

# Main Catalogue 2012/13

Automation and radio technology

Garage door operators • Swing gate operators • Sliding gate operators • Controls for roller doors • Industrial door operators



Radio technology / Home Automation • Roller shutter and awning drives • Parking and blocking systems • Accessories

www.sommer.eu

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## **General terms**

Delivery terms are quoted EXW - Kirchheim/Teck, Germany.

Repairs and other services are payable without any deduction. Dealer price list does not contain prices for spare parts. (For getting the price list, please contact us)

Subject to technical changes without notice.

Please observe guidelines for power-operated windows, doors and gates of the Employer's Liability Insurance Association, BGR, and the vaild European standards.

## Installation and operating instructions / videos

Installation and operating instructions are available on:

## www.sommer.eu/montageanleitungen

Please have also a look at our numerous videos:



www.youtube.com/sommergmbh



directly to the instructions



directly to our videos



Valid for products delivered from 01/01/2003

#### No guarantee

- a) consumables, such as bulbs, batteries, accumulators and fuses
- b) parts subject to wear and tear

#### Guarantee group I

- a) garage door operators (operators incl. track units; excl. radio products)
- b) door operators for collective garages, without accessories
- c) accessories for garage door operators, without warning lights, traffic lights, light barriers

#### SOMMER: 5 years guarantee on parts from date of SOMMER invoice

#### Guarantee group II

- a) swing gate operators with accessories
- b) sliding gate operators with accessories
- c) industrial door operators with accessories
- d) tubular motors for roller doors (60-230 Nm), incl. controls and fittings
- e) barriers with accessories
- f) parking space protections with accessories

**SOMMER:** 2 years guarantee on parts from date of SOMMER invoice

#### **Guarantee group III**

- a) radio systems
- b) pulse generators
- c) special accessories
- d) new spare parts

**SOMMER:** 2 years guarantee on parts from date of SOMMER invoice

Due to environmental, external influences we cannot offer a guarantee for the range of our radio control system.

## **Guarantee group IV**

a) tubular motors for roller shutters and awnings (10-50 Nm), incl. controls and fittings

#### SOMMER: 5 years guarantee on parts from date of SOMMER invoice

#### Guarantee group V

a) repaired products

**SOMMER:** 1 year guarantee on parts from date of SOMMER invoice

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# Garage door operators

## **Technology**

- operator system developed by SOMMER:
  - tensioned single-way chain
  - travelling carriage along the chain
- SLS Safety Lock System (the emergency release can be engaged or disengaged wherever the door is; thus offering safety e.g. during a power failure)
- self-locking motor offers complete security against burglary; no additional locking mechanism necessary
- extremely quiet opening and closing



- integrated radio receiver
- obstacle detection and partial or full reversal when obstacle is hit
- control unit pluggable, easy to maintain
- accident prevention through electronic regulated force measurement with the DPS - dynamic power system
- regulated soft run in ramp form without loss of force

## Installation

- the operators are pre-assembled and quickly mounted; thus it saves time and money
- simple adjustment of travel length
- even the standard model has a 2,600 mm travel length
- the ceiling mounting can be easily adjusted both horizontally and vertically
- the track is easy to shorten and to extend
- easy chain tension

#### Radio control

- frequency-modulated at 868.8 MHz, this provides better reception and very high transmission reliability.
- visible antenna is not necessary
- secure Somlog Rollingcode System the 66-bit code length provides 74 trillion different combination options and thus optimum security
- unlimited application of transmitters, e. g. for underground garages
- deletion of the code for security reasons

## Durability test according to RAL-GZ 740

No classification 30,000 open-and-close cycles,

operation distance of the carriage: 1,000 mm

Class 1 3 - 15 50,000 open-and-close cycles,

parking spaces operation distance of the carriage: 1,000 mm

Class 2 16 - 50 60,000 open-and-close cycles,

> operation distance of the carriage: 1,000 mm parking spaces

Class 3 > 50 80,000 open-and-close cycles,

> parking spaces operation distance of the carriage: 1,000 mm



More than 1,500 possible combinations of SOMMER garage door operators and doors from different door manufacturers are certified.

An up-dated list is available on:

www.sommer.eu



# Specifications of garage door operators

		Standard model		Deluxe models	
Туре		sprint evolution	duo vision 500	duo vision 650	duo vision 800
max. door width 1:	<ul> <li>sectional door</li> <li>side hinged door (with special fitting item no. 1501) bigger sized doors on request</li> <li>sectional-horizontal door / side-opening sectional door</li> <li>with travel length 2,600 mm</li> <li>with travel length 3,000 mm</li> <li>with travel length 3,400 mm</li> </ul>	4,000 mm 4,000 mm 2,800 mm 2,350 mm	3,500 mm 3,500 mm - 2,350 mm 2,750 mm 3,150 mm	5,000 mm 5,000 mm 2,800 mm 2,350 mm 2,750 mm 3,150 mm	5,500 mm 5,500 mm 2,800 mm 2,350 mm 2,750 mm 3,150 mm
max. door height:	- canopy door  - retractable door  - retractable door  - retractable door  - with travel length 2,600 mm  - with travel length 3,400 mm  - sectional door  - sectional door  - sectional door  - side hinged door (with special fitting item no. 1501) bigger sized doors on request  - sectional-horizontal door / side-opening sectional door  - canopy door  - with travel length 2,600 mm  - with travel length 3,000 mm	3,500 mm 2,600 mm - 2,350 mm - 2,800 mm 2,300 mm 1,900 mm	2,600 mm 3,000 mm 3,400 mm 2,350 mm 2,750 mm 3,150 mm - 2,300 mm	4,000 mm 2,600 mm 3,000 mm 3,400 mm 2,350 mm 2,750 mm 3,150 mm 2,800 mm 3,000 mm 1,900 mm 2,300 mm 2,300 mm	4,500 mm  2,600 mm  3,000 mm  3,400 mm  2,350 mm  2,750 mm  3,150 mm  2,800 mm  3,000 mm  1,900 mm  2,300 mm  2,700 mm
travel length	- standard - extendable	2,600 mm	2,600 mm	2,600 mm	2,600 mm
max. traction and p	mption, standby	550 N 160 mm/s ~7 W	500 N 150 mm/s ~7 W	650 N 180 mm/s ~ 2 W	800 N 130 mm/s ~ 2 W
	ng to S 3 in %  from inside incl. safety lock system (SVS)  microprocessor power monitoring	15 •	15 •	15 •	15 •
power-saving toroic	dal core transformer	-	-	•	•
power supply		AC 230 V (50 Hz)	AC 230 V (50 Hz)	AC 230 V (50 Hz)	AC 230 V (50 Hz)
pluggable motor co accident prevention warning light conne	n through electronic regulated force measurement with DPS - dynamic power system	•	•	•	•
24 V output (regula		•	•	•	•
selectable early wo selectable backjum soft run (without los	p option	•	•	•	•
safety input for norr	nally closed contact put selectable	•	•	•	•
safety contact for w	vicket door directly in the motor carriage Ainal (programming tool)	•	•	•	•
counter for operation separate OPEN and		•	•	•	•
adjustable partial a		•	•	•	•
number of radio ch	slots	112	112	112	112
number of control in	puts	1/2 🛦	1/2 🛦	1/2 🛦	1/2 🛦
evaluation of optical			-	-	-
automatic closing, a		-	-	-	-
floating relay outpu	t (with programmable function)	-	-	-	-

<sup>&</sup>lt;sup>1</sup> for side-opening sectional and sectional-horizontal doors, refer to the values in the installation and operating instructions

 $<sup>^{\</sup>star}$  operating mode according to VDE

# Specifications of garage door operators

Deluxe models		Premier models		Operators for co	ollective garages
duo rapido <sup>+</sup> 650	marathon 550 SL	marathon 800 SL	marathon 1100 SL	marathon tiga 800 SL/SLX	marathon tiga 1100 SL/SLX
5,000 mm	5,000 mm 5,000 mm	6,000 mm 6,000 mm	8,000 mm 8,000 mm	6,000 mm 6,000 mm	8,000 mm 8,000 mm
- 2,350 mm	2,800 mm 2,350 mm				
2,750 mm 3,150 mm	- 3,150 mm 4,000 mm	- 3,150 mm 5,500 mm	- 3,150 mm <i>7,</i> 500 mm	- 3,150 mm 5,500 mm	- 3,150 mm 7,500 mm
-	2,600 mm				
- - 2,350 mm	- 3,400 mm 2,350 mm				
2,750 mm 3,150 mm - 3,000 mm	3,150 mm 2,800 mm 2,500 mm 1,900 mm	3,150 mm 2,800 mm 3,000 mm 1,900 mm	3,150 mm 2,800 mm 3,500 mm 1,900 mm	3,150 mm 2,800 mm 3,000 mm 1,900 mm	3,150 mm 2,800 mm 3,500 mm 1,900 mm
-	- 2,700 mm				
2,600 mm	2,600 mm •				
650 N	550 N	800 N	1100 N	800 N	1100 N
240 mm/s	180 mm/s	130 mm/s	130 mm/s	130 mm/s	130 mm/s
~ 2 W	~ 2 W	~ 2 W	~ 2 W	~ 2 W	~ 2 W
15	40	40	40	40	40
•	•	•	•	•	•
•	•	•	•	•	•
•	•	•	•	•	•
AC 230 V (50 Hz)	AC 230 V (50 Hz)	AC 230 V (50 Hz)	AC 230 V (50 Hz)	AC 230 V (50 Hz)	AC 230 V (50 Hz)
•	•	•	•	•	•
•	•	•	•	•	•
•	•	•	•	-	-
•	•	•	•	•	•
-	•	=	=		•
•	•	•	•	•	•
•	•	•	•	•	•
•	•	•	•	•	•
•	•	•	•	•	•
•	•	•	•	•	•
•	•	•	•	•	•
•			•		
•	•	•	•	-	-
•	•	•	•		-
•			-	-	-
2	2	2	2	2	2
112	112	112/448	112/448	448	448
1/2 🛦	2	2	2	2	2
1	2	2	2	2	2
-	•	•	•	•	•
-	•	•	•	•	•
•	•	•	•	•	•
-	•	•	•	red / red and red / green	red / red and red / green
-					

<sup>■</sup> only in connection with TorMinal

<sup>•</sup> yes **\( \Lambda \)** without safety connection

## Check list for garage door operators

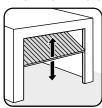
## 1. Garage door type

#### 1.1 RETRACTABLE DOOR



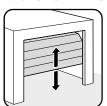
Garage door can be opened and closed by horizontal pressure or pull on the top of the door

#### 1.2 CANOPY DOOR



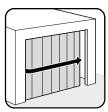
Door is set in a frame and guided via vertical railing with overhead springing

#### 1.3 SECTIONAL DOOR



Door with individual sections which are pushed along tracks from a vertical position into a horizontal position

#### 1.4 SECTIONAL-HORIZONTAL / SIDE-OPENINGSECTIONAL DOOR



The door runs along tracks fitted to the floor and ceiling

#### 1.5 SIDE HINGED DOOR



- with ceiling tracks
- without ceiling tracks

- with ceiling tracks
- without ceiling tracks

NOTE: bow arm converter, item no. 1500V000 (see page 21) is required for door type shown..

- ☐ Is the last roll above the curve of the door? (double track) NOTE: Depending on the door producer a special fitting is required for door type shown. (see page 20)
  - sectional door fitting without boomerang (item no. 3102)
  - □ special door fitting "Type H" (item no. 1502V001)
  - □ special door fitting "Type G" (item no. 1504V000)
  - □ special door fitting "Type RO" (item no. 1642V000)
  - ☐ flat door fitting with U-bracket (item no. 40106)
- ☐ Is the last roll below the curve of the door? (single track) NOTE: A sectional door fitting with boomerang is required for this type of door item no. 3101 (see page 20).
- ☐ Viewed from inside, does the door open to the right?
- ☐ Viewed from inside, does the door open to the left?
- ☐ When the door is closed, is the last segment positioned in the curve?
- ☐ When the door is closed, is last segment positioned beyond the curve?

NOTE: For the ceiling mounting of door type shown you need a sectional door fitting item no. 3103 (see page 20)

Door opens towards the outside ☐ inside

Viewed from inside, what is the width of each wing?

left wing: \_\_\_\_\_ mm

right wing: \_\_\_\_\_ mm

Distance between wall and door wing opened 90° (in mm) \_\_\_\_

NOTE:

A door bracket is needed for this type of door

(door opening to the inside is not possible with this bracket)

item no. 1501V000 (page 21) or

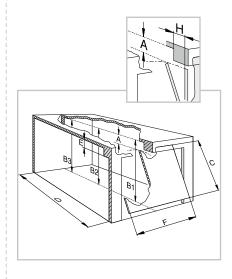
item no. 1509 (only for door width over 2.8 m to max. 5.6 m)).

## Check list for garage door operators

## 2. Mechanical operation

## Does the garage door open and close without jamming? ☐ Yes ☐ No Is the door correctly balanced: i.e.: can it be opened and closed without excess force? ☐ Yes ☐ No 2.3 NOTE: When the door is shut but not locked, is it resting on the bottom rail stop? ☐ Yes ☐ No 2.4 Does the door comply with EN 12604 and EN 12605? ☐ Yes ☐ No 3. Special features Does the garage have a separate entrance? ☐ Yes ☐ No 3.2 Which material is the garage made of: brick, concrete, etc.? 3.3 Does the garage door have a wicket door? ☐ Yes ☐ No (If yes, a safety contact is required for the wicket door) 3.4 Is the garage door fitted in a collective garage? ☐ Yes ☐ No If yes, how many parking spaces does it have? 3.5 Is a two-way traffic regulation needed? ☐ Yes ☐ No If yes, only with marathon tiga incl. automatic closing 3.6 Is the garage roof ☐ flat ☐ side-sloping ☐ rear-sloping ☐ front-sloping 3.7 Which material is the garage roof made of? □ concrete □ wood □ hollow parts □ roof tiles 3.8 Is the ceiling suspended? ☐ Yes ☐ No If yes, how many cm? 3.9 Position of door lock? □ bottom □ top □ side 3.10 Name of door manufacture? 3.11 Door type (manufacturer designation)? 3.12 In what year was the door constructed? 4. Accessory (please tick) □ hand transmitters (see page 78) ■ key switch (see page 88) ☐ light barrier/photo cell (see page 90) Telecody (see page 78) access systems (see page 87) Company stamp / customer no.

## 5. Garage details



A Distance between highest running point of the door and ceiling of garage (for side-opening doors; between the side wall and the door)

В	Heiaht	of	garage
_	1 1019111		

B1 = front

B2 = centre

B3 = rear

C Height of garage door \_\_\_\_\_ (travel length can be extended if required)

D Length of garage

E Height of lintel

F Width of garage door \_

#### H Distance

- between the inside edge of garage door and inside edge of lintel

(Please enter the position of the main beams in the diagram, incl. dimensions in mm)

Note: Just fill in the check list, enter your contact details and send them together with your enquiry to SOMMER (fax: +49 (0)7021/8001-101, e-mail: info@sommer.eu). You can also download the check list on www.sommer.eu.

## Standard model

## sprint evolution

## Special operator features:

- accident prevention through electronic regulated force measurement DPS - dynamic power system
- regulated soft run in ramp form without loss of force
- for further product advantages, please refer to the table on pages 10/11



## sprint evolution

item no. 2600V000

- 550 N traction force
- control unit housing with integrated radio receiver FM868.8 MHz Somloq Rollingcode
- interior push-button with 7 m cable
- lighting
- installation kit
- without transmitter

Use only in combination with the track unit (item no. 1897V000). Please order separately

#### Track unit for sprint evolution

item no. 1897V000

• travel length 2,600 mm



## Deluxe models

## duo vision

## Special operator features:

- · separate control unit housing with integrated interior push-button and lighting (wall or ceiling mounting)
- lighting and interior push-button are located close to exit door due to the wall mounting of the separate control unit housing
- due to separate control unit housing, there is no need for a costly electrical installation of an additional power socket on the ceiling, an existing socket
- accident prevention through electronic regulated force measurement with DPS - dynamic power system
- regulated soft run in ramp form without loss of force
- low power consumption due to toroidal core transformer (duo vision 650 and 800)
- connection for light barrier (photo cell) and TorMinal
- universal power supply (either from front or rear)
- for further product advantages, please refer to table on pages 10/11





#### duo vision

- control unit housing with integrated radio receiver (FM 868.8 MHz Somlog Rollingcode, 112 memory slots) for wall or ceiling mounting
- integrated interior push-button
- lighting
- installation kit
- soft run
- control unit housing is also available for an extra charge in different surface designs like burl wood, carbon etc.
- without transmitter

Use only in combination with the track units (item no. 1890 / 1891 / 1892). Please order separately

duo vision 500	item no.	3000V000
400 (101011 000		

500 N traction force



duo vision 650	item no. 3010V000
auo vision obu	item no. 30107000

• 650 N traction force



duo vision 800	item no. 3020V000

• 800 N traction force





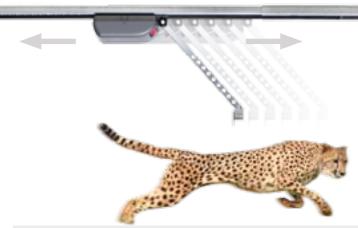
## Deluxe models

## duo rapido<sup>+</sup>

## Special operator features:

- 240 mm/s • max. speed (door open):
- · equipped with the latest control board generation
- max. traction and pressure force: 650 N
- power consumption (standby):
- for further product advantages, please refer to table on pages 10/11





## duo rapido⁺

item no. 3060V000

- 650 N traction and pressure force
- control unit housing with integrated radio receiver (FM 868.8 MHz Somlog Rollingcode, 112 memory slots) for wall or ceiling mounting
- integrated interior push-button
- lighting
- installation kit
- soft run
- without transmitter

Use only in combination with the track units (item no. 1890 / 1891 / 1892). Please order separately.



## Track units for duo vision and duo rapido<sup>+</sup>

Travel length 2,600 mm

item no. 1890V000

• with 5 m connecting cable

Travel length 3,000 mm

item no. 1891V000

- with 5 m connecting cable
- · incl. an additional ceiling mounting unit

#### Travel length 3,400 mm

item no. 1892V000

- with 5 m connecting cable
- incl. an additional ceiling mounting unit

## Deluxe models

## duo vision / duo rapido+

## Installation examples for the duo control:



Installation at rear



Installation above



Installation below



Installation directly on the track with the duo installation set (item no. 927)

## Premier model

## marathon SL

## Special operator features:

- lighting and interior button with 7 m included cable
- accident prevention through electronic regulated force measurement with DPS - dynamic power system
- regulated soft run in ramp form without loss of force
- low power consumption due to toroidal core transformer
- connection for light barrier (photo cell), safety edge, red traffic light
- automatic close function, adjustable
- galvanised and powder-coated rail
- floating relay contact
- integrated evaluation for electrical (8.2 kOhm) or optical safety edge
- connection for TorMinal
- for further product advantages, please refer to table on pages 10/11

## Flexible: all "marathon" garage door operators are packaged in 2 boxes for practical handling.

#### Advantages for you:

- operator power and track length can be flexibly combined to suit customers' requirements
- storage space is even more practical in 2 boxes
- transportation of 2 packages is more convenient and easier to handle







## Premier model

## marathon SL

#### marathon SL

- with integrated radio receiver (FM 868.8 MHz Somloq Rollingcode)
- 112 memory slots
- interior push-button with 7 m cable
- installation kit
- soft run
- without transmitter

Use only in combination with the track units (item no. 1870 / 1871). Please order separately.





#### marathon 550 SL

item no. 4250V000

• 550 N traction force





#### marathon 800 SL

item no. 4570V000

• 800 N traction force





#### marathon 1100 SL

item no. 4580V000

• 1100 N traction force



## Class 1

#### Track units for marathon SL

item no. 1870V000 Track unit 2,600 mm

Track unit 3,400 mm item no. 1871V000

• incl. an additional ceiling mounting unit



## Track unit "removable carriage" marathon SL



- the version "removable carriage" allows rapid and easy removal of the carriage for servicing
- the operator can stay installed on the ceiling and does not need to be dismounted

Note: This operator version exceeds 400 mm of the standard length!

item no. 1873V000 Track unit 2,650 mm



## Special brackets



## Special door fitting, type H

item no. 1502V001

for sectional doors (panel thickness 40 mm) and retractable doors "type H"; dimensions:  $100 \times 62.5 \times 16 \text{ mm}$ 

## Special door fitting, type G

item no. 1504V000

for sectional doors "type G" dimensions:  $100 \times 64 \times 16 \text{ mm}$ 

## Special door fitting, type RO

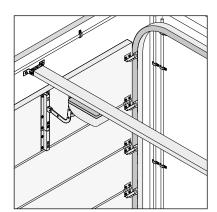
item no. 1642V000

for sectional doors "type RO" • completely assembled dimensions:  $130 \times 75 \times 25$  mm

## Flat door fitting with U-bracket

item no. 40106

for sectional doors • with oval holes dimensions: 100 x 56 mm



## Sectional door fitting with boomerang

item no. 3101

length-adjustable for sectional doors with single guide rail



## Sectional door fitting without boomerang

item no. 3102

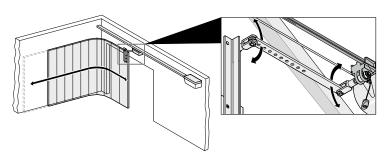
length-adjustable for sectional doors with double guide rail gentle power transmission for e.g. big doors

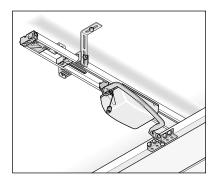


#### Sectional horizontal door fitting

item no. 3103

for ceiling installation with side opening or sectional horizontal doors





#### Low headroom bracket

item no. 3122V000

special bracket for doors with low headroom or with torsion spring at the rear reduce the distance between the carriage and door at approx. 23 cm



#### ATTENTION:

Only for SOMMER garage door operators with separate control unit.

## Special brackets

#### Wing door fitting

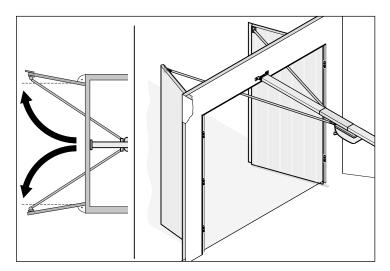
item no. 1501V000

connecting set to automate wing doors with garage door operators • door width max. 2,800 mm

## Wing door fitting, special length

item no. 1509

door width min 2,800 m up to max. 5,60 m calculation of special length (opening angle 90°): wing door fitting special length = 1.41 x width of door wing



## -----

**Note:** Longer travel length may be required!

item no. 3105

1,500 to 2,500 mm

## Adjustable connecting arm, long

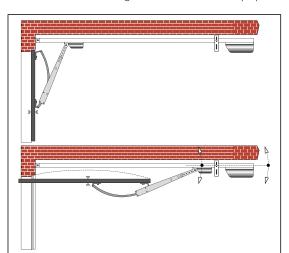
item no. 3106

2,500 to 3,500 mm

#### Bow arm converter

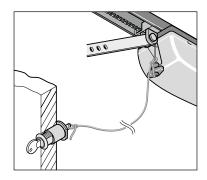
item no. 1500V000

for installation on doors with vertical guide rail (canopy doors) ATTENTION: travel length can be shortened by up to 700 mm!





## (External) Emergency release



## Emergency release lock

item no. 5036V000

e.g. for sectional doors, sectional horizontal doors or side hinged doors bore hole diameter 20.5 mm





#### Bowden wire for emergency release (standard)

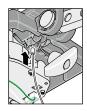
item no. 1612

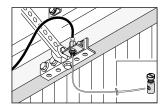
wire length 2,300 mm / coating 550 mm

#### Bowden wire for emergency release (long)

item no. 1620

wire length 5,000 mm / coating 4,500 mm e.g. for mounting bow arm converter, prolonged connecting arm (item no. 3105) or wing door fitting (item no. 1501V000)











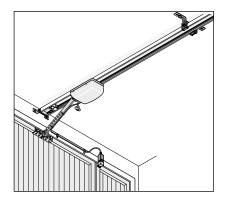
#### Wicket door safeguard device

item no. 3100

for sprint evolution, duo vision, duo rapido and marathon SL; with pre-assembled cable for connection to the carriage

#### item no. 3117 Wicket door safeguard device with EN approval

for sprint evolution, duo vision, duo rapido and marathon SL; with pre-assembled cable for connection to the carriage; complies with the new EU directives



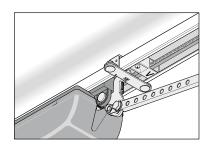
## **Auxiliary locking**

#### Auxiliary locking set (WK2 approved)

item no. 1618V000

mechanical locking with break-in protection





## **Auxiliary locking**

item no. 1609V001

with 2,500 mm wire for the automatic locking/unlocking of garage doors with spring latches



## Spring latch for auxiliary locking

item no. 5030

for bottom or lateral locking of garage doors suitable for auxiliary locking (item no. 1609V001)



## Deflection pulley set

item no. 3104V000

for locking/unlocking



## Wire (5,000 mm)

item no. 50007

with clamping device



## Safety

## Switch for door status indicator

item no. 3808

for sprint evolution, duo vision, duo rapido and marathon SL e.g. for alarm systems (change-over contact) / EIB - interface



## Red traffic light, LED; IP 65

item no. 5230V000



## Only for marathon SL

for internal and external installations modular style; AC/DC 24 V



## Warning light 24 V, IP 44

item no. 5069V001

not self-blinking; E14 lampholder; 25 W, with bulb



#### item no. 7020V000 One-way light barrier (photo cell), set; IP 44

approx. 10 m range, for internal and external installations DC 15-35 V, AC 12-24 V; relay output temperature range: -20°C / +70°C



You can find all related radio control products from page 78 and electrical and optical safety edges from page 91.

## Special accessories









#### Track extension kit 1,600 mm

item no. 1628V000

for sprint evolution, duo vision and duo rapido+ incl. ceiling mounting unit, joining track, chain, chain cover and fixing material

#### Track extension kit 100 mm

item no. 1614V000

for marathon SL 2x 50 mm, incl. chain; max. 1 unit per operator

#### Track extension kit 1,600 mm

item no. 1615V000

for marathon SL and marathon tiga SL/SLX incl. ceiling mounting unit, joining track, chain and fixing material

## Additional charge for special track lengths

item no. 60038

for sprint evolution, duo vision, duo rapido+, marathon SL and marathon tiga SL; made-to-measure track length, price on application



#### Chain connecting link

item no. 5100

prevents sagging of chain when operator is installed with 2 or



## Ceiling mounting unit

item no. 1613

for sprint evolution, duo vision, duo rapido<sup>+</sup>, marathon SL and marathon tiga SL/SLX; incl. fixing material



## Ceiling mounting prolongation

item no. 5037

perforated iron strip 1.5 m extension ceiling mounting unit



#### Conversion set "separate control unit" (2,600mm) item no. 3830V000

for marathon SL operators

travel length 2,600 mm, cable length 5 m

Conversion set "separate control unit" (3,400mm) item no. 3830V001

for marathon SL operators travel length 3,400 mm, cable length 5 m



#### duo installation set

item no. 927

for duo vision and duo rapido+ for fixing the control unit directly to the track





#### Electric bulb 32.5 V / 34 W

item no. 11010

for sprint evolution, marathon SL and red traffic light (24 V) • BA 15s

#### Electric bulb 32 V / 18 W

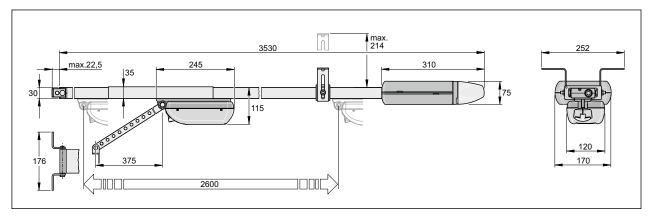
item no. 11066V000

for duo vision and duo rapido • BA 15s

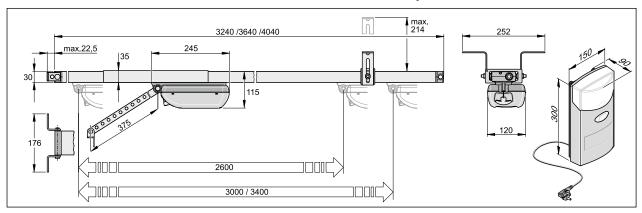
## Garage door operators

## **SOMMER** sprint evolution

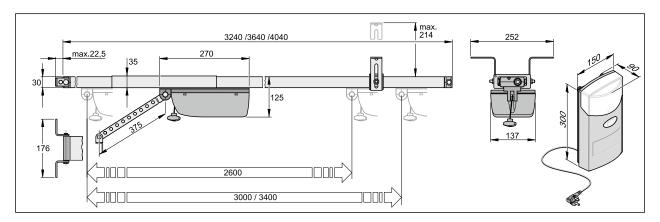
## Dimensioned drawings



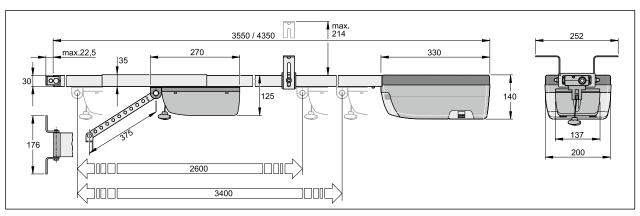
## SOMMER duo vision 500/650 and duo rapido+



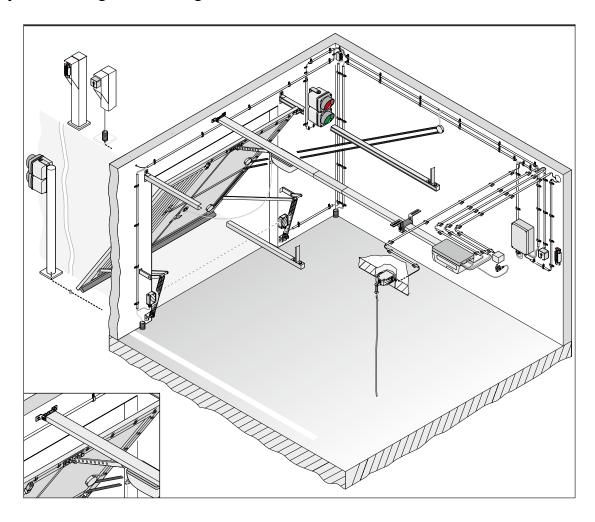
## SOMMER duo vision 800



## **SOMMER** marathon 550/800/1100 SL



## Underground garage door operator with regulation of two-way traffic lights (red/green)



## marathon tiga SL

## Special features marathon tiga SL:

- · accident prevention through electronic regulated force measurement with DPS - dynamic power system
- regulated soft run in ramp form without loss of force
- low power consumption due to toroidal core transformer
- connection for light barrier (photo cell) and optical safety edge
- only with automatic close function
- galvanised and powder-coated rail
- · floating relay contact
- evaluation for electrical (8.2 kOhm) or optical safety edge integrated
- connection for TorMinal
- basic settings can be adjusted individually using TorMinal:
  - early warning function "opening"
  - early warning function "closing"
  - stay open time
  - clear time
  - cycle counter
- separate demand of traffic signals for inside and outside via radio and/or push-button
- easy to install due to separate traffic light control, which can be mounted e.g. on the wall (only short cables required)

## marathon tiga SL



#### marathon tiga SL

- integrated radio receiver (FM 868.8 MHz Somlog Rollingcode)
- 448 memory slots (pluggable memory module)
- with two-way traffic regulation (red/green) (to control two-way traffic)
- interior push-button with 7 m cable
- installation kit
- regulated soft run in ramp form without loss of force
- without transmitter

Use only in combination with the track units (item no. 1870 / 1871). Please order separately.



marathon tiga 800 SL

item no. 4577V000

800 N traction force

marathon tiga 1100 SL

item no. 4587V000

• 1100 N traction force







with separate

control unit for

#### Track unit marathon tiga SL

Track unit 2,600 mm	item no. 1870V000
Track unit 3,400 mm	item no. 1871V000

• incl. an additional ceiling mounting unit



## Track unit "removable carriage" marathon tiga SL



- the version "removable carriage" allows rapid and easy removal of the carriage
- the operator can stay installed on the ceiling and does not need to be dismounted

Note: This operator version exceeds 400 mm of the standard length!

Track unit 2,650 mm item no. 1873V000



## marathon tiga SLX

## Special features marathon tiga SLX:

- control board can be switched / switched off directly from power
- easier installation
- one connecting cable to be installed on the ceiling
- all control board elements in one housing (red/green traffic light, toroidal core transformer, also control board for marathon tiga)
- installation does not interfere with garage use

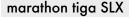
For all further advantages please look on page 26 marathon tiga SL





(362 x 255 x 165 mm)

with separate control unit housing for installation on the wall incl. integrated control unit



- integrated radio receiver (FM 868,8 MHz Somlog Rollingcode)
- 448 memory slots (pluggable memory module)
- with separate control unit housing for installation on the wall
- installation kit
- regulated soft run in ramp form without loss of force
- without transmitter

Use only in combination with the track unit (item no. 4505V000 / 4506V000). Please order separately.







marathon tiga 800 SLX

item no. 4510V000

• 800 N traction force

marathon tiga 1100 SLX

item no. 4520V000

1100 N traction force



#### Track unit marathon tiga SLX

Travel length 2,600 mm item no. 4505V000

• mit 5 m connecting cable

Travel length 3,400 mm item no. 4506V000

- mit 5 m connecting cable
- incl. an additional ceiling mounting unit

## marathon tiga SLX

## Track unit "removable carriage" marathon tiga SLX



- the version "removable carriage" allows rapid and easy removal of the carriage for servicing
- the operator can stay installed on the ceiling and does not need to be dismounted.

Note: This operator version exceeds 400 mm of the standard length!

#### Travel length 2,650 mm

item no. 4508V000

• with 5 m connecting cable



## Accessories for door operators for collective garages

#### 4-command transmitter

item no. 4020V000

approx. 50 m, depending on surrounding range

battery 3 V, type CR 2032

stainless steel, body can be pulled out housing type dimensions  $87 \times 24 \times 16$  mm (when closed)

keypad cover prevents unintentional activity

You can find even more radio control products from page 78.



item no. 4811V000

The secure solution for property management, industry and banks.

For programming receivers and transmitters e.g. pre-programming transmitters and manage/file the date on the PC

scope of delivery: UniProg Somlog programmer, UniSoft PC software,

batteries, power supply, service case and instructions + 12,000 own radio codes

## Transmitter Management System Somloq-Codemaster Light

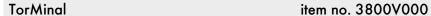
item no. 4810V000

(as described above)

scope of delivery: UniProg Somlog programmer, batteries,

power supply, service case and instructions + 12,000 own radio codes

You can find more **Somloq** information on page 84.



TorMinal serves to read out and adjust the basic settings of SOMMER operator control boards. It also activates and deactivates special functions, such as maintenance monitoring for marathon and tiga operators.









## Accessories for door operators for collective garages





can be combined as a red and green traffic light

#### Red traffic light, LED; IP 65

item no. 5231V000

internal and external installations modular style AC 230 V

## Green traffic light, LED; IP 65

item no. 5232V000

internal and external installations modular style AC 230 V



#### Warning light 24 V, IP 44

item no. 5069V001

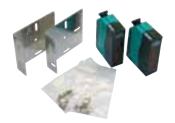
not self-blinking; E14 lampholder; 25 W, with bulb



#### One-way light barrier (photo cell), set; IP 44 item no. 7020V000

approx. 10 m range, for internal and external installations

DC 15-35 V, AC 12-24 V; relay output temperature range:  $-20^{\circ}\text{C} / +70^{\circ}\text{C}$ 



## One-way light barrier (photo cell), IP 67

item no. 5229

approx. 65 m range, for internal and external installations

AC/DC 12-240 V change-over contact incl. installation angle



## Reflection light barrier (photo cell), IP 67, with polarising filter

item no. 5228

approx. 12 m range AC/DC 12-240 V change-over contact

incl. installation angle and reflector

Reflection light barrier (photo cell), IP 67, with polarising filter

item no. 5233

approx. 12 m range AC/DC 24 - 230 V change-over contact

incl. installation angle and reflector



#### Installation support

item no. 7640V000

weather protection cover for reflector reflection light barriers (item no. 5228 and 5233)

## Accessories for door operators for collective garages

#### Digital radar motion detector

item no. 5405V001

MWD BP-C, AC / DC 12 - 24 V

- control of gate and barrier systems
- differentiation between vehicle / person
- recognition of direction
- floating output
- 7-segment display



item no. 5112

aluminium casting housing with 2.5 m nylon cord change-over contact



#### Palm button, IP 65

item no. 5024

emergency stop plastic housing (self-holding)



#### Key switch, IP 54, surface-mounted

item no. 5004V000

1-contact cylinder DIN 30/10.0 degree; incl. 3 keys dimensions  $73 \times 73 \times 45$  mm

(more models on page 88)



#### Rod antenna FM 868.8 MHz

item no. 7004V000

external antenna suitable for swing gate, sliding gate and garage door operators, as well as diverse receivers FM 868.8 MHz with 50 Ohm coaxial cable

(further types see page 83)



#### item no. 5406V000 Induction loop detector, 1-channel; IP 40

incl. plug base

power supply AC 230 V, 50/60 Hz

relay output 1 continuous relay with change-over contact /

closed-circuit principle

1 impulse relay with normally opened contact /

working close principle

max. 60 / 125 VA breaking capacity max. AC 230 V breaking voltage max. 2 A current on contact

Note: A commercial available plastic-isolated copper wire 0.5 to 1.5 mm<sup>2</sup> can be used for the induction loop.



You can find all related induction loops and electrical/optical safety edges from page 91.



# Swing gate operators

#### Convenience

Can you remember televisions without remote controls? But you still get out of your car, open your gate manually, and walk back to close your gate? Or you just leave your gate open, for convenience which gives everybody access to your property.

With modern swing and sliding gate operators, it belongs in the past. SOMMER gate operators are affordable and can be quickly installed. Only one push is needed to open or close the gate. With safety and security built in as standard.

## Safety

- all gate operators are developed and manufactured by SOMMER in Germany and conform to the latest CEN regulations
- independent test institutes give you and your family assurance of safety and quality



## **Technology**

- importance in reliability and durability is a key factor of all SOMMER products
- the operators are easily installed
- the SOMMER swing gate operators twist 200 E/EL and XL can be installed on either left or right handed gates (non handed)

Note: a centre stop in the end position "gate CLOSED" is necessary for 2-leaf gate systems.

# Specifications of swing gate operators

	17/1000		
rype	TWIST 200 E/EL	TWIST AL	live 200 E
gate weight per leaf	max 200 kg	max. 500 kg	max. 200 kg
gate width per leaf	max. 2,500 mm	max. 5,000 mm	max. 2,000 mm
gate inclination	%0	%0	%0
gate filling	max. 50 % filled	max. 100 % filled, dependent of gate width and height	max. 50 % filled
operator principle	electromechanical swing gate operator with 8-gear stainless steel threaded spindle and self-locking high-performance worm gear	electromechanical swing gate operator with 8-gear stainless-steel threaded spindle and self-locking high-performance worm gear	electromechanical swing gate operator
posh rod	amade of polished stainless steel, non-corrosive, high buckling resistance	made of polished stainless steel, non-corrosive, high buckling resistance	1
exterior tube	anodised aluminium, extremely good protection, even in extreme climatic conditions	anodised aluminium, extremely good protection, even in extreme climatic conditions	I
bearing	maintenance-free slide bearing with excellent dry+unning characteristics	maintenance-free slide bearing with excellent dry-running characteristics	ı
housing	made of special, UV-resistant, non-ageing special synthetic material (stabilised PA6 GF30). It is more resistant to brittle fracture compared to the same housing of an aluminium alloy	made of special, UV-resistant, non-ageing special synthetic material (stabilised PA6 GF30). It is more resistant to brittle fracture compared to the same housing of an aluminium alloy	housing is made of stainless steel
motor	high-performance DC motor with multiple downgearing and extra-teinforced gear steps, extremely reliable	high-performance DC motor with multiple downgearing and extrareinforced gear steps, extremely reliable	high performance DC motor, extremely reliable, safety function
motor safety device	via microprocessor, with power and temperature monitoring	via microprocessor, with power and temperature monitoring	via microprocessor, with power and temperature monitoring
motor control board	DST-A 24, 1 and 2 leaf operators	DTA-1, 1 and 2 leaf operators	DSTA 24 - UF, 1 and 2 leaf operators
power supply	AC 230 V, 50 Hz / motor voltage DC 24 V	AC 230 V, 50 Hz / motor voltage DC 24 V	AC 230 V, 50 Hz / motor voltage DC 24 V
opening lime	approx. 13-26 s (twist 200 E), approx. 13-40 s (twist 200 EL), the opening time and angle change depending on fixing point (see installation dimensions A+B), twist 200 E: max. 129°; twist 200 EL: max. 140°	opening time for one leaf approx. 10-40 s; opening angle max. 112°, vary depending on the fixing point (see installation dimensions A + B)	opening time for one leaf approx. 10 - 25 s; two leaf 10 - 30 s; opening angle max. 1150 vary depending on the fixing point (see installation dimensions A + B)
accident prevention	by means of automatic supply deactivation	by means of automatic supply deactivation	by means of automatic supply deactivation
limit switch	electronic limit switch with Reed contact	electronic limit switch with Reed contact	electronic limit switch with Reed contact
emergency release	fitted to the operator; secured with a lock; easy to use	fitted to the operator; secured with a lock; easy to use	fitted to the operator, secured with a lock; easy to use
LED-monitored function	mains / open / closes / safety, warning light	mains / open / closes / safety, warning light, Limits, E-Lock	mains / open / closes / safety, warning light
soft start / soft stop	regulated soft run in ramp form, without power loss	regulated soft run in ramp form, without power loss	regulated soft run in ramp form, without power loss
connection possibilities	for light barrier (photo cell), safety edge (only with an external evaluation unit), warning light, external consumer (DC 24 V, max. 1 A), floating relay contact, TorMinal, electric lock	for light barrier (photo cell), safety edge (only with an external evaluation unit), warning light, external consumer (DC 24 V, max. 1 A), floating relay contact, TorMinal, electric lock	for light barrier (photo cell), safety edge (only with an external evaluation unit), warning light, external consumer (DC 24 V, max. 1 A), floating relay contact, TorMinal, electric lock
automatic close function	can be set via DIP switch	can be set via DIP switch	can be set via DIP switch
pedestrian door function	yes	yes	yes
pulse mode	open / stop / close / stop /	open / stop / close / stop /, open/close adjustable	open / stop / close / stop /
number of radio channels	2	2	2
operating mode	83 15%	83 40%	83 15%

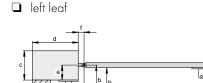
## Check list for swing gate operators

## **Posts**

#### 1. Post material

🗕 concrete 🕒 hollow block	

2	Position	of posts	from	ahous



☐ right leaf

☐ steel

☐ stone

■ wood

	-	• ngm i	icai	
1			e e	c

Hint: If "e > 180 mm" you need the twist 200 EL.

C:	mm
----	----

١.		mm
		111111

a.	mr

d:	 mm
Δ.	mm

	mm

Are	gate	stop	units	availal	ole?
ſ		1	. 0.	٦.	

for opened gate? 🗖	yes	nc
for closed gate? $\ \square$	yes	nc

What opening angle do you need?

٥.		ſ.	
C:	mm	Τ.	mm

e:	mm	h:	 mm
٠.			 

Are gate stop units available? for opened gate?  $\square$  yes ☐ no

for closed gate?  $\Box$  yes What opening angle do you need?

## Accessory (please tick)

- 1. Operation
- ☐ transmitter (see page 78)
- key switch (see page 88)
- ☐ Telecody (see page 78)
- □ rod antenna (see page 50)
- □ access systems (see page 87)
- 3. Operation mode
- dead man's activation (only without radio control)

Company stamp / customer no.

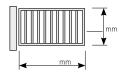
- 2. Safety
- □ safety edge (see page 91)
- ☐ light barrier (see page 90)
- warning light (see page 95)
- ☐ main switch (see page 49)
- pulsed operation

Note: Just fill in the check list, enter your contact details and send them together with

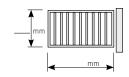
your enquiry to SOMMER (fax: +49 (0)7021/8001-101, e-mail: info@sommer.eu). You can also download the check list on www.sommer.eu.

## Gate

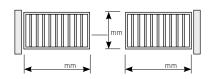
- 1. Type of gate, dimensions and weights
- one leaf DIN links



one leaf DIN rechts



■ two leaf



filling in %

kg	weight of leaf (left

weight of leaf (right)

2. Further details

Has the gate an inclination?

yes,	mm	per	metre
no			

Is a AC 230 V power connection available?

- yes
- no

Has a cable (2-wire for twist 200 E/EL, 5-wire for twist XL) been laid from post to post?

🔲 ja nein

How many times is the gate opened daily?

Utilisation of the gates:

- private
- lacksquare public / commercial (observe regulations!)

## twist 200 E / twist 200 EL

## The high-capacity swing gate operators for gates up to 2.5 m width per leaf and 200 kg weight per leaf





When constructing this operator, we paid attention to produce a durable and universally useable operator that represents extremely good value for money.

#### Features of the twist 200 E/EL:

- universally suitable for gates opening to the left and right
- 1- and 2-leaf operations possible
- also for gates which open to the outside
- no oil, grease or lubricant required
- no gate limit stops required when opening/closing
- regulated soft run, without power loss
- extremely quiet, smooth movement
- connections for safety facilities such as warning light and light barrier (photo cell), as well as for an external consumer (DC 24 V), floating relay output, electric lock
- microprocessor control board with a range of setting options, such as pedestrian door function, automatic closing of gate, adjustable early warning time, adjustable functions when obstacle is encountered when door is closing (either total or partial gate reversal)
- · adjustable fittings, which can be screwed on or welded
- easy-to-use emergency release (e.g. in case of power failure)
- · high-quality materials, stainless steel, aluminium and special synthetic materials
- ice-stripping ring made of stainless steel
- connection for TorMinal



#### Advantages of the electronic limit switches:

- precise limit stop
- with reed sensor
- easily adustable
- no mechanical wear
- long life time
- air tight (insensitive against dirt and water)

# Swing gate operators twist 200 E / twist 200 EL



control unit DST-A 24

# Advantages of the longer swing capacity of twist 200 EL:

- operator can be now also installed at very big posts, even if the post is laid-bricks
- operator can be installed steeper to the gate
- due to the steeper installation the operator has a higher strength in the closed position which is an effective protection against break-in or unauthorised access





## twist 200 E



#### twist 200 E 1-leaf; complete set, anthracite item no. 3216V000

DC 24 V, electromechanical, leaf width max. 2,500 mm universally suitable for gates opening to the left and right

#### comprising:

- swing gate operator twist 200 E
- DST-A 24 control unit in housing, IP 65
- post and wing fittings
- radio receiver FM 868.8 MHz (Somlog Rollingcode), pluggable
- 4-command transmitter (item no. 4020V000)



#### twist 200 E 2-leaf; complete set, anthracite item no. 3217V000

DC 24 V, electromechanical, leaf width max. 2,500 mm universally suitable for gates opening to the left and right

#### comprising:

- two swing gate operators twist 200 E
- DST-A 24 control unit in housing, IP 65
- post and wing fittings
- radio receiver FM 868.8 MHz (Somloq Rollingcode), pluggable
- 4-command transmitter (item no. 4020V000)

### twist 200 EL



#### twist 200 EL 1-leaf; complete set, anthracite item no. 3229V000

DC 24 V, electromechanical, leaf width max. 2,500 mm universally suitable for gates opening to the left and right

#### comprising:

- swing gate operator twist 200 EL
- DST-A 24 control unit in housing, IP 65
- post and wing fittings
- radio receiver FM 868.8 MHz (Somlog Rollingcode), pluggable
- 4-command transmitter (item no. 4020V000)



#### twist 200 EL 2-leaf; complete set, anthracite item no. 3230V000

DC 24 V, electromechanical, leaf width max. 2,500 mm universally suitable for gates opening to the left and right

#### comprising:

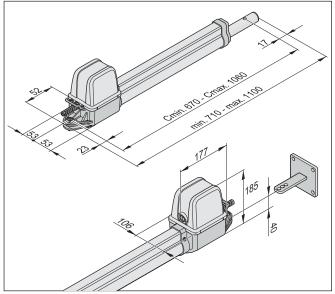
- two swing gate operators twist 200 EL
- DST-A 24 control unit in housing, IP 65
- post and wing fittings
- radio receiver FM 868.8 MHz (Somlog Rollingcode), pluggable
- 4-command transmitter (item no. 4020V000)

# twist 200 E / twist 200 EL

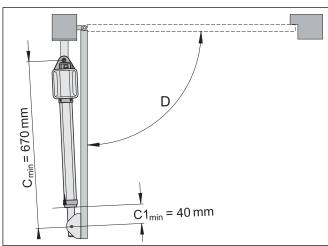
type	twist 200 E/EL
gate weight per leaf	max. 200 kg
gate width per leaf	max. 2,500 mm
gate inclination	0 % (up to 10 % in combination with special brackets)
gate filling	max. 50 % filled
operator principle	electromechanical swing gate operator with 8-gear stainless steel threaded spindle and self-locking high-performance worm gear
push rod	made of polished stainless steel, non-corrosive, high buckling resistance
exterior tube	anodised aluminium, extremely good protection, even in extreme climatic conditions
bearing	maintenance-free slide bearing with excellent dry-running characteristics
housing	made of special, UV-resistant, non-ageing special synthetic material (stabilised PA6 GF30). It is more resistant to brittle fracture compared to the same housing of an aluminium alloy
motor	high-performance DC motor with multiple downgearing andextra-reinforced gear steps, extremely reliable
motor safety device	via microprocessor, with power and temperature monitoring
motor control board	DST-A 24, 1 and 2-leaf operators
power supply	AC 230 V, 50 Hz / motor voltage DC 24 V
opening time	approx. 13-26 s (twist 200 E), approx. 13-40 s (twist 200 EL) the opening time and angle change depending on fixing point (see installation dimensions A+B), twist 200 E: max. 129°; twist 200 EL: max. 140°
accident prevention	by means of automatic supply deactivation
limit switch	electronic limit switch with Reed contact
LED-monitored function	mains / open / closes / safety, warning light
soft start / soft stop	regulated soft run in ramp form, without power loss
connection possibilities	for light barrier (photo cell), safety edge (only with an external evaluation unit), warning light, external consumer (DC 24 V, max. 1 A), floating relay contact, TorMinal, electric lock
automatic close function	can be set via DIP switch
pedestrian door function	yes
pulse mode	open / stop / close / stop /
close sequence	self-learning
number of radio channels	2
operating mode	S3 15 %
class of protection	operator: IP 44 / control unit: IP 65
temperature range	operator: -30°C to +70°C / control unit: -20°C to +70°C

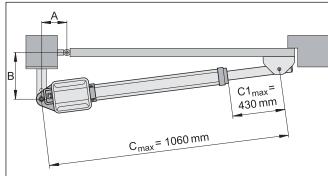


# twist 200 E: dimensioned drawings









### twist 200 E: installation dimensions A+B

#### Note:

Please arrange A-/B-measures before installation. Without considering A-/B-measures installation can be erroneous.

- The bigger the B-dimension the more sensitive the obstacle detection.
- Pay attention to different post/pillar dimenstions.

The dimensions A + B must be selected the way that the needed opening angle will be reached. The stated opening angle is a guideline for the greatest possible angle. If the leaf is longer than 1.5 m, dimension B must measure at least 140 mm.

ВА	80	100	120	140	160	180	200	220	240	260
100	95°	105°	113°	120°	126°	129°	115°	107°	102°	98°
120	94°	103°	110°	116°	122°	117°	108°	102°	97°	93°
140	93°	101°	108°	114°	119°	109°	101°	96°	92°	
160	93°	100°	106°	112°	110°	101°	95°	91°		
180	93°	99°	104°	109°	100°	94°	90°		-	
200	02.0	000	1020	1000	03.0			•		

220 240 260

all dimensions in mm; technical changes excepted

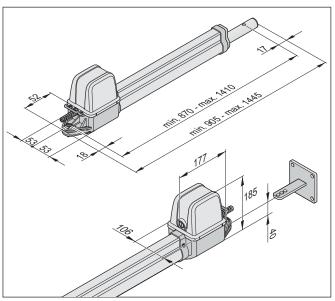
Note:

If B dimension  $\leq$  140 and the gate leaf exceeds 1.5 m an electric lock should be used.

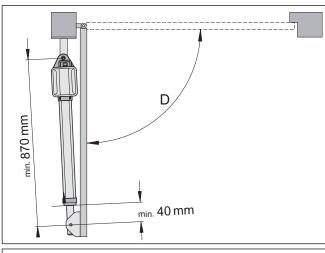
White fields: installation dimension only for horizontal gates. Light blue fields: installation dimension for horizontal and inclining gates.

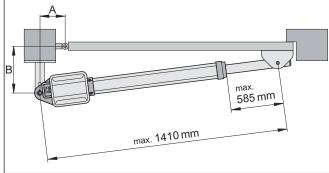
Attention! Operation of inclining gates only with appropriate bracket, leaf weight of max. 120kg and a max. inclination of 10%.

# twist 200 EL: dimensioned drawings









# twist 200 EL: installation dimensions A+B

ВА	80	100	120	140	160	180	200	220	240	260	280
100	90°	100°	110°	120°	120°	125°	130°	135°	140°	140°	130°
120	90°	100°	105°	110°	120°	125°	125°	130°	130°	140°	130°
140	90°	100°	105°	110°	115°	120°	120°	125°	130°	135°	130°
160	90°	95°	100°	110°	115°	120°	120°	125°	130°	130°	115°
180	90°	95°	100°	105°	110°	115°	120°	125°	125°	120°	110°
200	90°	95°	100°	105°	110°	115°	120°	120°	120°	110°	105°
220	90°	95°	100°	105°	110°	110°	115°	115°	110°	105°	100°
240	90°	95°	100°	100°	105°	110°	115°	110°	105°	100°	95°
260	90°	95°	100°	100°	105°	110°	110°	100°	95°	95°	90°
280	90°	95°	100°	100°	105°	110°	105°	100°	90°	90°	
300	90°	95°	100°	100°	105°	100°	95°	90°			
320	90°	90°	95°	100°	100°	90°	90°		-		
340	90°	90°	95°	100°	90°			-			
360	90°	90°	95°			-		\A/L:1- E:-1-1:-			:

all dimensions in mm; technical changes excepted

380

400

Note:

If B dimension  $\leq$  140 and the gate leaf exceeds 1.5 m an electric lock should be used.

White fields: installation dimension only for horizontal gates. Light blue fields: installation dimension for horizontal and inclining gates.

Attention! Operation of inclining gates only with appropriate bracket, leaf weight of max. 120kg and a max. inclination of 10%.

### twist XL

The strong swing gate operator for gates up to 5.0 m width per leaf and 500 kg weight per leaf



### **Advantages:**

- max. capacity of 30,000 N
- duty cycle: approx. 22 gate movements per hour (in case of max. size and weight)
- swing capacity: 460 mm full → operation angle max. 112°
- completely maintenance-free
- suitable for gates opening to the left and to the right
- no tool for emergency release necessary
- connections: light barriers (photo cell), warning light, electronic lock, safety edge (only with external evaluation processor unit), TorMinal, etc.
- for recondition only in case of door type with DIN EN 13241-1 possible

- smooth travelling arm due to spring supported threaded spindle
- optimum adjustment for each gate
- SLS Security-Locking-System: emergency release can be locked and unlocked regardless of the gate position and offers security, e.g. power failure
- long lasting stainless steel components
  - longer durability, no rust
- fashionable design
- 2-wire light barrier (item no. 7023V000) directly connectable

### twist XL

#### twist XL operator unit, 1-leaf in anthracite item no. 3280V000

DC 24 V, electromechanical, leaf width: max. 5,000 mm, max. 500 kg; universally suitable for gates opening to the left and right

#### comprising:

- twist XL swing gate operator, 1-leaf (without control unit)
- fixing material

#### twist XL control unit, IP 65

item no. 3282V000

for twist XL or twist 200 E/EL\* operators DC 24 V, control unit is supported with AC 230 V dimensions:  $250 \times 175 \times 75 \text{ mm}$ 

#### comprising:

- DTA-1 control unit in housing (IP 65)
- radio receiver FM 868.8 MHz (Somlog Rollingcode), pluggable
- 4-command transmitter (item no. 4020V000)

#### twist XXL control unit, IP 67

item no. 3300V000

for twist XL or twist 200 E/EL\* operators DC 24 V, control unit is supported with AC 230 V dimensions: 362 x 255 x 165 mm

#### comprising:

- DTA-1 control unit in large housing (IP 67) with protection against contact and already pre-installed main switch
- radio receiver FM 868.8 MHz (Somlog Rollingcode), pluggable
- 4-command transmitter (item no. 4020V000)

or

#### Hint:

Just order for the operation of a 2-leaf gate installation with the twist XL: 2x "twist XL operator" (item no. 3280) + the appropriate control unit



<sup>\*</sup> twist 200 E/EL operators and DTA-1 control units can only be used in combination with the conversion set "twist XS" (item no. 3248V000)...

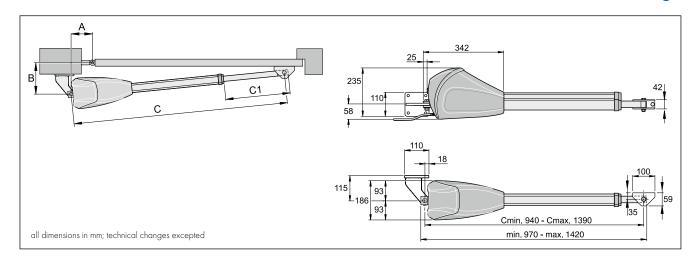


# twist XL

type	twist XL
gate weight per leaf	max. 500 kg
gate width per leaf	max. 5,000 mm
gate inclination	0 % (up to 10 % in combination with special brackets)
gate filling	max. 100 % filled, dependent of gate width and height
operator principle	electromechanical swing gate operator with 8-gear stainless steel threaded spindle and self-locking high-performance worm gear
push rod	made of polished stainless steel, non-corrosive, high buckling resistance
exterior tube	anodised aluminium, extremely good protection, even in extreme climatic conditions
bearing	maintenance-free slide bearing with excellent dry-running characteristics
housing	made of special, UV-resistant, non-ageing special synthetic material (stabilised PA6 GF30).  It is more resistant to brittle fracture compared to the same housing of an aluminium alloy
motor	high-performance DC motor with multiple downgearing and extra-reinforced gear steps, extremely reliable
motor safety device	via microprocessor, with power and temperature monitoring
motor control board	DTA-1 (item no. 3282V000), 1- and 2-leaf operators
power supply	AC 230 V, 50 Hz / motor voltage DC 24 V
opening time	opening time for one leaf approx. 10 - 40 s; two leaf 15 - 60 s; opening angle max. 1120 vary depending on the fixing point (see installation dimensions A + B)
accident prevention	by means of automatic supply deactivation
emergency release	fitted to the operator; secured with a lock; easy to use
LED-monitored function	mains / open / closes / safety, warning light, limits, electric lock
soft start / soft stop	regulated soft run in ramp form, without power loss
connection possibilities	for light barrier (photo cell), safety edge (only with an external evaluation unit), warning light, external consumer (DC 24 V, max. 1 A), floating relay contact, TorMinal, electric lock
automatic close function	can be set via potentiometer
pedestrian door function	yes
pulse mode	per radio control: open / stop / close / stop /, per button: specific gate OPEN / gate CLOSE additionally adjustable
close sequence	self-learning
number of radio channels	2
operating mode	S3 40 %
class of protection	operator: IP 44 / control unit: IP 65
temperature range	operator: -20°C to +70°C / control unit: -20°C to +70°C



# twist XL: dimensioned drawings



### twist XL: installation dimensions A+B

#### Note:

Please arrange A-/B-measures before installation. Without considering A-/B-measures installation can be erroneous.

The dimensions has to be chosen so that the required opening angle is reached. Values have been calculated as follows (guideline):

- 1) wind speed: 25 m/s
- 2) gate height: 3 m
- 3) gate filling 35 % shared equably across gate
- 4) without electric lock
- The bigger the B-dimension the more sensitive the obstacle detection.
- Pay attention to different post/pillar dimensions.

A B	100	120	140	160	180	200	220	in combination with special brackets
160	92°							3,5 m
180	92°	98°	104°	109°				4,0 m
200	92°	97°	103°	107°	112°			4,0 m
220	92°	97°	102°	106°	107°	106°	99°	4,0 m
240	92°	96°	101°	105°	98°	98°		4,5 m
260	91°	96°	100°					4,5 m
280	91°	95°					·	4,5 m
300	91°	95°						5,0 m

White fields: installation dimension only for horizontal gates. Light blue fields: installation dimension for horizontal and inclining gates.

Attention! Operation of inclining gates only with appropriate bracket, leaf weight of max. 300kg and a max. inclination of 10%.

height	filling (	%)			
5	100	100	50	25	20
4	100	100	65	35	25
3	100	100	85	45	35
2	100	100	100	70	50
1	100	100	100	100	100
length (m)	1,2	2	3	4	5

# twist XL: permitted gate leaf dimension

Valid with B-measure 300 mm + A-measure 100 mm; weight: max. 500 kg; gate inclination: 0 %

## jive 200 E

# The robust unterground swing gate operator gates up to 2.0 m width per leaf and 200 kg weight per leaf

### Features of the jive 200 E:

- · operator is "not visible", because it is installed underground
- 1- and 2-leaf operations possible
- · dust and splash-proof stainless steel housing
- automatic power deactivation
- regulated soft run, without power loss
- extremely quiet, smooth movement
- connections for safety facilities such as warning light and light barrier (photo cell)
- easy-to-use emergency release (e. g. in case of power failure)
- high-quality materials, e. g. stainless steel

#### Advantages of the electronic limit switches:

- precise limit stop
- with reed sensors
- easily adjustable
- no mechanical wear
- long life time
- air tight (insensitive against dirt and water)



## Underground swing gate operator

## jive 200 E

#### jive 200 E 1-leaf, right; set

item no. 3263V000

DC 24 V, electromechanical, leaf width: max. 2,000 mm Operator unit in stainless steel housing

#### comprising:

- jive 200 E underground swing gate operator (right)
- control unit in housing, IP 65
- radio receiver FM 868.8 MHz (Somlog Rollingcode), pluggable
- 4-command transmitter (item no. 4020V000)



### jive 200 E 1-leaf, left; set

item no. 3264V000

DC 24 V, electromechanical, leaf width: max. 2,000 mm Operator unit in stainless steel housing

#### comprising:

- jive 200 E underground swing gate operator (left)
- control unit in housing, IP 65
- radio receiver FM 868.8 MHz (Somlog Rollingcode), pluggable
- 4-command transmitter (item no. 4020V000)



#### jive 200 E 2-leaf; set

item no. 3268V000

DC 24 V, electromechanical, leaf width: max. 2,000 mm Operator unit in stainless steel housing

#### comprising:

- two jive 200 E underground swing gate operator (left + right)
- control unit in housing, IP 65
- radio receiver FM 868.8 MHz (Somloq Rollingcode), pluggable
- 4-command transmitter (item no. 4020V000)



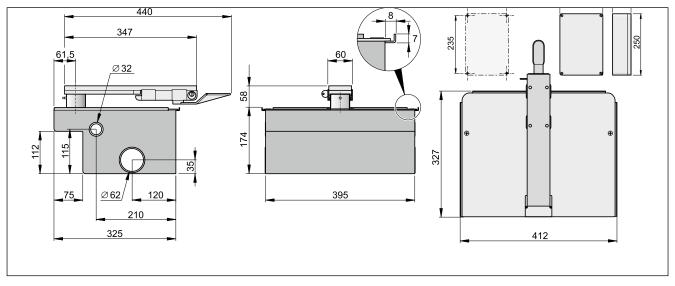


# Underground swing gate operator

# jive 200 E

type	jive 200 E
gate weight per leaf	max. 200 kg
gate width per leaf	max. 2,000 mm
gate inclination	0%
gate filling	max. 50 % filled, dependent of gate width and height
operator principle	electromechanical swing gate operator
housing	housing is made of stainless steel
motor	high performance DC motor, extremely reliable, safety function
motor safety device	via microprocessor, with power monitoring
motor control board	DST-A 24, 1- and 2-leaf operators
power supply	AC 230 V, 50 Hz / motor voltage DC 24 V
opening time	opening time for one leaf approx. 10-25 s, two leaf ca. 10-30 s; opening angle max. 115°
accident prevention	by means of automatic supply deactivation
emergency release	fitted to the operator; secured with a lock; easy to use
LED-monitored function	mains / open / closes / safety, warning light
soft start / soft stop	regulated soft run in ramp form, without power loss
connection possibilities	for light barrier (photo cell), safety edge (only with an external evaluation unit), warning light, external consumer (DC 24 V, max. 1 A), floating relay contact, TorMinal, electric lock
automatic close function	can be set via DIP switch
pedestrian door function	yes
pulse mode	open / stop / close / stop /
close sequence	self-learning
number of radio channels	2
operating mode	S3 15 %
class of protection	operator: IP 44 / control unit: IP 65
temperature range	operator: -20°C to +70°C / control unit: -20°C to +70°C

# jive 200 E: dimensioned drawings



all dimensions in mm; technical changes excepted

## Accessories for swing gate operators

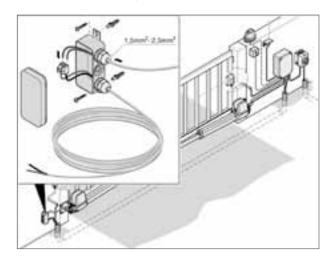
#### Connecting cable set for twist 200 E/EL item no. 3204V000

for connection of the second operator to the control unit housing incl. 7 m cable, IP 54 junction box and screws

#### Connecting cable set for twist XL

item no. 3271V000

for connection of the second operator to the control unit housing incl. 12 m cable, IP 54 junction box and screws





item no. 3272V001

for connection of the second operator to the control unit housing incl. 12 m cable, IP 54 junction box and screws

### Conversion set twist XS

item no. 3248V000

for operation of twist 200 E/EL operators with DTA-1 control units

### Electric gate lock 24 V (DC)

item no. 3205V003

with counter and ground locking plate for side and ground locking without cylinder



### Cylinder for electric gate lock

item no. 5102V000

cylinder for electric lock (item no. 3205V002) incl. 3 keys; length: 40 mm; material: brass



#### Main switch, lockable (IP 65)

item no. 5026

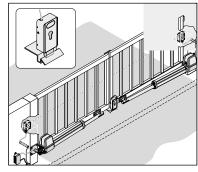
4-pole (prescripted for private and commercial use) 600 V voltage

emergency switch function









You can find all related radio control products from page 78.

## Accessories for swing gate operators



#### Warning light 24 V, IP 44

item no. 5069V001

not self-blinking; E14 lampholder; 25 W, with bulb



#### item no. 7020V000 One-way light barrier (photo cell), IP 44; set

approx. 10 m range, for internal and external installations

DC 15 - 35 V, AC 12 - 24 V - relay output temperature range: -20 °C / +70 °C



#### 2-wire light barrier (photo cell), IP 44; set

item no. 7023V000

directly connectable to twist XL 8 m range, for internal and external installations DC 15-35 V, AC 12-24 V; temperature range: -20°C / +60°C



#### One-way light barrier (photo cell), IP 67

item no. 5229

approx. 65 m range; AC/DC 12-240 V; change-over contact incl. installation angle



# Reflection light barrier (photo cell), IP 67,

item no. 5228

approx. 12 m range; AC/DC 12-240 V; change-over contact incl. installation angle and reflector

with polarising filter



### Reflection light barrier (photo cell), IP 67, with polarising filter

item no. 5233

approx. 12 m range; AC/DC 24-230 V; change-over contact incl. installation angle and reflector



#### Installation support

item no. 7640V000

weather protection cover for reflector reflection light barriers (item no. 5228 and 5233)



#### Rod antenna

rod antenna applicable for swing gate, sliding gate and garage door operators, radio receiver in housing and external radio receiver FM 868.8 MHz; with 50 Ohm-coaxial cable

50 Ohm coaxial cable (6 m) item no. 7004V001

50 Ohm coaxial cable (10 m) item no. 7004V000

50 Ohm coaxial cable (16 m) item no. 7004V002

Note: Electrical/optical safety edge see pages 91.

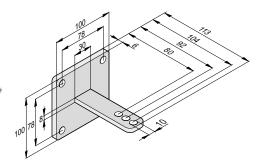
# Brackets for twist 200 E/EL

#### Gate post bracket 50/104 standard

item no. 2251V000

- for left and right hand installation
- galvanised





### Gate post bracket 85/104 L+R

item no. 32063V001

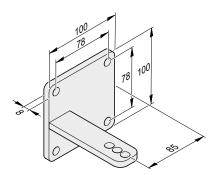
- for left and right hand installation
- galvanised

## Gate post bracket 85/104 L+R

item no. 32063V004

- for left and right hand installation
- stainless steel





Gate post bracket 60/210 L	item no. 3129V000
Gate post bracket 60/210 R	item no. 3129V002

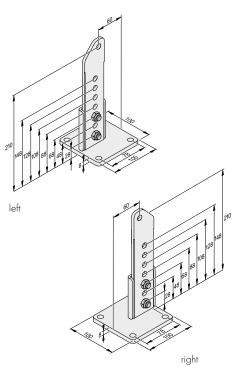
- variable setting
- galvanised

Gate post bracket with ball joint 60/210 L	item no. 3129V001
Gate post bracket with ball joint 60/210 R	item no. 3129V003

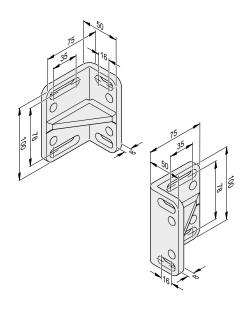
- suitable to max. 10 % gate inclination (max. 120 kg)
- variable setting
- galvanised

Attention! Please consider the legal norms (e.g. EN 12453; EN 12604; EN 12605; EN 13241-1; EN 12445) and installation dimensions.





# Brackets for twist 200 E/EL



#### Mountig bracket for gate post bracket L+R

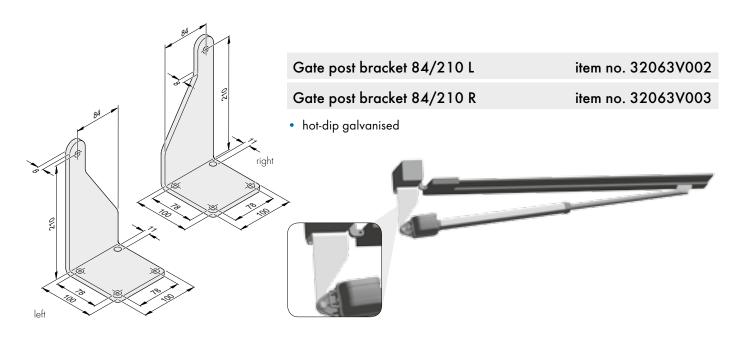
item no. 32066

- galvanised
- welded
- only suitable with following brackets: item no. 3129V000, 3129V002, 2251V000, 32063V001, 32063V002 and 32063V003

### Mountig bracket for gate post bracket L+R item no. 32066V001

- stainless steel
- welded
- only suitable with following brackets: item no. 32063V004





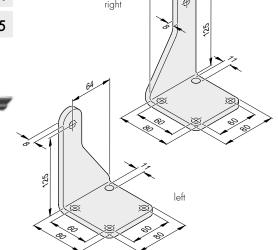


# Brackets for twist 200 E/EL

Gate post bracket 64/125 L item no. 32063V174 Gate post bracket 64/125 R item no. 32063V175

hot-dip galvanised





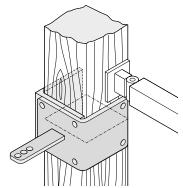
#### Gate post bracket 60/104 L+R

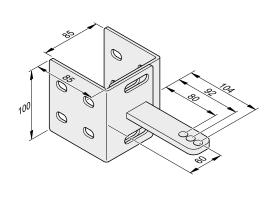
item no. 3108V000

• especially for operator installation at a wooden post

• variable setting from 90 - 140 mm post size

• for left and right hand installation





#### Gate wing bracket

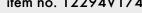
item no. 12294V000

- for left and right hand installation
- galvanised

#### Gate wing bracket

item no. 12294V174

- for left and right hand installation
- · hot-dip galvanised



#### Gate wing bracket

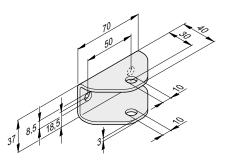
item no. 12294V001

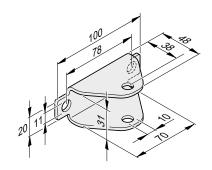
- for left and right hand installation
- galvanised

#### Gate wing bracket

item no. 12294V002

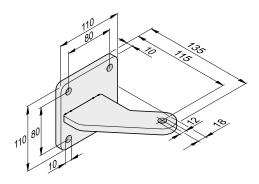
- for left and right hand installation
- stainless steel





Notice: The drilling distance at item no. 12294V001 and V002 fits to the old twist 200 E operator version (by 05/2010).

# Brackets for twist XL



### Gate post bracket 85/115 L+R; set

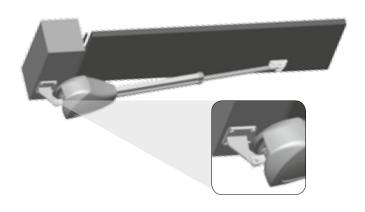
item no. 2187V000

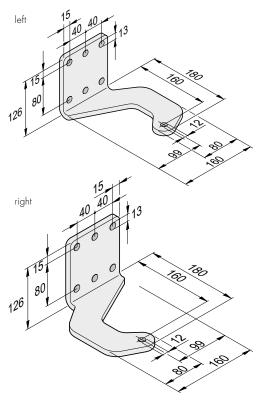
- for left and right hand installation
- galvanised
- consisting of: post bracket 85/115 L+R standard (item no. 14514V002) and mounting material

### Gate post bracket 85/115 L+R

item no. 14514V009

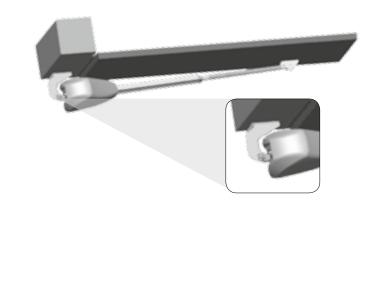
- for left and right hand installation
- stainless steel





Gate post bracket 92/235 L	item no. 14514V007
Gate post bracket 92/235 R	item no. 14514V008

- 160 mm, bent
- galvanised



### Brackets for twist XL

Gate post bracket 100/160 L	item no. 14514V005
Gate post bracket 100/160 R	item no. 14514V006

galvanised

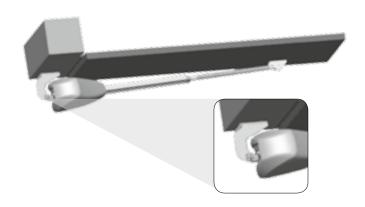
Gate post connection	item no.	14525V000
Calc post confidence		1-020 1000

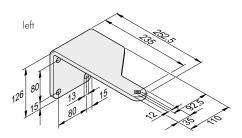
• extension: 50 mm

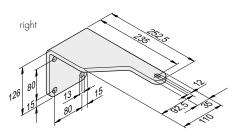
galvanised

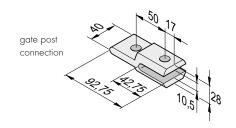
Complete set "left leaf"	item no. 7613V000
Complete set "right leaf"	item no. 7614V000

• consisting of: post bracket 92/235 L or post bracket 92/235 R, gate post connection (item no. 14525V000) and mounting material







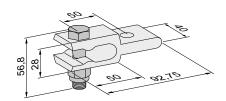


#### Gate post bracket; set

- item no. 7634V000
- extension: 50 mm
- galvanised
- consisting of: post bracket for inclining gates (item no. 14525V001) and mounting material

Attention! Please consider the legal norms (e.g. EN 12453; EN 12604; EN 12605; EN 13241-1; EN 12445) and installation dimensions.

• suitable to max. 10 % gate inclination (max. 300 kg)



### Gate wing bracket

item no. 14521V000

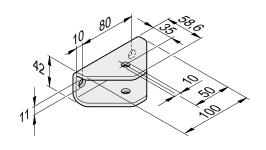
(already included in twist XL set!)

- for left and right hand installation
- galvanised

### Gate wing bracket

item no. 14521V001

- for left and right hand installation
- stainless steel





#### Convenience

Can you remember televisions without remote controls? But you still get out of your car, open your gate manually, and walk back to close your gate? Or you just leave your gate open, for convenience which gives everybody access to your property.

With modern swing and sliding gate operators, it belongs in the past. SOMMER gate operators are affordable and can be quickly installed. Only one push is needed to open or close the gate. With safety and security built in as standard.



### Safety

- all gate operators are developed and manufactured by SOMMER in Germany and conform to the latest CEN regulations
- independent test institutes give you and your family assurance of safety and quality

### **Technology**

- importance in reliability and durability is a key factor of all SOMMER products
- the operators are easily installed

Note: The use of passive safety edges (item no. 3652V000) at the main and lateral edges are mandatory. It is not allowed to operate sliding gates without safety edges.

# Specifications of sliding gate operators

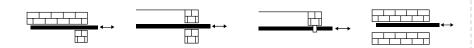
type	STArter	SP 900	561	SM 40 T	DS 600	DS 1200
gate weight	max. 300 kg	max. 400 kg	max. 500 kg	max. 600 kg	max. 600 kg	max. 1200 kg
travel length	max. 6,000 mm	max. 8,000 mm	max. 6,000 mm	max. 12,000 mm	max. 15,000 mm	max. 20,000 mm
gate inclination	%0	%0	%0	%0	with attenuator (item no. 5814V000) max.	io. 5814V000) max. 5 %
max. traction and compression force	550 N	N 006	800 N	_	-	-
nominal force	165 N	300 N	240 N	_	-	
operator principle	24 V dc motor		24 V dc motor	oil bath geared motor in compact aluminium die casting housing	high-performance gec	high-performance gear motor with worm gear
automatic locking	via worm gear		via worm gear	via worm gear	via worm gear	
opening velocity	max. 200 mm/s	max. 285 mm/s	max. 200 mm/s	max. 170 mm/s	ca. 220 mm/s	ca. 200 mm/s
power consumption, standby	~ 2 W	~ 0,5 W	~ 2 W	~ 3,5 W	~ 3,5 W	~ 3,5 W
motor protection	yes, clue to self-locking gear	yes, via microprocessor, current and temperature monitoring	yes, via microprocessor, current and temperature monitoring	_	yes	yes, via speed sensor
energy-saving toroidal transformer	yes	yes	yes	no	no	no
power supply	AC 230 V, 50 Hz / motor voltage DC 24 V	AC 230 V, 50 Hz / motor voltage DC 24 V	AC 230 V, 50 Hz / motor voltage DC 24 V	AC 230 V, 50 Hz / 800 W	400 V AC, 50 Hz/ 0,37 kW	400 V AC, 50 Hz/ 1,1 kW
limit switch	via electronic limit switches	via electronic limit switches (contactless) with fine adjustment	via electronic limit switches	via magnetic limit switches	via limit switches	via limit switches + eddy current brake
motor control board	integrated in the housing of the operator, pluggable	integrated in the housing of the operator, pluggable	integrated in the housing of the operator, pluggable	T100 integrated in operator housing	ACM 400 S; LED cor	ACM 400 S; LED controlled operation sequence
accident prevention	via automatic force memory with Dynamic Power System (DPS)	via automatic force memory with Dynamic Power System (DPS)	via automatic force memory with Dynamic Power System (DPS)	ı	Please comply with the norms DIN 12453, Safety edges are required	Please comply with the norms DIN EN 12445 + 12453, Safety edges are required.
24 V output	yes	yes (light barrier: 24 V / 400 mA, warning light, unregulated 24 V / 0,8 A)	yes, (DC 24 V, max 0.1 A)	yes, (DC 24 V, max 0.15 A)	24 V AC + 12 V DC	24 V AC + 12 V DC
adjustable early warning function	yes	yes	yes	yes	yes	yes
soft start / soft stop	regulated soft run in ramp form without power loss	regulated soft run in ramp form without power loss	regulated soft run in ramp form without power loss	OU	Ou	0
connection possibilities	1 × warning light, light barrier (photo cell), safety edge (integrated evaluation for electrical (8.2 kOhm) or optical safety edge), floating relay contact	1x warming light, 1x light barrier (2- or 4-wire), 2x safety edge 8,2 kOhm or optical safety edge, 1x floating relay contact, 1x 1x OPEN button, 1x CIOSE button, 1x impulse button, 1x partial opening button, 1x emergency stop, 1x bartery pack, optional: radio-based safety edges (2 for each OPEN / CLOSE)	1 x warning light, light barrier (photo cell), safety edge (integrated evaluation for electrical (8.2 KOhm) or optical safety edge), floating relay contact	warning light, light barrier (photo cell), safety edge (electrical (8.2 kOhm) or optical) - only in connection with an electrical evaluation unit possible, key switch	for emergency stop, w (photo cell), electrical safety edge	for emergency stop, warning light, light barrier (photo cell), electrical safety edge (8.2 kOhm), FRABA-OSE
safety connection functionality	adjustable	adjustable	adjustable	-	adjustable	adjustable
automatic close function (time)	adjustable from 1 - 120 seconds	adjustable from 0 - 255 seconds	adjustable from 1 - 120 seconds	adjustable from 1 sec. to 15 minutes	adjustable from 2 - 196 seconds	obsoonds
only in connection with TorMinal	cycle counter, floating relay output (adjustable function)	cycle counter, floating relay output adjustable function), last error code	cycle counter, floating relay output (adjustable function)	OU	no	Ou
drive direction control	defined open / close adjustable	defined open / close adjustable	defined open / close adjustable	nein	defined open / close adjustable	adjustable
adjustable partial opening of door	adjustable	adjustable; also in open position	adjustable	adjustable	adjustable	
number of radio channels	2	4	2	2	2	
number of control inputs	2	9	2	8	ಣ	
number of safety inputs	2	3 (+4 optional radio-based)	2	2	4	4
operating mode	83 30%	S3 40%	S3 40 <i>%</i>	S3 40 %	S3 40 <i>%</i>	
application	private	private and commercial	private	private and commercial	private and commercial	ام

# Check list for sliding gate operators

### **Posts**

1. Position of posts from above

□ wall □ fence □ fence	vall
------------------------	------



### Further details

Runs the gate on a track? yes no

Is the gate self-supporting (without track)?

yes

Does the gate have an open filling (e.g. bars)?

no

Does the gate have a closed filling (e.g. wood)?

yes no

Is a concrete base available for an operator?

no Power supply connection: 230 V 400 V

Has the gate an inclination? yes, in the direction of opening

(inclination \_\_\_\_ mm) yes, in the direction of closing

(inclination \_\_\_\_ mm)

Gate utilisation: private

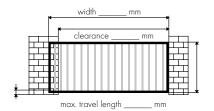
public/commercial (observe regulations!)

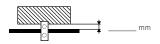
How many times is the gate opened daily? \_

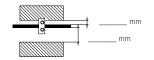
### Gate

1. Size and weight

kg weight of gate m height of gate









## Accessory (please tick)

#### 1. Operation 2. Safety

- ☐ transmitter (see page 78) □ safety edge (see page 91)
- key switch (see page 88) ☐ light barrier (photo cell) (see page 90)
- ☐ Telecody (see page 78) □ warning light (see page 95) □ rod antenna (see page 73)
  - $\square$  main switch (see page 73)
- ☐ dead man's activation  $\square$  protective motor switch (see page 71) (only possible without radio control)
- ☐ traffic light control (only DS 600/1200) □ evaluation safety edge (see page 92) □ access systems (see page 87)

Company stamp / customer no.

Note: Just fill in the check list, enter your contact details and send them together with your enquiry to SOMMER (fax: +49 (0)7021/8001-101, e-mail: info@sommer.eu). You can also download the check list on www.sommer.eu.

### **STArter**

# The compact sliding gate operator for gates up to 6 m run and 300 kg weight

### Advantages:

- no active safety edges at the main edge necessary
- virtually maintenance free operator
- fully automated force learning
- 24 V technology with controlled soft run
- energy-saving toroidal core transformer
- control unit STA-1:
  - pluggable control unit integrated in the housing
  - with connection for TorMinal

#### manual disconnection:

the gate can be disengaged and engaged in any position

#### steel rack:

steel rack bonded with plastic provides smooth operation

- with universal installation bracket for easy installation
- compact construction
- robust and rust-resistant
- UV-resistant and weather-resistant synthetic housing



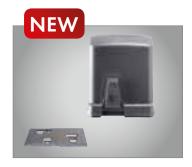
#### STArter; complete set

item no. 3540V000

AC 220...240 V, 50 Hz; up to max. 300 kg

#### comprising:

- sliding gate operator STArter
- control unit with integrated radio receiver (FM 868.8 MHz Somlog Rollingcode)
- universal installation bracket
- 4-command transmitter (item no. 4020V000)
- 4 m steel plastic bonded steel rack (extendable to max. 6,000 mm)



#### STArter; single operator

item no. 3550V000

AC 220...240 V, 50 Hz; up to max. 300 kg

#### comprising:

- sliding gate operator STArter
- control unit with integrated radio receiver (FM 868.8 MHz Somloq Rollingcode)
- universal installation bracket



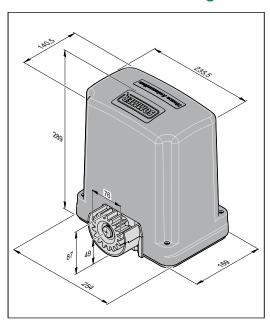
the product video

# Sliding gate operator

# **STArter**

type	STArter
gate weight	max. 300 kg
travel length	max. 6,000 mm
gate inclination	0 %
max. traction and compression force	550 N
nominal force	165 N
opening velocity	max. 200 mm/s
power consumption	~ 2 W
motor protection	yes, clue to self-locking gear
energy-saving toroidal transformer	yes
power supply	AC 230 V, 50 Hz / motor voltage DC 24 V
limit switch	via electronic limit switches
motor control board	integrated in the housing of the operator, pluggable
accident prevention	via automatic force memory with Dynamic Power System (DPS)
24 V output (regulated 0.1 A)	yes
adjustable early warning function	yes
soft start / soft stop	regulated soft run in ramp form without power loss
connection possibilities	1 x warning light, light barrier (photo cell), safety edge (integrated evaluation for electrical (8.2 kOhm) or optical safety edge), floating relay contact
safety connection functionality	adjustable
automatic close function (time)	adjustable from 1 - 120 seconds
only in connection with TorMinal	cycle counter, floating relay output (adjustable function)
drive direction control	defined open / close adjustable
partial opening of door	adjustable
number of radio channels	2
number of control inputs	2
number of safety inputs	2
operating mode	S3 30 %
class of protection	IP 54
temperature range	-20°C/+50°C

# Dimensioned drawings



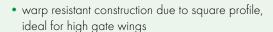
all dimensions in mm; technical

# The powerful sliding gate operator concealed in the post for gates up to 8 m run and 400 kg weight

### **Advantages:**

- the speed (max. 285 mm/s) and further parameters are adjusted automatically to the size and weight of the gate
- integrated electric lock ensures a high security
- · connection for a radio based safety edge already built-in
- many applications possible due to multiple connections on the control board
- automatic and half-automatic closing adjustable
- gate driving direction via monitoring switch





#### Split packaging = more flexibility:

- the post and operator unit are delivered in two packages ensuring easy handling
- the operators don't have to be dismantled before coating



### Aluminium blank

**RAL 9006** white aluminium



DB 703 iron mica

### SP 900 post unit (1,250 mm)

incl. aluminium post, post cover and foot plate

Aluminium blank	item no. 3700V000
RAL 9006	item no. 3700V001
DB 703	item no. 3700V002

Please order the rack separately (see page 71).

#### SP 900 post unit (2,100 mm)

incl. aluminium post, post cover, foot plate and clamping shoe set

Aluminium blank	item no. 3710V000
RAL 9006	item no. 3710V001
DB 703	item no. 3710V002

Please order the rack separately (see page 71).

### SP 900 operator unit

item no. 3703V000

AC 220...240 V, 50 Hz; up to max. 400 kg

#### comprising:

- · motor unit
- · control unit integrated in the housing
- pluggable radio receiver (FM 868.8 MHz Somlog Rollingcode)

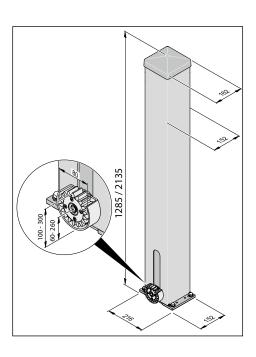


# Sliding gate operator

# SP 900

type	SP 900
gate weight	max. 400 kg
travel length	max. 8,000 mm
gate inclination	0 %
max. traction and compression force	900 N
nominal force	300 N
opening velocity	max. 285 mm/s
power consumption	~ 0,5 W
motor protection	yes
energy-saving toroidal transformer	yes
power supply	AC 230 V, 50 Hz / motor voltage DC 24 V
limit switch	via electronic limit switches (contactless limits) with fine adjustment
motor control board	integrated in the housing of the operator, pluggable
accident prevention	via automatic force memory with Dynamic Power System (DPS)
24 V output	light barrier: 24 V / 400 mA; warning light unregulated 24 V / 0,8 A
adjustable early warning function	yes
soft start / soft stop	regulated soft run in ramp form without power loss
connection possibilities	1x warning light, 1x light barrier (photo cell) (2- or 4-wire), 2x safety edge 8,2 kOhm or optical safety edge, 1x floating relay contact, 1x OPEN button, 1x STOP button, 1x CLOSE button, 1x impulse button, 1x partial opening button, 1x emergency stop, 1x battery pack, optional: radio-based safety edges (2 for each OPEN / CLOSE)
safety connection functionality	adjustable
automatic close function (time)	adjustable from 0 - 255 seconds; automatic and half-automatic closing
only in connection with TorMinal	cycle counter, floating relay output (adjustable function)
drive direction control	defined open / close adjustable
partial opening of door	adjustable; also in open position
number of radio channels	4
number of control inputs	6
number of safety inputs	3 (+4 optional) 3 + optional: 4 radio-based (accessories see page 72)
operating mode	S3 40 %
class of protection	operator: IP 44 / control unit: IP 54
temperature range	-20°C / +50°C

# Dimensioned drawings



all dimensions in mm; technical changes excepted

# The powerful sliding gate operator for gates up to 6 m run and 500 kg weight

### Advantages:

- reliable
- power saving
- ultra smooth operator due to the regulated soft run and the plastic coated steel rack
- electronic safety shut-down as no safety edge at the main closing edge and therefore there is no current transmission system needed (by keeping force value according to EN 12453)
- simple installation

- no maintenance work
- secure and reasonably priced
- in the end positions the gate is switched off and locked contactless via electronic end switches, the gate is automatically locked
- the control board offers other connections, e. g. light barriers (photo cell), warning light, safety edge
- high traction and compressing force of 800 N



#### SG1; complete set

item no. 3483V000

AC 220...240 V, 50 Hz; up to max. 500 kg

#### comprising:

- SG1 sliding gate operator for ground guided sliding gates
- control unit with integrated radio receiver (FM 868.8 MHz Somloq Rollingcode)
- 4-command transmitter (item no. 4020V000)
- 4 m plastic bonded steel rack incl. fixing material (extendable to max. 6,000 mm)



#### SG1; single operator

item no. 3482V000

AC 220...240 V, 50 Hz; up to max. 500 kg

#### comprising:

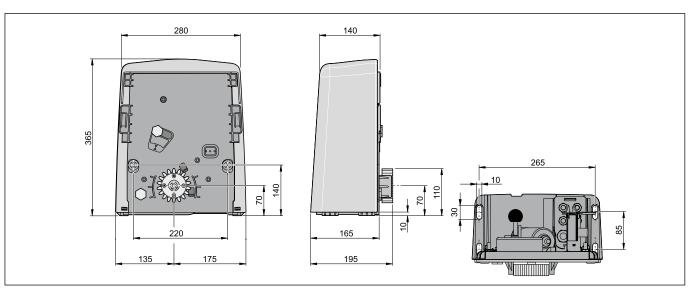
- SG1 sliding gate operator for ground guided sliding gates
- control unit with integrated radio receiver (FM 868.8 MHz Somloq Rollingcode)

# Sliding gate operator

# SG 1

type	SG1
gate weight	max. 500 kg
travel length	max. 6,000 mm
gate inclination	0 %
max. traction and compression force	800 N
nominal force	240 N
opening velocity	max. 200 mm/s
power consumption	~ 2 W
motor protection	yes
energy-saving toroidal transformer	yes
power supply	AC 230 V, 50 Hz / motor voltage DC 24 V
limit switch	via electronic limit switches
motor control board	integrated in the housing of the operator, pluggable
accident prevention	via automatic force memory with Dynamic Power System (DPS)
24 V output (regulated 0.1 A)	yes
adjustable early warning function	yes
soft start / soft stop	regulated soft run in ramp form without power loss
connection possibilities	1 x warning light, light barrier (photo cell), safety edge (integrated evaluation for electrical (8.2 kOhm) or optical safety edge), floating relay contact
safety connection functionality	adjustable
automatic close function (time)	adjustable from 1 - 120 seconds
only in connection with TorMinal	cycle counter, floating relay output (adjustable function)
drive direction control	defined open / close adjustable
partial opening of door	adjustable
number of radio channels	2
number of control inputs	2
number of safety inputs	2
operating mode	S3 40 %
class of protection	IP 44
temperature range	-20°C / +50°C

# Dimensioned drawings



all dimensions in mm; technical changes excepted

### **SM 40 T**

# The high-performance sliding gate operator for gates up to 12 m run and 600 kg weight

### Advantages:

- emergency release can be used in any position (e. g. in case of power failure)
- secure and reasonably priced
- wear-free limit switches



#### SM 40 T; set with key switch

item no. 3500V000

AC 230 V, 50/60 Hz; up to max. 600 kg

#### comprising:

- SM 40 T sliding gate operator
- T100 control unit
- key switch 1-contact with cylinder AP / UP
- radio receiver FM 868.8 MHz (Somlog Rollingcode)
- 4-command transmitter (item no. 4020V000)
- 4 m plastic bonded steel rack incl. fixing material



#### SM 40 T; set with light barrier (photo cell)

item no. 3504V000

AC 230 V, 50/60 Hz; up to max. 600 kg

#### comprising:

- SM 40 T sliding gate operator
- T100 control unit
- light barrier (photo cell)
- radio receiver FM 868.8 MHz (Somlog Rollingcode)
- 4-command transmitter (item no. 4020V000)
- 4 m plastic bonded steel rack incl. fixing material



#### SM 40 T; single operator

item no. 5822V002

AC 230 V, 50/60 Hz; up to max. 600 kg

#### comprising:

- SM 40 T sliding gate operator
- T100 control unit
- radio receiver FM 868.8 MHz (Somlog Rollingcode)

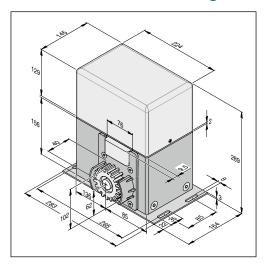


# Sliding gate operator

# SM 40 T

type	SM 40 T
gate weight	max. 600 kg
travel length	max. 12,000 mm
gate inclination	0 %
operator principle	oil bath geared motor in compact aluminium die casting housing
automatic locking	via worm gear
motor control board	T100 integrated in operator housing
power supply	AC 230 V , 50 Hz / 800 W
opening velocity	max. 170 mm/s
limit switch	via magnetic limit switches
connection possibilities	warning light, light barrier (photo cell), safety edge (electrical (8.2 kOhm) or optical) - only in connection with an electronical evaluation unit possible, external consumer (24 V), key switch
automatic close function (time)	adjustable from 1 second to 15 minutes
runtime	adjustable from 2 - 360 seconds
partial opening of gate	adjustable
number of radio channels	2
operating mode	S3 40 %
class of protection	IP 44
temperature range	-20°C / +70°C

# Dimensioned drawings



technical changes excepted



# DS 600 / DS 1200

# Our strongest sliding gate operators for gates up to 20 m width and 1,200 kg weight



DS 600 item no. 3408V000

AC 400 V, 50/60 Hz; up to max. 600 kg

incl. ACM 400 S control unit (IP 65) applicable for radio receiver module 4-channel (item no. 7000V000)

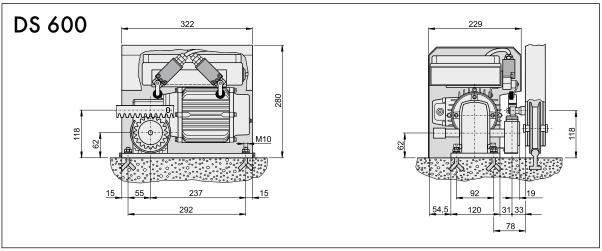
**DS 1200** item no. 3409V000

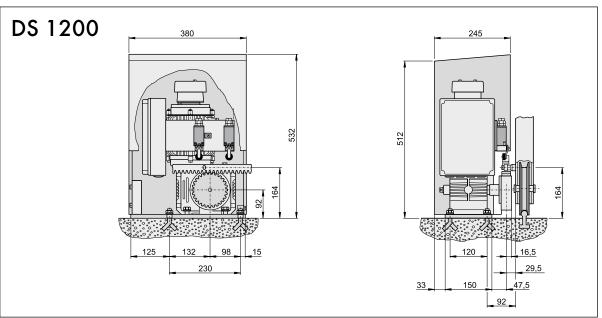
AC 400 V, 50/60 Hz; up to max. 1,200 kg  $\,$ 

incl. ACM 400 S control unit (IP 65) applicable for radio receiver module 4-channel (item no. 7000V000)

type	DS 600	DS 1200	
gate weight	max. 600 kg	max. 1,200 kg	
travel length	max. 15,000 mm	max. 20,000 mm	
gate inclination	max. 5 % (only with radial damper; se	max. 5 % (only with radial damper; see page 71)	
operator principle	high-performance gear motor with wo	high-performance gear motor with worm gear	
automatic locking	via worm gear	via worm gear	
motor control board	ACM 400 S; LED monitored function	ACM 400 S; LED monitored function sequence	
power supply	AC 400 V, 50 Hz / 0,37 kW	AC 400 V, 50 Hz / 1,1 kW	
opening velocity	ca. 220 mm/s	ca. 200 mm/s	
accident prevention	please note the norms: DIN EN 1244	please note the norms: DIN EN 12445 + 12453, safety edges are mandatory	
limit switch	via limit switches	via limit switches + eddy current brake	
connection possibilities		for emergency stop, warning light, light barrier (photo cell), electrical safety edge (8.2 kOhm), FRABA-OSE	
automatic close function (time)	adjustable from 2 seconds to 15 minu	adjustable from 2 seconds to 15 minutes	
pulsed operation	open / stop / close / stop /	open / stop / close / stop /	
dead-man operation	adjustable		
three button operation	yes		
partial opening of gate	yes	'	
number of radio channels	2		
operating mode	S3 40 %	\$3 40 %	
class of protection	operator: IP 44 / control unit: IP 65	operator: IP 44 / control unit: IP 65	
temperature range	-20°C / +70°C	-20°C / +70°C	

# Dimensioned drawings





all dimensions in mm; technical changes excepted

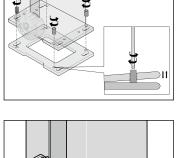


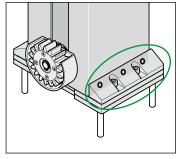
## Accessories for sliding gate operators















#### Installation bracket

item no. 5823V001

for sliding gate operators SG1 and SM 40 T for setting in concrete

#### Installation bracket

item no. 5823V002

for sliding gate operators SG1 and SM 40 T for setting in concrete • screw-on • incl. screws

#### Installation bracket

item no. 2119V001

for STArter sliding gate operators for setting in concrete • screw-on

### Foot plate in set



item no. 14038V000

for SP 900 sliding gate operator to adjust the post to be plumbed, e.g. at uneven concrete foundations galvanised • incl. screws

### Tensioning bracket set



for SP 900 sliding gate operator for additional fixing of posts • incl. screws

Aluminium blank	item no. 3701V000
RAL 9006	item no. 3701V001
DB 703	item no. 3701V002

#### SLAVE transceiver module



item no. 5098V000

for SP 900 sliding gate operator

for connection of 2 radio-based safety edges

to OPEN and to CLOSE, as desired 8.2 kOhm or optical safety edges (low power)

module in housing (IP 65) for installation at the gate leaf

housing dimensions: 222 x 45 x 20 mm -10°C bis +55°C temperature range: 2,4 GHz (range: 10 m) frequency:

3,6 V DC, 2700 mAh (lithium battery type AA) power supply:

Note: MASTER transceiver module (item no. 5099V000) necessary.

#### MASTER transceiver module



item no. 5099V000

for radio-based safety edges (SP 900 sliding gate operator) pluggable on printed circuit board

Note: It is possible to program 2 SLAVE transceiver modules (item no. 5098V000).

# Accessories for sliding gate operators

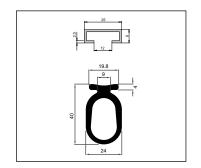
Rubber profile (passive)

item no. 3652V000

for STArter, SP 900 and SG1 sliding gate operators for protection of closing edge.

### Aluminium C-rail item no. 50650

for rubber profile (passive) and safety edges.



You can find more related electrical/optical safety edges from page 91.

#### Plastic rack with steel core item no. 5829

incl. fixing material, 1 m length, gear teeth dimension: module 4

### Steel rack, galvanised item no. 5825

incl. fixing material and spacer 1 m length

gear teeth dimension: module 4

### Switching cams for steel rack item no. 5805

for sliding gate operators DS 600 / 1200 in pairs



### Radial damper for rising gates

perfect speed regulation for rising gates; damping that acts on one side can be adjusted infinitely; freewheeling is necessary for the opposite direction of rotation; the gradient may not exceed 5%; dimension of gearing: module 4

max. 600 kg (for DS 600)	item no. 5815V000
max. 1200 kg (for DS 1200)	item no. 5816V000



#### Protective motor switch, IP 55

0.6 - 1.0 A (for DS 600)	item no. 5811
1.6 - 2.5 A (for DS 1200)	item no. 5812
2.4 - 4.0 A (for SM 40 T)	item no. 5813



## Accessories for sliding gate operators



#### One-way light barrier (photo cell), IP 44, set item no. 7020V000

approx. 10 m range, for internal and external installations DC 15-35 V, AC 12-24 V; relay output temperature range: -20 °C / +70 °C

#### 2-wire light barrier (photo cell), IP 44, set item no. 7023V000

Light barriers with 2-wire technology connectable directly to twist XL, RDC 800 and RDC Vision (always only 1x per control board connectable) approx. 8 m range; Suitable for installation outside;

DC 15-35 V, AC 12-24 V; temperature range: -20°C / +60°C



#### Universal installation angle set

item no. 1640V000

for light barrier (photo cell) (item no. 7020V000 and 7023V000) swivelling angle (up/down) swivel and movable light barrier on angle



#### One-way light barrier (photo cell), IP 67

item no. 5229

approx. 65 m range, for internal and external installations AC/DC 12-240 V; change-over contact incl. installation angle



### Reflection light barrier (photo cell), IP 67 with polarising filter

item no. 5228

approx. 12 m range; AC/DC 12-240 V; change-over contact incl. installation angle and reflector

# Reflection light barrier (photo cell), IP 67 with polarising filter

item no. 5233

approx. 12 m range; AC/DC 24 - 230 V; change-over contact incl. installation angle and reflector





#### Installation support

item no. 7640V000

weather protection cover for reflector for reflection light barriers (item no. 5228 and 5233)

### Accessories for sliding gate operators

#### Main switch, IP 65, lockable

item no. 5026

4-pole (prescripted for private and commercial use) 600 V voltage



#### Palm button, IP 65

item no. 5024

emergency stop plastic housing (self-holding)



### All-round flashing light, IP 54

item no. 5066

AC 230 V , E14 lampholder, max. 40 Watt, with bulb



#### Warning light 24 V, IP 44

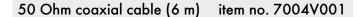
item no. 5069V001

not self-blinking; E14 lampholder; 25 Watt, with bulb



#### Rod antenna FM 868.8 MHz

rod antenna applicable for internal and external installations, for swing gate, sliding gate and garage door operators, radio receiver in housing and external radio receiver



50 Ohm coaxial cable (10 m) item no. 7004V000

50 Ohm coaxial cable (16 m) item no. 7004V002







# Radio control / Home Automation

Control your Home Automation applications easily and comfortably via radio!

The SOMMER radio control products enable the individual use in the privacy of your home, in the garden or in the garage. You are amazed what can be controlled via radio at the touch of a button.





radio control of your garage door operator, blinds and awnings



radio control of your spa and entertainment area in the privacy of your home













radio control of your electrical devices at home



radio control of applications in the garden





### Radio control / Home Automation

### The advantages at a glance

### Very high transmission security

- only permitted for radio applications with a "Very Low Duty Cycle < 0.1%". Just very short transmission periods are allowed on the frequency FM 868.8 MHz. "Long-term transmitters", such as radio headphones and baby monitors, are not permitted on this frequency!
- frequency modulation increases transmission reliability additionally
- a visible antenna is no longer required
- due to the excellent selectivity, the receiver can easily differ the radio signals of its "own" transmitter from those of other devices

### Very safe "Somloq Rollingcode System"

- secure against "code scanning" (a code length of 66 bits produces 74 trillion different combination options, scanning would take approx. 234 billion years!)
- secure against "code grabbing" (bug-proof)
- the code changes after each activation (Somloq Rollingcode technology), transmitting a recorded code would be ineffective.
- secure against use by unauthorised persons

### Very reliable

- top-quality components
- high quality, even over a long service life (no change e.g. in the event of fluctuations in temperature or vibrations)

## Wide range of applications

Indoor or outdoor, the SOMMER radio system is ideal for a wide range of applications, such as:

- all types of operators (e.g. for garage doors, swing gates and sliding gates)
- door openers
- shutters and blinds
- lighting (indoor and outdoor)
- alarm systems
- fountains
- and many more

Due to its simple, fast and low-cost installation, there is no expensive laying of cables required - saving time and money!

### Stylish transmitter design in stainless steel



- dust-proof housing
- keypad cover protects against accidental use
- practical retainer clip on the rear and optional keyring attachment



### Radio control / Home Automation

### The advantages at a glance

### Low power consumption

Due to the antenna's superior efficiency, the battery lasts much longer having the same range (approx. 50 m, depending on surrounding); e.g. standard CR 2032 flat, lithium coin cell battery for transmitter item number 4020V000.

# Clear identification of the transmitter programming via radio

- each transmitter has its own unique serial number
- the receiver can memorise 112 different codes, each button of the transmitter has its own code
- the transmitter's unique serial number enables it to delete the code of a single transmitter of the receiver without affecting other codes.

## Certification

The introduction of the new R&TTE Directive made access to other European markets easier and reduced administration costs.

The labeling is: **C€** 

### HomeLink® compatible

If your car has HomeLink-System (from version 7), it is compatible with our operators and radio receivers with FM 868.8 MHz.

More information on: www.homelink.com







#### 4-command transmitter

item no. 4020V000

approx. 50 m, depending on surrounding range

battery 3 V, type CR 2032

stainless steel, body can be pulled out housing type dimensions  $87 \times 24 \times 16$  mm (when closed)

keypad cover prevents unintentional activity



#### Holder item no. 4640V000

for 4-command transmitter, item no. 4020V000 for fixing in a car or on a wall; incl. fixing material

#### Transmitter set plus holder

item no. 4650V000

holder (item no. 4640V000) and 4-command transmitter (item no. 4020V000) for fixing in a car or on a wall, incl. fixing material



#### 2-command transmitter

item no. 4026V000

approx. 50 m, depending on surrounding range

battery 3 V, type CR 2032 88 x 24 x 13 mm dimensions



#### 4-command transmitter "slider"

item no. 4031V000

approx. 35 m, depending on surrounding range

battery 3 V, type CR 2032

high-quality, modern design in stainless steel housing type

 $62 \times 35 \times 16$  mm (when closed) dimensions



#### 12-command transmitter "Telecody" (wireless keypad), IP 64

item no. 4071V000

with illuminated buttons

approx. 25 m, depending on surrounding range

3 V, type CR 123 A battery

 $147 \times 48 \times 30$  mm (incl. aluminium holder) dimensions

-20°C to +55°C temperature range

- 10 different access codes (1-8 digits) characteristics

- 2 uncoded keys, e.g. for light

- weather-resistant

30-command transmitter, IP 64 with number and direction buttons item no. 4080V000 with number buttons item no. 4080V001

approx. 25 m, depending on surrounding

3 V, type CR 123 A battery  $147 \times 44 \times 33 \text{ mm}$ dimensions -20°C to +55°C temperature range characteristics - weather-resistant

- for internal and external use







4080V000

4080V001

#### Aluminium holder for the wall

for 30-command transmitter (item no. 4080V000/V001) for fixing on the wall; incl. fixing material

#### Industrial transmitter, 5-command

item no. 4011V000

item no. 4641V000

approx. 50 m, depending on surrounding

3 V, Type CR 2032 battery dimensions 107 x 58 x 25 mm



#### Radio interior push-button, 2-command

Neither a power connector is required nor an additional installation.

approx. 25 m, depending on surrounding range

3 V, Type CR 2450 battery

dimensions63 mm deep flush box, diameter 68 mm

open wire connections, can be connected anywhere button type

18.	1

#### with flush box

item no. 4752V000

(description see above)

Jung CD500 push-button (description see above))





item no. 4762V001 3-button wireless switch;

surface-mounted, anthracite

3-button wireless switch; surface-mounted, white

item no. 4762V000

e.g. to open a garage door

battery operated transmitter -> no installation work required

approx. 25 m (depending on surrounding) range

battery 3 V, Type CR 2032 80 x 85 x 15 mm dimensions







### Radio receiver module, 4-channel in housing, IP 65 item no. 7001V000

Suitable for use with products from other manufacturers (not suitable as tubular motor control) and other special applications. To each button on the transmitter a specific operating mode is programmed on the receiver.

antenna integrated, optional external antenna, item no. 7004

448 programmable codes memory AC 230 V  $\pm$ 10% or AC/DC 24 V power supply

4 floating relay contacts (change-over contacts, 8 A, relay output

AC 230 V)

pulse input connection option for a floating pulse input

connection via screw terminals up to 2.5 mm<sup>2</sup> diameter connectable cable -20°C to +70°C temperature range 130 x 130 x 60 mm dimensions

operating method pulse mode (tip) - relay picks up as long as the

radio signal is sent

switching mode (Toggle) - relay can be switched on/

off via radio just like a pulse relay - command for defined switch on - command for defined switch off

timer mode (time) - relay picks up when a radio

signal is received and drops out again after the set time (10 - 255 s)



#### Radio receiver module, 2-channel in housing, IP 65 item no. 7002V000

as radio receiver item no. 7001V000 but with 112 memory slots and 2 floating relay contacts

#### Radio conversion receiver module, 2-channel in housing

item no. 4796V000

item no. 4796V002

This receiver is suited for use with products from other manufacturers and other special applications.

It has a screw terminal and is designed for universal use with any type of control.

integrated, optional external antenna, item no. 7004 antenna

memory 112 programmable codes AC/DC 12 - 24 V power supply

2 floating relay contacts (closing contact, 1A, DC 24 V) relay output

6-pole screw terminal connection dimensions 109 x 40 x 32 mm

operating method pulse mode (tip): relay picks up as long as the radio

signal is sent



with pluggable memory module

#### Radio conversion receiver module, 2-channel in housing

Advantages see above

integrated, optional external antenna, item no. 7004 antenna 448 programmable codes, module pluggable memory

AC/DC 12 - 24 V power supply

2 floating relay contacts (closing contact, 1A, DC 24 V) relay output

6-pole screw terminal connection dimensions 109 x 40 x 32 mm

operating method pulse mode (tip): - relay picks up as long as the

radio signal is sent

switching mode (Toggle):- relay can be switched on/

off via radio just like a pulse relay

#### Radio receiver mod. in tub. base housing, item no. 4750V000 2-channel

This receiver is suited for products from other manufacturers and other special applications. It has a tubular base housing including a plug-in base element that can be mounted on a stardard DIN rail

integrated, optional external antenna, item no. 7004 antenna

112 programmable codes memory AC/DC 12 - 24 V power supply relay output 2 floating relay contacts

(closing contact, 1A, DC 24 V)

via plug-in base, suitable for 11-pin tubular base connection

75 x 95 x 38 mm dimensions

operating method pulse mode (tip) - relay picks up as long as the

radio signal is sent

item no. 4754V001



#### Radio receiver module, 2-channel, incl. adhesive bases

This receiver is suited for use with products from other manufacturers

and other special applications. It has a screw terminal and is designed for universal use with any type of control.

antenna integrated, optional external antenna, item no. 7004

112 programmable codes memory

AC/DC 12-24 V power supply

2 floating relay contacts (closing contact, 1A, DC 24 V) relay output

connection 6-pole screw terminal dimensions 72 x 62 x 20 mm

pulse mode (tip) operating method - relay picks up as long as the

radio signal is sent

# available until the end of 2012

available until

the end of 2012

### Radio receiver module, 2-channel in housing, IP 65

as radio receiver item no. 4754V001 with IP 65 housing

dimensions 120 x 80 x 50 mm

# item no. 4782V000

#### Radio conversion set

item no. 4757V000

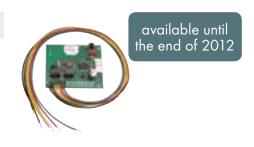
comprising of radio receiver module item no. 4754V001 and 4-command transmitter item no. 4020V000



#### Radio receiver module 2-channel

item no. 4754V002

comprising of radio receiver module item no. 4754V001 and connecting cables AC/DC 12-24 V





#### Radio receiver module 4-channel, pluggable item no. 7000V000

integrated, optional external antenna, antenna

item no. 7004

112 programmable codes memory

8 ... 18 V DC power supply relay output open collector connection 20-pin plug connector  $54 \times 54 \times 16 \text{ mm}$ dimensions pulse mode (tip) operating method

for swing gate operators (e.g. twist 200 E and twist XL), application

SOMMER sliding gate operators

further modules for operators from other manufacturers on request







Radio controlled socket (black)	item no. 7017V000
Radio controlled socket (white)	item no. 7017V001

Version for Germany

A radio receiver which switches the supply voltage to an application, i.e. a lamp, on and off via transmitter

integrated antenna

memory 112 programmable codes AC 230 V / 50 Hz power supply

single-pole switch; max. 3,500 W, relay output

max. 16 (3) A, Ohm resistive load

application dry and fully enclosed rooms

138 x 54 x 40 mm dimensions operating method mode of operation: toggle

- relay is switched on and off by radio

Further European plug models on request





#### Conversion socket receiver, 1-channel

item no. 7021V000

Version for Germany

pulse output via 1.5 m cable

For connection to pulse input of the operator for easy conversion of operators from other manufacturers and for changing the radio frequency. No installation work required for 230 V. Please note that the pulse connection needs to be switched, not the power socket contacts.

antenna integrated

112 programmable radio codes memory

AC 230 V / 50 Hz power supply

plug with earthing-contact, 16 A, AC 230 V, 50 Hz output socket

dry and fully enclosed rooms application

 $138 \times 54 \times 40 \text{ mm}$ dimensions operating method pulse mode (tip)

- relay picks up as long as the radio signal is sent

Further European plug models on request

#### "FunkManager S", IP 30

item no. 5980V000

can be radio-programmed to control shutters, blinds and awnings, flush-mounted (low standard box)

coding Somlog Rollingcode AC 230 V ± 10 % nominal voltage nominal frequency 50/60 Hz 3 A, 50/60 Hz relay output dimensions 48 x 51 x 26.5 mm operating method selected OPEN and CLOSE

item no. 4011V000 and 4762V000/V001

compatible for: item no. 4020, item no. 4026, item no. 4080V000/V001,



#### "FunkManager S" set, IP 30

item no. 5990V000

as item no. 5980V000 incl. transmitter item no. 4020V000

compatible for: item no. 4020, item no. 4026, item no. 4080V000/V001, item no. 4011V000 and 4762V000/V001



#### Radio receiver module 2-channel

item no. 7008V000

2 x 5-pin Molex socket can be used for industrial controls item no. 5400V000, item no. 5403V000 and item no. 5407V000



#### Rod antenna FM 868.8 MHz

rod antenna applicable for internal and external installations, for swing gate, sliding gate and garage door operators, radio receiver in housing and external radio receiver

50 ohm coaxial cable (6 m)	item no. 7004V001
50 ohm coaxial cable (10 m)	item no. 7004V000
50 ohm coaxial cable (16 m)	item no. 7004V002



### "Somlog" Transmitter Management System



#### Transmitter Management System Somlog-Codemaster Standard

item no. 4811V000

The secure solution for property management, industry and banks.

For programming receivers and transmitters e.g. pre-programming transmitters and manage/ file the date on the PC

scope of delivery: UniProg Somlog programmer, UniSoft PC software, batteries, power supply, service case and instructions + 12,000 own radio codes



#### Transmitter Management System Somloq-Codemaster Light

item no. 4810V000

(description see above) additional device, e.g. for instaler

scope of delivery: UniProg Somlog programmer, batteries, power supply, service case and instructions

#### Some of the diverse application possibilities of Somlog:



The radio codes for up to 8 receivers are pre-programmed in the office, including the transmitters.

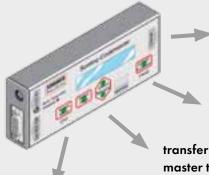
On site the receivers only need to be programmed.





Coded transmitter or receivers can be delivered directly to the customer. This means programming on site is not required, saving an unnecessary visit.

#### The technical possibilities of the Somlog Codemaster: – in the office or on site:



PC with Somloq software

#### Read out radio codes from receivers and save in Codemaster

e.g. read out from defected receivers

#### Deleting prevention<sup>1)</sup>

Receivers with 448 codes can be locked to prevent for unauthorised deleting

#### transfer radio codes from Codemaster to receiver

e.g. programming read out radio codes into new radio receiver

#### Operating distance measurement device1)

During the consultation the radio operating distance can be measured and calculated

#### **Transmitter testing instrument**

Following values of the transmitter can be readout directly: transfer rate, radio power, button function, Rolling-Code, manufacturer code, actuation quantity

#### Interfering transmitter notice1)

On site possible interfering transmitters can be detected

Please note: SOMMER Somlog is only compatible so far with following transmitters: 4020Vxxx, 4010Vxxx, 4011Vxxx, 4752Vxxx, 4753Vxxx, 7050Vxxx and 7051Vxxx. Our engineers are working continuously to integrate more SOMMER transmitter in Somloq.

Delete specific codes

### Radio remote controls FM 40.685 MHz

#### 5-command transmitter, standard model item no. 4004V001

self-learning

approx. 50 m, depending on surrounding range

battery 9 V, type 6F22 dimensions 107 x 58 x 25 mm

LED function control



#### 2-command transmitter, miniature model item no. 4050V000

self-learning

approx. 25 m, depending on surrounding range

12 V, type GP23A battery 62 x 47 x 18 mm dimensions

LED function control



#### Radio receiver in housing, 2-channel, IP 65 item no. 4716

AC 230 V or AC/DC 24 V

for products from other manufacturers and other special applications

2 floating relay contacts relay output

(directional contacts, max. 10 A, AC 230 V)

11-pole screw terminal connection 94 x 94 x 82 mm dimensions -20°C to +70°C temperature range





### Radio remote controls AM 40.685 MHz (10 Bit)



For above shown transmitters sold before 1994, we supply compatible substitute. Frequency AM 27.015 MHz is available on request.

#### item no. 7441 1-command transmitter

AM 40.685 MHz; 10 Bit

item no. 7444 4-command transmitter

AM 40.685 MHz; 10 Bit





# Accessories

### Access systems

#### "ENTRAsys GD" fingerprint system

item no. 5052V000

open garage doors and gates by biometric recognition of a soft touch of a finger without any key or access card

max. 80 fingerprints total memory positions positions for administrators max. 9 fingerprints

swipe sensor of the latest generation with sensor

very high and fast recognition rate

cannot be manipulated; only "living" fingers security

channels 4 (e.g. door and/or gate can be activated)

radio frequency FM 868.8 MHz Somlog Rollingcode encryption

range approx. 50 m, depending on surrounding

low power (battery saving) consumption



#### "VM4" video door system (white)

item no. 5046V000

- convenient external monitoring (at night with infrared)
- · housing of the external unit is aluminium alloyed
- internal unit with 7" colour display and energy-saving technology
- electronic controlled opening of the entrance door, the garage door and the gate from inside
- adjustable volume of the ring tone and conversation
- various ring tones
- adjustable contrast and brightness of the display

#### comprising:

- colour display and external unit with holder
- power supply plug, connection cable and fixing material









### Access systems







IP 67

IP 67

item no. 5212V000

with a keypad in a plastic housing

Coding switch "Cody light"

- controlling of a garage door
- up to 4 codes can be programmed
- easy programming by DIP switch
- power supply: AC/DC 20-28 V





Coding switch "Cody light 1/2 Quadra-line"

item no. 5213V001

- with a keypad in a metal housing
- controlling of a garage door
- up to 2 codes can be programmed
- easy programming by DIP switch
- power supply: AC/DC 20-28 V

### Pulse generators













#### Key switch, IP 54, metal housing

1-contact without cylinder	item no. 5006V000

surface-mounted dimensions 73 x 73 x 45 mm

surface-mounted dimensions  $73 \times 73 \times 45 \text{ mm}$ 

#### item no. 5004V000 1-contact with cylinder

surface-mounted, DIN 30/10.0 degree; incl. 3 keys, dimensions  $73 \times 73 \times 45$  mm

#### 2-contacts with cylinder item no. 5008V000

surface-mounted, DIN 30/10.0 degree; incl. 3 keys, dimensions  $73 \times 73 \times 45$  mm

I-contact without cylinder	item no. 5005V000
----------------------------	-------------------

flush-mounted, dimensions 100 x 100 mm; flush-mounted housing Ø 58 mm

#### 2-contacts without cylinder item no. 5009V000

flush-mounted, dimensions 100 x 100 mm; flush-mounted housing Ø 58 mm

#### item no. 5003V000 1-contact with cylinder

flush-mounted, DIN 30/10.0 degree; incl. 3 keys dimensions  $100 \times 100$  mm; flush-mounted housing Ø 58 mm

#### item no. 5007V000 2-contacts with cylinder

flush-mounted, DIN 30/10.0 degree; incl. 3 keys dimensions 100 x 100 mm; flush-mounted housing Ø 58 mm

### Pulse generators

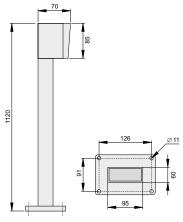
#### Key switch post, IP 54

1-contact with cylinder; DIN 30/10.0 degree aluminium pillar, incl. 3 keys



#### item no. 5031V000

item no. 5120V000



all dimensions in mm; technical changes excepted

#### Push-button in ISO housing, IP 65

surface-mounted UP / STOP / DOWN, wired dimensions 139.5 x 72 x 49 mm supply via M 20 screwing

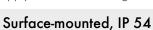


#### Key switch

pulse mode in both directions, emergency stop, key can be withdrawn in the centre position incl. profile half cylinder and 3 keys

#### Flush-mounted, IP 54

DIN 30/10.0 degree dimensions  $170 \times 100 \times 66 \text{ mm}$ supply via M 20 screwing



item no. 5122V000

item no. 5121V000

DIN 30/10.0 degree dimensions  $170 \times 76 \times 68 \text{ mm}$ supply via M 20 screwing



#### Main switch, IP 65, lockable

item no. 5026

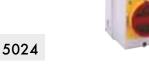
4-pole (prescripted for private and commercial use) 600 V/16 A voltage

#### Palm button, IP 65

item no. 5024

emergency stop plastic housing (self-holding)

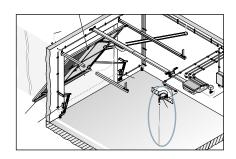
Pull-button, IP 65



#### item no. 5112

aluminium casting housing with 2.5 m nylon cord change-over contact

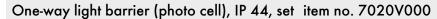






### Light barriers / Induction loop detectors





approx. 10 m range, for internal and external installations

DC 15 - 35 V, AC 12 - 24 V - relay output temperature range: -20 °C / +70 °C

#### item no. 7023V000 2-wire light barrier (photo cell), IP 44, set

2-wire technology directly connectable to twist XL, RDC 800 and RDC vision 8 m range, for internal and external installations DC 15-35 V, AC 12-24 V - relay output temperature range: -20 °C / +60 °C

#### Universal installation angle set

item no. 1640V000

optional angle swivelling (up/down) light barrier (photo cell) revolving and sliding on angle

### One-way light barrier (photo cell), IP 67

item no. 5229

approx. 65 m range, for internal and external installations AC/DC 12-240 V; change-over contact incl. installation angle

#### Reflection light barrier (photo cell), IP 67, with polarising filter

item no. 5228

approx. 12 m range; AC/DC 12-240 V; change-over contact incl. installation angle and reflector

#### Reflection light barrier (photo cell), IP 67, with polarising filter

item no. 5233

approx. 12 m range; AC/DC 24-230 V; change-over contact incl. installation angle and reflector



#### Installation support

item no. 7640V000

weather protection cover for reflector for reflection light barriers (item no. 5228 and 5233)



#### Induction loop detector, 1-channel

item no. 5406V000

the induction loop detector is a system that enables the inductive recognition of vehicles areas: barrier controls, door and gate controls, parking and traffic technology, incl. plug base

AC 230 V, 50/60 Hz power supply

1 continuous relay with change-over contact / relay output

closed-circuit principle

1 impulse relay with normally opened contact /

working close principle



#### Induction loop detector, 2-channel

item no. 5412V000

(see description of item no. 5406V000)

power supply: AC 230 V, 50/60 Hz relay output: 2 normally closed contact

evaluation of two loops; recognition of presence or direction

# Induction loop detectors

#### Induction loop

Induction loop; with a 8 m twisted supply lead to identify a vehicle by induction loop detectors  $\,$ 

5-meter scale	item no. 7651V000
9-meter scale	item no. 7651V001
13-meter scale	item no. 7651V002



# Optical safety edges

Optical safety edge	item no. 3680

without sealing lip

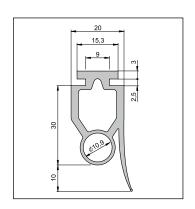
20 15.5
(2,03)

Bumper set, 46 mm M8	item no. 5078
for safety edge without sealing lip	
comprises two bumpers	



Optical safety edge	item no. 3682
Opinion salely eage	110111 110. 0002

with sealing lip



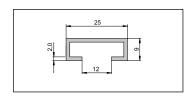
Bumper set, 35 mm M8	item no. 5079
----------------------	---------------

for safety edge with sealing lip comprises two bumpers



Aluminium C-rail	item no. 50650	
Aluminium C-rail	item no. Suosu	١.

for safety edge with and without sealing lip



## Accessories for optical safety edges



#### Transmitter & receiver unit, IP 67

item no. 5096

for optical safety edge housing diameter: 11 mm cable length: 0.5 m / 6.5 m



#### External evaluation unit, IP 65

item no. 5097V000

for optical safety edge; AC 230 V  $\pm$  10 %; surface-mounted

- connection for two optical safety edges possible
- separate relay for reversion / stop
- safety category 3



#### Spiral cable

item no. 5073V001

for optical safety edge 3-wire  $\times 0.5 \text{ mm}2$ length when extended: 3 m



#### Housing for connecting cable PG gland

item no. 50046V001

57 x 35 x 21 mm

### Accessories for optical and electrical safety edges



#### External evaluation unit, IP 65

item no. 5095

for optical safety edge; AC 230 V  $\pm$  10 %; surface-mounted

- connection of two optical or more electrical (8.2kOhm) safety edges possible
- separate relay for reversion / stop
- safety category 3
- separate connection for a slack rope switch

## Electrical safety edges

#### Safety edge, electrical 8.2 kOhm

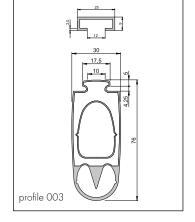
item no. 3670

rubber profile 003 with aluminium C-rail (item no. 50650)

#### Safety edge, electrical 8.2 kOhm

item no. 3660

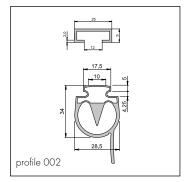
rubber profile 002 with aluminium C-rail (item no. 50650)



#### Safety edge, electrical 8.2 kOhm

item no. 3650

rubber profile 001 with aluminium C-rail (item no. 50650)



#### Preparation for processing

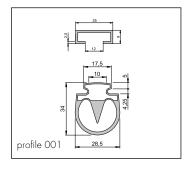
item no. 3676

for profile 003 safety edges incl. housing for load resistor and connecting cable

# item no. 3675

#### Preparation for processing

for profile 001 and 002 safety edges incl. housing for load resistor and connecting cable

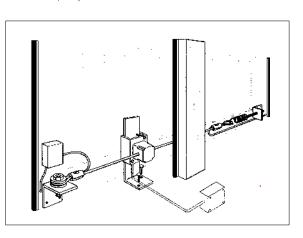


#### Inductive current transfer system

item no. 5075V002

for sliding gates with a gate width of up to 20 m incl. evaluation unit for 4 electrical safety edges (2 x mobile / 2 x stationary) 8.2 kOhm AC 230 V, 50/60~Hz





ATTENTION: Only in combination with electrical (8,2 kOhm) safety edges!

### Consumables









#### **Batteries**

#### Single battery CR 2032

item no. 46055V001

lithium button cell for the following items:

item no. 4011V000, item no. 4020V000, item no. 4026V000,

item no. 4031V000

#### Single battery CR 2450

item no. 46213

lithium button cell for the following items: item no. 4752V000 item no. 4753V000

item no. 7050V000 only if manufactured until 12/2003

item no. 7051V000

### Single battery CR 2/3 AH

item no. 46059

high power primary lithium for the following items: item no. 7050V000 only if manufactured from 01 / 2004

#### Single battery CR 2/3 AH

item no. 204V000

for the following items: item no. 4070V000, item no. 4071V000, item no. 4080V000, item no. 4080V001

## Traffic lights





can be combined as a red and green traffic light

#### Red traffic light, LED; IP 65

item no. 5230V000

internal and external installations modular style AC/DC 24 V

#### Red traffic light, LED; IP 65

item no. 5231V000

internal and external installations modular style AC 230 V

#### Green traffic light, LED; IP 65

item no. 5232V000

internal and external installations modular style AC 230 V

### Warning lights

#### Warning light 24 V, IP 44

item no. 5069V001

not self-blinking; E14 lampholder; 25 Watt, with bulb

#### Warning light 230 V, IP 44

item no. 5070V001

not self-blinking; E14 lampholder; 15 Watt, with bulb



### KNX building management system



#### Control module for door/gate operators "KNX A2-B2"

item no. 46072V000

The control module in housing has two outputs to control doors/gates and two binary inputs.

inputs: 2 binary inputs (for potential-free contacts),

max. cable length of  $5\,\mathrm{m}$ 

2 solid state outputs (Open Collector) outputs:

max. 30 V, 3 mA

communication objects: 19

group addresses: max. 230 assignments: max. 230 BCU type: micro controller

KNX +/- Bus plug-in terminal data output:

max. 10 mA bus current:

ambient humidity: max. 95 % rF, avoid immersion

approx.  $38 \times 47 \times 29 \text{ mm} (W \times H \times D)$ dimensions:

colour: white



Ask for our complete spare parts price list on www.sommer.eu.





# Roller shutter / awning drives



### Your advantages:

SOMMER tubular motors are suited for retro-fitting to most existing roller shutters, awnings and also new builds:

It is very convenient, to open or close the roller shutter or awning - by pressing a button automatically - no need to open manually.

The mechanical parts of the roller shutter and awning are smooth due to the steady movements of the motor.

The controls and numerous accessories available such as the sun /wind sensor or radio receiver, allow even more possibilities: Your roller shutter closes automatically with activation of the sun sensor and your bedroom stays cool in the summer. With installed timing the roller shutters can be opened and closed automatically to a fixed time or randomly which gives the impression that your home is occupied. This gives a high level of security against unwanted intruders.

# How to find the right tubular motor

# Tubular motors for roller shutters

Roller shutter shaft	Drive	Item no.	Required	Torque	Weight	max. roller shutter surface		
Koller shuller shull	Drive	nem no.	accessory	[Nm]	[kg]	PVC [m <sup>2</sup> ]	Aluminium [m <sup>2</sup> ]	Wood [m²]
40 mm octogonal	A 10/40	3940V000	-	10	25	5.5	4.2	-
	A 10/60	3950V000	-	10	20	4.4	3.3	-
	A 20/60	3951V000	-	20	40	8.8	6.7	-
60 mm octogonal	A 30/60	3952V000	-	30	55	12.2	9.2	5.5
	A 40/60	3953V000	-	40	<i>7</i> 0	15.5	11. <i>7</i>	7.0
	A 50/60	3954V000	-	50	90	20.0	15.0	9.0
	A 30/60	3952V000	5902V000	30	50	11.1	8.0	5.0
70 mm octogonal	A 40/60	3953V000	5902V000	40	60	13.3	10.0	6.0
	A 50/60	3954V000	5902V000	50	<i>7</i> 5	16.7	12.5	7.5

Rollladengewichte		
PVC	approx. 3.5 - 5.0 kg/m²	(calculation basis 4,5 kg/m²)
Aluminium	approx. 5.0 - 7.5 kg/m²	(calculation basis 6,0 kg/m²)
Wood	approx. 10.0 kg/m²	(calculation basis 10 kg/m²)

# Tubular motors for awnings

Awning cloth	Drive	Item no.	Required accessory	Torque [Nm]	Number of articulated arms	Spring force [N]	Torque require- ment [Nm]
	A 20/60	3951V000	5908V000	20	2	500	18
(2)	A 30/60	3952V000	5908V000	30	3	<i>7</i> 50	26
63 mm notch tube	A 40/60	3953V000	5908V000	40	4	1000	35
	A 50/60	3954V000	5908V000	50	5	1250	44
70	A 20/60	3951V000	5906V000	20	2	500	20
	A 30/60	3952V000	5906V000	30	3	<i>7</i> 50	30
70 mm notch tube	A 40/60	3953V000	5906V000	40	4	1000	40
	A 50/60	3954V000	5906V000	50	5	1250	50
	A 30/60	3952V000	5903V000	30	2	500	23
73 mm notch tube	A 40/60	3953V000	5903V000	40	3	<i>7</i> 50	34
	A 50/60	3954V000	5903V000	50	4	1000	45
78 mm notch tube	A 40/60	3953V000	5909V000	40	3	<i>7</i> 50	36
/ o mm notch tube	A 50/60	3954V000	5909V000	50	4	1000	48

Awning springs		
Power /arm	approx. 20 - 30 kg/m <sup>2</sup>	(calculation basis 25 kg/grm)

#### **Tubular motors**

#### Tubular motor A10/40

item no. 3940V000

torque 10 Nm, cable length 1.90 m; IP 44 incl. standard accessory (see below)

#### Tubular motor A10/60

item no. 3950V000

torque 10 Nm, cable length 1.90 m; IP 44 incl. standard accessory (see below)



#### Tubular motor A20/60

item no. 3951V000

torque 30 Nm, cable length 1.90 m; IP 44 incl. standard accessory (see below)

#### Tubular motor A30/60

item no. 3952V000

torque 30 Nm, cable length 1.90 m; IP 44 incl. standard accessory (see below)

#### Tubular motor A40/60

item no. 3953V000

torque 40 Nm, cable length 1.90 m; IP 44 incl. standard accessory (see below)

#### Tubular motor A50/60

item no. 3954V000

torque 50 Nm, cable length 1.90 m; IP 44 incl. standard accessory (see below)

### Standard accessory

The drive comes complete with these accessories:

#### Wall anchor (cranked)

- for tubular motors A10/40, A10/60 to A50/60
- load capacity 48/60 mm

#### Adapter for octogonal tube, diameter 40

• suitable for tubular motor A10/40



#### Adapter for octogonal tube, diameter 60

suitable for tubular motor X/60



### Wall anchor accessory



#### Wall anchor

item no. 5904V000

- suitable for tubular motors A10/40 to A50/60
- in case of re-decoration with existing plaster bearing



#### Wall anchor

item no. 5905V000

- suitable for tubular motors A10/40 to A50/60
- for newly built boxes



#### Wall anchor

item no. 5933V000

- suitable for tubular motors A10/40 to A50/60
- with spring cotter pin
- suitable for porch and construction elements



#### Universal wall anchor

item no. 5935V000

- suitable for tubular motors A10/40 to A50/60
- for renovation work and newly built boxes
- simplified installation due to more flexible and more time-saving adjustment of shaft
- unlatchable

# Adapter accessory for tubular motors X/60



#### Adapter for octogonal tube, diameter 50

item no. 5900V000

for tubular motor X/60



Adapter for round tube, diameter 50

item no. 5907V000

for tubular motor X/60

# Adapter accessory for tubular motors X/60

Adapter for notch tube, diameter 63

item no. 5908V000

for tubular motor X/60



Adapter for octogonal tube, diameter 70

item no. 5902V000

for tubular motor X/60



Adapter for profile tube, diameter 70

item no. 5901V000

for tubular motor X/60



Adapter for notch tube, diameter 70

item no. 5906V000

for tubular motor X/60



Adapter for notch tube, diameter 78

item no. 5903V000

for tubular motor X/60



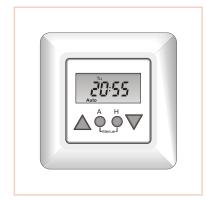
Adapter for notch tube, diameter 85

item no. 5909V000

for tubular motor X/60



### Controls for roller shutter drives



#### ContRoll Astro

item no. 6008V000

Roller shutter timer with astro programme

- operation by hand or automatically adjustable
- date and time factory pre-set
- week function and open/close time individually programmed for every weekday
- astro function and open/close according to the current sun rise and sun set times
- variable settings for automatic timing
- data memory in case of power failure
- automatic clock change (summer/winter)
- sun function, sun sensor connectable (item no. 6010V000)
- colour: signal white (similar to RAL 9016)
- incl. frame cover for single installation



#### ContRoll Touch

item no. 6009V000

Roller shutter timer with all advantages of "ContRoll Astro" and additionally:

with blue-lighted touch screen display

- with main input to connect paramount control devices
- twilight function in combination with the sun sensor (item no. 6010V000)
- colour: signal white (similar to RAL 9016)
- incl. frame cover for single installation

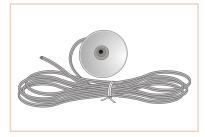


#### ContRoll Shutter

item no. 6007V000

Motor control device for a roller shutter operator

- · compared to the roller shutter switch, this control offers more functions and combination possibilities
- operation by hand or automatically adjustable through a central control
- 3-wire central input
- separate connection for central signal forwarding
- sun function, sun sensor connectable (item no. 6010V000)
- colour: signal white (similar to RAL 9016)
- incl. frame cover for single installation



#### Sun sensor

item no. 6010V000

- suitable for ContRoll Astro/Touch/Shutter controls
- · for fixing inside a window
- incl. 2 m cable (further cable length on request)
- colour: white

### Control for awning drives

#### ContRoll Sun

item no. 6006V000

incl. sun and wind sensor

- operation by hand or automatically adjustable (wind automatic is always active)
- status display via two-coloured LEDs
- limit values for wind and sun individually adjustable
- colour: signal white (similar to RAL 9016)
- incl. frame cover for single installation





### Accessories

#### Cut-off relay

item no. 6005V000

- · for grouping of two tubular motors on the same control or on a bolted blind switch
- connections for a bolted blind switch to single handle the connected motors
- installation e.g. in a flush-mounted socket with diameter 55 with deep mating plug



#### Blind switch (surface-mounted)

item no. 5972

stay put, white housing AC 230 V connections for tubular motors A10/40 to A50/60



#### Blind switch (flush-mounted)

item no. 5973

stay put, white housing AC 230 V connections for tubular motors A10/40 to A50/60



### Radio control accessories



#### 4-command transmitter

item no. 4020V000

range approx. 50 m, depending on surrounding

3 V, type CR 2032 battery

stainless steel, body can be pulled out housing type  $87 \times 24 \times 16$  mm (when closed) dimensions

keypad cover prevents unintentional activity



3-button wireless switch;

item no. 4762V000

surface-mounted, white

3-button wireless switch; surface-mounted

item no. 4762V001

surface-mounted, anthracite

e.g. to open a garage door

battery operated transmitter -> no installation work required

approx. 25 m (depending on surrounding)

battery 3 V, Type CR 2032 80 x 85 x 15 mm dimensions



### "FunkManager S", IP 30

item no. 5980V000

can be radio-programmed to control shutters, blinds and awnings, flush-mounted (low standard box)

Somlog Rollingcode coding nominal voltage AC 230 V  $\pm$  10 % nominal frequency 50/60 Hz 3 A, 50/60 Hz relay output dimensions  $48 \times 51 \times 26.5 \text{ mm}$ 

selected OPEN and CLOSE operating method

compatible for: item no. 4020, item no. 4026, item no. 4080V000/V001, item no. 4011V000 and 4762V000/V001



#### "FunkManager S" set, IP 30

item no. 5990V000

as item no. 5980V000 incl. transmitter item no. 4020V000

compatible for: item no. 4020, item no. 4026, item no. 4080V000/V001, item no. 4011V000 and 4762V000/V001

You find all applicable radio control products from page 78.

Further articles for roller shutter and awning drives are available on request.





# Control units for roller doors

### Roller door control units RDC Vision and RDC 800

### **Advantages**

- control units for roller doors
- suitable for private and industrial use
- integrated radio receiver module FM 868.8 MHz with 112 memory slots for radio codes (transmitters)
- radio receiver for individual coding of the transmitter with the following performance: up - stop - down partial opening function
- integrated 3-button on the control unit (selective: up - stop - down)
- easy programmable control unit
- adjustable automatic closing and adjustable early warning time

- dead man function
- partial opening per DIP switch activatable
- multi connection options:
  - safety edge (8.2 kOhm or FRABA)
  - pre-limit switch
  - emergency-off-chain: palm button, anti-drop device
  - pull-button (up; stop; down)
  - kev switch
  - light barrier (photo cell) as protection in door-down
- diverse setting options per DIP switch or TorMinal

#### "RDC Vision" roller door control unit in design housing, IP 20

item no. 5420V000

- suitable for roller doors up to max. 600 W, AC 230 V
- integrated radio receiver module FM 868.8 MHz with 112 memory slots for radio codes (transmitters)
- pre-formed plug for a quick, easy connection to power
- the application of pre-formed plugs is possible by pluggable screw terminals and cable ductings
- multi connection options as:
  - e.g. external lighting up to 40 W
    - floating relay contact, max. 60 V at 1 A (e.g. for gate status indicator)



# "RDC 800" roller door control unit with membrane keyboard, IP 54

item no. 5851V000

- suitable for roller doors up to max. 800 W, AC 230 V
- integrated radio receiver module FM 868.8 MHz with 112 memory slots for radio codes (transmitters)





# Industrial door operators

# **GIGA** the new industrial door operators **SOMMER** is setting new standards!

# High performance and versatility

It doesn't matter if it is a sectional door operator, high speed door operator or roller door operator, SOMMER has developed a solution for every application.

Step by step the individual product lines will soon be available to our customers.

# **GIGA**control

One controller for all requirements



**GIGA**sedo Sectional door operators

**GIGA**roll

**GIGA**speed

Operator system for high-speed foil doors





Note: If you are interested in the new industrial door operator generation we will be happy to send you more detailed information separately.

Operator system for roller doors





# Parking and blocking systems

# Parking space protection

The automatic appliance protects the personal parking space against unauthorized user.

- protects your parking space activated within 8 seconds
- environmentally friendly powered by solar technology
- easily operated via radio

480 mm

• main elements in robust stainless steel

### dimensions:

width:

length: 510 mm without frame; 760 mm with frame









suitable transmitter (item no. 7601V000)

### Parking space protection system

item no. 7600V000

### comprising:

- parking space protection
- integrated radio receiver module (FM 433 MHz)
- transmitter (FM 433 MHz)
- 2 keys for the emergency release of the parking barrier
- fixing material



# Accessory

### Rod antenna with 10m cable

item no. 7084V000

- for the parking space protection system
- with 50 Ohm coaxial cable (10 m)
- for external installation

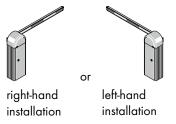


## **Barriers**

Due to our barriers, parking spaces and properties are protected in a matter of seconds agains unauthorized access.

- barrier available with right-hand or left-hand installation
- car park barrier activated within a few seconds
- easily operated via SOMMER radio
- numerous connection possibilities and additional functions
- barrier arm can be easily shortened on site

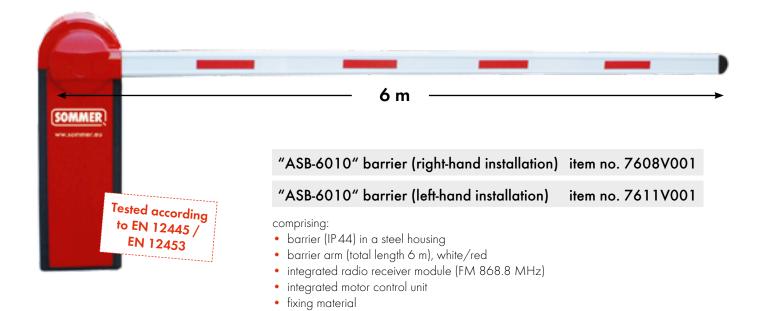
You already have the choice between left and right hand installations while placing your order and do not have to adapt the barrier on site.





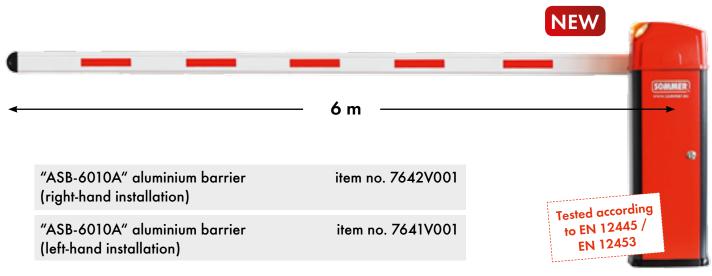








### **Barriers**



comprising:

- barrier (IP44) in an aluminium housing
- barrier arm (total length 6 m), white/red
- integrated warning light
- integrated radio receiver module (FM 868.8 MHz)
- integrated motor control unit
- fixing material

# Accessories for barriers

### Torque support arm

item no. 7615V000

- required from a barrier arm length > 3.5 m
- colour: white/red
- please only use either torque support arm or support post!

### Support post

item no. 7625V000

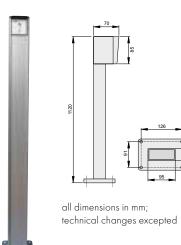
- required from a barrier arm length > 3.5 m
- colour: white
- please only use either support post or torque support arm!

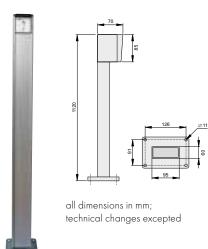
### Key switch post, IP 54

item no. 5031V000

1-contact with cylinder; DIN 30/10.0 degree aluminium pillar, incl. 3 keys

(more key switches on page 88)





### Accessories for barriers



### One-way light barrier (photo cell), IP 44, set item no. 7020V000

approx. 10 m range, for internal and external installations DC 15 - 35 V, AC 12 - 24 V - relay output

temperature range: - 20 °C bis + 70 °C

You will find further light barriers from page 90.



### Induction loop detector, 1-channel

item no. 5406V000

the induction loop detector is a system that enables the inductive recognition of vehicles areas: barrier controls, door and gate controls, parking and traffic technology, incl. plug base

power supply AC 230 V, 50/60 Hz

relay output 1 continuous relay with change-over contact /

closed-circuit principle

1 impulse relay with normally opened contact  $\!\!/$ 

working close principle



### Induction loop detector, 2-channel

item no. 5412V000

(see description of item no. 5406V000)

power supply: AC 230 V, 50/60 Hz relay output: 2 normally closed contact

evaluation of two loops; recognition of presence or direction



### Induction loop

Induction loop; with a 8 m twisted supply lead to identify a vehicle by induction loop detectors

5-meter scale	item no. 7651V000
9-meter scale	item no. 7651V001
13-meter scale	item no. 7651V002



### Warning light 24 V, IP 44

item no. 5069V001

not self-blinking; E 14 lampholder; 25 Watt, with bulb



### Palm button, IP 65

item no. 5024

emergency stop plastic housing (self-holding)



### Main switch, IP 65, lockable

item no. 5026

4-pole (prescripted for private and commercial use) 600 V/16 A voltage

# Accessories for barriers

### Rod antenna, with 10 m cable

item no. 7004V000

rod antenna applicable for swing gate, sliding gate and garage door operators, radio receiver in housing and external radio receiver FM 868.8 MHz; with 50 Ohm-coaxial cable



### 4-command transmitter

item no. 4020V000

approx. 50 m, depending on surrounding range

3 V, type CR 2032 battery

stainless steel, body can be pulled out housing type dimensions $87 \times 24 \times 16$  mm (when closed)

keypad cover prevents unintentional activity



You can find more related **radio control products** from page 78 and information on "Somloq" Transmitter Management System on page 84.

Notes

# Notes

# Notes

# General trading terms and conditions

### Art. 1 Scope

- 1. Solely our general terms and conditions shall apply. These shall apply to all businesspersons (§ 14 of the German Civil Code), legal entities governed by public law and special assets governed by public law. We shall not recognise any general terms and conditions of the customer to the contrary unless we agree to such in writing. Our general terms and conditions shall also apply if we carry out a delivery without reservation and are aware of contrary general terms and conditions of the
- 2. These terms and conditions shall apply to all future business relations even if they are not expressly mentioned once again in agreements.
- 3. All agreements affecting this Agreement shall be set out in writing. This shall apply in particular to the issue of declarations of guarantee.

### Art. 2 Offers, conclusions of agreements, content of the Agreement

- Our offers are subject to change without notice. We can accept contractual offers within a period of 4 weeks.
- 2. We retain title and copyright to all illustrations and drawings, calculations and other files and documents; such may not be made available to third parties. This applies in particular to those files and documents which are labelled confidential; the customer must obtain our express consent prior to passing such on to third parties. Documents such as e.g. samples, brochures, catalogues, illustrations, drawings, weight and dimensions are only approximate if such are not expressly declared to be binding in

### Art. 3 Prices, terms and conditions of payment, prepayment, right to withdraw, return, right of retention, setting off, counterclaim

- 1. If nothing to the contrary is contained in the confirmation of order, all prices shall be deemed to be ex works, not including freight, insurance, customs duties, agreed-upon installation, foreign taxes, etc. plus respectively applicable value-added tax. Cost estimates are subject to charge.
- 2. To meet our obligations under the provisions of the Packaging Regulation (Verpackungsverordnung), we have affiliated ourselves with a national waste-disposal enterprise (ISD Interseroh AG, Cologne). If we have the waste-disposal company take back packaging for us in accordance with the provisions of the Packaging Regulation, such shall occur by having the customer making packaging emanating from ourselves and related packaging made available to the waste-disposal company free of charge at a collection point named by ISD for collection.
- 3. The price list which applies on the day when the order is placed shall apply. If set-up, installation or commissioning have been agreed upon, the rates agreed upon on the day the order is placed shall also apply. If our purchase prices rise or wage or salary increases take place between the placement of the order and delivery, we retain the right to adjust prices commensurately.
- 4. If nothing to the contrary is agreed upon, invoices shall be due for payment 8 days after the invoice date minus 2 % discount or within 30 days of the invoice date net. Instructions to pay, checks or bills of exchange shall only be accepted following special agreement and only on account of performance. The costs of discounting and collection shall be borne by the customer.
- 5. If the customer is at least 2 instalments late in the case of payment by instalment, we shall be entitled to make the entire amount due even if checks or bills of exchange have been accepted. In such case the papers shall be returned in return for immedi-
- 6. If after the conclusion of the agreement the financial situation of the customer deteriorates considerably or changes in such occur which jeopardise our claim to counterperformance, or if the customer was already in such a situation when the agreement was concluded, but such only becomes known later, we may refuse our performance until the customer renders counterperformance. This shall apply in particular to cases in which mandatory enforcement measures, bill or check protests, the customer files for bankruptcy or seeks relief from creditors, liquidation or similar. In such cases we shall be able to set the customer a grace period for the rendering of counterperformance or payment of security. If the counterperformance is not rendered or security not deposited, we shall be entitled to withdraw from the agreement.
- 7. If the customer is late in effecting payment, we shall be entitled if the setting of a grace period cannot be waived by law to take back the goods following the expiry of a grace period we have set, if need be enter the offices of the customer and take back the goods there.
- 8. If the goods we deliver are taken back, such goods shall be credited to the customer notwithstanding the pressing of additional damage claims with a reasonable markup and set off against our unpaid claims. The customer shall retain the right to demonstrate that the value of the goods has declined in particular cases.
- 9. Only claims which have been recognised by us or a court of law may be set off against our claims. It shall not be allowed to advance a counterclaim in legal proceedings. The customer shall only be entitled to exercise a right of retention if the customer's claim is based on the same contractual relationship.

### Art. 4 Freedom to render performance, delivery period, partial delivery, right of withdrawal, damage due to delay.

- 1. Delivery is subject to our being supplied correctly and in due time.
- The commencement of the delivery period stated by us is subject to all technical details being resolved. Partial deliveries shall be allowed.
- If nothing to the contrary is agreed upon, we shall not be responsible for delays in delivery as a result of force majeure or any other circumstances for which we are not responsible, in particular disruptions in traffic and operations for which we are not responsible, strikes, lockouts, shortages of raw materials and war. If in such case we are unable to deliver within the agreed-upon delivery period, the delivery period shall be extended commensurately. If in such case there is an impediment preventing delivery going beyond the delivery date which has been commensurately extended, we shall be entitled to withdraw from the agreement.
- 4. If we are unable to adhere to the agreed-upon delivery period, the customer shall be obligated to declare upon our request within a reasonable period of time whether the customer continues to desire the delivery. If the customer fails to issue such declaration, we shall be entitled to withdraw from the agreement or rescind the agreement after the expiry of a reasonable period of time.
- If we are in delay, the following shall apply:
  - a. If a firm deal has been made or the customer is able to claim that it no longer has an interest in the fulfilment of the agreement or if the delay is due to wilful violation of the agreement by one of our employees, our representatives or parties hired by us to carry out the agreement, we shall be liable for damage due to delay in accordance with statutory provisions. In the event of grossly negligent violation of the agreement for which we are responsible, our liability for damage due to delay shall be limited to the foreseeable damage which typically occurs in such
  - b. If we, our representatives or parties we hire to carry out the agreement violate an important contractual obligation and if liability is not stipulated by statutory provisions in the meaning of letter a., our liability for damage due to delay shall be limited to the foreseeable damage which typically occurs in such cases.
  - In all other cases our liability for delay shall be limited to a maximum of 5 % of the
  - This does not exclude other statutory claims of the customer.

### Art. 5 Transfer of risk

- 1. If nothing to the contrary emanates from our confirmation of order, delivery shall be deemed to be agreed upon "ex works". Shipment shall always be effected at the risk of the customer, including in the case of delivery to a place other than the place of execution - and including by shipment free freight and/or shipment by our own staff or vehicles.
- If we have agreed to effect delivery, the customer shall provide trained staff and any technical equipment required (e.g. forklifts) in due time to ensure smooth unloading at the customer's offices. It is required for the vehicle to be able to drive directly to the unloading site and unload the goods without undue delay. If this requirement is not met, we shall charge the customer for the extra expenses incurred as a result thereof.
- If the goods are ready for shipment and the shipment or receiving is delayed for reasons for which the transporting company is not responsible, risk shall be transferred to the customer upon receipt of notification of readiness to effect delivery; beginning on this day the customer shall in addition bear the storage costs which arise along with incidental expenses to an amount at least 0.5 % of the invoice amount for each month commenced with beginning with notification of readiness to effect delivery unless the customer can demonstrate a lower amount of damage.

### Art. 6 Claims for defect

- 1. Delivered goods shall be examined by the customer without undue delay after unloading if such is warranted in the normal course of business. If a defect is discovered, we shall be notified immediately. If the customer fails to notify us, the goods shall be deemed to have been approved unless there is a defect which could not be recognised upon inspection. If such a defect is discovered later, the notification must be provided without undue delay after such defect is discovered, otherwise the goods shall be deemed to have been approved in spite of this defect. This shall not affect § 377 of the German Commercial Code (HGB). The customer shall not be released from its obligation to inspect the goods even if it has recourse to other parties as set out under § 478 of the German Civil Code (BGB). If in such cases the customer fails to notify defects which the customer's customer discovers immediately, the goods shall be deemed to have been approved in spite of this defect.
- If there is a defect, we shall be entitled taking into account the type of defect and the legitimate interests of the customer to determine the type of subsequent fulfilment. With regard to these agreements, subsequent fulfilment shall be deemed to have failed if three attempts are not successful. (This subsection shall not apply in the event of recourse as set out under § 478 of the German Civil Code).
- In the effect of subsequent fulfilment in the case of defects we shall only be obligated to bear the expenses required as a result, in particular transport, travelling expenses, labour and material costs to the extent that these do not increase because the object has been delivered at a site other than the headquarters or the business branch of the customer to which delivery has been effected. (this number shall not apply in the event of recourse as set out under § 478 of the German Civil Code).
- The claims for defect of the customer shall be subject to a statute of limitations of one year. This shall not apply in the event of recourse as set out under § 478 of the Ger-

# General trading terms and conditions

man Civil Code, nor shall this apply if we deliver objects which have been used for a building construction in accordance with their usual purpose and have caused such to be defective. Nor shall this apply to damage claims as a result of fatality, personal injury or health impairment or as a result of a grossly negligent, wilful violation of an obligation by us or parties hired by us to carry out the agreement.

5. There shall be no warranty obligation for damage to parts delivered - and the consequences of such - as a result of the quality of the material or which are subject to premature wear and tear after use of such, nor for damage - and the consequences of such - which result from faulty or negligent handling, unwarranted heavy use, unsuitable operating resour ces, defective maintenance or other circumstances which the supplier has no influence on or is unable to influence. The warranty shall in particular also become null and void with respect to objects delivered which the party placing the order or the customer itself have attempted to repair or have repaired.

### Art. 7 Liability for payment of damages

- 1. In the event we are liable for the payment of damages, the following shall apply:
  - a. If the claims are based on a wilful violation of obligations by ourselves, our representatives or parties hired by us to carry out the agreement, we shall bear liability for the payment of damages in accordance with statutory provisions. If claims are based on a grossly negligent violation of obligations by ourselves or our representatives or parties hired by ourselves to carry out the agreement, liability shall be limited to foreseeable damage which typically occurs in such cases.
  - If we or our representatives or parties we hire to carry out the agreement culpably violate an important obligation and such case does not involve liability in accordance with statutory provisions as set out in letter a., liability shall be limited to foreseeable damage which typically occurs in such cases.
  - c. If nothing to the contrary is set out under a. and b., our liability to pay damages
- 2. The exclusion and limitations on liability set out under no. 1 shall not only apply to contractual claims. Such shall also apply to other, in particular tortious claims. Such shall also apply to claims for compensation for expenses incurred in vain in lieu of performance.
- 3. The exclusion and limitations on liability set out under no. 1 shall not apply to any claims which may arise under § 1.4 of the Product Liability Act (Produkthaftunasaesetz) or as a result of culpable injury to life, physical harm or impairment to health.
- 4. If limitation on liability does not apply as set out under no. 1 in the case of manufacturer's liability under § 823 of the German Civil Code, our liability shall be limited to payment of compensation for the insurance. If this does not occur or does not occur to the full amount, we shall be obligated to meet liability to the amount of coverage. This subsection shall not apply in the event of culpable injury to life, physical harm or impairment to health.
- 5. If our liability is excluded or limited, this shall also apply to the personal liability of our white-collar workers, blue-collar workers, employees, representatives and parties we hire to carry out the agreement.
- 6. There is a special provision for damage due to delay in Art. 4, no. 5.

### Art. 8. Amending and deviating stipulations in the event of international agreements

- 1. If the customer has its offices outside the Federal Republic of Germany, the following provisions shall apply:
  - a. We shall not be liable for the admissibility of the use of the objects delivered set out in the agreement under the statutory provisions of the country which the goods are delivered in. Nor shall we be liable for any taxes which accrue there.
  - b. We shall not be liable for impediments to delivery resulting from government measures, in particular import or export restrictions.
- 2. If the customer has its offices outside the Federal Republic of German and the United Nations Convention on Contracts for the International Sale of Goods ICISG, Viennese UN Purchasing Law) applies in its respectively valid version, the following provi
  - a. Changes in or rescission of the agreement are required to be in writing.
  - The following shall apply in place of Art. 6 and 7:
  - $\ensuremath{\mathsf{aa}}.$  We shall only be liable for damage toward the customer in accordance with statutory provision if such is based on wilful or grossly negligent violation of the agreement by ourselves, our representatives or parties we hire to carry out the agreement. We shall also bear liability under statutory provisions if we violate an important contractual obligation. The aforementioned restrictions on liability shall not apply in the event of any claims under § 1.4 of the German Product Liability Act or in the event of claims resulting from fatalities or personal injury caused by
  - bb. If objects are delivered which are not in conformity with the agreement, the customer shall only be entitled to rescind the gareement or demand delivery of substitutes if damage claims against us are excluded or the customer can not be reasonably expected to use the goods which are contrary to the agreement and to claim for the damage which remains. In such cases we shall first be entitled to rectify the defects. If the attempt to rectify the defect fails and/or it leads to an unreasonable delay, the customer shall be entitled to rescind the gareement or demand delivery of a substitute as the customer sees fit. The customer shall also be entitled to the same if the effort to rectify the defect causes an unreasonable inconvenience or uncertainty regarding the reimbursement of outlays of the purchaser.

cc. The customer's claims to defect shall be subject to a one-year statute of limitation.

### Art. 9 Security on reservation of title to ownership

- 1. We reserve title to the goods delivered until all payments from the agreement and in the case of existing or ongoing business relations until all payment emanating from these are received. This shall also apply if our claims have been included in a current account and the balance has been netted and recognised as well as for future claims
- 2. The customer shall be obligated to treat the goods delivered with care, and in particular to store such in a proper manner; the customer shall moreover be obligated to adequately insure the goods at the customer's own expense against fire, water and theft at their value new.
- In the case of levies of execution and any other actions by third parties against the goods, the customer shall notify us immediately in writing to defend our rights (e.g. lawsuit under § 771 of the Civil Procedure Code (ZPO)). If such third party is unable to reimburse us for court or out-of-court expenses of a lawsuit in accordance with  $\S$ 771 of the Civil Procedure Code, the customer shall be liable to us for such losses.
- 4. The customer shall be entitled to sell and to use goods supplied in normal business operations; the customer assigns to us here and now, however, all claims which accrue to the customer due to resale to its customers or third parties to the amount of the value of the conditional commodities regardless of whether the goods supplied have been resold without or following processing. The value of the conditional commodities shall be the final invoice amount (including value-added tax) agreed upon with us. If we have co-title to the resold conditional commodities, the claims shall be assigned in the amount commensurate with our share in the conditional commodity. The customer shall not be entitled to otherwise sell the goods, in particular to assign
- The customer shall also be entitled after assigning title to collect the claim emanating from the resale. This shall not affect our right to collect such claim ourselves. We shall be required, however, to refrain from collecting the claim as long as the customer meets its payment obligations emanating from the earnings it has taken in, the customer is not in arrears on payment and in particular no petition has been filed for the opening of a bankruptcy procedure or payments discontinued. If such is the case, we may demand that the customer disclose the claims it has assigned and its creditors, all information required to collect such, turns over to us the documents relating hereto and notifies its creditors that it has assigned such.
- If the customer processes or changes the goods supplied, this shall always deemed to be on our behalf. The vested rights of the customer to goods supplied shall continue to apply to the unchanged object. If the goods supplied are processed with objects which do not belong to us, we shall obtain co-title to the other objects processed at the time of such processing. In addition, the same shall apply to the object created through such processing as with respect to the conditional commodities we
- If goods supplied are mixed, combined or connected with other objects which do not belong to us or mixed so such can no longer be separated out, we shall acquire co-title to the new object in the ratio of the objective value of the goods supplied to the other objects at the point in time when such were mixed, combined or connected. If such procedure takes place in such a manner that the object of the customer must be deemed to be the main part, it is herewith agreed that the customer shall transfer prorated title to such and keep such sole goods for which we have title or co-title for us free of charge
- The customer also assigns to us those claims securing our claims against the customer to the amount of the value of the conditional commodities with all subsidiary rights and priorities before the remainder which the customer obtains through connection of the conditional commodities as the main part of a property, ship, ship structure or aircraft of another party towards a third party. Art. 9, section 4, subsections 2 and 3 shall apply accordingly.
- The customer herewith assigns to us those claims securing our claims against the customer to the amount of the value of the conditional commodities with all subsidiary rights and priority before the remainder which the customer acquires in a third party through sale of its own property, ship, ship structure or aircraft with which the customer has linked the conditional commodity as the main part. Art. 9, section 4, subsections 2 and 3 shall apply accordingly.
- 10. We shall be obligated to only release the security we are entitled to upon the request of the customer if the realised value of our securities exceeds the claims to be secured by more than 10 % or the nominal amount by more than 40 %; we shall be able to select the security to be turned over as we see fit.

### Art. 10 Applicable law, place of performance, legal venue

The law of the Federal Republic of German shall apply to this Agreement. The place of performance for all services emanating from this Agreement is D-73230 Kirchheim/Teck. In the case of agreements with businesspersons, legal persons under public law, special assets under public law and foreigners who have no legal venue in Germany, the legal venue shall be D-73230 Kirchheim/Teck. We reserve the right, however, to also file suit at the headquarters of the customer.

SOMMER Antriebs-und Funktechnik GmbH Last updated: 2007/05



# Headquarters in Kirchheim/Teck, Germany:



# Companies in the SOMMER group:





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