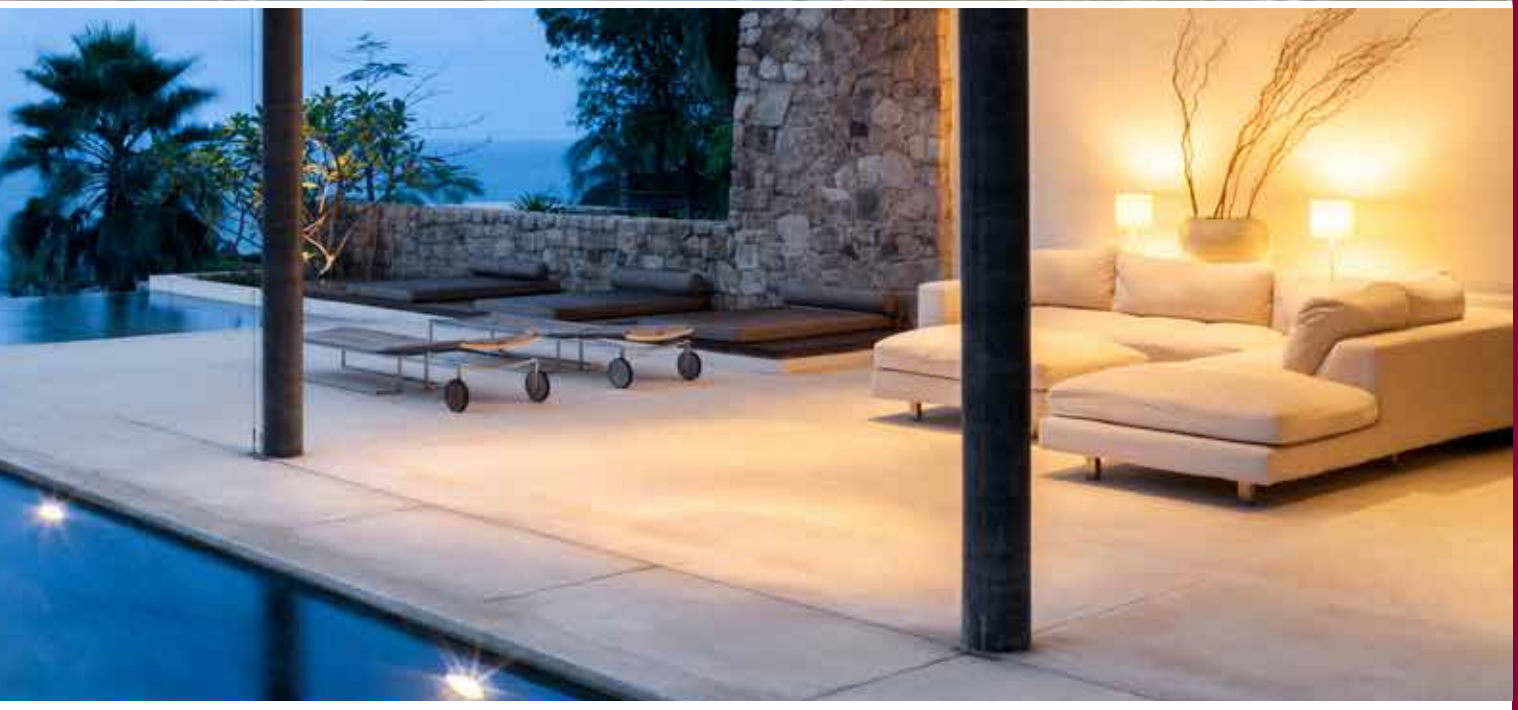
GRÄSSLIN



Product overview

Grässlin time switch technology

UNDER CONTROL FROM ANYWHERE SMART NETWORKED

Reliable technology meets maximum user convenience

- Grässlin develops and manufactures groundbreaking products of premium quality in the fields of time switch technology, lighting control and hour counters.
- Since our very beginnings, we have been developing solutions to make the work of our users easier and more efficient. Our aim is to deliver technologically advanced user-friendly products with customised functions for efficient building automation.
- Grässlin products are used in a wide range of applications: from the time-based control of lighting systems, pump controls, gates and shop windows to measuring the use of machines, vehicles and buildings on the basis of operation.

A strong partner to industry

- As a pioneer in time switch technology and temperature control, Grässlin maintains long-term partnerships with the world's leading manufacturers in the heating & electronics industry.
- We work in close collaboration with our industry customers to develop customer-specific OEM solutions which are designed to meet individual requirements.
- Sound market knowledge and more than 60 years of practical experience combined with in-depth technical expertise provide the basis for successful and mutually beneficial OEM partnerships.

Contents

Products with a global reputation – Expertise with a global reputation

Time switch technologie

Lighting control

Hour counters

Other solutions

talento smart

Top performance for all time-controlled switching tasks

Grässlin talento smart time switches reliably and safely perform simple and demanding tasks in the time-dependent control of lighting, heating, ventilation and air-conditioning systems.

In addition, the timers have proven themselves worldwide, for example for controlling

- Hydroponic systems
- Sports fields
- Ponds
- Parking lots
- Fountain
- Exterior signage
- Interior lighting
- Retail trade

The compact design simplifies installation on the DIN rail. At the same time, Bluetooth integration enables simple programming away from the control cabinet. The switching times can be conveniently adjusted from a smartphone or tablet using the talento smart app. The astro program with automatic location determination ensures precise control according to sunrise and sunset.

Digital time switches

for DIN rail mounting
for every requirement

Version	B10	B15	B25	C15	C25	C25 24V	S25	CE2	LAN
Channels	1	1	2	1	2	2	2	2	–
Memory locations	100	100	100	500	500	500	800	800	–
Number of programs	10	10	10	50	50	50	80	80	–
Programs with date	1	1	2	50	50	50	80	80	–
Special functions	–	–	–	•	•	•	•	•	–
Expandable	–	–	–	–	–	–	•	•	•

Time switch technology

Digital time switches, DIN-rail, weekly/yearly programm

talento smart B15

talento smart B25

Description

Digital distributor time switch with 100 memory locations for creating one date-dependent program (ON/OFF) and ten date-independent programs (ON/OFF) with a shortest switching time of 1 minute. Free week day block formation. Summer-winter time changeovers can take place automatically, on a specific date or can even be deactivated. 12/24 h setting. Switching status indicator. Built-in hour counter with service function. Manual switch: automatic mode, fixed ON/OFF, override. White display lighting for better legibility. Non-volatile memory (EEPROM) for backing up programs in the event of a power failure. Battery-based power reserve for up to eight years. The time switch is sealable and can be PIN-protected against unwanted access. Programming takes place either directly on the switch itself or via convenient remote programming using mobile devices and corresponding apps (Android and iOS) and suitable PC software.

talento smart B15
- 1 channel

talento smart B25
- 2 channels

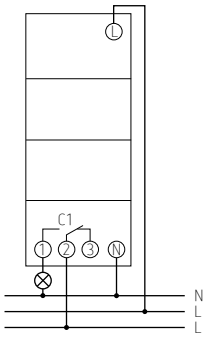
Product selection

Program	Program functions	Number of channels	Type	Item no.
Weekly program Annual program	ON-OFF	1	talento smart B15	43.02.0001.1
		2	talento smart B25	43.02.0002.1

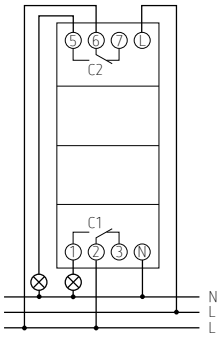
Technical data

	talento smart B15/B25
Operating voltage	110–230 V AC
Frequency	50–60 Hz
Width	2 modules
Type of installation	DIN-rail
Type of contact	Changeover contact
Power reserve	8 years
Switching capacity at 250 V AC, cos φ = 1	16 A
Switching capacity at 250 V AC, cos φ = 0.6	10 A
Incandescent/halogen lamp load	2600 W
Compact fluorescent lamps	1000 W
LED lamp < 2 W (typ.)	100 W
LED lamp > 2 W (typ.)	600 W
Shortest switching time	1 min
Time accuracy at 20 °C	Typically ± 0.3 s/day (quartz)
Standby output	< 1 W
Protection rating	IP 20
Protection class	II as per EN 60 730-1
Ambient temperature	–20 °C … +55 °C

Connection example



talento smart B15



talento smart B25

Time switch technology

Digital Astro time switches, DIN-rail, weekly/yearly program

talento smart C15

talento smart C25
talento smart C25 24V (12–24 V)

Description

Digital Astro distributor time switch with 500 memory locations for creating 50 date-dependent programs (ON, OFF, cycle, pulse, random ON, random OFF) and 50 date-independent programs (ON, OFF, cycle, pulse, random ON, random OFF) with a shortest switching time of 1 minute (ON-OFF) or 1 second (cycle, pulse). Free week day block formation. Summer-winter time changeovers can take place automatically, on a specific date or can even be deactivated. 12/24 h setting. Switching status indicator.

Built-in hour counter with service function. Manual switch: automatic mode, fixed ON/OFF, override. White display lighting for better legibility. Non-volatile memory (EEPROM) for backing up programs in the event of a power failure. Battery-based power reserve for up to eight years. The time switch is sealable and can be PIN-protected against unwanted access. Programming takes place either directly on the switch itself or via convenient remote programming using mobile devices and corresponding apps (Android and iOS) and suitable PC software.

talento smart C15
- 1 channel

talento smart C25
- 2 channels

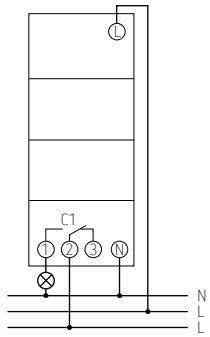
Product selection

Program	Program functions	Number of channels	Operating voltage	Type	Item no.
Astro program, Weekly program, Yearly program	ON/OFF, pulse, cycle	1	110–230 V AC	talento smart C15	43.03.0001.1
		2	110–230 V AC	talento smart C25	43.03.0002.1
			12–24 V AC/DC	talento smart C25 24V	43.03.0003.1

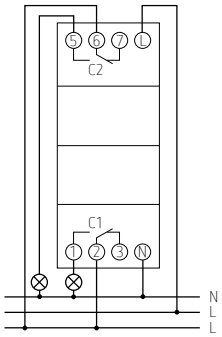
Technical data

	talento smart C15/C25	talento smart C25 24V
Operating voltage	110–230 V AC	12–24 V AC/DC
Frequency	50–60 Hz	
Width	2 modules	
Type of installation	DIN-rail	
Type of contact	Changeover contact	Changeover contact/NO contact
Power reserve	8 years	
Switching capacity at 250 V AC, cos φ = 1	16 A	
Switching capacity at 250 V AC, cos φ = 0.6	10 A	
Incandescent/halogen lamp load	2600 W	
Compact fluorescent lamps	1000 W	
LED lamp < 2 W (typ.)	100 W	
LED lamp > 2 W (typ.)	600 W	
Shortest switching time	1 min	
Time accuracy at 20 °C	Typically ± 0.3 s/day (quartz)	
Standby output	< 1 W	
Protection rating	IP 20	
Protection class	II as per EN 60 730-1	
Ambient temperature	–20 °C … +55 °C	

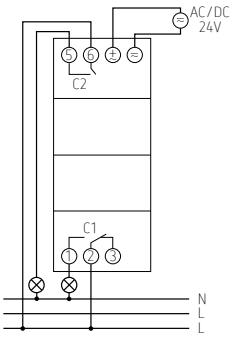
Connection example



talento smart C15



talento smart C25



talento smart C25 24V

Time switch technology

System version, Digital Astro time switches, DIN-rail, weekly/yearly program

talento smart S25

talento smart CE2

talento smart LAN

Description

General functions

- The system version of the talento smart S25 enables installation engineers to develop a full system with up to 8 channels using the extension modules talento smart CE2.
- In addition to standard applications, the talento smart LAN module enables installation engineers to transfer and read out programs on the S25 remotely and also enjoy convenient management of large applications.
- Digital astro distributor time switch with 800 memory locations for creating 50 date-dependent programs (ON, OFF, cycle, pulse, random ON, random OFF) and 50 date-independent programs (ON, OFF, cycle, pulse, random ON, random OFF) with a shortest switching time of 1 minute (ON-OFF) or 1 second (cycle, pulse).
- Free week day block formation. Summer-winter time changeovers can take place automatically, on a specific date or can even be deactivated.
- 12/24 h setting. Switching status indicator. Built-in hour counter with service function. Manual switch: automatic mode, fixed ON/OFF, override. White display lighting for better legibility. Non-volatile memory (EEPROM) for backing up programs in the event of a power failure. Battery-based power reserve for up to eight years. The time switch is sealable and can be PIN-protected against unwanted access. Programming takes place either directly on the switch itself or via convenient remote programming using mobile devices and corresponding apps (Android and iOS) and suitable PC software.

talento smart S25

- 2 channels
- Basic system version device with largest package of functions

talento smart CE2

- 2 channels
- Channel expansion for developing a system with up to 8 channels in combination with the talento smart S25

talento smart LAN

- LAN-network-based module for remote access to the talento smart S25

Product selection

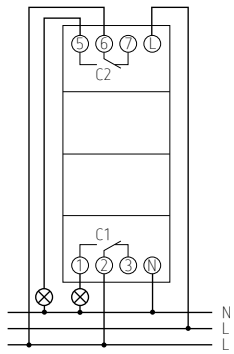
Program	Program functions	Number of channels	Type	Type	Item no.
Astro program, Weekly program, Yearly program	ON/OFF, pulse, cycle	2	Grundgerät	talento smart S25	43.04.0001.1
			Kanalerweiterung	talento smart CE2	43.04.0004.1
-	-	-	Modul zum Fernzugriff	talento smart LAN	43.04.0006.1

System version, Digital Astro time switches, DIN-rail, weekly/yearly program

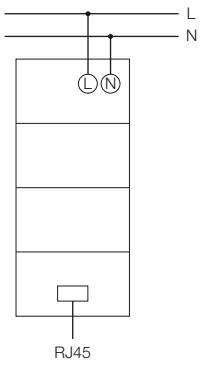
Technical data

	talento smart S25	talento smart CE2	talento smart LAN
Operating voltage	110–230 V AC		230 V AC
Frequency	50–60 Hz		50 Hz
Width	2 modules		
Type of installation	DIN-rail		
Type of contact	Changeover contact		–
Power reserve	8 years	–	–
Switching capacity at 250 V AC, cos φ = 1	16 A		–
Switching capacity at 250 V AC, cos φ = 0.6	10 A		–
Incandescent/halogen lamp load	2600 W		–
Compact fluorescent lamps	1000 W		–
LED lamp < 2 W (typ.)	100 W		–
LED lamp > 2 W (typ.)	600 W		–
Shortest switching time	1 min		–
Time accuracy at 20 °C	Typically ± 0.3 s/day (quartz)		–
Standby output	< 1 W		4 W
Protection rating	IP 20		
Protection class	II nach EN 60 730-1		
Ambient temperature	–20 °C … +55 °C		

Connection example



talento smart S25/CE2



talento smart LAN

Time switch technology

Digital time switches, DIN-rail, weekly/yearly program

talento smart B10 mini

Description

1-module-wide distributor time switch without a display. Programs can be created directly on smartphones, tablets or PCs using an app and transferred to the switch using contactless Bluetooth pairing. Depending on your needs, programs can be created both with and without a date. There is also the option to combine and consolidate several week days.

The talento smart B10 mini has enough space for date-independent and date-dependent programs and has capacity for 100 memory locations. The space-saving design is particularly suited for retrofitting in distributor time switch boxes with limited space.

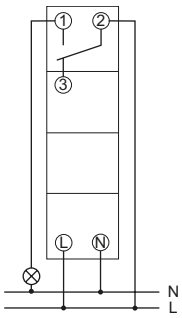
Product selection

Program	Program functions	Number of channels	Type	Item no.
Weekly program Yearly program	ON-OFF	1	talento smart B10 mini	43.02.0005.1

Technical data

	talento smart B10 mini
Operating voltage	110–230 V AC
Frequency	50–60 Hz
Width	1 module
Type of installation	DIN-rail
Type of contact	Changeover contact
Power reserve	3 days
Switching capacity at 250 V AC, cos φ = 1	16 A
Switching capacity at 250 V AC, cos φ = 0.6	10 A
Incandescent/halogen lamp load	2600 W
Compact fluorescent lamps	Up to 322 W
LED lamp < 2 W (typ.)	100 W
LED lamp > 2 W (typ.)	360 W
Shortest switching time	1 min
Time accuracy at 20 °C	Typically ± 0.3 s/day (quartz)
Standby output	< 1 W
Protection rating	IP 20
Protection class	II as per EN 60 730-1
Ambient temperature	–20 °C … +55 °C

Connection example

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talento easy B1
0 6 12 18 24
MONDAY
04.07.22
10:10
CH1
1
2
3

talento easy

This is how simple and compact time control can be

Grässlin talento easy digital time switches are the perfect solution for use on the DIN rail in distribution cabinets with many components. The compact (2 modules) 1-channel time switches with daily/weekly programme (B1) or astro programme (C1) offer an integrated operating hours counter with maintenance mode and green display illumination for better readability.
Thanks to the PIN code and sealable housing, they are optimally protected against tampering.

Time switch technology

Distribution time switches, Digital, DIN-rail

talento easy B1

talento easy C1

Description

talento easy B1

Digital time switch for DIN-rails with 1 channel, daily/weekly program and 50 memory locations for creating one date-dependent program (ON-OFF) and ten date-independent programs (ON-OFF) with a minimum switching time of 1 minute (ON-OFF). Free week day block formation. Summer-winter time changeover can take place automatically, on a specific date or can also be deactivated. 12/24 h setting. Switching status indicator. Integrated hour counter with service mode. Manual switch: automatic mode, fixed ON/OFF, override. Green display lighting for good legibility. Non-volatile memory (EEPROM) for saving programs in the event of a power failure. Battery-based power reserve for up to six years. The time switch can be sealed and also PIN-protected against unwanted access. Programming is not completed directly on the time switch itself.

- Daily/weekly program
- Shortest switching time: 1 min(ON-OFF)
- DIN-rail
- 50 memory locations
- Automatic summer/winter time changeover

talento easy C1

Digital time switch for DIN-rails with 1 channel, Astro/daily/weekly program and 50 memory locations for creating one date-dependent program (ON-OFF) and ten date-independent programs (ON-OFF) with a minimum switching time of 1 minute (ON-OFF) or 1 second (cycle, pulse). Geographical database for 45 countries and 280 cities. Trigger modes for sunrise/sunset or dawn/dusk. Free formation of week day blocks. Summer-winter time changeover can take place automatically, on a specific date or can also be deactivated. 12/24 h setting. Switching status indicator. Integrated hour counter with service mode. Manual switch: automatic mode, fixed ON/OFF, override. Green display lighting for good legibility. Non-volatile memory (EEPROM) for saving programs in the event of a power failure. Battery-based power reserve for up to six years. The time switch can be sealed and also PIN-protected against unwanted access. Programming is not completed directly on the time switch itself.

- Astro/daily/weekly program
- Shortest switching time: 1 min(ON-OFF)
- DIN-rail
- 50 memory locations
- Geographical database for 45 countries and 280 cities
- Trigger modes for sunrise/sunset or dawn/dusk

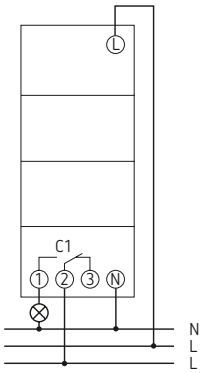
Product selection

Program	Number of channels	Operating voltage	Protection rating	Type	Item no.
Daily/Weekly program	1	230 V AC	IP 20	talento easy B1	03.61.0001.1
Astro program, Nightbreak	1	230 V AC	IP 20	talento easy C1	03.61.0002.1

Technical data

	talento easy B1	talento easy C1
Operating voltage	230 V AC	230 V AC
Frequency	50/60 Hz	50/60 Hz
Width	2 modules	2 modules
Type of installation	DIN-rail	DIN-rail
Type of contact	NO contact	NO contact
Power reserve	6 years	6 years
Switching capacity at 250 V AC, cos φ = 1	16 A	16 A
Switching capacity at 250 V AC, cos φ = 0.6	10 A	10 A
Shortest switching time	1 min/1 s (pulse)	1 min/1 s (pulse)
Time accuracy at 20 °C	Typically ± 0.5 s/day (quartz)	Typically ± 0.5 s/day (quartz)
Standby output	6 VA	6 VA
Protection rating	IP 20	IP 20
Protection class	II	II
Ambient temperature	–10 °C ... +55 °C	–10 °C ... +55 °C

Connection example



talento

Powerful analogue timer switches for the DIN rail

Grässlin talento analogue time switches for the DIN rail enable switching commands in the daily programme and in the 1-hour programme. They are ideal for passageway lighting in subways, shop window lighting in shops, pumps in fountains, corridor, garden and courtyard lighting as well as path and driveway lighting. They also control ventilation systems in bathrooms and basements or water pumps in ponds and fountains safely and precisely.

Version	talento 121	talento 111	talento 111 SK	talento 211	talento 211 SK	talento 111 mini	talento 211 mini
Operating voltage	230 V	230 V	230 V	110–230 V	110–230 V	230 V	230–240 V
Frequency	50 Hz	50 Hz	50 Hz	50–60 Hz	50–60 Hz	50 Hz	50–60 Hz
Channels	1	1	1	1	1	1	1
Dimensions	3 modules	3 modules	3 modules	3 modules	3 modules	1 module	1 module
Programmes	Hourly programme	Daily programme	Daily programme	Daily programme	Daily programme	Daily programme	Daily programme
Shortest switching time	37,5 s	15 min	15 min	15 min	15 min	15 min	15 min
Pointer movement	no	yes	yes	yes	yes	no	no
Connection type	Plug-in terminal	Plug-in terminal	Screw terminal	Plug-in terminal	Screw terminal	Screw terminal	Screw terminal
Drive	Synchronous motor	Synchronous motor	Synchronous motor	Quartz-controlled stepper motor	Quartz-controlled stepper motor	Synchronous motor	Quartz-controlled stepper motor
Time accuracy at 25 °C	Synchronised with mains	Synchronised with mains	Synchronised with mains	≤±1 s/Tag (Quarz)	≤±1 s/Tag (Quarz)	Netzsynchron	≤±1 s/Tag (Quarz)
Power reserve	–	–	–	3 days, approx. 50 hours at 110 V	3 days, approx. 50 hours at 110 V	–	3 days
Type of installation	DIN-rail	DIN-rail	DIN-rail	DIN-rail	DIN-rail	DIN-rail	DIN-rail
Type of contact	Changeover contact	Changeover contact	Changeover contact	Changeover contact	Changeover contact	NO contact	NO contact
Ambient temperature	–20 °C ... +55 °C	–20 °C ... +55 °C	–20 °C ... +55 °C	–20 °C ... +55 °C	–20 °C ... +55 °C	–25 °C ... +50 °C	–10 °C ... +50 °C
Protection rating	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Stand-by consumption	0,9 W	0,5 W	0,5 W	0,5 W	0,5 W	0,9 W	0,5 W

Time switch technology

Analogue time switches, DIN-rail, switching segments, 1 module

talento 111 mini

talento 211 mini

Description

Grässlin's range of analogue distributor time switches enable switch commands to be issued in daily programs. The time and switching times can be checked at a glance, resulting in a wide array of usage options, such as lighting for underpasses, display window lighting in boutiques or pump control in fountains.

talento 111 mini

- Without power reserve

talento 211 mini

- With power reserve
- Quartz controlled

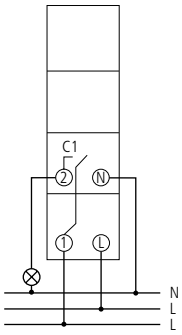
Product selection

Program	Number of channels	Power reserve	Shortest switching time	Programmable every	Type of contact	Operating voltage	Type	Item no.
Daily program	1	–	15 min	15 min	NO contact	230 V AC	talento 111 mini	01.06.0004.1
		3 days	15 min	15 min	NO contact	230 V AC	talento 211 mini	02.03.0003.1

Technical data

	talento 111 mini	talento 211 mini
Operating voltage	230 V AC	230 V AC
Frequency	50 Hz	50–60 Hz
Width	1 module	
Type of installation	DIN-rail	
Program	Daily program	
Type of contact	NO contact	
Power reserve	–	3 days
Switching capacity at 250 V AC, cos φ = 1	16 A	
Switching capacity at 250 V AC, cos φ = 0.6	4 A	
Incandescent/halogen lamp load	1000 W	
Compact fluorescent lamps	150 W	
LED lamp < 2 W (typ.)	30 W	
LED lamp > 2 W (typ.)	300 W	
Shortest switching time	15 min	
Programmable every	15 min	
Time accuracy at 25 °C	Synchronised with mains	≤ ± 1 s/day (Quartz)
Standby output	0.9 W	0.5 W
Protection rating	IP 20	
Protection class	II as per EN 60 730-1	
Ambient temperature	–25 °C … +50 °C	–10 °C … +50 °C

Connection example



Time switch technology

Analogue time switches, DIN-rail, switching segments, 3 modules

talento 121

talento 111/talento 111 SK

talento 211/talento 211 SK

Description

These analogue distributor time switches by Grässlin enable switch commands to be issued in both daily programs and 1-hour programs. The majority of these products are equipped with a pointer mechanism, making it much easier for the time to be set – particularly in the weekly program version. The time and switching times can be checked at a glance, resulting in a wide array of usage options, such as lighting for underpasses, display window lighting in boutiques or pump control in fountains.

talento 121
- 60 minute program
- Without power reserve

talento 111
- Daily program
- Without power reserve

talento 211
- Daily program
- With power reserve
- Quartz controlled

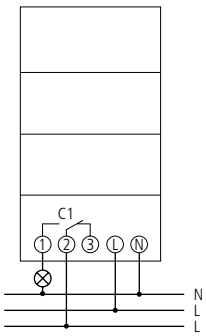
Product selection

Program	Number of channels	Power reserve	Shortest switching time	Programmable every	Type of contact	Operating voltage	Type of connection	Type	Item no.
60 minute program	1	–	37.5 s	37.5 s	Changeover contact	230 V AC	Plug-in terminal	talento 121	01.28.0003.1
Daily program	1	–	15 min	15 min	Changeover contact	230 V AC	Plug-in terminal	talento 111	01.28.0001.1
							Screw terminal	talento 111 SK	01.28.1001.1
		3 days	15 min	15 min	Changeover contact	110–230 V AC	Plug-in terminal	talento 211	02.28.0001.1
							Screw terminal	talento 211 SK	02.28.1001.1

Technical data

	talento 121	talento 111	talento 211
Operating voltage	230 V AC		110–230 V AC
Frequency	50 Hz		50–60 Hz
Width	3 modules		
Type of installation	DIN-rail		
Type of contact	Changeover contact		
Program	60 minute program	Daily program	
Power reserve	–		3 days, approx. 36 hours at 110 V
Switching capacity at 250 V AC, cos φ = 1	10 A	16 A	
Switching capacity at 250 V AC, cos φ = 0.6	4 A		
Incandescent/halogen lamp load	1100 W		
LED lamp < 2 W (typ.)	20 W		
LED lamp > 2 W (typ.)	180 W		
Shortest switching time	37,5 s	15 min	
Programmable every	37,5 s	15 min	
Time accuracy at 25 °C	Synchronised with mains		≤ ± 1.5 s/day (Quartz) at 25 °C
Standby output	0,9 W	0,5 W	
Protection rating	IP 20		
Protection class	II as per EN 60 730-1		
Ambient temperature	–20 °C … +55 °C		

Connection example



Flat modules

Customized timers for integration, installation and assembly

High performance
Compact design

Grässlin time switches are the energy-efficient universal geniuses for time-dependent switching of loads in the areas of lighting, ventilation, air conditioning, heating and irrigation.

In addition, the timers have proven themselves worldwide, for example for controlling

- Bells
- Break times at schools
- Doors and gates
- as well as for the illumination of signage and
- Billboards
- Animal farms
- Greenhouse control

Thanks to their particularly compact design, the special Grässlin **flat modules** are ideal for integration into heating, air conditioning and ventilation systems or control systems, e.g. for swimming pools, greenhouses or ski boot heaters. With mounting frames, flat modules can be optimally installed in switch cabinets. As a surface-mounted variant, they are mainly used for decentralized control systems.

Analogue flat modules

for integration into end devices, for recessed and surface mounting

Version	FM/1 STuZH	FM/1 Q TuZH	FM/1 QRTuZH	tactic 111 E	tactic 211 E	tactic 111 A	tactic 211 A
Operating voltage	230 V	110–230 V	110–230 V	230 V	110–230 V	230 V	110–230 V
Frequency	50 Hz	50–60 Hz	50–60 Hz	50 Hz	50–60 Hz	50 Hz	50–60 Hz
Channels	1	1	1	1	1	1	1
Dimensions L x W x H	60 x 60,7 x 32	60 x 60,7 x 32	60 x 60,7 x 32	72 x 72 x 39	72 x 72 x 39	107 x 72 x 56	107 x 72 x 56
Switching disc dimensions	Ø 62	Ø 62	Ø 62	Ø 62	Ø 62	Ø 62	Ø 62
Programmes	Daily programme	Daily programme	Daily programme	Daily programme	Daily programme	Daily programme	Daily programme
Shortest switching time	15 min	15 min	15 min	15 min	15 min	15 min	15 min
Pointer movement	yes	yes	yes	yes	yes	yes	yes
Drive	Synchronous motor	Quartz-controlled stepper motor	Quartz-controlled stepper motor	Synchronous motor	Quartz-controlled stepper motor	Synchronous motor	Quartz-controlled stepper motor
Time accuracy at 25 °C	Synchronised with mains	≤±1 s/day (quartz)	≤±1 s/day (quartz)	Synchronised with mains	≤±1 s/day (quartz)	Synchronised with mains	≤±1 s/day (quartz)
Power reserve	–	–	max. 3 days	–	max. 3 days	–	max. 3 days
Type of installation	Built-in installation	Built-in installation	Built-in installation	Front panel installation	Front panel installation	Wall-mounting	Wall-mounting
Type of contact	Changeover contact	Changeover contact	Changeover contact	Changeover contact	Changeover contact	Changeover contact	Changeover contact
Ambient temperature	–20 °C ... +55 °C	–20 °C ... +55 °C	–20 °C ... +55 °C	–20 °C ... +50 °C	–20 °C ... +50 °C	–20 °C ... +50 °C	–20 °C ... +50 °C
Protection rating	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Stand-by consumption	0,9 W	0,6 W	0,6 W	0,9 W	0,6 W	0,9 W	0,6 W

Digital flat modules

for integration into end devices, for recessed and surface mounting

Version	FMD smart	tactic smart E	tactic smart A	FMD easy B1	FMD easy C1	tactic easy B1 A	tactic easy C1 A
Operating voltage	110–230 V	110–230 V	110–230 V	230 V	230 V	230 V	230 V
Frequency	50–60 Hz	50–60 Hz	50–60 Hz	50–60 Hz	50–60 Hz	50–60 Hz	50–60 Hz
Channels	1	1	1	1	1	1	1
Dimensions L x W x H	60 x 60 x 32	72 x 72 x 39	107 x 72 x 56	60 x 60 x 32	60 x 60 x 32	107 x 72 x 56	107 x 72 x 56
Programmes	Weekly/Yearly program	Weekly/Yearly program	Weekly/Yearly program	Weekly/Yearly program	Astro program	Weekly/Yearly program	Astro program
Special functions	Astro/Pulse/Cycle	Astro/Pulse/Cycle	Astro/Pulse/Cycle	Pulse/Cycle	–	Pulse/Cycle	–
Bluetooth	x	x	x	–	–	–	–
Operation via talento smart app	x	x	x	–	–	–	–
Memory locations	500	500	500	50	50	50	50
Number of programmes	50	50	50	10	10	10	10
Programmes with date	50	50	50	1	1	1	1
Shortest switching time	Weekly programme: 1 min, Pulse: 1 s	Weekly programme: 1 min, Pulse: 1 s	Weekly programme: 1 min, Pulse: 1 s	Weekly programme: 1 min, Pulse: 1 s	Weekly programme: 1 min	Weekly programme: 1 min, Pulse: 1 s	Weekly programme: 1 min
Time accuracy at 25 °C	<±0,3 s/day	<±0,3 s/day	<±0,3 s/day	<±0,5 s/day	<±0,5 s/day	<±0,5 s/day	<±0,5 s/day
Power reserve	8 years	8 years	8 years	6 years	6 years	6 years	6 years
Type of installation	Built-in installation	Front panel installation	Wall-mounting	Built-in installation	Built-in installation	Wall-mounting	Wall-mounting
Type of contact	Changeover contact	Changeover contact	Changeover contact	Changeover contact	Changeover contact	Changeover contact	Changeover contact
Ambient temperature	–20 °C ... +55 °C	–20 °C ... +55 °C	–20 °C ... +55 °C	–10 °C ... +55 °C	–10 °C ... +55 °C	–10 °C ... +55 °C	–10 °C ... +55 °C
Protection rating	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Stand-by consumption	< 1 W	< 1 W	< 1 W	< 6 VA	< 6 VA	< 6 VA	< 6 VA

Time switch technology

Analogue time switches, switching segments

FM/1 STuZH

FM/1 QRTuZH

FM/1 Q TuZH

Description

The analogue time switch modules are suitable for installation and provides versatile application options throughout buildings and outdoors. They are used for universal switching tasks such as in switchgear, machine controls, or specific solutions as swimming pool control units and sprinkler systems. The analogue time switch modules from the FM series feature enhanced dust protection and are used to control devices, motors, pumps, household appliances and boilers.

FM/1 STuZH
- Without power reserve
- Synchronous drive

FM/1 QRTuZH
- With power reserve
- Quartz controlled

FM/1 Q TuZH
- Without power reserve
- Quartz controlled

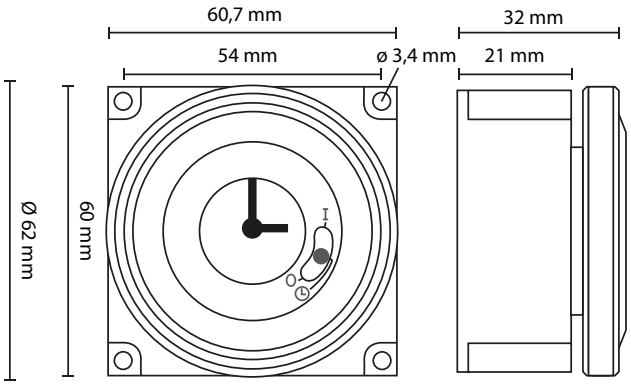
Product selection

Type of installation	Operating voltage	Type	Item no.
Built-in installation	230 V AC	FM/1 STuZH	01.76.1001.1
Built-in installation	110–230 V AC	FM/1 QRTuZH	02.76.1001.1
Built-in installation	110–230 V AC	FM/1 Q TuZH	02.76.1002.1

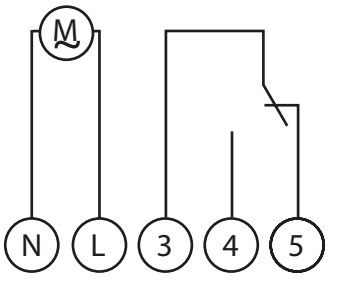
Technical data

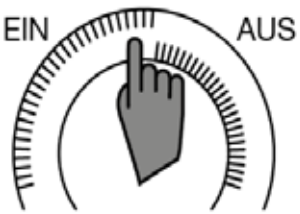
	FM/1 STuZH	FM/1 QRTuZH	FM/1 Q TuZH
Operating voltage	230 V AC	110–230 V AC	
Frequency	50 Hz	50–60 Hz	
Type of installation	Time switch module, for installation in end devices		
Type of contact	Daily program		
Program	96		
Number of switching segments	1		
Number of channels	Changeover contact		
Manual switch	–	max. 3 days	–
Power reserve	Synchronous motor	Quartz-controlled stepper motor	
Drive	Potential-free and phase-independent		
Switching output	16 A		
Switching capacity at 250 V AC, cos φ = 1	8 A		
Switching capacity at 250 V AC, cos φ = 0.6	1400 W		
Incandescent/halogen lamp load	15 min		
Shortest switching time	15 min		
Programmable every	0,9 W	0,6 W	
Time accuracy	Synchronised with mains	≤ ± 1.5 s/day (Quartz) at 25 °C	
Standby output	Auto/Fix ON/Fix OFF		
Housing and insulation material	High-temperature resistant, self-extinguishing thermoplastic		
Protection rating	IP 20		
Protection class	II as per EN 60 730-1		
Ambient temperature	–20 °C … +55 °C		

Scale drawings



Connection example





Time switch technology
Digitale Zeitschaltmodule

FMD smart

FMD easy B1

FMD easy C1

Description

FMD smart

The time switch module FMD smart A is suitable for installation and provides versatile application options throughout buildings and outdoors. It is used for universal switching tasks such as in switchgears, machine controls, or specific solutions as swimming pool controls and sprinkler systems. The FMD smart is designed for installation in customer-specific switching applications.

The device can be operated and programmed via Bluetooth with the talento smart App.

FMD easy B1

The time switch module FMD easy is suitable for installation and provides versatile application options throughout buildings and outdoors. It is used for universal switching tasks such as in switchgears, machine controls, or specific solutions as swimming pool controls and sprinkler systems. The FMD easy is designed for installation in customer-specific switching applications. All FMD and FM modules are identical in terms of size and have the same terminal assignments. They are therefore interchangeable.

FMD easy C1

The time switch module FMD easy C1 is suitable for installation and provides versatile application options throughout buildings and outdoors. The special thing about this time switch module is that it is able to process Astro programs. This means that the time switch calculates sunrise and sunset times automatically depending on the location and can therefore switch applications on and off depending on the position of the sun. The FMD easy is designed for installation in customer-specific switching applications. All FMD and FM modules are identical in terms of size and have the same terminal assignments. They are therefore interchangeable.

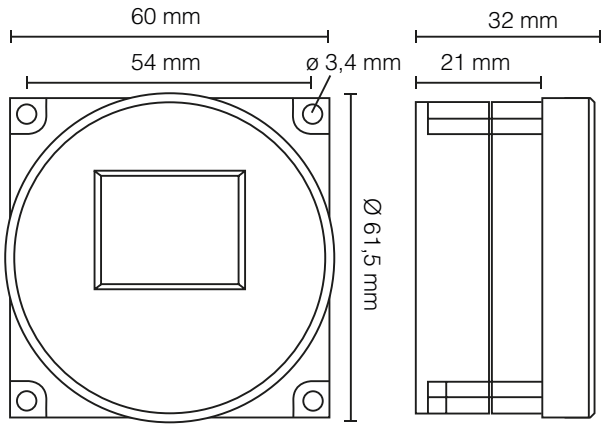
Product selection

Program	Type of installation	Operating voltage	Type	Item no.
Weekly/Yearly/Astro program	Built-in installation	110–230 V AC	FMD smart	43.60.0001.1
Weekly, Pulse/Cycle	Built-in installation	230 V AC	FMD easy B1	43.61.0001.1
Astro program	Built-in installation	230 V AC	FMD easy C1	43.61.0002.1

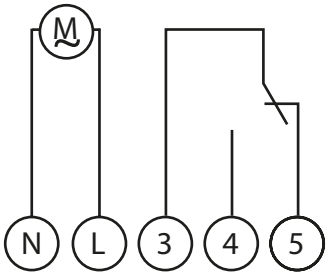
Technical data

	FMD smart	FMD easy B1	FMD easy C1
Operating voltage	110 V–230 V AC	230 V AC	230 V AC
Frequency	50–60 Hz	50–60 Hz	50–60 Hz
Switching capacity at 250 V AC, cos φ = 1	16 A	16 A	16 A
Switching capacity at 250 V AC, cos φ = 0.6	10 A	10 A	10 A
Shortest switching time	Weekly programme: 1 min, Pulse: 1 s	Weekly programme: 1 min, Pulse: 1 s	Weekly programme: 1 min, Pulse: 1 s
Incandescent/halogen lamp load	2600 W	2000 W	2000 W
LED load	400 W	300 W	300 W
Ambient temperature	–20 °C … +55 °C	–10 °C … +55 °C	–10 °C … +55 °C
Time accuracy	< ± 0,3 s/day at 20 °C	< ± 0,5 s/day at 20 °C	< ± 0,5 s/day at 20 °C
Power reserve	8 years	6 years	6 years
Stand-by consumption	< 1 W	< 6 VA	< 6 VA
Relay outputs	1	1	1
Prog. functions	Weekly function, yearly function, Astro function, pulse/cycle function	Weekly function, pulse/cycle function	Astro programs (sunrise/sunset) and adjustable offset of 0...99 min.
Protection rating	IP 20	IP 20	IP 20

Scale drawings



Connection example



Time switch technology

Analogue time switches, Built-in installation, switching segments

tactic 111 E

tactic 211 E

tactic 211 E (0A)

Description

The universal time switches from our tactic product range provide versatile application options throughout buildings and outdoors. They can used to control swimming pools or sprinkler systems, for example.

The analogue 1-channel, surface-mounted universal switches are synonymous with simple operation and are equipped with a Quartz or synchronous drive.

tactic 111 E
- Without power reserve
- Synchronous drive

tactic 211 E
- With power reserve
- Quartz controlled

tactic 211 E (0A)
- Without power reserve
- Quartz controlled

Product selection

Program	Number of channels	Power reserve	Shortest switching time	Programmable every	Type of contact	Operating voltage	Type	Item no.
Daily program	1	–	15 min	15 min	Changeover contact	230 V AC	tactic 111 E	01.79.1001.1
		3 days	15 min	15 min	Changeover contact	110–230 V AC	tactic 211 E	02.79.1001.1
		–	15 min	15 min	Changeover contact	110–230 V AC	tactic 211 E (0A)	02.79.1002.1

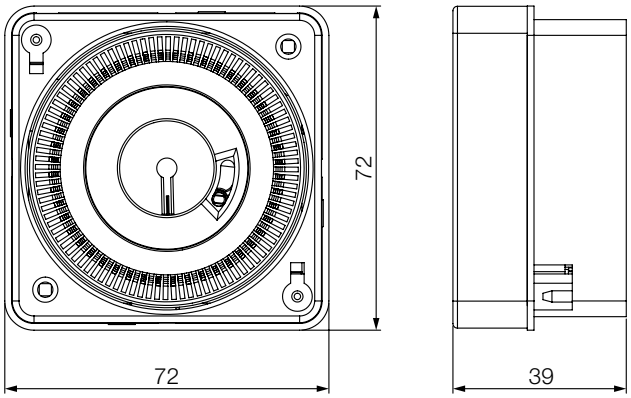
Technical data

	tactic 111 E	tactic 211 E	tactic 211 E (0A)
Operating voltage	230 V AC	110–230 V AC	
Frequency	50 Hz	50–60 Hz	
Type of installation	Wall-mounting		
Programmes	Daily programme		
Number of switching segments	96		
Number of channels	1		
Type of contact	Changeover contact		
Power reserve	–	max. 3 days	–
Drive	Synchronous motor	Quartz-controlled stepper motor	
Switching output	Potential-free and phase-independent		
Switching capacity at 250 V AC, cos φ = 1	16 A		
Switching capacity at 250 V AC, cos φ = 0.6	8 A		
Incandescent/halogen lamp load	1400 W		

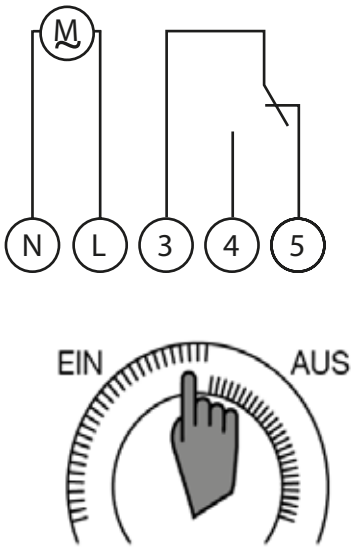
Analogue time switches, Built-in installation, switching segments

	tactic 111 E	tactic 211 E	tactic 211 E (0A)
Shortest switching time	15 min		
Programmable every	15 min		
Stand-by consumption	0,9 W	0,6 W	
Time accuracy	Synchronised with mains	≤ ± 1.5 s/day (Quartz) at 25 °C	
Manual switch	Auto/Fix ON/Fix OFF		
Housing and insulation material	High-temperature resistant, self-extinguishing thermoplastic		
Protection rating	IP 20		
Protection class	II as per EN 60 730-1		
Ambient temperature	–20 °C … +50 °C		

Scale drawings



Connection example



Time switch technology

Digital time switches, Fronttafeleinbau/Wandmontage

tactic smart E

Description

tactic smart E

The tactic smart provides versatile application options throughout the building and outdoors. It is used for universal switching tasks such as in switchgear, machine controls, or specific solutions as swimming pool controls and sprinkler systems. The tactic smart is suitable for universal wall installation as well as for installation in switching applications, or for top-hat rail mounting.

The device can be operated and programmed via Bluetooth with the talento smart App.

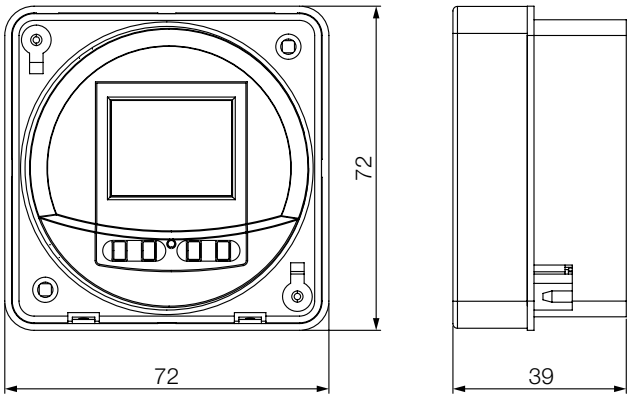
Product selection

Program	Type of installation	Operating voltage	Type	Item no.
Weekly, yearly and astronomical functions, pulse and cycle function	Wall-mounting	110–230 V AC	tactic smart E	43.87.0003.1

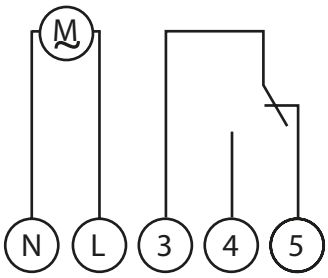
Technical data

	tactic smart
Operating voltage	110–230 V AC
Frequency	50–60 Hz
Switching capacity at 250 VAC, cos φ = 1	16 A
Switching capacity at 250 V AC, cos φ = 0.6	10 A
Incandescent/halogen lamp load	2600 W
LED load	400 W
Ambient temperature	–20 °C … +55 °C
Time accuracy	< ± 0.3 s/day at 20 °C
Power reserve	8 years
Standby output	< 1 W
Relay outputs	1
Progr. functions	Weekly function, yearly function, Astro function, pulse/cycle function
Protection rating	IP 20
Type of installation	Wall-mounting

Scale drawings



Connection example



Time switch technology

Analogue time switches, Front panel/wall installation, switching segments

tactic 111 A

tactic 211 A

tactic 211 A (0A)

Description

The universal time switches from our tactic product range provide versatile application options throughout buildings and outdoors. They can used to control swimming pools or sprinkler systems, for example.

The analogue 1-channel, surface-mounted universal switches are synonymous with simple operation and are equipped with a Quartz or synchronous drive.

tactic 111 A
- Without power reserve
- Synchronous drive

tactic 211 A
- With power reserve
- Quartz controlled

tactic 211 A (0A)
- Without power reserve
- Quartz controlled

Product selection

Program	Number of channels	Power reserve	Shortest switching time	Programmable every	Type of contact	Operating voltage	Type	Item no.
Daily program	1	–	15 min	15 min	Changeover contact	230 V AC	tactic 111 A	01.78.1001.1
		3 days	15 min	15 min	Changeover contact	110–230 V AC	tactic 211 A	02.78.1001.1
		–	15 min	15 min	Changeover contact	110–230 V AC	tactic 211 A (0A)	02.78.1002.1

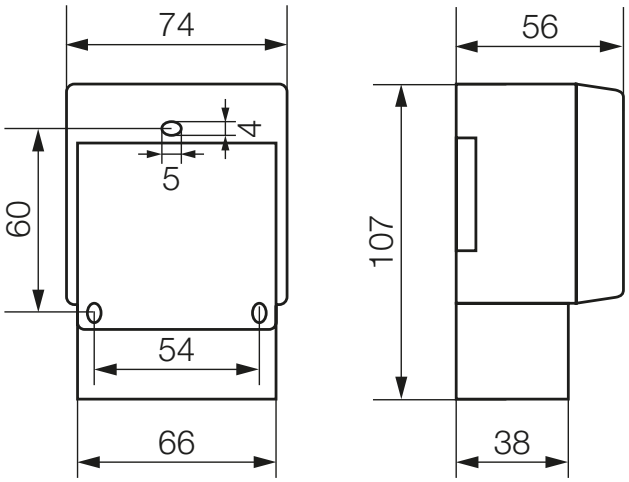
Technical data

	tactic 111 A	tactic 211 A	tactic 211 A (0A)
Operating voltage	230 V AC	110–230 V AC	
Frequency	50 Hz	50–60 Hz	
Type of installation	Wall-mounting		
Program	Daily program		
Number of switching segments	96		
Number of channels	1		
Type of contact	Changeover contact		
Power reserve	–	max. 3 days	–
Drive	Synchronous motor	Quartz-controlled stepper motor	
Switching output	Potential-free and phase-independent		

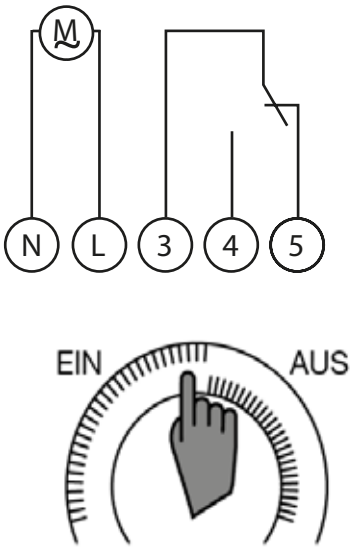
Analogue time switches, Front panel/wall installation, switching segments

	tactic 111 A	tactic 211 A	tactic 211 A (0A)
Switching capacity at 250 VAC, cos φ = 1	16 A		
Switching capacity at 250 V AC, cos φ = 0.6	8 A		
Incandescent/halogen lamp load	1400 W		
Shortest switching time	15 min		
Programmable every	15 min		
Stand-by consumption	0,9 W	0,6 W	
Time accuracy	Synchronised with mains	≤ ± 1,5 s/day (Quartz) at 25 °C	
Manual switch	Auto/Fix ON/Fix OFF		
Housing and insulation material	High-temperature resistant, self-extinguishing thermoplastic		
Protection rating	IP 20		
Protection class	II nach EN 60 730-1		
Ambient temperature	–20 °C … +50 °C		

Scale drawings



Connection example



Time switch technology

Digital time switches, Front panel/wall installation

tactic smart A

tactic easy B1 A

tactic easy C1 A

Description

tactic smart A

The tactic smart provides versatile application options throughout the building and outdoors. It is used for universal switching tasks such as in switchgear, machine controls, or specific solutions as swimming pool controls and sprinkler systems. The tactic smart is suitable for universal wall installation as well as for installation in switching applications, or for top-hat rail mounting.

The device can be operated and programmed via Bluetooth with the talento smart App.

tactic easy

The tactic easy provides versatile application options throughout buildings and outdoors. It is used for universal switching tasks, such as controlling swimming pools or sprinkler systems. The tactic easy is suitable for universal wall installation

tactic easy B1 A

- Without power reserve

tactic easy C1 A

- With power reserve
- Quartz controlled
- Astro program (time switch calculates sunrise and sunset times automatically depending on the location and can therefore switch applications on and off depending on the position of the sun).

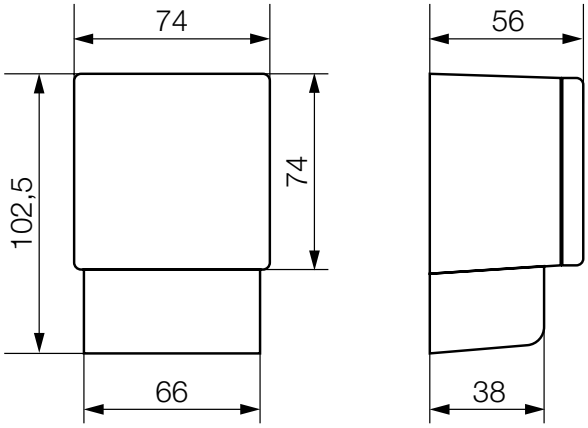
Product selection

Program	Type of installation	Operating voltage	Type	Item no.
Weekly, yearly and astronomical functions, pulse and cycle function	Wall-mounting	110–230 V AC	tactic smart A	43.87.0002.1
Weekly function, pulse/cycle function	Wall-mounting	230 V AC	tactic easy B1 A	03.80.1001.1
Astro program	Wall-mounting	230 V AC	tactic easy C1 A	03.80.1003.1

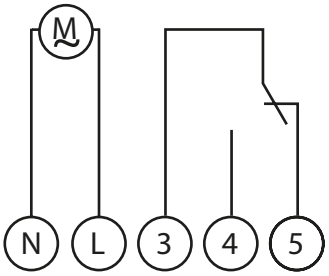
Technical data

	tactic smart A	tactic easy B1 A	tactic easy C1 A
Operating voltage	110 V–230 V AC	230 VAC	230 VAC
Frequency	50–60 Hz	50–60 Hz	50–60 Hz
Switching capacity at 250 V AC, cos φ = 1	16 A	16 A	16 A
Switching capacity at 250 V AC, cos φ = 0,6	10 A	10 A	10 A
Incandescent/halogen lamp load	2600 W	2000 W	2000 W
LED load	400 W	300 W	300 W
Ambient temperature	–20 °C … +55 °C	–10 °C … +55 °C	–10 °C … +55 °C
Time accuracy	< ± 0.3 s/day at 20 °C	< ± 0,3 s/day at 20 °C	< ± 0,3 s/day at 20 °C
Power reserve	8 years	6 years	6 years
Stand-by consumption	< 1 W	< 6 VA	< 6 VA
Relay outputs	1	1	1
Prog. functions	Weekly function, Yearly function, Astro function, Pulse/Cycle function	Weekly function, Pulse/Cycle function	Astro programs (sunrise/sunset) and adjustable offset of 0...99 min.
Protection rating	IP 20	IP 20	IP 20
Type of installation	Wall-mounting	Wall-mounting	Wall-mounting

Scale drawings



Connection example



Time switch technology

Analogue time switches, Front panel/Wall installation, switching segments

tactic 111.1

tactic 211.1

Description

The universal time switches from our tactic product range provide versatile application options throughout buildings and outdoors. For instance, they can be used in switchgears, machine control units and also specific solutions such as swimming pool control systems or sprinkler systems. The analogue 1-channel universal time switches from the tactic range are suited for surface mounting, cabinet installation or DIN-rain mounting. They are synonymous with simple operation and come equipped with a Quartz or synchronous drive.

tactic 111.1
- Without power reserve

tactic 211.1
- With power reserve
- Quartz controlled

Product selection

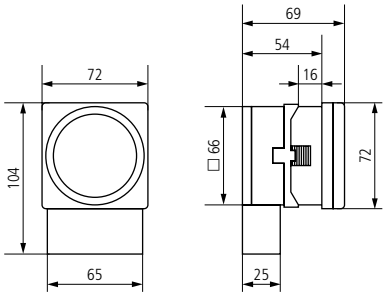
Program	Number of channels	Power reserve	Shortest switching time	Programmable every	Type of contact	Operating voltage	Type	Item no.
Daily program	1	–	15 min	15 min	Changeover contact	230 V AC	tactic 111.1	01.80.0001.1
		3 days	15 min	15 min	Changeover contact	230 V AC	tactic 211.1	02.80.0001.1

Analogue time switches, Front panel/Wall installation, switching segments

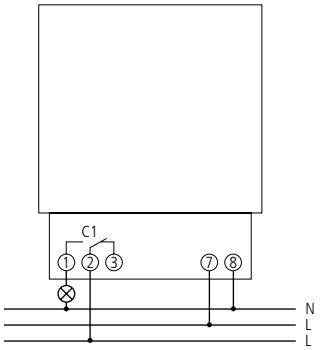
Technical data

	tactic 111.1	tactic 211.1
Operating voltage	230 V AC	
Frequency	50 Hz	50–60 Hz
Type of installation	Front panel installation/wall installation	
Type of contact	Changeover contact	
Program	Daily program	
Power reserve	–	3 days, full power reserve approx. 3 days after being connected to the operating voltage
Switching capacity at 250 V AC, cos φ = 1	10 A	
Switching capacity at 250 V AC, cos φ = 0,6	2 A	
Shortest switching time	15 min	
Programmable every	15 min	
Time accuracy	Synchronised with mains	≤ ± 1 s/day (Quartz) at 25 °C
Stand-by consumption	0,9 W	0,5 W
Protection rating	IP 20	
Protection class	II as per EN 60 730-1	
Ambient temperature	–10 °C … +55 °C	

Scale drawings



Connection example




topica smart

Socket time switches

Plug in and off you go

The topica smart is not only characterised by its user-friendliness, it also offers a high level of functionality for all your applications without any installation effort. It is therefore the perfect partner for all your household applications.

The timer has a weekly and annual function, as well as a pulse, cycle and random function, allowing it to be customised to the user‘s individual needs. It is also one of the few socket timers on the market that has an integrated astro function and thus adapts to the seasons all by itself.

This makes the clock particularly interesting for lighting control. Whether for Christmas lighting or party lights at a summer party, it is ideal for controlling fairy lights. However, it can also be used for watering plants, controlling aquarium technology and in many other areas of the private household, as well as in the industrial and commercial sectors.

Time switch technology

Steckdosenschaltuhr, digital

topica smart

topica smart

topica smart

Description

The topica smart is a Schuko socket time switch suitable for all switching tasks in the domestic and industrial sector. Thanks to its high functional diversity, the topica smart can be used universally.

The device can be operated and programmed via Bluetooth with the talento smart App.

- Protection against accidental contact in accordance with accident prevention regulation BGV A3

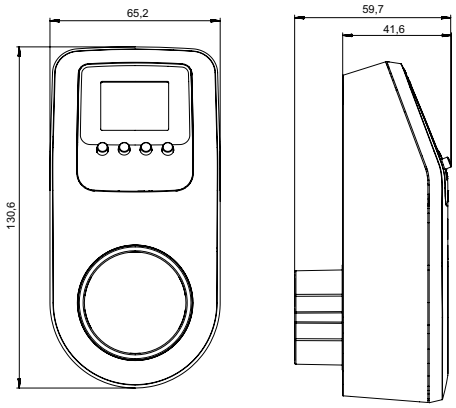
Product selection

Function	Country version	Types	Frequency	Operating voltage	Type	Item no.
Weekly function, Yearly function, Astro function	DE	F, C	50 Hz	230 V AC	topica smart	43.15.0001.1
Weekly function, Yearly function, Astro function	CH	J, C	50 Hz	230 V AC	topica smart	43.15.0002.1
Weekly function, Yearly function, Astro function	FR	E, C	50 Hz	230 V AC	topica smart	43.15.0003.1

Technical data

	topica smart
Operating voltage	230 V AC
Frequency	50 Hz
Type of installation	Socket-intermediate connector
Type of contact	NO contact
Program functions	Weekly function, Yearly function, Astro function, Pulse/Cycle function
Smartphone-based operation using built-in Bluetooth	yes
Program functions	ON-OFF
Number of channels	1
Number of memory locations	500
Power reserve at 25 °C	6 years
Switching capacity at 250 V AC, cos φ = 1	16 A
Switching capacity at 250 V AC, cos φ = 0.6	10 A
Incandescent/halogen lamp load	2600 W
LED lamps < 2 W	30 W
LED lamps > 2 W	300 W
Shortest switching time (pulse/cycle function)	1 s
Shortest switching time (weekly, annual, Astro function)	1 min
Resistive load	3680 W
Time accuracy at 25 °C	< 0,3 s/day (Quartz)
Time basis	Quartz
Standby output	0.9 W
Display	LCD display
Protection rating	IP 20
Protection class	II for housing, I for plug system as per EN 62 730-1
Protection against accidental contact	in accordance with accident prevention regulation BGV A3
Ambient temperature	–10 °C...+40 °C

Scale drawings



Light control

We optimise lighting – always at the right place and the right time

With twilight switches and staircase time switches, Grässlin meets the needs of energy-efficient light control and offers improved security for users. Thanks to targeted switching of a wide variety of light sources, such as LED, halogen or energy-saving lamps, to meet current demand, both outdoors and indoors, light control devices from Grässlin optimise the actual energy consumption of your lighting systems. Grässlin doesn't leave its customers in the dark: with their ease of installation, our products make even the remotest corners and most unmanageable spaces bright as day when needed, increasing safety and security.

The talis motion detectors from Grässlin control lighting by recognising the presence of people in a room or the immediate vicinity. As soon as they detect movement, they switch the light on automatically. If the movement can no longer be detected, the light is automatically switched off again after a defined period of time. This prevents energy being wasted due to unnecessary lighting.

▸ Reduce energy consumption

Almost a third of total energy consumption in commercial and industrial buildings is attributable to lighting. This is even more pronounced in the private sector. There is still great potential for optimisation here. Whether in offices, meeting rooms, corridors or toilets - intelligent lighting control concepts with talis motion detectors help to use light, and therefore electricity, only where it is actually needed. This can drastically reduce energy costs in some areas.

▸ Solutions

The option of combining talis motion detectors with intelligent timer technology and lighting control solutions from Grässlin gives you a decisive advantage: Why compare different suppliers and systems?
With Grässlin, you get energy efficiency from a single source.

Universal dimmer

High LED output in mini format

Grässlin trim universal dimmers are probably the smallest flush-mounted dimmers on the market for different light sources. Thanks to the extremely compact design of just 25.6 x 26.4 x 10.4 mm (H x W x D), they can be easily installed or retrofitted in any flush-mounted box. Thanks to protection class IP 65, they can also be used in damp environments.

- **Simple installation:** The flush-mounted dimmers fit behind any push-button in any switch box. In addition, no neutral conductor is required. The dimmer is connected directly to the push-button on the phase and the lamp wire. Craftsmen do not have to carry out any additional installations. This saves time and money.
- **Flexible use:** trim flush-mounted dimmers for R and C loads are suitable for LEDs, halogen lamps or incandescent lamps.
- **Flicker-free operation:** The lowest brightness is adjustable. This prevents the usual flickering in the lower brightness range.
- **Convenient Bluetooth setting:** trim 200 and trim 300 devices can be operated via app using Bluetooth. Remote devices can also be controlled via Bluetooth Mesh.

trim 200 und trim 300

Operation via App

If you have several devices installed, you can control the trim 200 and trim 300 via Bluetooth and the mesh network. The individual devices in the house or building connect to a network and transmit to the next device. This makes it possible to control the devices even in remote rooms.

Accessories:

LED compensation modul

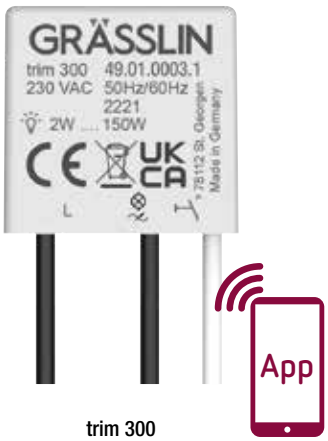
- for trim 100/200/300
- To prevent afterglow with LED lamps
- Connection parallel to the load
- Housing: 30 x 7 mm
- Item no. 89.01.0001.1

Lighting control

Flush-mounted universal dimmer

trim 100

trim 200



trim 300

Description

trim 100

The trim 100 is one of the world's smallest flush-mounted dimmers for different light sources. The device is not much bigger than an SD card and does not require a neutral conductor. It can be installed quickly and easily behind a standard push-button and is therefore perfect for retrofitting existing systems. The 2-wire flush-mounted dimmer has a smart memory function; the last set light value is saved and automatically dimmed to this value the next time it is switched on. The connected light source can be switched back to 100 % with a simple double-click on the push-button. The minimum brightness can also be set to prevent LED lamps from flickering.

- Flush-mounted universal dimmer for R, C loads with automatic load detection
- Operation via push-button
- Optimised settings for LEDs and incandescent lamps (minimum dimming level setting)
- Simple flush-mounted installation thanks to particularly small housing
- Ideal for dimmable LEDs, halogen lamps and incandescent lamps
- Memory function saves the last set light value
- Adjustable minimum brightness

trim 200

The trim 200 has the same shape and size as the trim 100 and, like the latter, is installed in the flush-mounted box behind any conventional push-button. All functions of the trim 100 are also available with the trim 200. In addition, the trim 200 can also be controlled by app via Bluetooth Mesh 5.0 and has further functions of a count-down timer, such as the staircase lighting function including pre-warning and the fade-in/fade-out function. If several Bluetooth Mesh-capable devices are installed, you can control the trim 200 via the Mesh network. The individual devices connect to a network and transmit to the next device. This makes it possible to control the devices even in remote rooms.

- Identical size, functions and installation as trim 100
- App can be operated via Bluetooth Mesh Standard 5.0
- Additional functions:
  - Count down timer
- Applications:
  - Staircase light function incl. advance warning
  - Children's room light with fade out function
  - Gentle increase in brightness (fade in)

trim 300

The trim 300 has the same shape and size as the trim 100 and 200 and is installed in the flush-mounted box behind any conventional push-button. It is controlled via the app using Bluetooth 5.0 with mesh standard, as with our trim 200. In addition, the trim 300 offers a comprehensive solution for intelligent lighting control by combining the proven functions of the trim 100 and 200 while adding a fully-fledged timer with weekly programme, annual functionality, astro function and energy measurement. Utilise the versatility of the trim 300 for efficient and convenient control of your applications. Discover the next level of intelligent control for your lighting with our trim 300.

- Identical size, functions and installation as trim 100 and 200
- App operable via Bluetooth Mesh Standard 5.0
- Additional functions to trim 200:
  - Programmable light scenes
  - Timer with weekly/yearly programme
  - Astro function
  - Energy measurement
  - Power reserve: 2 h

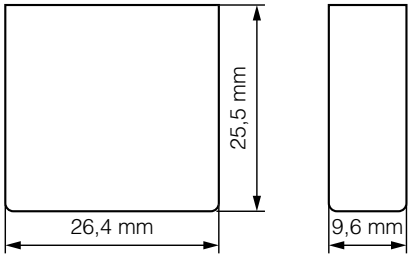
Product selection

Programme functions	Operable via app	Type	Item no.
Memory function, 100 % on double-click, adjustable minimum brightness	no	trim 100	49.01.0001.1
Memory function, 100 % on double-click + staircase lighting timer incl. advance warning, fade out, fade in, Bluetooth 5.0 (Mesh), adjustable minimum brightness	yes	trim 200	49.01.0002.1
Memory function, 100 % on double-click + staircase lighting timer incl. advance warning, fade out, fade in, Bluetooth 5.0 (Mesh), adjustable minimum brightness, programmable light scenes, weekly/yearly/astro function, energy measurement	yes	trim 300	49.01.0003.1
Accessories			
		Compensation module	89.01.0001.1

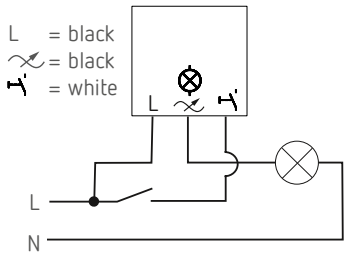
Technical data

	trim 100	trim 200	trim 300
Operating voltage	230 V AC	230 V AC	230 V AC
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Type of installation	Flush-mounted	Flush-mounted	Flush-mounted
Stand-by consumption	approx. 0,2 W	approx. 0,2 W	approx. 0,2 W
Incandescent/halogen lamp load	150 W	150 W	150 W
LED load	150 W	150 W	150 W
Ambient temperature	–10 °C … +45 °C	–10 °C … +45 °C	–10 °C … +45 °C
Fuse types	Overcurrent protection, temperature protection, short-circuit protection	Overcurrent protection, temperature protection, short-circuit protection	Overcurrent protection, temperature protection, short-circuit protection
Länge Anschlussdrähte	approx. 100 mm	approx. 100 mm	approx. 100 mm

Scale drawings



Connection example

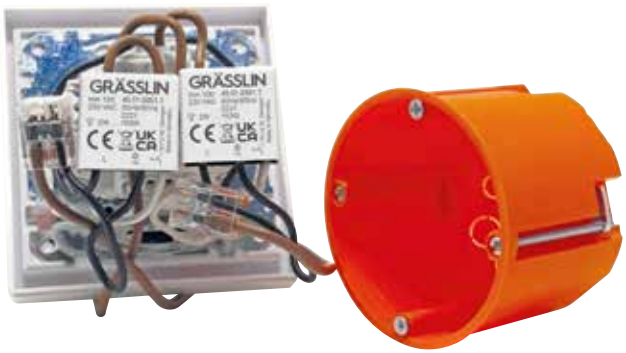


Zubehör

Compensation module (89.01.0001.1)

- LED compensation module for dimmers
- To prevent afterglow with LED lamps
- For connection parallel to the load
- Housing 30 mm long, 7 mm diameter

Application images



Lighting control
Impulse relay

telestro 100

Description

telestro 100

The electronic impulse switch is the smallest impulse switch with one channel for the junction box or flush-mounted box that does not require a neutral conductor. Convenient light control of a common consumer possible with several push-buttons.

- Flush-mounted impulse switch
- Preferably installed in the junction box
- Operation via push-button
- Simple flush-mounted installation thanks to particularly small housing
- Does not require a neutral conductor
- Suitable for retrofitting
- Electronics completely encapsulated, suitable for damp rooms

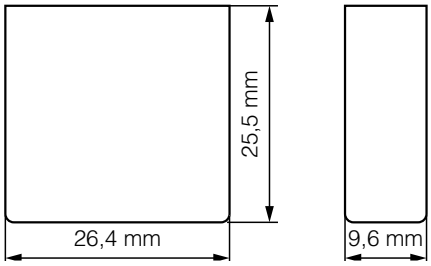
Product selection

Frequency	Operating voltage	Type	Item no.
50/60 Hz	110–230 V AC	telestro 100	49.02.0001.1

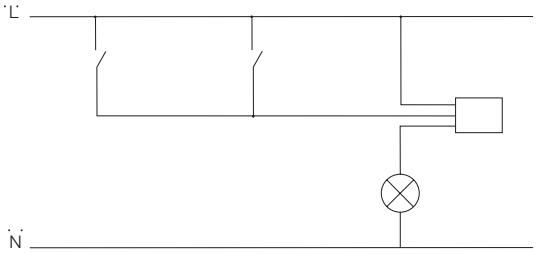
Technical data

	trim 100
Operating voltage	110–230 V AC
Frequency	50/60 Hz
Type of installation	Unterputz
Stand-by consumption	approx. 0,2 W
Incandescent/halogen lamp load	150 W
LED load	150 W
Ambient temperature	–10 °C … +45 °C
Fuse types	Overcurrent protection, temperature protection, short-circuit protection
Length of connecting wires	approx. 100 mm

Scale drawings

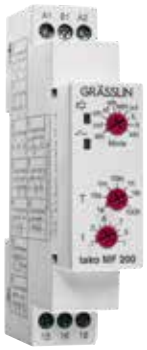


Connection example



Lighting control

Time relay, electronic, DIN-rail



tako MF 200

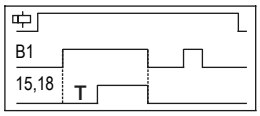
Description

The tako MF 200 is an electronic time relay with 10 different, freely selectable functions. It is therefore suited to a wide range of applications.

The tako MF 200 is intended for mounting on top-hat rails.

Functional description

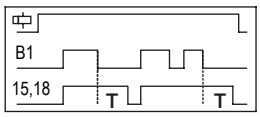
① Switch-on delay



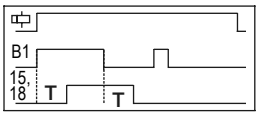
② Cyclic ON/OFF

③ Cyclic OFF/ON

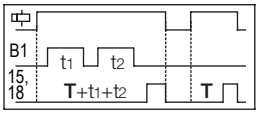
④ Signal OFF delay



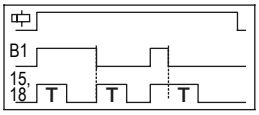
⑤ On and off delay



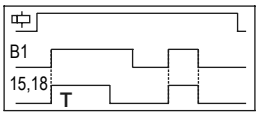
⑥ Accumulated switch-on delay



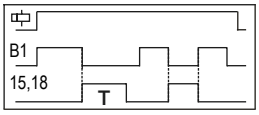
⑦ Pulses when control contact switches On or Off



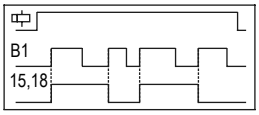
⑧ Pulses when control contact switches On



⑨ Pulses when control contact switches off



⑩ With each control contact On Pulse, the output signal alternates



Funktionen 1–10 (Mode)

① stn ▶ Signal ON delay: Timing starts when switch S is closed. R energizes at end of period T and de-energizes when switch S is opened.

② cnf ▶ Cyclic ON/OFF (ON start): Initially the relay R is on for period T after the power is applied. The relay R keeps on changing its status till power is removed with on and period = T.

③ cfn ▶ Cyclic OFF/ON (OFF start): Initially the relay R is off for period T after the power is applied. The relay R keeps on changing its status till power is removed with on and off period = T.

④ sf ▶ OFF delay, constant supply: R energizes when switch S is closed. Timing commences after switch S is opend and then the relay de-energizes.

⑤ sfn ▶ Signal OFF/ON: When switch S is closed or opened for present time T, the relay changes its state after time duration T.

⑥ san ▶ Accumulate delay ON signal: Time commences as supply is present and switch S is open. Closing switch S pauses timing. Timing resumes when switch S opened again. R energizes at the end of timing.

⑦ inf ▶ Impulse ON/OFF: R energizes for the period T when switch S is openend or closed. When timing commences, changing state of switch S does not affect R but resets timer.

⑧ iL ▶ ON impulse, constant supply: When switch S is closed and remains closed output relay energizes until timing is over. If switch S is opened during period T, R resets.

⑨ it ▶ ON impulse, constant supply: When switch S is openend, R energizes and de-energizes when timing is over. If switch S is closed during period T, R resets.

⑩ sbi ▶ Leading edge bistabile or step relay: After every signel, the output contact changes state, alternately switching from open to closed & vice versa

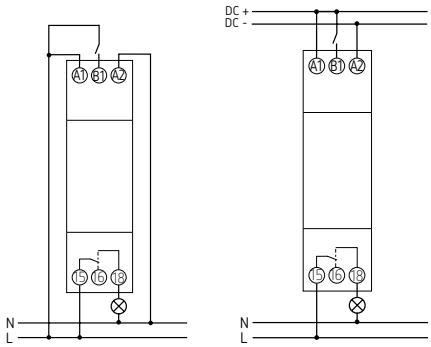
Product selection

Frequency	Stand-by power	Operating voltage	Type	Item no.
50/60 Hz	3 VA	12–230 V AC	tako MF 200	40.01.0001.1

Technical data

	tako MF 200
Operating voltage	12–230 V AC
Frequency	50/60 Hz
Recovery time	200 ms
Stand-by consumption	< 5 VA
Switching capacity cos φ = 1	16 A at 250 V AC
DC switching capacity	16 A at 24 V DC
Ambient temperature	–10 °C … +60 °C
Setting accuracy	5 % Full Scale
Repeatability	1 %
Adjustable time range	0,1 s to 100 h
Protection rating	IP 20
Switching cycles, electrical	5 x 10^5
Switching cycles, mechanical	1 x 10^6
Max. humidity	95 % RH (non-condensing)

Connection example



Lighting control

Staircase time switches, DIN-rail, electronic

trealux 510

trealux 450

Description

The trealux staircase light timer switches offer maximum functionality and allow for individual control concepts in residential buildings, offices, commercial premises, and industrial and outdoor settings, delivering noticeable improvements to energy efficiency. Our trealux range offers simple, universal installation with automatic detection of the wiring option. These products are therefore ideally suited for use with modern lighting technology, such as energy-saving lamps and various ballasts.

trealux 510

- Staircase light timer switch
- DIN-rail

trealux 450

- Staircase light timer switch
- DIN-rail
- Universal installation thanks to automatic detection of wiring type (3- or 4-wire)

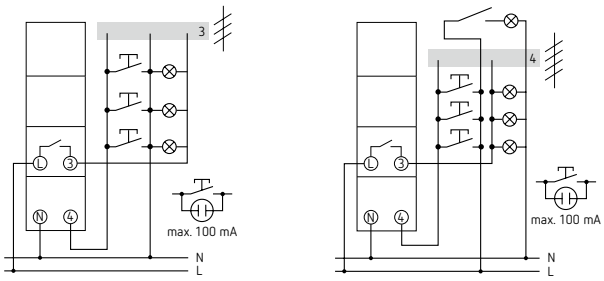
Product selection

Incandescent/halogen lamp load	Switch-off pre-warning	Zero-cross switching	Type	Item no.
2600 W	yes	yes	trealux 510	18.13.0016.1
2600 W	yes	yes	trealux 450	18.13.0001.1

Technical data

	trealux 510	trealux 450
Operating voltage	230 V AC	230 V AC
Frequency	50 Hz	50 Hz
Stand-by consumption	0,3 W	0,3 W
Fluorescent lamp load	100 mA	50 mA
Time setting range	0,5–20 min	0,5–20 min
3/4 conductors	automatic	automatic
Type of contact	NO contact	NO contact
Switching output	Non-floating (230 V), floating at multi-voltage input	Non-floating (230 V)
Incandescent/halogen lamp load	2600 W	2600 W
Fluorescent lamp ECG	1100 W	1100 W
LED lamp < 2 W (typ.)	55 W	50 W
LED lamp > 2 W (typ.)	600 W	400 W
Switching capacity	16 A (at 230 V AC, cos φ = 1), 10 A (at 230 V AC, cos φ = 0,3)	16 A (bei 230 V AC, cos φ = 1), 10 A (bei 230 V AC, cos φ = 0,6)
Ambient temperature	–25 °C … +50 °C	–10 °C … +50 °C
Protection class	II	II
Protection rating	IP 20	IP 20

Connection example



Lighting control

Twilight switches, analogue, DIN-rail

turnus 501 E

turnus 501 A

Description

The 1-channel turnus 501 twilight switch offers ultimate functionality and allows for individual control concepts in residential, office, commercial and industrial buildings as well as any outdoor setting, delivering a noticeable improvement to energy efficiency at the same time. Thanks to its external brightness sensor, it can deliver accurate control based on the light intensity. The turnus model is ideally suited for use in display windows, billboard lighting or street lighting.

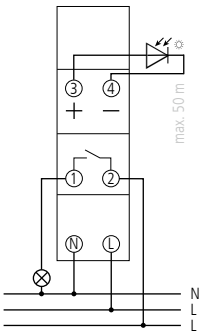
Product selection

Brightness setting range	On/off switching delay	Operating voltage	Sensor (included)	Protection rating	Type	Item no.
2–2000 lx	20 s/80 s	230 V AC	Flush fitting light sensor, ball throw tested	IP 20, sensor IP 66 (front), ball throw tested I IP 40 (back)	turnus 501 E	18.18.0014.1
			Surface-mounted light sensor	IP 20, sensor IP 55	turnus 501 A	18.18.0013.1

Technical data

	turnus 501
Operating voltage	230 V AC
Frequency	50–60 Hz
Stand-by consumption	0,3 W
Brightness setting range	2–2000 lx
Switch-on delay	20 s
Switch-off delay	80 s
Type of contact	Schließer
Switching output	Floating
Width	1 TE
Switching capacity	16 A (at 250 V AC, cos φ = 1), 10 A (fluorescent lamp load)
Incandescent/halogen lamp load	2600 W
LED lamp < 2 W (typ.)	30 W
LED lamp > 2 W (typ.)	350 W
Ambient temperature	–30 °C … +55 °C
Protection class	II, sensor III
Max. line length to sensor	50 m

Connection example



Lighting control

Twilight switches, analogue, wall installation

turnus 200

Description

The turnus 200 twilight switch offers ultimate functionality and allows for individual control concepts in residential, office, commercial and industrial buildings as well as any outdoor setting, delivering a noticeable improvement to energy efficiency at the same time. Thanks to its built-in light sensor, it can deliver accurate control based on the light intensity. The turnus model is ideally suited for use in display windows, billboard lighting or street lighting. The turnus' hallmark features include simple, flexible installation thanks to mounting assembly, and a stripped-back design.

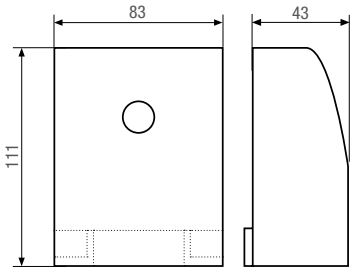
Product selection

Brightness setting range	On/off switching delay	Operating voltage	Protection rating	Type	Item no.
2–2000 lx	20–120 s	230 V AC	IP 54	turnus 200	18.17.0001.1

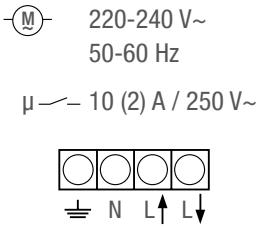
Technical data

	turnus 200
Operating voltage	230 V AC
Frequency	50–60 Hz
Stand-by consumption	6 W
Brightness setting range	2–2000 lx
On/off switching delay	20–120 s
Switching capacity	10 A (at 250 V AC, cos φ = 1), 2 A (at 250 V AC, cos φ = 0,6)
Incandescent/halogen lamp load	1200 W
Ambient temperature	–35 °C … +60 °C
Protection class	II
Protection rating	IP 54

Scale drawings



Connection example



Lichtsteuerung
Bewegungsmelder

talis 180 A

talis 360 A

talis 360 E

talis 360 E mini

Description

Whether they are surface-mounted or flush-mounted, talis detectors are ideally suited for use both indoors and outdoors. Bringing together energy efficiency and cost savings, safety and comfort – all with very little effort. The motion detectors can be used to detect movement indoors and also in outdoor areas with low levels of daylight. The devices reliably detect a wide range of movements and only activate lighting when it is actually required, e.g. in sanitary facilities, cellars, warehouses, garages or dark outdoor areas. The detectors are installed in just a few steps, while the detection area, switching time and light level value are easy to adjust using just three rotary switches.

talis 180 A

- Passive infrared motion detector for wall mounting in outdoor areas
- 180° detection area
- 1 channel
- Outdoor detector sensor head can be turned by ± 90° horizontally and tilted 35° downwards
- Mixed light measurement suitable for fluorescent lamps (FL/PL/ESL), halogen/incandescent lamps and LEDs
- Adjustable brightness switching value and time delay
- Protect the channel with type B or C series-connected circuit breakers (EN 60898-1) of max. 10 A

talis 360 A

- Passive infrared motion detector for surface-mounted ceiling installation in indoor settings
- 360° detection area
- 1 channel
- Mixed light measurement suitable for fluorescent lamps (FL/PL/ESL), halogen/incandescent lamps and LEDs
- Adjustable brightness switching value and time delay
- Protect the channel with type B or C series-connected circuit breakers (EN 60898-1) of max. 10 A

talis 360 E

- Passive infrared motion detector for surface-mounted ceiling installation in indoor settings
- 360° detection area
- 1 channel
- Mixed light measurement suitable for fluorescent lamps (FL/PL/ESL), halogen/incandescent lamps and LEDs
- Adjustable brightness switching value and time delay
- Protect the channel with type B or C series-connected circuit breakers (EN 60898-1) of max. 10 A

talis 360 E mini

- Passive infrared motion detector for ceiling installation in indoor settings
- 360° detection area
- 1 channel
- Mixed light measurement suitable for fluorescent lamps (FL/PL/ESL), halogen/incandescent lamps and LEDs
- Adjustable brightness switching value and time delay
- Protect the channel with type B or C series-connected circuit breakers (EN 60898-1) of max. 10 A

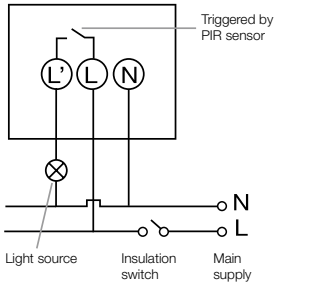
Product selection

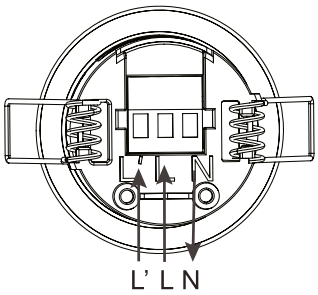
Brightness setting range	On/off switching delay	Operating voltage	Protection rating	Type	Item no.
10–1000 lx	3 s–18 min	230 V AC	IP 55	talis 180 A	18.06.0025.1
10–1000 lx	3 s–18 min	230 V AC	IP 40	talis 360 A	18.06.0026.1
10–1000 lx	3 s–18 min	230 V AC	IP 40	talis 360 E	18.06.0027.1
10–1000 lx	3 s–18 min	230 V AC	IP 40	talis 360 E mini	18.06.0028.1

Technical data

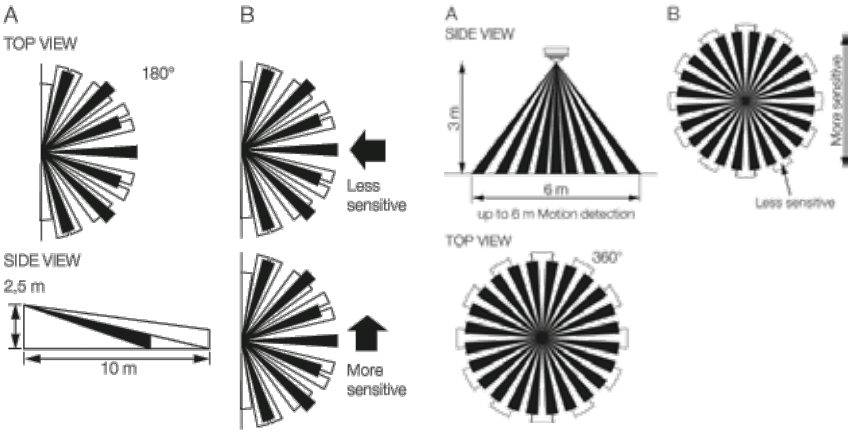
	talis 180 A	talis 360 A	talis 360 E	talis 360 E mini
Betriebsspannung	230 V AC	230 V AC	230 V AC	230 V AC
Frequenz	50 Hz	50 Hz	50 Hz	50 Hz
Stand-by consumption	< 1 W	< 1 W	< 1 W	< 1 W
Einstellbereich Helligkeit	10–1000 lx	10–1000 lx	10–1000 lx	10–1000 lx
Erfassungswinkel	180°	360°	360°	360°
Ein-/Ausschaltverzögerung	3 s–18 min	3 s–18 min	3 s–18 min	3 s–18 min
LED Lampe	200 W	200 W	200 W	200 W
Glüh-/Halogenlampenlast	1000 W	1000 W	1000 W	1000 W
Umgebungstemperatur	–20 °C … +40 °C	–20 °C … +40 °C	–20 °C … +40 °C	–20 °C … +40 °C
Schutzklasse	II	II	II	II
Schutzart	IP 55	IP 40	IP 40	IP 40

Connection examples

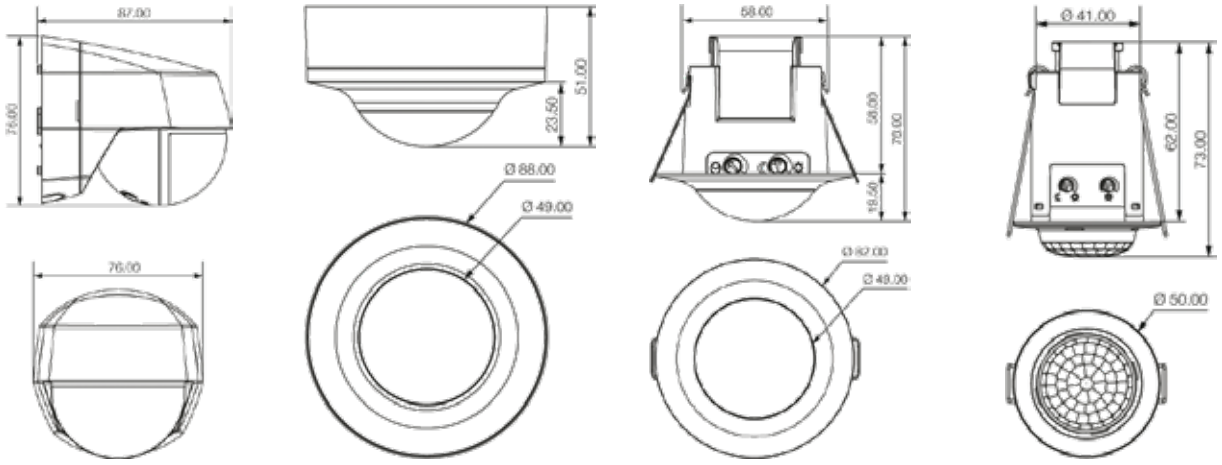




Detection area



Scale drawings



talis 180 A | talis 360 A | talis 360 E | talis 360 E mini

1906119315

Operating hours counter

Simply precise and reliable

Grässlin taxxo operating hours counters are available as analogue or digital devices with different housing variants. The robust devices comply with the safety guidelines of protection class II as well as protection class IP65 on the front and are characterised by durable and maintenance-free technology. The counters can record up to 99,999.99 operating hours and are suitable, for example, for monitoring the operating hours and running times of machines, pumps or vehicles of all kinds.

Hour counters

Hour counters, Installation, analogue

taxxo 112

taxxo 612

taxxo 712

taxxo 200

taxxo 100

Description

- Hour counters with synchronous motor drive
- Front panel devices/wall-mounted devices with click-in or tension clamp brackets for walls up to a maximum of 10 mm thick
- Clamp or flat plug connection 6.3 mm
- Progress display

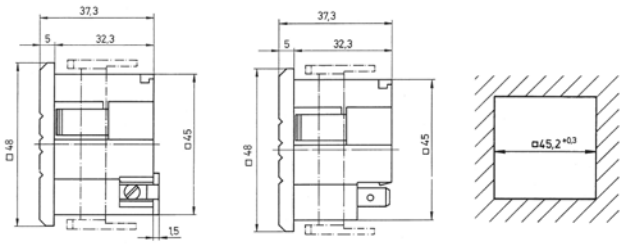
Product selection

Type of installation	Colour	Operating voltage	Packaging type	Type	Item no.
Built-in, 45,2 x 45,2 mm	Black	120 V/60 Hz	Individual packaging	taxxo 112	05.15.1031.1
	Grey	24 V AC, 50 Hz	Individual packaging	taxxo 112	05.15.1125.1
	Grey	230 V AC, 50 Hz	Individual packaging	taxxo 112	05.15.1127.1
	Grey	230 V AC, 60 Hz	Individual packaging	taxxo 112	05.15.1135.1
	Black	230 V AC, 50 Hz	Individual packaging	taxxo 112	05.15.1142.1
	Black	230 V AC, 60 Hz	Individual packaging	taxxo 112	05.15.1143.1
Built-in, 33 x 22 mm	Black	230 V AC, 50 Hz	Individual packaging	taxxo 612	05.20.0006.1
Built-in, 50,2 x 25,2 mm	Black	230 V AC, 50 Hz	Individual packaging	taxxo 712	05.20.0004.1
Built-in, Ø 50,2 mm	Grey	230 V AC, 50 Hz	Individual packaging	taxxo 200	05.15.1096.1
Surface-mounting, 48 x 48 mm	Grey	230 V AC, 50 Hz	Individual packaging	taxxo 100	05.15.1001.1

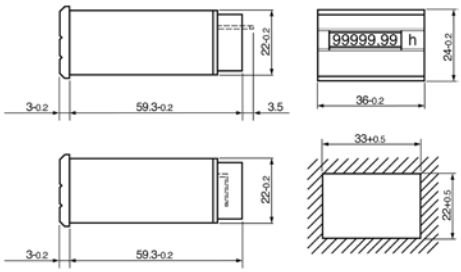
Technical data

	taxxo 112 - 05.15.1031.1	taxxo 112 - 05.15.1125.1	taxxo 112 - 05.15.1127.1	taxxo 112 - 05.15.1135.1	taxxo 112 - 05.15.1142.1	taxxo 112 - 05.15.1143.1	taxxo 612	taxxo 712	taxxo 200	taxxo 100
Operating voltage	120 V	24 V AC	230 V AC				230 V AC			
Frequency	60 Hz	50 Hz		60 Hz	50 Hz	60 Hz	50 Hz			
Type of installation	Built-in installation									Surface-mounting
Front plate size	48 x 48 mm						36 x 24 mm	54 x 29 mm	Ø 58 mm	48 x 48 mm
Counting range	99,999.9 hours without reset									
Protection rating	IP 65 on the front/IP 20 for the terminals									
Protection class	II as per EN 60 335-1									
Ambient temperature	–30 °C ... +80 °C									

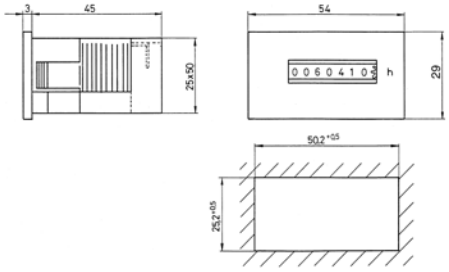
Scale drawings



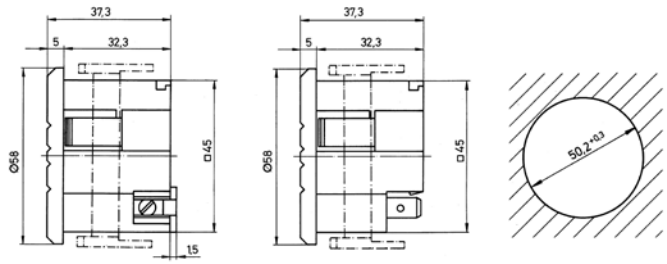
taxxo 112



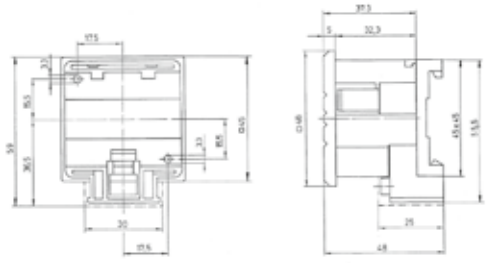
taxxo 612



taxxo 712

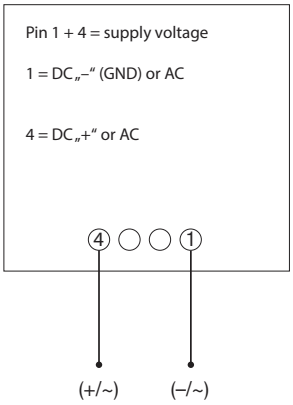


taxxo 200



taxxo 100

Connection example



Hour counters

Hour counters, DIN-rail, analogue

taxxo 403

Description

- Hour counters with synchronous motor drive
- Distributor installation device with snap-on mounting for 35 mm DIN rail
- Top mounting with additional terminal cover plate, sealable
- Control panel installation with optional mounting kit
- Contact protection to comply with accident prevention regulation BGV A3
- Captive terminal screws

Product selection

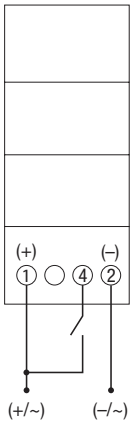
Type of installation	Operating voltage	Type	Item no.
DIN-rail	120 V, 50 Hz	taxxo 403	05.21.0002.1
	400 V, 50 Hz	taxxo 403	05.21.0006.1
	230 V, 50 Hz	taxxo 403	05.21.0001.1
	230 V, 60 Hz	taxxo 403	05.21.0005.1

Hour counters, DIN-rail, analogue

Technical data

	taxxo 403 - 05.21.0002.1	taxxo 403 - 05.21.0006.1	taxxo 403 - 05.21.0001.1	taxxo 403 - 05.21.0005.1
Operating voltage	120 V AC	400 V AC	230 V AC	
Frequency	50 Hz			60 Hz
Width	2 modules			
Type of installation	DIN-rail			
Front plate size	35 x 45 mm			
Counting range	99,999.9 hours without reset			
Protection rating	IP 65 for the housing/IP 20 for the terminals			
Protection class	II as per EN 60 335-1			
Ambient temperature	–10 °C ... +70 °C			

Connection example



Pin 1 + 4 = Power supply voltage

1 = DC „–“ (GND) or AC
2 = Time or pulse counter input
4 = DC „+“ or AC

Hour counters

Hour counters, Installation, digital

taxxo 9112

taxxo 9612

Description

- Digital operating hour counter
- EEPROM memory ensures reliable elapsed time counting, even during a loss of power.
- Control panel installation
- 7-digit high-contrast LCD display
- Terminal screws
- On-screen progress display
- Tension clamp brackets for walls up to 5 mm thick
- Quartz controlled version

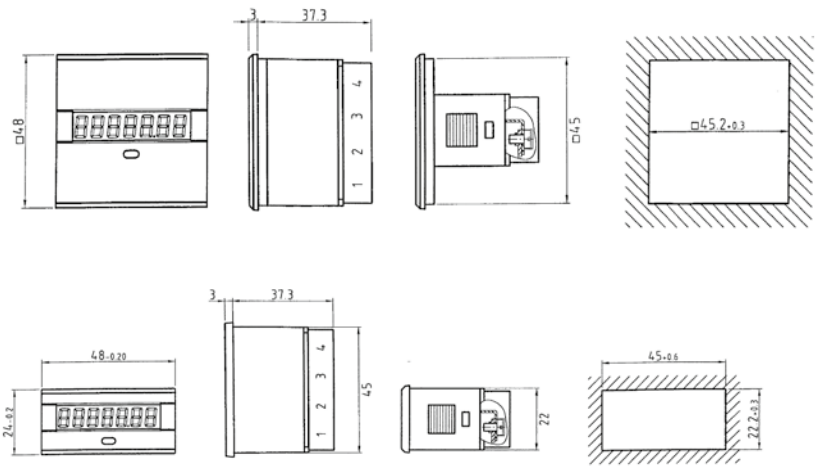
Product selection

Type of installation	Colour	Operating voltage	Type	Item no.
Built-in, 45,2 x 45,2 mm	Black	12–24 V DC	taxxo 9112	05.25.0005.1
Built-in, 45,2 x 22,2 mm	Black	12–24 V DC	taxxo 9612	05.25.0006.1

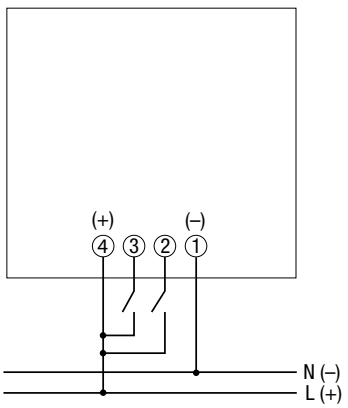
Technical data

	taxxo 9112	taxxo 9612
Operating voltage	12–24 V DC	
Type of installation	Built-in installation	
Front plate size	48 x 48 mm	48 x 24 mm
Integrated part	45,2 x 45,2 mm	45 x 22,2 mm
Counting range	99 999,99 hours	
Protection rating	IP 65	
Protection class	II as per EN 60 335-1	
Ambient temperature	–30 °C ... +70 °C	

Scale drawings



Connection example



Hour counters, DIN-rail, digital

taxxo 9403

Description

- Digital operating hour counter
- EEPROM memory ensures reliable elapsed time counting, even during a loss of power.
- Distributor installation device with snap-on mounting for 35 mm DIN rail
- Surface mounting with additional terminal box cover plate option
- 7-digit high-contrast LCD display
- Captive terminal screws
- On-screen progress display

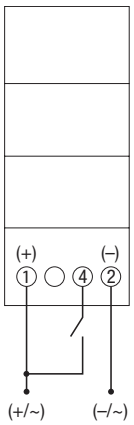
Product selection

Type of installation	Operating voltage	Type	Item no.
DIN-rail	24–240 V AC/12–150 V DC	taxxo 9403	05.25.0007.1

Technical data

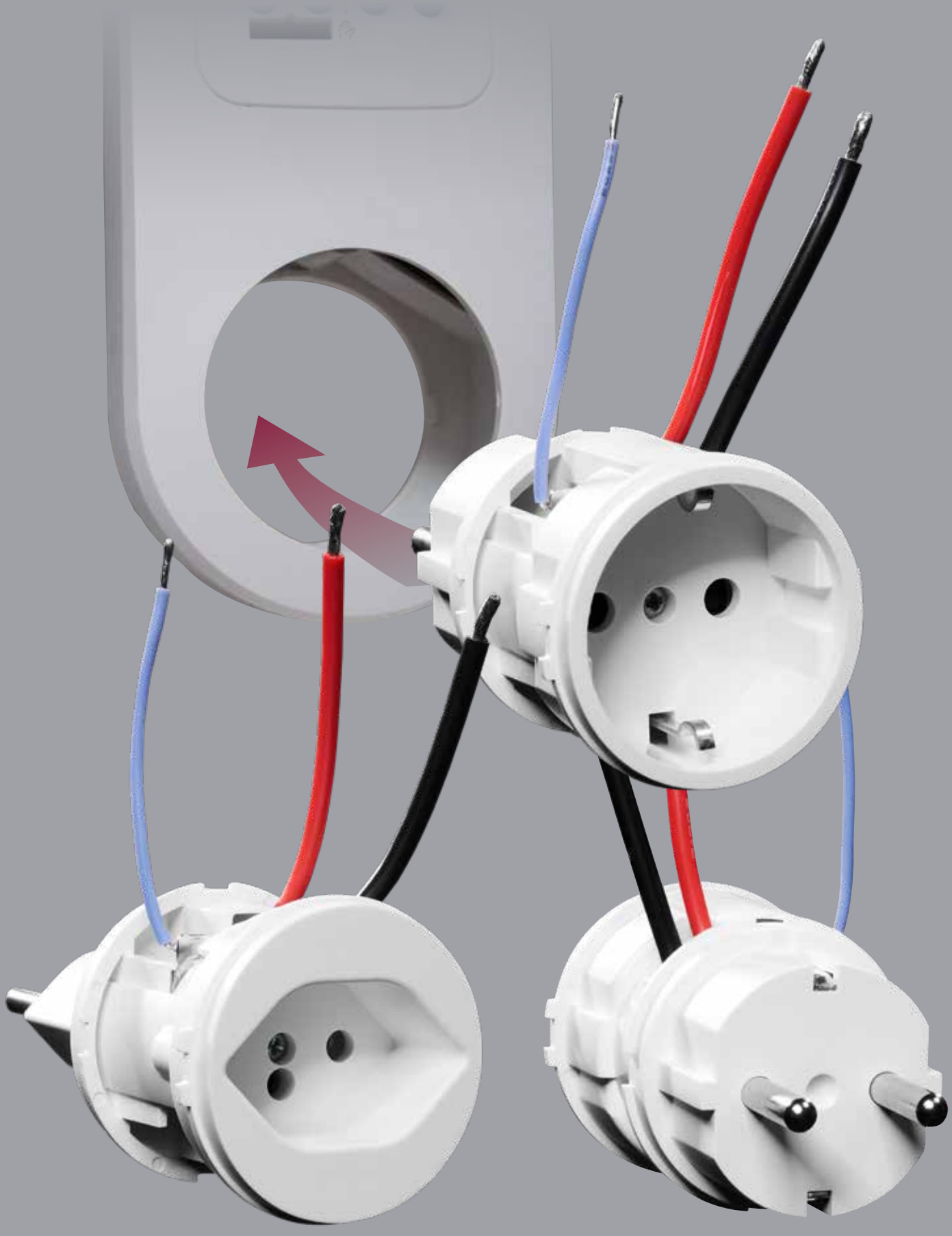
	taxxo 9403
Operating voltage	24–240 V AC/12–150 V DC
Frequency	50–60 Hz
Width	2 modules
Type of installation	DIN-rail
Front plate size	36 x 45 mm
Counting range	999,999.9 hours without reset
Protection rating	IP 65 for the housing/IP 20 for the terminals
Protection class	II as per EN 60 335-1
Ambient temperature	–10 °C ... +70 °C

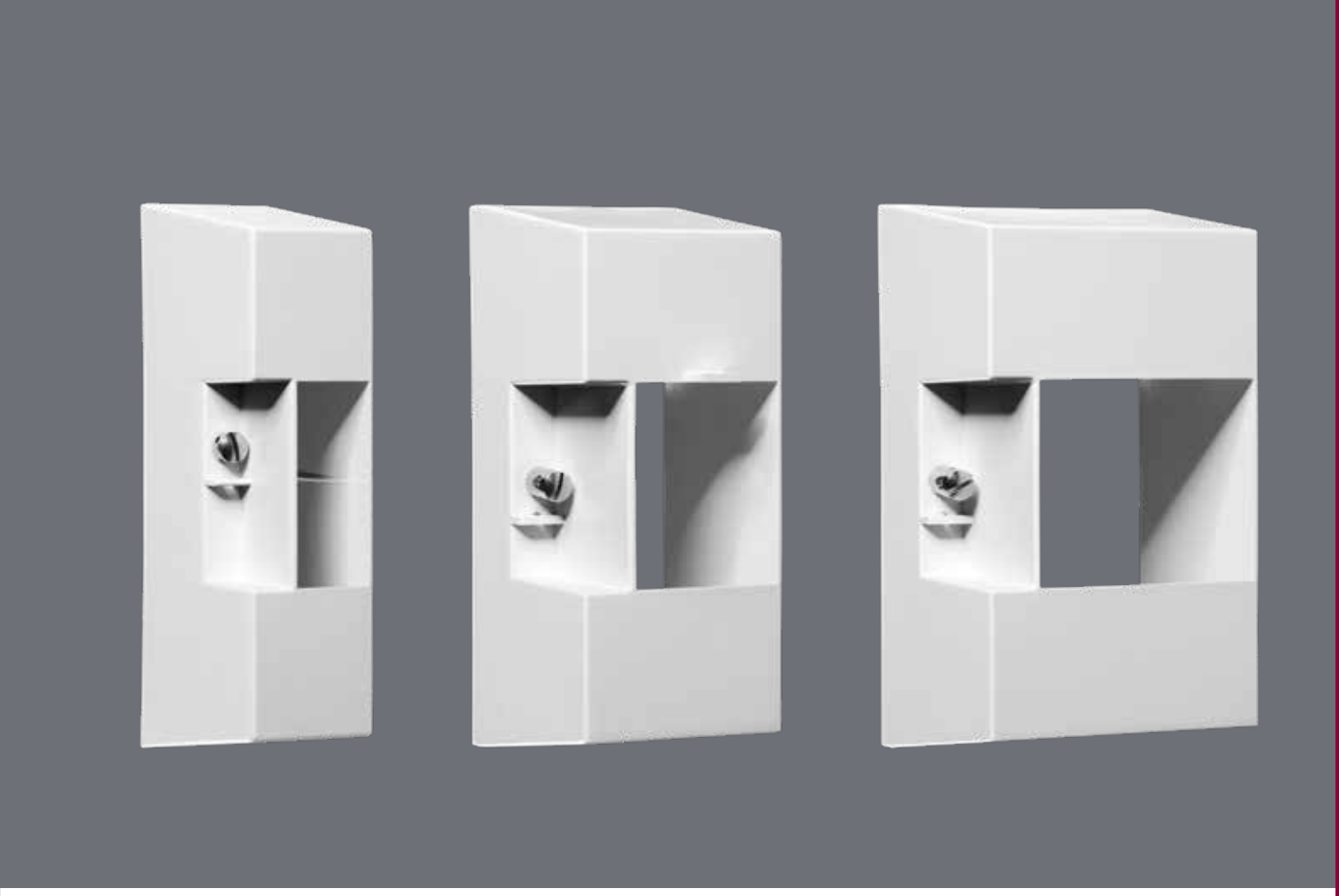
Connection example



Pin 1 + 4 = Power supply voltage

1 = DC „–“ (GND) or AC
2 = Time or pulse counter input
4 = DC „+“ or AC





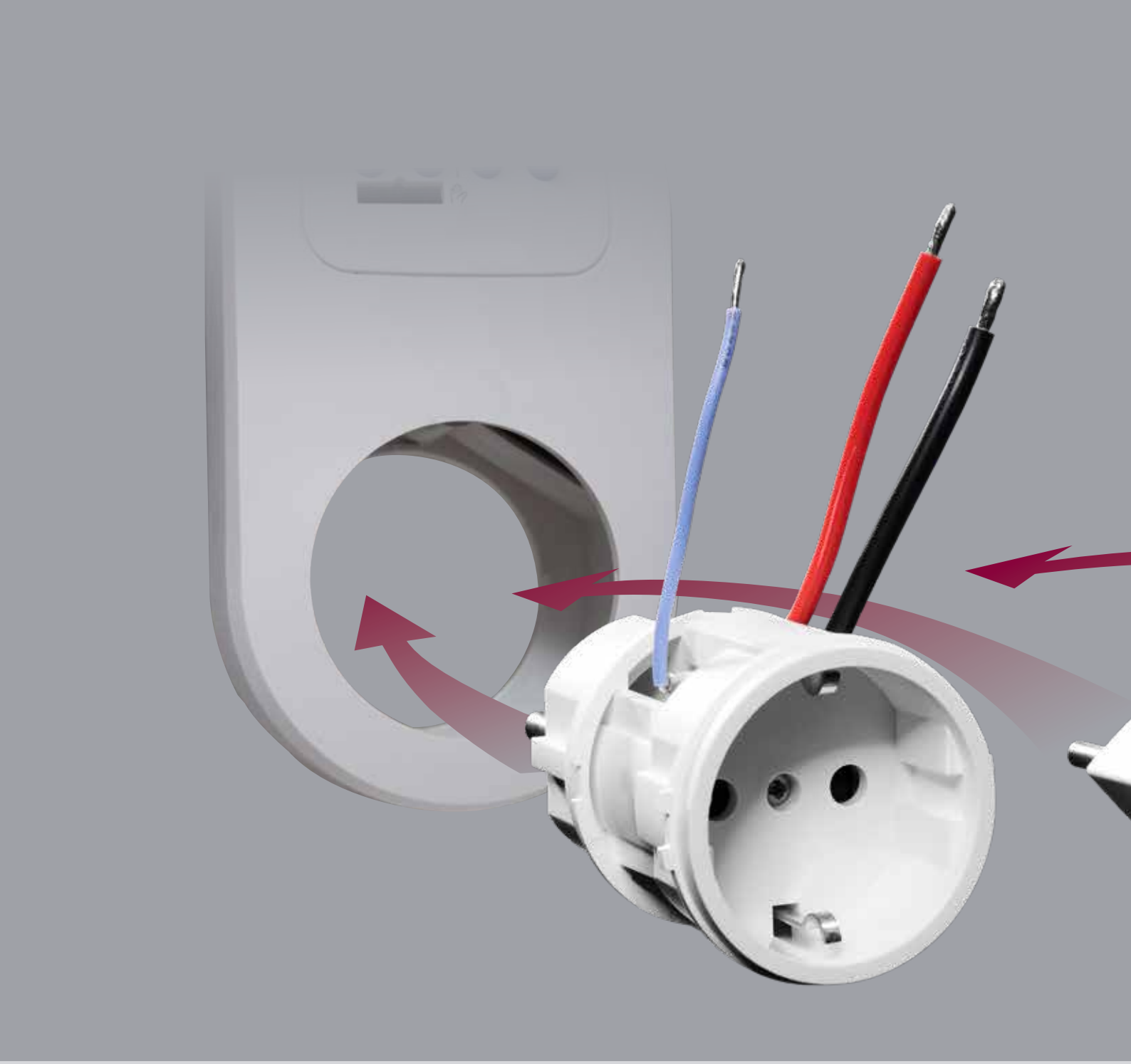
Other solutions

What you can use in addition

We round off our portfolio for you with our complementary products and solutions.

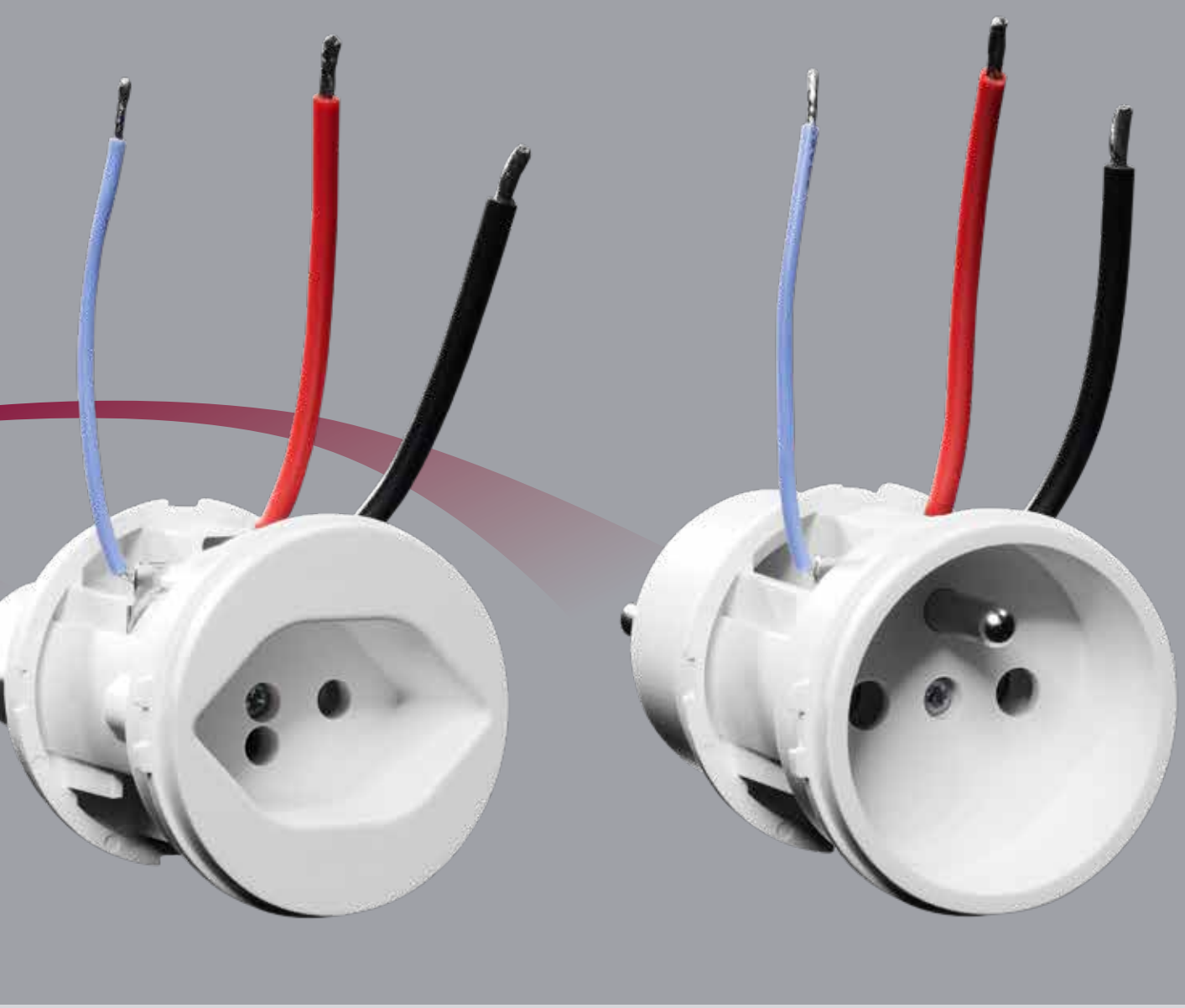
Here you will find solutions for retailers and installers, as well as for the industrial sector and OEM customers.

- Plug systems as a basis for your very special application
- Wall mounting sets for the surface mounting of distribution devices



Plug systems

The solution for complete flexibility and variants



The plug systems are suitable for flexible installation in end devices for domestic use, as well as for industrial installation applications and for use in different countries.

Current and voltage specifications must be affixed to the end device in accordance with IEC 60884!

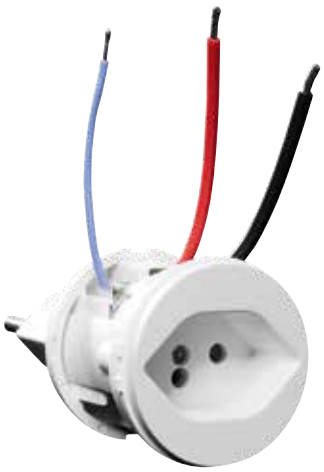
- **Cost savings:** Save up to ten tools per plug.
- **Safety:** All models available with increased contact protection.
- **Standard-compliant:** Developed and manufactured in accordance with the standard
- **Assembly:** Easy integration into customer applications

Other solutions

Plug systems, Installation in end devices

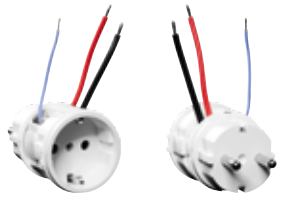
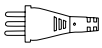
Socket type F

Socket type E



Socket type J

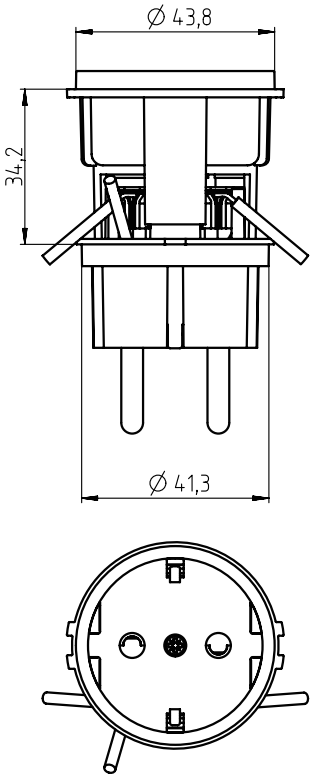
Product selection

Type of installation	Type	Socket	Plug	Type	Item no.
	F			F, C plug with increased touch protection	43.15.0005.2
	C			F, C plug without increased contact protection	43.15.0002.2
	E			E, C plug with increased contact protection	43.15.0007.2
	C			E, C Plug without increased Contact protection	43.15.0004.2
	J			J, C Plug with increased contact protection	43.150006.2
	C			J, C Plug without increased contact protection	43.150003.2

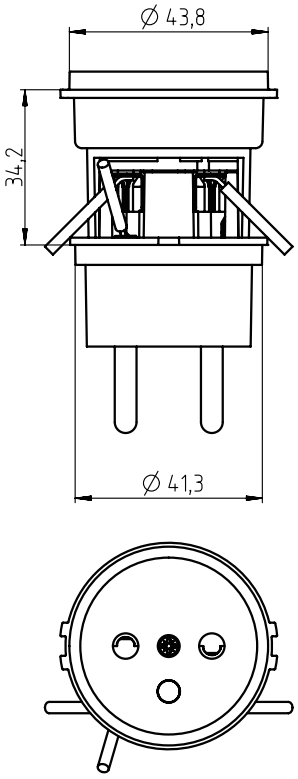
Technical data

	F, C	E, C	J, C
Supply voltage	230 V AC, ± 10 % 50–60 Hz	230 V AC, ± 10 % 50–60 Hz	230 V AC, ± 10 % 50–60 Hz
Switching capacity - resistive load	16 A/250 V AC	16 A/250 V AC	10 A/250 V AC
Plug	L + N PE (not type C)	L + N PE (not type C)	L + N PE (not type C)
Increased contact protection	•	•	•
Color	White	White	White
Weight	60 g	60 g	60 g
Material	High-temperature resistant, self-extinguishing thermoplastics		
Standards and guidelines	IEC 60884 DIN VDE 0620-1	IEC 60884	IEC 60884

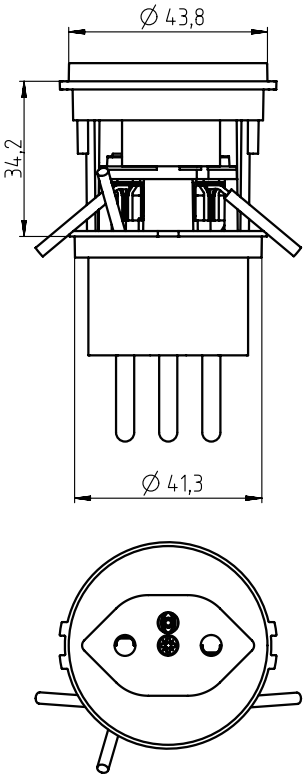
Scale drawings



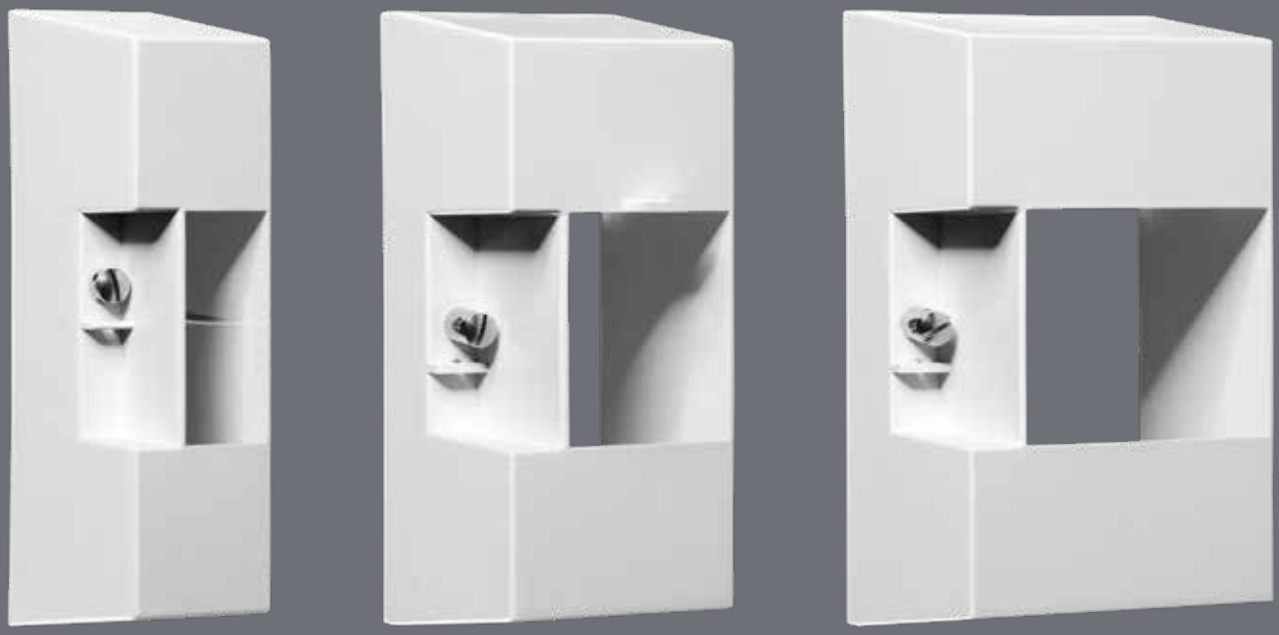
Socket type F (DE)



Socket type E (FR)



Socket type J (CH)

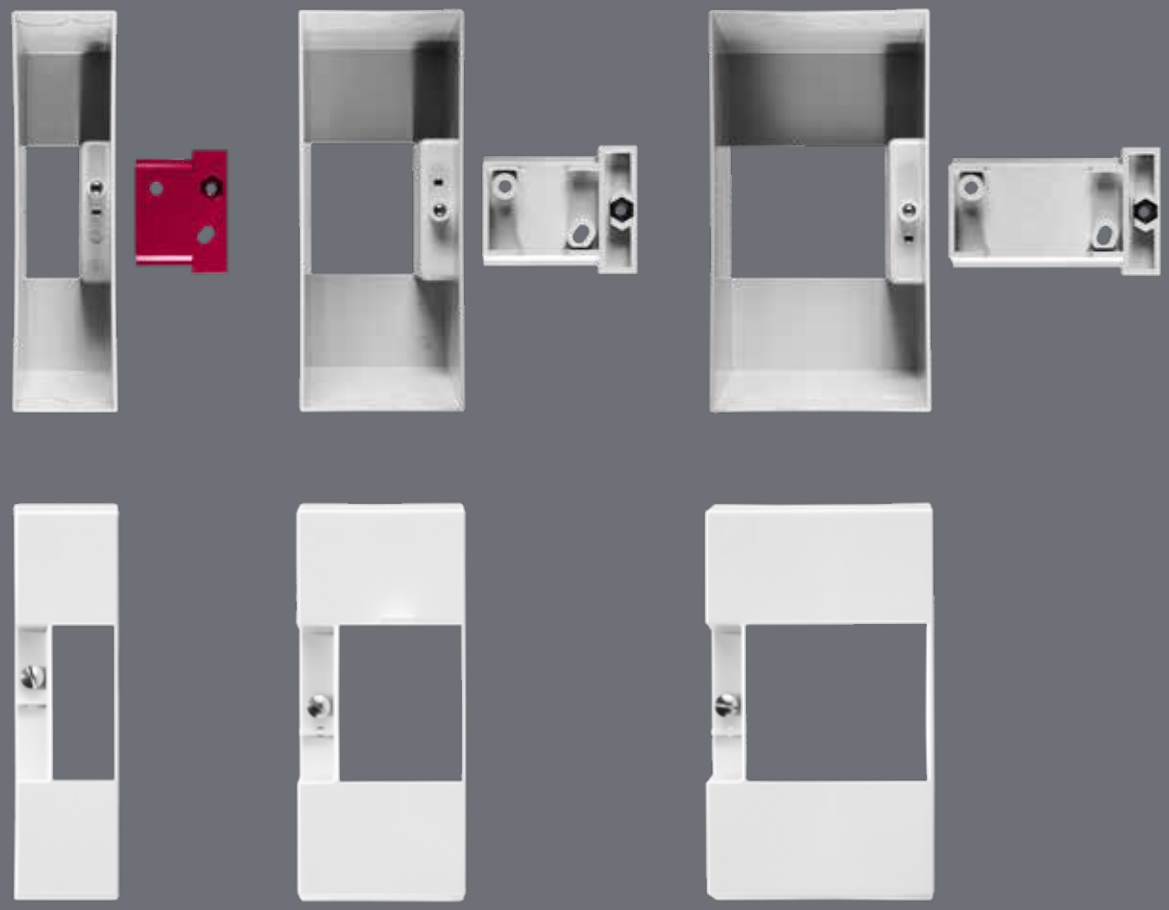


Wall mounting kits

Simply practical, complete and safe.

The wall mounting sets are suitable for surface mounting of distribution board installation devices.

- In 3 different sizes.
- Complete set including rail for wall mounting.
- Sealable



1 module

2 modules

3 modules

Product selection

Description	Type	Item no.
Wall mounting set for surface mounting, Mounting kit for DIN rail mounted devices with terminal cover, 17,5 mm	Wall mounting kit 1 module	89.01.0002.1
Wall mounting set for surface mounting, Mounting kit for DIN rail mounted devices with terminal cover, 35 mm	Wall mounting kit 2 modules	89.01.0003.1
Wall mounting set for surface mounting, Mounting kit for DIN rail mounted devices with terminal cover, 52,5 mm	Wall mounting kit 3 modules	89.01.0004.1

GET IN TOUCH WITH US

Do you have any questions?

Phone +49 7724 933-0
info@graesslin.de

We are happy to answer any questions you may have about your requirements and would be delighted to help you find solutions for your company.

We will be happy to advise you. Your interests and wishes take centre stage for us.

Technical support

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support@graesslin.de

Subject to alterations, improvements
and printing errors
202410

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