operation allows the use under extreme ambient conditions



| | 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 | | |

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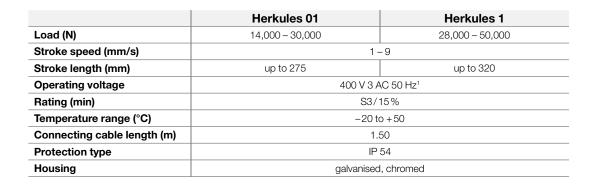
Overview

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

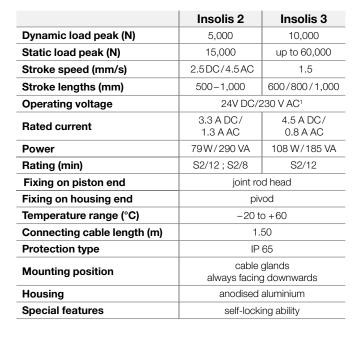


Insolis (Solar/Photovoltaic systems)

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

| | 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 | |



§ 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.
- Unless otherwise stated in the contract terms, the terminology and definitions of INCOTERMS 2000 apply.

§ 2 Contract signing

- 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.
- The acceptance declaration and all confirmations require the written form to be valid.
 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

- 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 due immediately, in full, unless agreed otherwise 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.
- 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.
- 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

- 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.
- 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.
- 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.
- 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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Status 01.01.2017



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