

PRODUCT CATALOGUE TIME SWITCH TECHNOLOGY

Grässlin products for demanding
time switching tasks

Time switch technology: Intelligent time switch products for better quality of life

DIN rail time switches
Universal time switches
Time switch modules
Plug-in time switches

Outstanding Products

Intelligent time switch technology from Grässlin makes life easier, safer and helps to save energy in residential, office, commercial and industrial buildings. Provided by innovative products that impress through their self-explanatory menus and can be easily installed.

Impressive advantages

Available in digital and analogue design, Grässlin DIN rail, universal and plug-in time switches as well as various time switch modules reliably perform switching tasks both indoors and outdoors, such as in machine control systems, lighting, or even specific solutions such as sprinkler systems.

*Monitor time effectively: easier, safer and with more energy efficiency
with Grässlin products for time control*



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DIN rail time switches: The optimal solution for making time switch tasks easier, safer and more energy efficient

INNOVATIVE PRODUCTS, WIDE RANGE OF APPLICATIONS

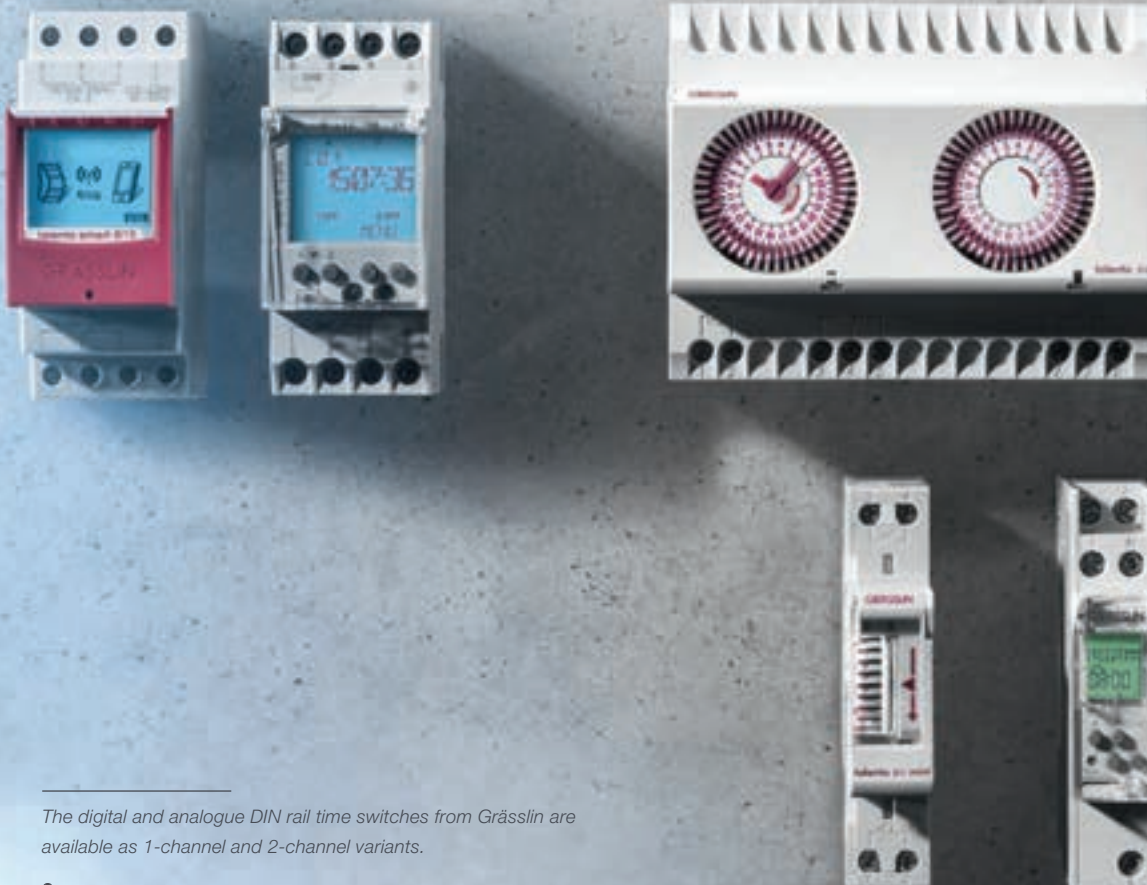
talento product line

DIN rail time switches from the talento family are available in digital and analogue design.

Highlights among the digital DIN rail time switches are the talento smart series models. Developed specifically for the requirements of installers, they are equipped with a variety of technological innovations such as the WILDCARD function for simple programming of recurring events or the QUICK COPY function for a quick transfer of existing programs. A special feature of talento smart: All time switches can also be easily and quickly programmed on the PC or smart phone and transmitted via the integrated Bluetooth interface on the time switch.

In the standard program of the digital versions, the talento pro series models are also available in two categories - either as standard or medium. Both categories are represented with 1-channel or 2-channel timers.

The analogue DIN rail time switches from the house of Grässlin allow switching commands in both daily and weekly programs as well as in the 1-hour program. The products are mostly equipped with motion work, thus setting the time - especially in the weekly version - is much easier. Time and switching times can be checked at a glance, resulting in versatile application possibilities, such as passage way lighting in underpasses, showcase lighting in boutiques or control of pumps in fountains.



The digital and analogue DIN rail time switches from Grässlin are available as 1-channel and 2-channel variants.

DIN rail time switches

Digital DIN rail time switches

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Digital DIN rail time switches talento smart – Selection guide

talento smart B15

talento smart B25



Supply voltage	AC 110-230 V ± 10% 50-60 Hz	AC 110-230 V ± 10% 50-60 Hz
Current output	Changeover, potential-free, opening width < 3 mm, phase-independent (zero crossing)	Changeover, potential-free, opening width < 3 mm, phase-independent (zero crossing)
Channels	1	2
Memory spaces	100	100
Program (functions)	Free weekday block formation 10 date-independent programs (Weekly program) 1 date-dependent program (Holiday, annual program) ON OFF	Free weekday block formation 10 date-independent programs (Weekly program) 2 date-dependent programs (Holiday, annual program) ON OFF
Shortest switching time	1 minute	1 minute
Programming on the PC, mobile devices	●	●
Interface	Bluetooth 4.0	Bluetooth 4.0
Accessories	Wall installation kit 2-3 TE Installation frame to 6 TE	Wall installation kit 2-3 TE Installation frame to 6 TE

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talento smart C15	talento smart C25	talento smart S25
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AC 110-230 V ± 10% 50-60 Hz	AC 110-230 V ± 10% 50-60 Hz	AC 110-230 V ± 10% 50-60 Hz
	AC/DC 12/24 V ± 10% 50-60 Hz **	
Changeover, potential-free, opening width < 3 mm, phase-independent (zero crossing)	Changeover, potential-free, opening width < 3 mm, phase-independent (zero crossing)	Changeover, potential-free, opening width < 3 mm, phase-independent (zero crossing)
1	2	2
500	500	800
Free weekday block formation 50 date-independent programs (Weekly program) 50 date-dependent programs (Holiday, annual program) ON OFF Pulse Cycle Astro function Random ON Random OFF ON/OFF 1 minute Pulse 1 second Cycle 1 second	Free weekday block formation 50 date-independent programs (Weekly program) 50 date-dependent programs (Holiday, annual program) ON OFF Pulse Cycle Astro function Random ON Random OFF ON/OFF 1 minute Pulse 1 second Cycle 1 second	Free weekday block formation 80 date-independent programs (Weekly program) 80 date-dependent programs (Holiday, annual program) ON OFF Pulse Cycle Astro function Random ON Random OFF ON/OFF 1 minute Pulse 1 second Cycle 1 second
●	●	●
Bluetooth 4.0	Bluetooth 4.0	Bluetooth 4.0
Wall installation kit 2-3 TE Installation frame to 6 TE	Wall installation kit 2-3 TE Installation frame to 6 TE	Wall installation kit 2-3 TE Installation frame to 6 TE

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Digital DIN rail time switches – talento smart

talento smart B15



PRODUCT DESCRIPTION

- ▶ cost effective solution for standard requirements
- ▶ program creation possible with or without date
- ▶ available as 1-channel or 2-channel version
- ▶ integrated Bluetooth interface for wireless Programming and data exchange



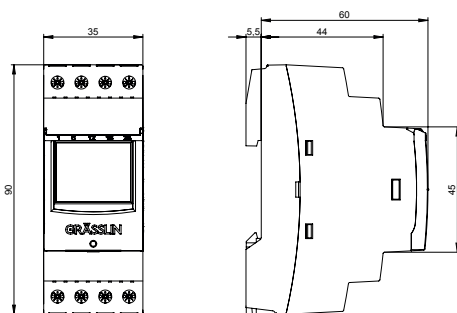
APPLICATION AREAS

- ▶ Street lighting
- ▶ Window lighting
- ▶ Advertising lighting
- ▶ Temperature and ventilation control
- ▶ Machinery, motors and pumps control
- ▶ Roller blinds and sun blinds control
- ▶ School bells / church bells control
- ▶ Presence simulation

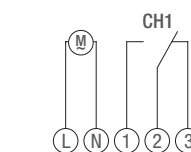
talento smart B25



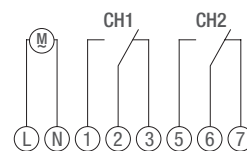
DIMENSIONAL DRAWINGS



CIRCUIT DIAGRAMS



talento smart B15



talento smart B25

PRODUCT VARIANTS

	talento smart B15	talento smart B25
Item no.	43.02.0001.1	43.02.0002.1
EAN Code	4010940044718	4010940044725
Channels	1	2
Programs	1 date-dependent program (holiday/annual program)	2 date-dependent programs (holiday/annual program)

TECHNICAL DATA

Electrical specifications

Supply voltage	AC 110-230 V ± 10% 50-60 Hz
Current output	Changeover, potential-free, opening width < 3 mm, phase-independent (zero crossing)
Switching capacity - resistive load	16 A / 250 V AC
Switching capacity - inductive load cos. phi 0.6	10 A / 250 V AC
Load incandescent / halogen lamp	2,600 VA
Load fluorescent lamps	730 VA (parallel compensated), 1,000 VA (dual circuit) 1,000 VA (not compensated), 1,000 VA (series compensated)
Load compact fluorescent lamp	14 x 23 W, 16 x 15 W, 16 x 20 W, 18 x 11 W, 22 x 7 W
Load LED lamps < 2 W	Max. 30 W
Load LED lamps 2-8 W	Max. 100 W
Load LED lamps > 8 W	Max. 120 W
Load sodium lamp - uncompensated	1 x 400 W, 2 x 250 W
Load sodium lamp - parallel compensated	1 x 250 W (32 µF), 1 x 400 W (45 µF), 2 x 150 W (20 µF)
Load mercury vapour lamp - parallel compensated	1 x 400 W (25 µF), 1 x 700 W (40 µF), 2 x 250 W (18 µF), 4 x 125 W (10 µF), 6 x 50 W (7 µF)
Load mercury vapour lamp - uncompensated	1 x 700 W, 2 x 250 W, 4 x 125 W
Switching capacity - DC	300 mA / 60 V DC, 800 mA / 24 V DC
Power consumption	<1 VA (standby mode)
Accuracy	± 0.3 second/day at 20° C
Timebase	Quartz
Power reserve	8 years, programs saved in EEPROM

Electrical connection

Device	Screw terminal with wire protection max. 2,5 mm ² , captive screw terminal
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Communication type

Radio signal	Bluetooth 4.0
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Operating data

Hand switch	Automatic mode, Fix ON/OFF, Override
Tamper protection	PIN code, sealable
Programs	10 date-dependent programs (weekly program), ON, OFF, free weekday block formation
Programming	Time switch, PC, mobile devices
Memory space	100
Counter	Hour meter with service function

Display and format

Display lighting	White
Format time display	12-hour format (AM/PM) and 24-hour format (default)
Shortest switching time	ON/OFF 1 minute
Summer/winter time change	Automatic, date-related, can be deactivated
Status display	Switching state display

Environmental conditions

Temperature (operation)	-20° C ... +55° C
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General data

Number of modules	2
Weight	170 g
Material	High-temperature resistant, self-extinguishing thermoplastic
Mounting	DIN rail
Languages	CS, DA, DE, EN, ES, FI, FR, HU, IT, NL, NO, PL, PT, SV

Standard compliance

Protection type	IP20
Protection class	II, after appropriate mounting

Approvals



Digital DIN rail time switches – talento smart

talento smart C15



PRODUCT DESCRIPTION

- ▶ enhanced functions (pulse, cycle, random and astro functions) for more complex requirements
- ▶ program creation possible with or without date
- ▶ available as 1-channel or 2-channel version
- ▶ integrated Bluetooth interface for wireless programming and data exchange



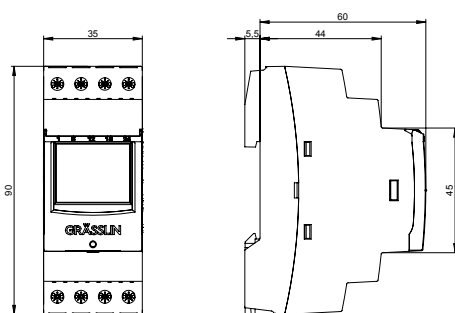
APPLICATION AREAS

- ▶ Street lighting
- ▶ Show window lighting
- ▶ Advertising lighting
- ▶ Temperature and ventilation control
- ▶ Machinery, motors and pumps control
- ▶ Roller blinds and sun blinds control
- ▶ School bells / church bells control
- ▶ Presence simulation

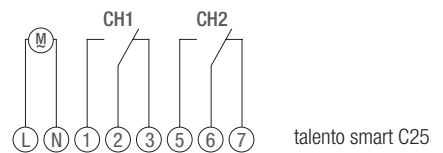
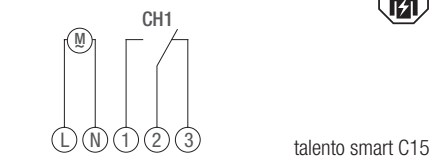
talento smart C25



DIMENSIONAL DRAWINGS



CIRCUIT DIAGRAMS



PRODUCT VARIANTS

	talento smart C15	talento smart C25	talento smart C25*
Item no.	43.03.0001.1	43.03.0002.1	43.03.0003.1
EAN Code	4010940044749	4010940044756	4010940044787
Channels	1	2	2
Supply voltage	AC 110-230 V ± 10% 50-60 Hz	AC 110-230 V ± 10% 50-60 Hz	AC/DC 12/24 V ± 10% 50-60 Hz
Current output	Phase-independent (zero crossing)	Phase-independent (zero crossing)	Phase-independent (zero crossing)

* Available in 2017

TECHNICAL DATA

Electrical specifications

Current output	Changeover, potential-free, opening width < 3 mm
Switching capacity - resistive load	16 A / 250 V AC
Switching capacity - inductive load cos. phi 0.6	10 A / 250 V AC
Load incandescent / halogen lamp	2,600 VA
Load fluorescent lamps	730 VA (parallel compensated), 1,000 VA (dual circuit) 1,000 VA (not compensated), 1,000 VA (series compensated)
Load compact fluorescent lamp	16 x 15 W, 16 x 20 W, 14 x 23 W, 18 x 11 W, 22 x 7 W
Load LED lamps < 2 W	Max. 30 W
Load LED lamps 2-8 W	Max. 100 W
Load LED lamps > 8 W	Max. 120 W
Load sodium lamp - uncompensated	1 x 400 W, 2 x 250 W
Load sodium lamp - parallel compensated	1 x 250 W (32 µF), 1 x 400 W (45 µF), 2 x 150 W (20 µF)
Load mercury vapour lamp - parallel compensated	1 x 400 W (25 µF), 1 x 700 W (40 µF), 2 x 250 W (18 µF), 4 x 125 W (10 µF), 6 x 50 W (7 µF)
Load mercury vapour lamp - uncompensated	1 x 700 W, 2 x 250 W, 4 x 125 W
Switching capacity - DC	300 mA / 60 V DC, 800 mA / 24 V DC
Power consumption	<1 VA (standby mode)
Accuracy	± 0.3 second/day at 20° C
Power reserve	8 years, programs saved in EEPROM

Electrical connection

Device	Screw terminal with wire protection max. 2,5 mm ² , captive screw terminal
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Communication type

Radio signal	Bluetooth 4.0
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Operating data

Hand switch	Automatic mode, Fix ON/OFF, Override
Tamper protection	PIN code, sealable
Programs	50 date-dependent programs (holiday/annual program), 50 date-independent programs (week program), astro function, OFF, ON, pulse, random OFF, random ON, cycle, free weekday block formation
Programming	Time switch, PC, mobile devices
Memory spaces	500
Timebase	Quartz
Counter	Hour meter with service function

Display and format

Display lighting	White
Format time display	12-hour format (AM/PM) and 24-hour format (default)
Shortest switching time	ON/OFF 1 minute, pulse 1 second, cycle 1 second
Summer/winter time change	Automatic, date-related, can be deactivated
Status display	Switching state display

Environmental conditions

Temperature (operation)	-20° C ... +55° C
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General data

Number of modules	2
Weight	170 g
Material	High-temperature resistant, self-extinguishing thermoplastic
Mounting	DIN rail
Languages	CS, DA, DE, EN, ES, FI, FR, HU, IT, NL, NO, PL, PT, SV

Standard compliance

Protection type	IP20
Protection class	II, after appropriate mounting
Approvals	CE, FCC

Digital DIN rail time switches – talento smart S25

Item no.. 43.04.0001.1 / EAN code: 4010940044763 / Available in 2017



PRODUCT DESCRIPTION

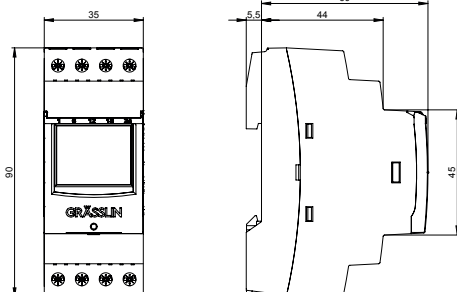
- ▶ system version with greatest functional range and storage capacity
- ▶ compatible with all current installation standards
- ▶ program creation possible with or without date
- ▶ available as 2-channel version
- ▶ integrated Bluetooth interface for wireless programming and data exchange



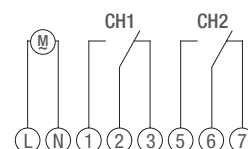
APPLICATION AREAS

- ▶ Street lighting
- ▶ Show window lighting
- ▶ Advertising lighting
- ▶ Temperature and ventilation control
- ▶ Machinery, motors and pumps control
- ▶ Roller blinds and sun blinds control
- ▶ School bells / church bells control
- ▶ Presence simulation

DIMENSIONAL DRAWINGS



CIRCUIT DIAGRAM



TECHNICAL DATA

Electrical specifications

Supply voltage	AC 110-230 V \pm 10% 50-60 Hz
Current output	Phase-independent (zero crossing)
Current output	Changeover, potential-free, opening width < 3 mm
Switching capacity - resistive load	16 A / 250 V AC
Switching capacity - inductive load cos. phi 0.6	10 A / 250 V AC
Load incandescent / halogen lamp	2,600 VA
Load fluorescent lamps	730 VA (parallel compensated), 1,000 VA (dual circuit) 1,000 VA (not compensated), 1,000 VA (series compensated)
Load compact fluorescent lamp	16 x 15 W, 16 x 20 W, 14 x 23 W, 18 x 11 W, 22 x 7 W
Load LED lamps < 2 W	Max. 30 W
Load LED lamps 2-8 W	Max. 100 W
Load LED lamps > 8 W	Max. 120 W
Load sodium lamp - uncompensated	1 x 400 W, 2 x 250 W
Load sodium lamp - parallel compensated	1 x 250 W (32 μ F), 1 x 400 W (45 μ F), 2 x 150 W (20 μ F)
Load mercury vapour lamp - parallel compensated	1 x 400 W (25 μ F), 1 x 700 W (40 μ F), 2 x 250 W (18 μ F), 4 x 125 W (10 μ F), 6 x 50 W (7 μ F)
Load mercury vapour lamp - uncompensated	1 x 700 W, 2 x 250 W, 4 x 125 W
Switching capacity - DC	300 mA / 60 V DC, 800 mA / 24 V DC
Power consumption	<1 VA (standby mode)
Accuracy	\pm 0.3 second/day at 20° C
Timebase	Quartz
Power reserve	8 years, programs saved in EEPROM

Electrical connection

Device	Screw terminal with wire protection max. 2,5 mm ² , captive screw terminal
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Communication type

Radio signal	Bluetooth 4.0
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Operating data

Hand switch	Automatic mode, Fix ON/OFF, Override
Channels	2
Tamper protection	PIN code, sealable
Programs	80 date-dependent programs (holiday/annual program), 80 date-independent programs (weekly program), astro function, OFF, ON, pulse, random OFF, random ON, cycle, free weekday block formation
Programming	Time switch, PC, mobile devices
Memory locations	800
Counter	Hour meter with service function

Display and format

Display lighting	White
Format time display	12-hour format (AM/PM) and 24-hour format (default)
Shortest switching time	ON/OFF 1 minute, pulse 1 second, cycle 1 second
Summer/winter time change	Automatic, date-related, can be deactivated
Status display	Switching state display

Environmental conditions

Temperature (operation)	-20° C ... +55° C
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General data

Number of modules	2
Weight	170 g
Material	High-temperature resistant, self-extinguishing thermoplastic
Mounting	DIN rail
Languages	CS, DA, DE, EN, ES, FI, FR, HU, IT, NL, NO, PL, PT, SV

Standard compliance

Protection type	IP20
Protection class	II, after appropriate mounting
Approvals	CE, FCC








Digital DIN rail time switches talento pro – Selection guide



	talento 371 mini pro	talento 371 pro	talento 372 pro	talento 751 pro	talento 752 pro	talento 471 pro	talento 472 pro
Supply voltage	AC 230 V ± 10% 50-60 Hz	AC 110-230 V ± 10% 50-60 Hz	AC 110-230 V ± 10% 50-60 Hz	AC 110-230 V ± 10% 50-60 Hz	AC 110-230 V ± 10% 50-60 Hz	DC 24 V AC 24-230 V ± 10% 50-60 Hz	AC/DC 12 V ± 10% 50-60 Hz DC 24 V AC 24-230 V ± 10% 50-60 Hz
Current output	Switch Contact	Changeover	Changeover	Changeover	Changeover	Changeover	1 Changeover 1 Switch Contact
Channels	1	1	2	1	2	1	2
Number of modules	1	2	2	2	2	2	2
Memory Ispaces	70	70	70	70	70	100	100
Accuracy	± 1 seconds/day at 20° C	± 0.5 seconds/day at 20° C	± 0.5 seconds/day at 20° C	± 0.5 seconds/day at 20° C	± 0.5 seconds/day at 20° C	± 0.3 seconds/day at 20° C	± 0.3 seconds/day at 20° C
Power reserve	3 years	3 years	3 years	3 years	3 years	10 years	10 years
Battery	CR2032	CR2032	CR2032	CR2032	CR2032	CR2450	CR2450
Program (switching programs)	Holiday program (ON/OFF), Weekly program (ON/OFF)	Holiday program (ON/OFF), Weekly program (ON/OFF)	Holiday program (ON/OFF), Weekly program (ON/OFF)	Astro program Holiday program (ON/OFF)	Astro program Holiday program (ON/OFF)	Holiday program (ON/OFF, cycle, pulse, OFF) Weekly program (ON/OFF, cycle, pulse) Random program	Holiday program (ON/OFF, cycle, pulse, OFF) Weekly program (ON/OFF, cycle, pulse) Random program
Shortest switching time	1 minute	1 minute	1 minute	1 minute	1 minute	ON/OFF 1 minute Pulse 1 second Cycle 1 second	ON/OFF 1 minute Pulse 1 second Cycle 1 second
Programming on the PC (software talento dialogue)	–	–	–	–	–	●	●
Interface	–	–	–	–	–	IR interface data transfer from PC to timer with talento taxi	IR interface data transfer from PC to timer with talento taxi
External inputs	–	–	–	–	–	Countdown Impulse counter Override	Countdown Impulse counter Override
Display lighting	–	●	●	●	●	●	●
Ambient temperature	-10° C ... +55° C	-25° C* ... +55° C	-25° C* ... +55° C	-25° C* ... +55° C	-25° C* ... +55° C	-25° C* ... +55° C	-25° C* ... +55° C
Accessories	Wall installation kit 1 TE Installation frame to 6 TE	Wall installation kit 2-3 TE Installation frame to 6 TE	Wall installation kit 2-3 TE Installation frame to 6 TE	Wall installation kit 2-3 TE Installation frame to 6 TE	Wall installation kit 2-3 TE Installation frame to 6 TE	Wall installation kit 2-3 TE Installation frame to 6 TE	Wall installation kit 2-3 TE Installation frame to 6 TE

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* Possible limited display legibility, but full function.

talento 791 pro	talento 792 pro	talento 881 pro	talento 882 pro	talento 892 pro	talento 992 pro	talento CE pro
						
DC 24 V AC 24-230 V ± 10% 50-60 Hz	DC 24 V AC 24-230 V ± 10% 50-60 Hz	DC 24 V AC 24-230 V ± 10% 50-60 Hz	AC/DC 12 V ± 10 % 50-60 Hz DC 24 V AC 24-230 V ± 10 % 50-60 Hz	AC 110-230 V ± 10% 50-60 Hz	AC 230 V ± 10% 50-60 Hz	AC 110-230 V ± 10% 50-60 Hz
Changeover	1 Changeover 1 Switch Contact	Changeover	1 Changeover 1 Switch Contact	Changeover	Changeover	Changeover
1	2	1	2	2	2	2
2	2	2	2	3	3	2
100	100	400	400	800	800	–
± 0.3 seconds/day at 20° C	± 0.3 seconds/day at 20° C	± 0.3 seconds/day at 20° C	± 0.3 seconds/day at 20° C	± 1 seconds/day at 20° C	± 1 seconds/day at 20° C	–
10 years	10 years	10 years	10 years	3 years	3 years	–
CR2450	CR2450	CR2450	CR2450	CR2032	CR2032	–
Astro program Holiday program (ON/OFF, cycle, pulse, OFF) Weekly program (ON/OFF, cycle, pulse)	Astro program Holiday program (ON/OFF, cycle, pulse, OFF) Weekly program (ON/OFF, cycle, pulse)	Astro program Holiday program (ON/OFF, cycle, pulse, OFF) Annual program (ON/OFF, cycle, pulse) Weekly program (ON/OFF, cycle, pulse) Random program	Astro program Holiday program (ON/OFF, cycle, pulse, OFF) Annual program (ON/OFF, cycle, pulse) Weekly program (ON/OFF, cycle, pulse) Random program	Annual program (ON/OFF, cycle, pulse, OFF) Weekly program (ON/OFF, cycle, pulse) Random program	Annual program (ON/OFF, cycle, pulse, OFF) Weekly program (ON/OFF, cycle, pulse) Random program	Annual program** (ON/OFF, cycle, pulse, OFF) Weekly program (ON/OFF, cycle, pulse) Random program**
ON/OFF 1 minute Pulse 1 second Cycle 1 second	ON/OFF 1 minute Pulse 1 second Cycle 1 second	ON/OFF 1 minute Pulse 1 second Cycle 1 second	ON/OFF 1 minute Pulse 1 second Cycle 1 second	ON/OFF 1 minute Pulse 1 second Cycle 1 second	ON/OFF 1 minute Pulse 1 second Cycle 1 second	ON/OFF 1 minute** Pulse 1 second** Cycle 1 second**
●	●	●	●	●	●	–
IR interface data transfer from PC to timer with talento taxi	IR interface data transfer from PC to timer with talento taxi	IR interface data transfer from PC to timer with talento taxi	IR interface data transfer from PC to timer with talento taxi	IR interface data transfer from PC to timer with talento taxi Power line	IR interface data transfer from PC to timer with talento taxi Power line	Power line
Countdown Impulse counter Override	Countdown Impulse counter Override	Countdown Impulse counter Override	Countdown Impulse counter Override	Countdown Impulse counter Override	Countdown DCF77 Impulse counter Override Radio antenna	–
●	●	●	●	●	●	–
-25° C* ... +55° C	-25° C* ... +55° C	-25° C* ... +55° C	-25° C* ... +55° C	-10° C ... +55° C	-10° C ... +55° C	-10° C ... +55° C
Wall installation kit 2-3 TE Installation frame to 6 TE	Wall installation kit 2-3 TE Installation frame to 6 TE	Wall installation kit 2-3 TE Installation frame to 6 TE	Wall installation kit 2-3 TE Installation frame to 6 TE	Wall installation kit 2-3 TE Installation frame to 6 TE	Wall installation kit 2-3 TE Installation frame to 6 TE	Wall installation kit 2-3 TE Wall installation kit to 6 TE Installation frame bis 6 TE
22	22	24	24	26	26	28

* Possible limited display legibility, but full function.

** connected to talento 892/992 pro

Digital DIN rail time switches – talento 371 mini pro

Item no.. 03.90.0002.1 / EAN code: 4010940028718



PRODUCT DESCRIPTION

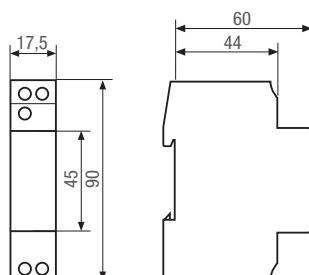
- ▶ Convenient, automatic change from summer to winter time
- ▶ Optimal tamper protection through PIN code and sealable housing



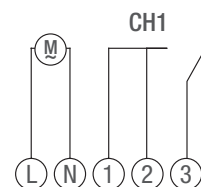
APPLICATION AREAS

- ▶ Advertising lighting
- ▶ Street lighting
- ▶ Show window lighting

DIMENSIONAL DRAWINGS



CIRCUIT DIAGRAM



TECHNICAL DATA

Electrical specifications

Supply voltage	AC 230 V ± 10% 50-60 Hz
Current output	Switch contact, opening width < 3 mm, phase-independent
Switching capacity - resistive load	16 A / 250 V AC
Switching capacity - inductive load cos. phi 0.6	8 A / 250 V AC
Load incandescent bulb	1,000 W
Switching capacity - DC	150 mA / 220 V DC, 300 mA / 50 V DC, 800 mA / 24 V DC
Power consumption	3 VA
Accuracy	± 1 second/day at 20° C
Timebase	Quartz
Power reserve	3 years, programs saved in EEPROM
Battery	CR2032

Electrical connection

Device	Screw terminal with wire protection max. 2.5 mm ² , captive screw terminal
--------	---

Operating data

Hand switch	Automatic mode Fix ON/OFF Override
Channels	1
Tamper protection	PIN code, sealable
Programs	Holiday program (ON/OFF, OFF) Weekly program (ON/OFF) Free weekday block formation
Programming	Device
Memory spaces	70
Counter	Hour meter with service function

Display and format

Format time display	12-hour format (AM/PM) 24-hour format (default)
Shortest switching time	ON/OFF 1 minute
Summer/winter time change	Automatic, date-related, can be deactivated
Status display	Switching state display

Environmental conditions

Temperature (operation)	-10° C ... +55° C
-------------------------	-------------------

General data

Number of modules	1
Weight	100 g
Material	High-temperature resistant, self-extinguishing thermoplastic
Mounting	DIN rail
Languages	CS, DA, DE, EN, ES, FI, FR, HU, IT, NL, NO, PL, PT, SV

Standard compliance

Protection type	IP20
Protection class	II, after appropriate mounting
Approvals	CE

Digital DIN rail time switches – talento pro

(discontinued model)

talento 371 pro



talento 372 pro



PRODUCT DESCRIPTION

- ▶ Convenient, automatic change from summer to winter time
- ▶ Easy and fast installation
- ▶ Optimal tamper protection through PIN code and sealable housing



APPLICATION AREAS

- ▶ Advertising lighting
- ▶ Street lighting
- ▶ Show window lighting
- ▶ Roller blinds and sun blinds control

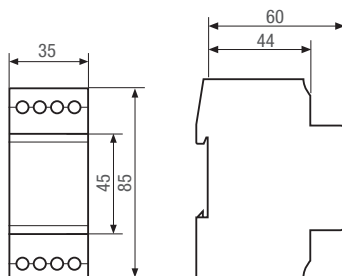
talento 751 pro



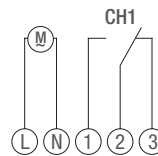
talento 752 pro



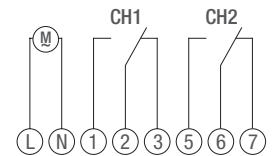
DIMENSIONAL DRAWINGS



CIRCUIT DIAGRAMS



talento 371 pro, talento 751 pro



talento 372 pro, talento 752 pro

PRODUCT VARIANTS

	talento 371 pro	talento 371 pro	talento 372 pro	talento 372 pro	talento 751 pro	talento 751 pro	talento 752 pro	talento 752 pro
Item no.	03.96.0002.1	03.96.0006.1	03.96.0003.1	03.96.0007.1	03.96.0004.1	03.96.0008.1	03.96.0005.1	03.96.0009.1
EAN Code	4010940041953	4010940042349	4010940041960	4010940042356	4010940041977	4010940042363	4010940041984	4010940042370
Channels	1	1	2	2	1	1	2	2
Programs	Weekly program (ON/OFF)	Weekly program (ON/OFF)	Weekly program (ON/OFF)	Weekly program (ON/OFF)	Astro program	Astro program	Astro program	Astro program
Languages	CS, DE, EN, FR, HU, IT	DA, ES, FI, NL, NO, PL, PT, SV	CS, DE, EN, FR, HU, IT	DA, ES, FI, NL, NO, PL, PT, SV	CS, DE, EN, FR, HU, IT	DA, ES, FI, NL, NO, PL, PT, SV	CS, DE, EN, FR, HU, IT	DA, ES, FI, NL, NO, PL, PT, SV

TECHNICAL DATA

Electrical specifications

Supply voltage	AC 110-230 V ± 10% 50-60 Hz
Current output	Changeover, potential-free, opening width < 3 mm, phase-independent (zero crossing)
Switching capacity - resistive load	16 A / 250 V AC
Switching capacity - inductive load cos. phi 0.6	10 A / 250 V AC
Switching capacity - maximum (AC1 / AC15)	4,000 VA / 750 VA
Load incandescent / halogen lamp	2,600 W
Load fluorescent lamps	730 VA (parallel compensated), 1,000 VA (dual circuit) 1,000 VA (not compensated), 1,000 VA (series compensated)
Load compact fluorescent lamp	14 x 23 W, 16 x 20 W, 16 x 15 W, 18 x 11 W, 22 x 7 W
Load energy saving lamps	11 x 23 W, 26 x 20 W, 26 x 15 W, 30 x 11 W, 37 x 7 W
Switching capacity - DC	150 mA / 220 V DC, 300 mA / 50 V DC, 800 mA / 24 V DC
Power consumption	1 VA (in standby mode)
Accuracy	± 0.5 second/day at 20° C
Timebase	Quartz
Power reserve	3 years, programs saved in EEPROM
Battery	CR2032

Electrical connection

Device	Screw terminal with wire protection max. 4 mm ² , captive screw terminal
--------	---

Operating data

Hand switch	Automatic mode, Fix ON/OFF, Override
Tamper protection	PIN code, sealable
Programs	Holiday program (ON/OFF, OFF) Free weekday block formation
Programming	Device
Memory spaces	70
Counter	Hour meter with service function

Display and format

Display lighting	White
Format time display	12-hour format (AM/PM) and 24-hour format (default)
Shortest switching time	ON/OFF 1 minute
Summer/winter time change	Automatic, date-related, can be deactivated
Status display	Switching state display

Environmental conditions

Temperature (operation)	-25° C* ... +55° C
-------------------------	--------------------

General data

Number of modules	2
Weight	170 g
Material	High-temperature resistant, self-extinguishing thermoplastic
Mounting	DIN rail

Standard compliance

Protection type	IP20
Protection class	II, after appropriate mounting
Approvals	CE UL

* Possible limited display legibility, but full function.

Digital DIN rail time switches – talento 471/472 pro, talento 791/792 pro

(discontinued model)



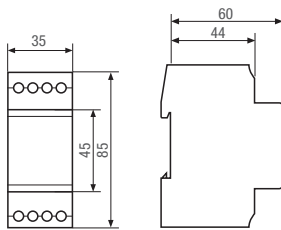
Example representation

PRODUCT DESCRIPTION

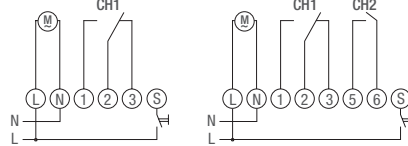
- ▶ Wide and flexible range of applications due to the large scope of voltages
- ▶ Convenient, automatic change from summer to winter time
- ▶ Optimal tamper protection through PIN code and sealable housing
- ▶ Easy and fast installation



DIMENSIONAL DRAWINGS



CIRCUIT DIAGRAMS



talento 471 pro
talento 791 pro

talento 472 pro
talento 792 pro



APPLICATION AREAS

- ▶ Advertising lighting
- ▶ Street lighting
- ▶ Show window lighting
- ▶ Devices, motors or pumps control
- ▶ Roller blinds and sun blinds control
- ▶ Presence simulation
- ▶ Locking systems in buildings

PRODUCT VARIANTS

	talento 471 pro	talento 472 pro	talento 791 pro	talento 792 pro
Item no. / EAN code	03.98.0001.1 / 4010940041991	03.98.0002.1 / 4010940042004	03.98.0004.1 / 4010940042028	03.98.0005.1 / 4010940042035
Languages: CS, DE, FR, HU, IT		03.98.0003.1* / 4010940042011		
Item no. / EAN code	03.98.0009.1 / 4010940042387	03.98.0010.1 / 4010940042394	03.98.0012.1 / 4010940042417	03.98.0013.1 / 4010940042424
Languages: EN, ES, NL, PL, PT		03.98.0011.1* / 4010940042400		
Item no. / EAN code	03.98.0017.1 / 4010940042806	03.98.0018.1 / 4010940042813	03.98.0020.1 / 4010940042837	03.98.0021.1 / 4010940042844
Languages: DA, FI, NO, SV		03.98.0019.1* / 4010940042820		

Electrical specifications

Supply voltage	DC 24 V / AC 24-230 V ± 10% 50-60 Hz	DC 24 V / AC 24-230 V ± 10% 50-60 Hz * AC/DC 12 V ± 10% 50-60 Hz	DC 24 V / AC 24-230 V ± 10% 50-60 Hz	DC 24 V / AC 24-230 V ± 10% 50-60 Hz
Current output	Changeover, potential-free, opening width < 3 mm, phase-independent (zero crossing)	Changeover, potential-free, opening width < 3 mm, phase-independent (zero crossing) Switch contact, opening width < 3 mm	Changeover, potential-free, opening width < 3 mm, phase-independent (zero crossing)	Changeover, potential-free, opening width < 3 mm, phase-independent (zero crossing) Switch contact, opening width < 3 mm

Operating data

Channels	1	2	1	2
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TECHNICAL DATA

Electrical specifications

Switching capacity - resistive load	16 A / 250 V AC
Switching capacity - inductive load cos. phi 0.6	10 A / 250 V AC
Switching capacity - maximum (AC1 / AC15)	4,000 VA / 750 VA
Load incandescent / halogen lamp	2,600 W
Load fluorescent lamps	730 VA (parallel compensated), 1,000 VA (dual circuit) 1,000 VA (not compensated), 1,000 VA (series compensated)
Load compact fluorescent lamp	14 x 23 W, 16 x 20 W, 16 x 15 W, 18 x 11 W, 22 x 7 W
Load energy saving lamps	11 x 23 W, 26 x 20 W, 26 x 15 W, 30 x 11 W, 37 x 7 W
Switching capacity - DC	150 mA / 220 V DC, 300 mA / 50 V DC, 800 mA / 24 V DC
Power consumption	1 VA (in standby mode)
Accuracy	± 0.3 second/day at 20° C
Timebase	Quartz
Power reserve	10 years, programs saved in EEPROM
Battery	CR2450

Electrical connection

Device	Screw terminal with wire protection max. 4 mm ² , captive screw terminal
--------	---

Communication type

IR interface	Data transfer from PC to device (talento taxi)
--------------	--

External inputs

Analogue	Countdown, impulse counter, override
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Operating data

Hand switch	Automatic mode, Fix ON/OFF, Override
Tamper protection	PIN code, sealable
Programs	Weekly program (ON/OFF, cycle, pulse) Holiday program (ON/OFF, cycle, pulse, OFF) Free weekday block formation Astro program (only talento 791/792 pro)
Programming	Timer, PC
Counter	Hour meter with service function
Memory spaces	100

Display and format

Display lighting	White
Format time display	12-hour format (AM/PM) and 24-hour format (default)
Shortest switching time	ON/OFF 1 minute, pulse 1 second, cycle 1 second
Summer/winter time change	Automatic, date-related, can be deactivated
Status display	Switching state display

Environmental conditions

Temperature (operation)	-25° C ... +55° C
-------------------------	-------------------

General data

Number of modules	2
Weight	170 g
Material	High-temperature resistant, self-extinguishing thermoplastic
Mounting	DIN rail

Standard compliance

Protection type	IP20
Protection class	II, after appropriate mounting
Approvals	CE UL

Digital DIN rail time switches – talento 881 pro, talento 882 pro

(discontinued model)



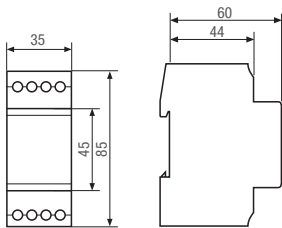
Example representation

PRODUCT DESCRIPTION

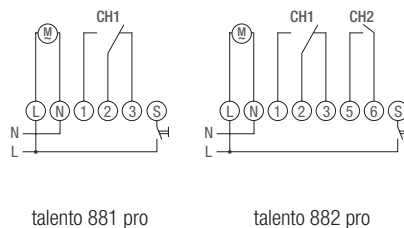
- ▶ Wide and flexible range of applications based on the large range of voltages
- ▶ Convenient, automatic change from summer to winter time
- ▶ Optimal tamper protection through PIN code and sealable housing
- ▶ Easy and fast installation



DIMENSIONAL DRAWINGS



CIRCUIT DIAGRAMS



APPLICATION AREAS

- ▶ Advertising lighting
- ▶ Street lighting
- ▶ Show window lighting
- ▶ Devices, motors or pumps control
- ▶ Roller blinds and sun blinds control
- ▶ Presence simulation
- ▶ Locking systems in buildings

PRODUCT VARIANTS

	talento 881 pro	talento 882 pro
Item no. / EAN code	03.98.0006.1 / 4010940042042	03.98.0007.1 / 4010940042059
Languages: CS, DE, FR, HU, IT		03.98.0008.1* / 4010940042066
Item no. / EAN code	03.98.0014.1 / 4010940042431	03.98.0015.1 / 4010940042448
Languages: EN, ES, NL, PL, PT		03.98.0016.1* / 4010940042455
Item no. / EAN code	03.98.0022.1 / 4010940042851	03.98.0023.1 / 4010940042868
Languages: DA, FI, NO, SV		03.98.0024.1* / 4010940042875
Electrical specifications		
Supply voltage	DC 24 V / AC 24-230 V ± 10% 50-60 Hz	DC 24 V / AC 24-230 V ± 10% 50-60 Hz * AC/DC 12 V ± 10% 50-60 Hz
Current output	Changeover, potential-free, opening width < 3 mm, phase-independent (zero crossing)	Changeover, potential-free, opening width < 3 mm, phase-independent (zero crossing) Switch contact, opening width < 3 mm
Operating data		
Channels	1	2

TECHNICAL DATA

Electrical specifications

Switching capacity - resistive load	16 A / 250 V AC
Switching capacity - inductive load cos. phi 0.6	10 A / 250 V AC
Switching capacity - maximum (AC1 / AC15)	4,000 VA / 750 VA
Load incandescent / halogen lamp	2,600 W
Load fluorescent lamps	730 VA (parallel compensated), 1,000 VA (dual circuit) 1,000 VA (not compensated), 1,000 VA (series compensated)
Load compact fluorescent lamp	14 x 23 W, 16 x 20 W, 16 x 15 W, 18 x 11 W, 22 x 7 W
Load energy saving lamps	11 x 23 W, 26 x 20 W, 26 x 15 W, 30 x 11 W, 37 x 7 W
Switching capacity - DC	150 mA / 220 V DC, 300 mA / 50 V DC, 800 mA / 24 V DC
Power consumption	1 VA (in standby mode)
Accuracy	± 0.3 second/day at 20° C
Timebase	Quartz
Power reserve	10 years, programs saved in EEPROM
Battery	CR2450

Electrical connection

Device	Screw terminal with wire protection max. 4 mm ² , captive screw terminal
--------	---

Communication type

IR interface	Data transfer from PC to device (talento taxi)
--------------	--

External inputs

Analogue	Countdown, impulse counter, override
----------	--------------------------------------

Operating data

Hand switch	Automatic mode, Fix ON/OFF, Override
Tamper protection	PIN code, sealable
Programs	Weekly program (ON/OFF, cycle, pulse) Holiday program (ON/OFF, cycle, pulse, OFF) Free weekday block formation Astro program Annual program (ON/OFF, cycle, pulse)
Programming	Timer, PC
Counter	Hour meter with service function
Memory spaces	400

Display and format

Display lighting	White
Format time display	12-hour format (AM/PM) and 24-hour format (default)
Shortest switching time	ON/OFF 1 minute, pulse 1 second, cycle 1 second
Summer/winter time change	Automatic, date-related, can be deactivated
Status display	Switching state display

Environmental conditions

Temperature (operation)	-25° C ... +55° C
-------------------------	-------------------

General data

Number of modules	2
Weight	170 g
Material	High-temperature resistant, self-extinguishing thermoplastic
Mounting	DIN rail

Standard compliance

Protection type	IP20
Protection class	II, after appropriate mounting
Approvals	CE UL

Digital DIN rail time switches – talento 892 pro, talento 992 pro

(discontinued model)



Example representation

PRODUCT DESCRIPTION

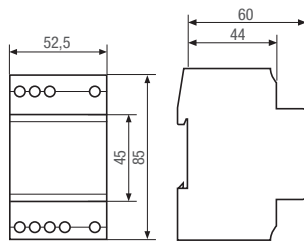
- ▶ Easy and fast installation
- ▶ Optimal tamper protection through PIN code and sealable housing
- ▶ Convenient, automatic change from summer to winter time



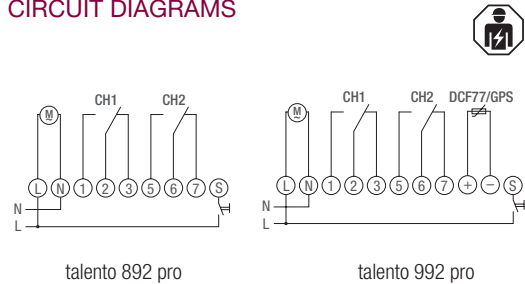
APPLICATION AREAS

- ▶ Advertising lighting
- ▶ Street lighting
- ▶ Show window lighting
- ▶ Devices, motors or pumps control
- ▶ Roller blinds and sun blinds control
- ▶ Presence simulation
- ▶ Locking systems in buildings
- ▶ School or church bell control

DIMENSIONAL DRAWINGS



CIRCUIT DIAGRAMS



PRODUCT VARIANTS

	talento 892 pro	talento 992 pro
Item no.	03.76.0021.1	03.76.0020.1
EAN Code	4010940044329	4010940044312

Electrical specifications

Supply voltage	AC 110-230 V ± 10% 50-60 Hz	AC 230 V ± 10% 50-60 Hz
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External inputs

Analogue	Countdown Impulse counter Override –	Countdown Impulse counter Override Radio antenna DCF77
----------	---	---

General data

Weight	180 g	250 g
--------	-------	-------

TECHNICAL DATA**Electrical specifications**

Current output	Changeover, potential-free, opening width < 3 mm, phase-independent (zero crossing)
Switching capacity - resistive load	16 A / 250 V AC
Switching capacity - inductive load cos. phi 0.6	10 A / 250 V AC
Switching capacity - maximum (AC1 / AC15)	3,700 VA / 750 VA
Load incandescent / halogen lamp	2,600 W
Load fluorescent lamps	730 VA (parallel compensated), 1,000 VA (dual circuit) 1,000 VA (not compensated), 1,000 VA (series compensated)
Load compact fluorescent lamp	14 x 23 W, 16 x 20 W, 16 x 15 W, 18 x 11 W, 22 x 7 W
Load energy saving lamps	11 x 23 W, 26 x 20 W, 26 x 15 W, 30 x 11 W, 37 x 7 W
Switching capacity - DC	150 mA / 220 V DC, 300 mA / 50 V DC, 800 mA / 24 V DC
Power consumption	5 VA
Timebase	Quartz
Accuracy	± 1 second/day at 20° C
Power reserve	3 years, programs saved in EEPROM
Battery	CR2032

Communication type

IR interface	Data transfer from PC to device (talento taxi)
Power line	Communication with talento CE pro

Electrical connection

Device	Screw terminal with wire protection max. 4 mm ² , captive screw terminal
--------	---

Operating data

Hand switch	Automatic mode, Fix ON/OFF, Override
Channels	2
Programs	Annual program (ON/OFF, cycle, pulse, OFF) Weekly program (ON/OFF, cycle, pulse) Random program
Tamper protection	PIN code, sealable
Programming	Timer, PC
Memory spaces	800
Counter	Hour meter with service function

Display and format

Format time display	12-hour format (AM/PM) 24-hour format (default)
Shortest switching time	ON/OFF 1 minute, pulse 1 second, cycle 1 second
Display lighting	White
Summer/winter time change	Automatic, date-related, can be deactivated
Status display	Switching state display

Environmental conditions

Temperature (operation)	-10° C ... +55° C
-------------------------	-------------------

General data

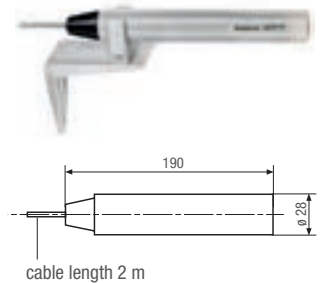
Material	High-temperature resistant, self-extinguishing thermoplastic
Number of modules	3
Mounting	DIN rail
Languages	CS, DA, DE, EN, ES, FI, FR, HU, IT, NL, NO, PL, PT, SV

Standard compliance

Protection type	IP20
Protection class	II, after appropriate mounting
Approvals	CE UL

ACCESSORIES

- ▶ **Radio antenna FA DCF 77**
Item no. 07.01.0028.1
EAN Code 4010940021184



Digital DIN rail time switches – talento CE pro

Item no.. 07.75.0003.1 / EAN code: 4010940034764

(discontinued model)



PRODUCT DESCRIPTION

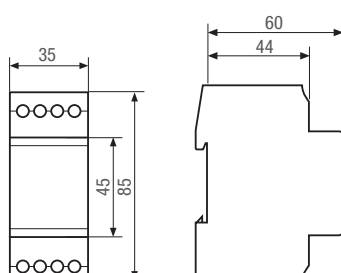
- ▶ Channel extension talento CE pro to build a system with up to 8 channels in conjunction with talento 892/992 pro
- ▶ Easy and fast installation
- ▶ Optimal tamper protection through sealable housing



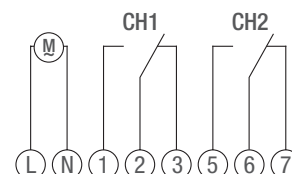
APPLICATION AREAS

- ▶ Advertising lighting
- ▶ Street lighting
- ▶ Show window lighting
- ▶ Devices, motors or pumps control
- ▶ Roller blinds and sun blinds control
- ▶ Presence simulation
- ▶ Locking systems in buildings
- ▶ School or church bells control

DIMENSIONAL DRAWINGS



CIRCUIT DIAGRAM



TECHNICAL DATA

Electrical specifications

Supply voltage	AC 110-230 V ± 10% 50-60 Hz
Current output	Changeover, potential-free, opening width < 3 mm, phase-independent (zero crossing)
Switching capacity - resistive load	16 A / 250 V AC
Switching capacity - inductive load cos. phi 0.6	10 A / 250 V AC
Switching capacity - maximum (AC1 / AC15)	3,700 VA / 750 VA
Load incandescent / halogen lamp	2,600 W
Load fluorescent lamps	730 VA (parallel compensated), 1,000 VA (dual circuit) 1,000 VA (not compensated), 1,000 VA (series compensated)
Load compact fluorescent lamp	14 x 23 W, 16 x 20 W, 16 x 15 W, 18 x 11 W, 22 x 7 W
Load energy saving lamps	11 x 23 W, 26 x 20 W, 26 x 15 W, 30 x 11 W, 37 x 7 W
Switching capacity - DC	150 mA / 220 V DC, 300 mA / 50 V DC, 800 mA / 24 V DC
Power consumption	5 VA

Electrical connection

Device	Screw terminal with wire protection max. 4 mm ² , captive screw terminal
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Communication type

Power line	Communication with talento 892/992 pro
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Operating data

Tamper protection	Sealable
Hand switch	Automatic mode, Fix ON/OFF, Override
Channels	2
Programs	Annual program (ON/OFF, cycle, pulse, OFF)* Weekly program (ON/OFF, cycle, pulse)* Random program*

Display and format

Shortest switching time	ON/OFF 1 minute, pulse 1 second, cycle 1 second
Status display	Switching state display

Environmental conditions

Temperature (operation)	-10° C ... +55° C
-------------------------	-------------------

General data

Number of modules	2
Weight	250 g
Material	High-temperature resistant, self-extinguishing thermoplastic
Mounting	DIN rail
Languages	CS, DA, DE, EN, ES, FI, FR, HU, IT, NL, NO, PL, PT, SV

Standard compliance

Protection type	IP20
Protection class	II, after appropriate mounting
Approvals	CE

* For use with talento 892/992 pro.

Digital DIN rail time switches – Hand transmitter device – talento taxi

talento taxi



PRODUCT DESCRIPTION

- ▶ Hand transmitter device for programming the talento 471/472/791/792/881/882/892/992 pro
- ▶ Transmits date/time and max. 4 programs
- ▶ Bidirectional serial interface
- ▶ Send/receive programs
- ▶ Transmission of the program from timer clock to time clock via talento taxi
- ▶ The talento taxi Set also includes the PC software "talento dialog", and a USB cable for connecting the PC to the hand transmitter device talento taxi



talento taxi Set



TECHNICAL DATA

Standard compliance





Approvals CE






PRODUCT VARIANTS

	talento taxi	talento taxi Set
Item no.	07.75.0011.1	07.75.0012.1
EAN Code	4010940034917	4010940034924



Analogue DIN rail time switches – Selection guide

	talento 111 mini	talento 211 mini	talento 111	talento 121
				
Supply voltage	AC 220-240 V ± 10% 50 Hz	DC 130 V AC 230 V ± 10% 50-60 Hz	AC 220-240 V ± 10% 50 Hz	AC 220-240 V ± 10% 50 Hz
Current output	Switch contact, potential-free	Switch contact, potential-free	Changeover, potential free	Changeover, potential free
Channels	1	1	1	1
Number of modules	1	1	3	3
Shortest switching time	30 minutes	30 minutes	30 minutes	1.25 minutes
Accuracy	Network synchronous	± 2.5 second/day at 20° C	Network synchronous	Network synchronous
Power reserve	–	> 50 hours	–	–
Program (switching programs)	Daily program	Daily program	Daily program	Hourly program
Clock	without hands	without hands	Analogue hands	Analogue hands
Drive type	Synchronous	Quartz	Synchronous	Synchronous
Accessories	Wall installation kit 1 TE	Wall installation kit 1 TE	Wall installation kit 2-3 TE	Wall installation kit 2-3 TE
Page	34	34	36	36

	talento 171	talento 211	talento 271	talento 202	talento 212
					
AC 220-240 V ± 10% 50 Hz	DC 130 V AC 230 V ± 10% 50-60 Hz	DC 130 V AC 230 V ± 10% 50-60 Hz	DC 130 V AC 230 V ± 10% 50-60 Hz	DC 130 V AC 230 V ± 10% 50-60 Hz	DC 130 V AC 230 V ± 10% 50-60 Hz
	DC 60 V AC 130 V ± 10% 50-60 Hz	DC 60 V AC 130 V ± 10% 50-60 Hz	DC 60 V AC 130 V ± 10% 50-60 Hz		
	DC 12 V AC 30 V ± 10% 50-60 Hz	DC 12 V AC 30 V ± 10% 50-60 Hz	DC 12 V AC 30 V ± 10% 50-60 Hz		
Changeover, potential free	Changeover, potential free	Changeover, potential free	Changeover, potential free	Changeover, potential free	Changeover, potential free
1	1	1	2	2	
3	3	3	6	6	
3 Hours	30 minutes	3 Hours	30 minutes 3 hours	30 minutes	
Network synchronous	± 2.5 second/day at 20° C	± 2.5 second/day at 20° C	± 2.5 second/day at 20° C	± 2.5 second/day at 20° C	
–	> 150 hours	> 150 hours	> 150 hours	> 150 hours	
Weekly program	Daily program	Weekly program	Daily program Weekly program	Daily program	
Analogue hands	Analogue hands	Analogue hands	Analogue hands	Analogue hands	
Synchronous	Quartz	Quartz	Quartz	Quartz	
Wall installation kit 2-3 TE	Wall installation kit 2-3 TE	Wall installation kit 2-3 TE	Wall installation kit 6 TE	Wall installation kit 6 TE	
36	38	38	40	40	

Analogue DIN rail time switches – talento

talento 111 mini

talento 211 mini

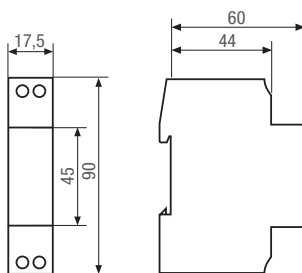


APPLICATION AREAS

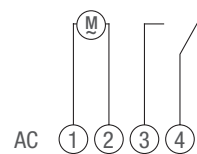
- ▶ Advertising lighting
- ▶ Show window lighting
- ▶ Water treatment
- ▶ Pump control



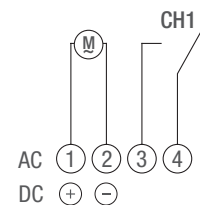
DIMENSIONAL DRAWINGS



CIRCUIT DIAGRAMS



talento 111 mini



talento 211 mini

PRODUCT VARIANTS

	talento 111 mini	talento 211 mini
Item no.	01.06.0004.1	02.03.0003.1
EAN Code	4010940022556	4010940022563

Electrical specifications

Supply voltage	AC 220-240 V ± 10% 50 Hz	DC 130 V AC 230 V ± 10% 50-60 Hz
Accuracy	Network synchronous	± 2.5 seconds / day at 20° C
Power reserve	–	> 50 hours

Environmental conditions

Temperature (operation)	-25° C ... +55° C	-20° C ... +55° C
-------------------------	-------------------	-------------------

General data

Weight	100 g	110 g
--------	-------	-------

TECHNICAL DATA

Electrical specifications

Current output	Switch contact, potential-free
Switching capacity - resistive load	16 A / 250 V AC
Switching capacity - inductive load cos. phi 0.6	4 A / 250 V AC
Load incandescent bulb	1,000 W
Power consumption	1 VA

Electrical connection

Device	Screw terminal with wire protection max. 4 mm ² Captive screw terminal
--------	--

Operating data

Hand switch	Automatic mode, Fix ON
Channels	1
Tamper protection	Sealable
Programs	Daily program (ON/OFF)

Display and format

Shortest switching time	ON/OFF 30 minutes
-------------------------	-------------------

General data

Number of modules	1
Mounting	DIN rail

Standard compliance

Protection type	IP20
Protection class	II, after appropriate mounting
Approvals	CE VDE

Analogue DIN rail time switches – talento 111, talento 121, talento 171



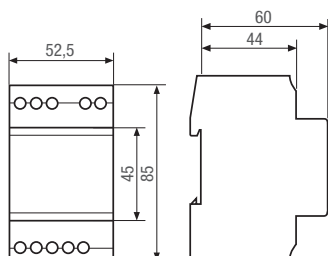
Example representation

APPLICATION AREAS

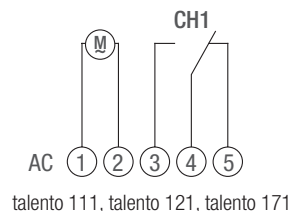
- ▶ Advertising lighting
- ▶ Show window lighting
- ▶ Water treatment
- ▶ Pump control



DIMENSIONAL DRAWINGS



CIRCUIT DIAGRAM



PRODUCT VARIANTS

	talento 111	talento 121	talento 171
Item no.	01.28.0001.1	01.28.0003.1	01.28.0002.1
EAN Code	4010940020668	4010940020682	4010940020675
Programs	Daily program (ON/OFF)	Hourly program (ON/OFF)	Weekly program (ON/OFF)
Shortest switching time	ON/OFF 30 minutes	ON/OFF 1.25 minutes	ON/OFF 3 hours

TECHNICAL DATA**Electrical specifications**

Supply voltage	AC 220-240 V ± 10% 50 Hz
Current output	Changeover, potential free
Switching capacity - resistive load	16 A / 250 V AC
Switching capacity - inductive load cos. phi 0.6	4 A / 250 V AC
Load incandescent bulb	1,350 W
Power consumption	1 VA
Accuracy	Network synchronous
Power reserve	–

Electrical connection

Device	Screw terminal with wire protection max. 4 mm ² Captive screw terminal
--------	--

Operating data

Hand switch	Automatic mode Fix ON/OFF
Channels	1
Tamper protection	Sealable

Display and format

Clock	Analogue hands
-------	----------------

Environmental conditions

Temperature (operation)	-25° C ... +55° C
-------------------------	-------------------

General data

Number of modules	3
Weight	170 g
Mounting	DIN rail

Standard compliance

Protection type	IP20
Protection class	II, after appropriate mounting
Approvals	CE VDE

Analogue DIN rail time switches – talento 211, talento 271



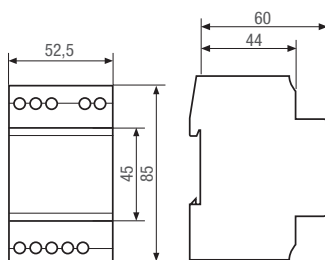
Example representation

APPLICATION AREAS

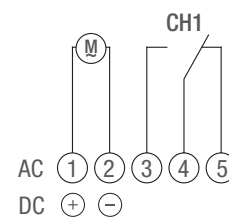
- ▶ Advertising lighting
- ▶ Show window lighting
- ▶ Water treatment
- ▶ Pump control



DIMENSIONAL DRAWINGS



CIRCUIT DIAGRAM



talento 211, talento 271

PRODUCT VARIANTS

	talento 211	talento 211	talento 211	talento 271	talento 271	talento 271
Item no.	02.28.0001.1	02.28.0002.1	02.28.0003.1	02.28.0004.1	02.28.0005.1	02.28.0006.1
EAN Code	4010940020750	4010940020743	4010940020736	4010940020729	4010940020712	4010940020705
Electrical specifications						
Supply voltage	DC 130 V / AC 230 V ± 10% 50-60 Hz	DC 60 V / AC 130 V ± 10% 50-60 Hz	DC 12 V / AC 30 V ± 10% 50-60 Hz	DC 130 V / AC 230 V ± 10% 50-60 Hz	DC 60 V / AC 130 V ± 10% 50-60 Hz	DC 12 V / AC 30 V ± 10% 50-60 Hz
Operating data						
Programs	Daily program (ON/OFF)	Daily program (ON/OFF)	Daily program (ON/OFF)	Weekly program (ON/OFF)	Weekly program (ON/OFF)	Weekly program (ON/OFF)
Display and format						
Shortest switching time	ON/OFF 30 minutes	ON/OFF 30 minutes	ON/OFF 30 minutes	ON/OFF 3 hours	ON/OFF 3 hours	ON/OFF 3 hours

TECHNICAL DATA

Electrical specifications

Current output	Changeover, potential free
Switching capacity - resistive load	16 A / 250 V AC
Switching capacity - inductive load cos. phi 0.6	4 A / 250 V AC
Load incandescent bulb	1,350 W
Power consumption	1 VA
Accuracy	± 2.5 seconds/day at 20° C
Power reserve	> 150 hours

Electrical connection

Device	Screw terminal with wire protection max. 4 mm ² Captive screw terminal
--------	--

Operating data

Hand switch	Automatic mode, Fix ON/OFF
Channels	1
Tamper protection	Sealable

Display and format

Clock	Analogue hands
-------	----------------

Environmental conditions

Temperature (operation)	-20° C ... +55° C
-------------------------	-------------------

General data

Number of modules	3
Weight	170 g
Mounting	DIN rail

Standard compliance

Protection type	IP20
Protection class	II, after appropriate mounting
Approvals	CE VDE

Analogue DIN rail time switches – talento 202, talento 212



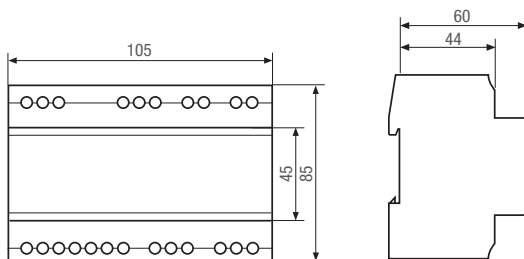
Example representation

APPLICATION AREAS

- ▶ Advertising lighting
- ▶ Show window lighting
- ▶ Water treatment
- ▶ Pump control



DIMENSIONAL DRAWINGS



CIRCUIT DIAGRAM



PRODUCT VARIANTS

	talento 202	talento 212
Item no.	02.28.0008.1	02.28.0007.1
EAN Code	4010940020767	4010940020699
Programs	Daily program (ON/OFF) Weekly program (ON/OFF)	Daily program (ON/OFF)
Shortest switching time	ON/OFF 30 minutes ON/OFF 3 hours	ON/OFF 30 minutes

TECHNICAL DATA

Electrical specifications

Supply voltage	DC 130 V / AC 230 V \pm 10% 50-60 Hz
Current output	Changeover, potential free
Switching capacity - resistive load	16 A / 250 V AC
Switching capacity - inductive load cos. phi 0.6	4 A / 250 V AC
Load incandescent bulb	1,350 W
Power consumption	1 VA
Accuracy	\pm 2.5 seconds/day at 20° C
Power reserve	> 150 hours

Electrical connection

Device	Screw terminal with wire protection max. 4 mm ² Captive screw terminal
--------	--

Operating data

Hand switch	Automatic mode, Fix ON/OFF
Channels	2
Tamper protection	Sealable

Display and format

Clock	Analogue hands
-------	----------------

Environmental conditions

Temperature (operation)	-20° C ... +55° C
-------------------------	-------------------

General data

Number of modules	6
Weight	220 g
Mounting	DIN rail

Standard compliance

Protection type	IP20
Protection class	II, after appropriate mounting
Approvals	CE VDE

Accessories – DIN rail time-switches



Wall installation kit 1 TE

ITEM NO. 18.01.0004.2
EAN CODE 4010940002657

for:

- ▶ talento 111 mini
- ▶ talento 211 mini
- ▶ talento 371 mini pro



Wall installation kit 2-3 TE

ITEM NO. 03.53.0083.2
EAN CODE 4010940021719

for:

- ▶ talento smart
- ▶ talento pro
- ▶ talento 111, 121, 171, 211, 271

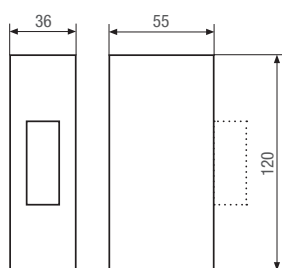
Wall installation kit 6 TE

ITEM NO. 03.59.0046.2
EAN CODE 4010940021733

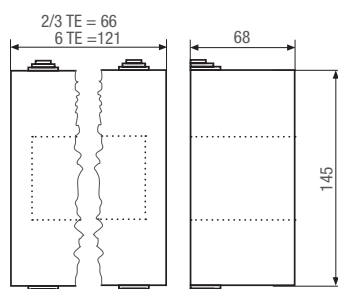
for:

- ▶ talento 202, 212

DIMENSIONAL DRAWINGS



Wall installation kit 1TE



Wall installation kit 2, 3, 6 TE

Accessories – DIN rail time switches



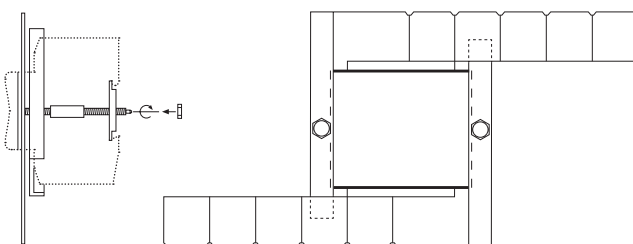
Installation frame to 6 TE

ITEM NO. 03.59.0047.2
EAN CODE 4010940021726

for:

- ▶ talento smart
- ▶ talento pro
- ▶ talento 111, 121, 171, 211, 271

DIMENSIONAL DRAWINGS



Installation frame 1-6 TE

Universal time switches: The reliable solution for universal switching tasks in indoor and outdoor use

ROBUST CONSTRUCTION, UNIVERSAL APPLICATION

Product line tactic

The universal time switches from the product program tactic offer versatility in the entire building and in the outdoor area. They are used in switching systems, in machine control systems, as well as specific solutions such as swimming pools or sprinkler systems.

The digital universal time switches from the tactic plus series are available both as 1-channel and 2-channel variants. They are suitable for assembly, installation and DIN rail mounting and are additionally distinguished by simple programming.

The analogue 1-channel universal time switches of the tactic series are suitable for assembly, installation and DIN rail mounting, are easy to operate and are equipped with a quartz or synchronous drive.



Grässlin universal time switches are characterized by robust housing as well as a wide temperature range.

Universal time switches

▶ Digital universal time switches

Digital universal time switches – Selection guide	46
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tactic 572.1 plus	50

▶ Analogue universal time switches

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Digital universal time switches – Selection guide

tactic 371.1 plus

tactic 372.1 plus



	tactic 371.1 plus	tactic 372.1 plus
Channels	1	2
Memory spaces	20	20
Supply voltage	AC 230 V ± 10% 50-60 Hz	AC 230 V ± 10% 50-60 Hz
Switching capacity - resistive load	16 A / 250 V AC	16 A / 250 V AC
Switching capacity - inductive load cos. phi 0.6	4 A / 250 V AC	2.5 A / 250 V AC
Switching capacity - DC	10 A / 24 V DC 3 A / 60 V DC 1 A / 100 V DC	1,3 A / 24 V DC 0,7 A / 60 V DC 0,3 A / 100 V DC
Load incandescent bulb	1,000 W	500 W
Program (switching programs)	Daily program Weekly program	Daily program Weekly program
Text programming	–	–
Summer/winter time change	Manual	Manual
Accessories	Base Terminal cover Glass Sealing glass	Base Terminal cover Catch frame Mounting plate Glass

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tactic 571.1 plus

tactic 572.1 plus



1	2
50	50
AC 230 V ± 10% 50-60 Hz AC/DC 24 V ± 10% 50-60 Hz	AC 230 V ± 10% 50-60 Hz AC 110-120 V ± 10% 50-60 Hz AC/DC 24 V ± 10% 50-60 Hz AC/DC 12 V ± 10% 50-60 Hz
16 A / 250 V AC	16 A / 250 V AC
8 A / 250 V AC	2.5 A / 250 V AC
10 A / 24 V DC	1,3 A / 24 V DC
3 A / 60 V DC	0,7 A / 60 V DC
1 A / 100 V DC	0,3 A / 100 V DC
1,000 W	500 W
Daily program Weekly program Free weekday block formation	Daily program Weekly program Free weekday block formation
●	●
Automatic	Automatic
Base	Base
Terminal cover	Terminal cover
Glass	Catch frame
Sealing glass	Mounting plate
	Glass

50

50

Digital universal time switches – tactic 371.1 plus, tactic 372.1 plus



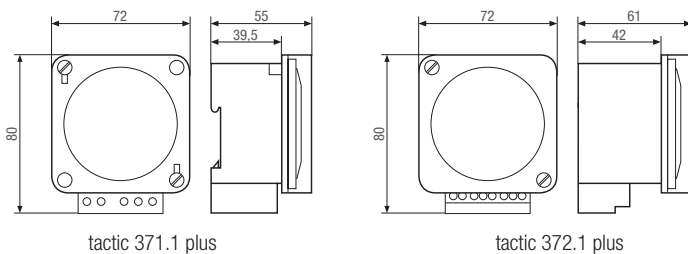
Example representation

APPLICATION AREAS

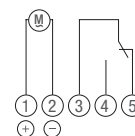
- ▶ Machinery control
- ▶ Heating systems control
- ▶ Devices, motors and pumps control



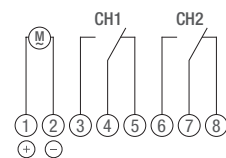
DIMENSIONAL DRAWINGS



CIRCUIT DIAGRAMS



tactic 371.1 plus



tactic 372.1 plus

TECHNICAL DATA

Electrical specifications

Supply voltage	AC 230 V ± 10% 50-60 Hz
Current output	Changeover, potential free
Switching capacity - resistive load	16 A / 250 V AC
Power consumption	4.4 VA
Accuracy	± 1 second/day at 20° C
Power reserve	3 years

Operating data

Hand switch	Automatic mode Fix ON/OFF
Programs	Daily program (ON/OFF) Weekly program (ON/OFF) Set individual days or weekday block formation Menu programming with free and fixed programs
Memory spaces	20

Display and format

Format time display	12-hour format (AM/PM) 24-hour format
Shortest switching time	ON/OFF 1 minute
Summer/winter time changeover	Manual
Clock	Digital
Status display	Switching state display

Environmental conditions

Temperature (operation)	-10° C ... +55° C
-------------------------	-------------------

General data

Colour	Gray
--------	------

Standard compliance

Approvals	CE, VDE
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PRODUCT VARIANTS

	tactic 371.1 plus	tactic 372.1 plus
Item no.	03.62.0001.1	03.62.0002.1
EAN Code	4010940038007	4010940038014

Electrical specifications

Switching capacity - inductive load cos. phi 0.6	4 A / 250 V AC	2.5 A / 250 V AC
Load incandescent bulb	1,000 W	500 W
Switching capacity - DC	10 A / 24 V DC 3 A / 60 V DC 1 A / 100 V DC	1.3 A / 24 V DC 0.7 A / 60 V DC 0.3 A / 100 V DC

Operating data

Channels	1	2
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General data

Weight	170 g	190 g
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Scope of delivery

Housing	Glass Terminal cover 1-channel Base 1-channel	Terminal cover 2-channel Catch frame 2-channel Base 2-channel
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Digital universal time switches – tactic 571.1 plus, tactic 572.1 plus



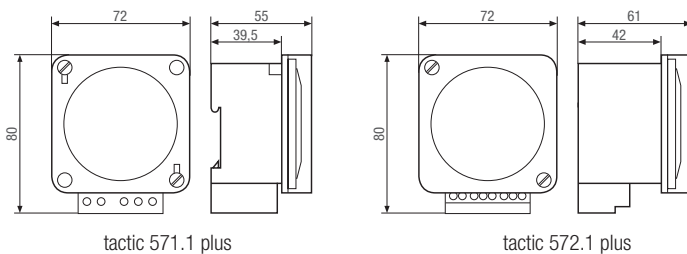
Example representation

APPLICATION AREAS

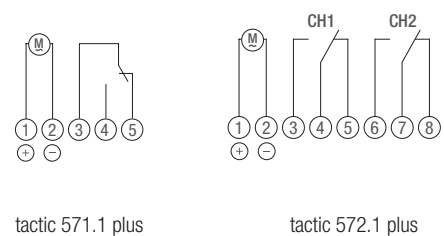
- ▶ Machinery control
- ▶ Heating systems control
- ▶ Devices, motors and pumps control



DIMENSIONAL DRAWINGS



CIRCUIT DIAGRAMS



TECHNICAL DATA

Electrical specifications

Current output	Changeover, potential free
Switching capacity - resistive load	16 A / 250 V AC
Power consumption	4.4 VA
Accuracy	± 1 second/day at 20° C
Power reserve	3 years

Operating data

Hand switch	Automatic mode, Fix ON/OFF
Memory spaces	50
Programs	Daily program (ON/OFF), weekly program (ON/OFF) Free weekday block formation

Display and format

Format time display	12-hour format (AM/PM) and 24-hour format
Shortest switching time	ON/OFF 1 minute
Summer/winter time change	Automatic
Clock	Digital
Status display	Switching state display

Environmental conditions

Temperature (operation)	-10° C ... +55° C
-------------------------	-------------------

General data

Colour	Gray
Languages	CS, DE, EN, ES, FR, HU, IT, PT

Standard compliance

Approvals	CE, GOST
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Scope of delivery

Housing	Glass
---------	-------

PRODUCT VARIANTS

	tactic 571.1 plus	tactic 571.1 plus	tactic 572.1 plus	tactic 572.1 plus	tactic 572.1 plus	tactic 572.1 plus
Item no.	03.87.0001.1	03.87.0002.1	03.87.0003.1	03.87.0004.1	03.87.0005.1	03.87.0006.1
EAN Code	4010940038021	4010940038038	4010940038045	4010940038052	4010940038069	4010940038076
Electrical specifications						
Supply voltage	AC 230 V ± 10% 50-60 Hz	AC/DC 24 V ± 10% 50-60 Hz	AC 230 V ± 10% 50-60 Hz	AC 110-120 V ± 10% 50-60 Hz	AC/DC 24 V ± 10% 50-60 Hz	AC/DC 12 V ± 10% 50-60 Hz
Switching capacity inductive load cos. phi 0.6	8 A / 250 V AC	8 A / 250 V AC	2.5 A / 250 V AC	2.5 A / 250 V AC	2.5 A / 250 V AC	2.5 A / 250 V AC
Load incandescent bulb	1,000 W	1,000 W	500 W	500 W	500 W	500 W
Switching capacity - DC	10 A / 24 V DC 3 A / 60 V DC 1 A / 100 V DC	10 A / 24 V DC 3 A / 60 V DC 1 A / 100 V DC	1.3 A / 24 V DC 0.7 A / 60 V DC 0.3 A / 100 V DC	1.3 A / 24 V DC 0.7 A / 60 V DC 0.3 A / 100 V DC	1.3 A / 24 V DC 0.7 A / 60 V DC 0.3 A / 100 V DC	1.3 A / 24 V DC 0.7 A / 60 V DC 0.3 A / 100 V DC
Operating data						
Channels	1	1	2	2	2	2
General data						
Weight	170 g	170 g	190 g	190 g	190 g	190 g
Scope of delivery						
	Terminal cover 1-channel	Terminal cover 1-channel	Terminal cover 2-channel	Terminal cover 2-channel	Terminal cover 2-channel	Terminal cover 2-channel
	Base 1-channel	Base 1-channel	Base 2-channel	Base 2-channel	Base 2-channel	Base 2-channel

Analogue universal time switches – Selection guide

tactic 111.1

tactic 171.1



Supply voltage	AC 220-240 V ± 10% 50 Hz	AC 220-240 V ± 10% 50 Hz
Power consumption	1 VA	1 VA
Current output	Changeover, potential free	Changeover, potential free
Shortest switching time	15 minutes	2 Hours
Accuracy	Network synchronous	Network synchronous
Power reserve	–	–
Program (switching programs)	Daily program (ON/OFF)	Weekly program (ON/OFF)
Drive type	Synchronous	Synchronous
Electrical connection	Flat connection DIN 6.3	Flat connection DIN 6.3
Accessories	Sealing Installation base Glass Terminal cover Sealing glass Base	Sealing Installation base Glass Terminal cover Sealing glass Base

tactic 211.1

tactic 271.1



DC 130 V	DC 130 V
AC 230 V ± 10% 50-60 Hz	AC 230 V ± 10% 50-60 Hz
2 VA	2 VA
Changeover, potential free	Changeover, potential free
15 minutes	2 Hours
± 1.5 seconds/day at 20° C	± 1.5 seconds/day at 20° C
> 150 hours	> 150 hours
Daily program (ON/OFF)	Weekly program (ON/OFF)
Quartz	Quartz
Flat connection DIN 6.3	Flat connection DIN 6.3
Sealing	Sealing
Installation base	Installation base
Glass	Glass
Terminal cover	Terminal cover
Sealing glass	Sealing glass
Base	Base

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Analogue universal time switches – tactic

tactic 111.1

tactic 171.1



Example representation

APPLICATION AREAS

- ▶ Machinery control
- ▶ Heating systems control
- ▶ Devices, motors and pumps control



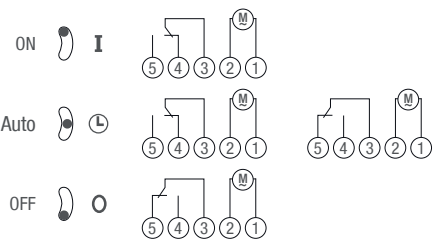
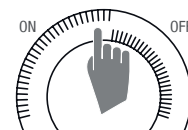
tactic 211.1

tactic 271.1

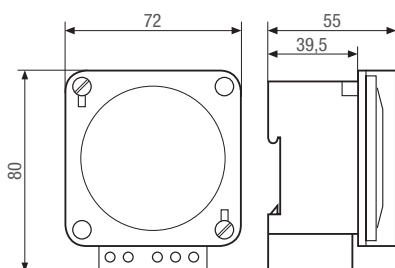


Example representation

CIRCUIT DIAGRAMS



DIMENSIONAL DRAWINGS



TECHNICAL DATA

Electrical specifications

Current output	Changeover, potential free
Switching capacity - resistive load	16 A / 250 V AC
	21 A / 250 V AC (UL)
Switching capacity - inductive load cos. phi 0.6	8 A / 250 V AC
Load incandescent bulb	1,300 W

Electrical connection

Device	Flat connection DIN 6.3
--------	-------------------------

Operating data

Hand switch	Automatic mode
	Fix ON/OFF
Channels	1
Tamper protection	Sealable

Environmental conditions

Temperature (operation)	-20° C ... +55° C
-------------------------	-------------------

General data

Colour	Gray
--------	------

Standard compliance

Protection class	II, after appropriate mounting
Approvals	CE, VDE

Scope of delivery

Housing	Glass
	Terminal cover
	Base

PRODUCT VARIANTS

	tactic 111.1	tactic 171.1	tactic 211.1	tactic 271.1
Item no.	01.80.0001.1	01.80.0002.1	02.80.0001.1	02.80.0002.1
EAN Code	4010940003975	4010940003982	4010940004019	4010940004026
Electrical specifications				
Supply voltage	AC 220-240 V ± 10% 50 Hz	AC 220-240 V ± 10% 50 Hz	DC 130 V / AC 230 V ± 10% 50-60 Hz	DC 130 V / AC 230 V ± 10% 50-60 Hz
Power consumption	1 VA	1 VA	2 VA	2 VA
Accuracy	Network synchronous	Network synchronous	± 1.5 seconds/day at 20° C	± 1.5 seconds/day at 20° C
Power reserve	–	–	> 150 hours	> 150 hours
Operating data				
Programs	Daily program (ON/OFF)	Weekly program (ON/OFF)	Daily program (ON/OFF)	Weekly program (ON/OFF)
Display and format				
Shortest switching time	ON/OFF 15 minutes	ON/OFF 2 hours	ON/OFF 15 minutes	ON/OFF 2 hours
General data				
Drive type	Synchronous	Synchronous	Quartz	Quartz
Weight	155 g	155 g	165 g	165 g

Replacement devices

Replacement devices for digi 56-72/1, digi 16-72/1, MIL/1 digi 42, MIL 2008 and SU (Series for installation on existing base)

UNI 45



Item no.	EAN Code	Type / Equipment	Voltage
UNI 45 TA+E – Construction and installation			
01.50.0075.1	4010940004873	Daily program	230-240 V / 50 Hz
UNI 45 WA+E – Construction and installation			
01.50.0076.1	4010940003333	Weekly program	230-240 V / 50 Hz
UNI 45 TA+E – Construction and installation			
01.50.0013.1	4010940000226	1 hour short time program	230-240 V / 50 Hz
UNI 45	Scope of delivery	Replacement part / Item no. Accessories	EAN Code
Base	●	● 50.92.0013.4	4010940003265
Frame	●	● 50.13.0002.4	4010940003272
Fastening screw	●	● 50.22.0001.5	4010940003296
Glass	●	● 50.13.0001.3	4010940003302
Catch frame	●	● 15.27.0011.4	4010940002886
Tappet ON (green)	●	● 50.92.0011.4	4010940016951
Tappets OFF (red)	●	● 50.92.0012.4	4010940016968

MIL D150

(discontinued model)



Item no.	EAN Code	Type / Equipment	Voltage
MIL D150 – 1-channel / power reserve / without base			
03.87.0011.1	4010940038588	Day & week progr. 50 memory spaces	220-240 V / 50-60 Hz
Replacement for: digi 56-72/1 – 1-channel / power reserve		Day & week progr. 56 memory spaces	220 V / 50-60 Hz 120 V / 50-60 Hz
Replacement for: digi 56-72/1 – 1-channel / power reserve		Daily & weekly progr. 16 memory spaces	220-240 V / 50-60 Hz

MIL/1



MIL/1 QRTuZH – 1-channel / quartz with power reserve / without base			
02.45.0001.1	4010940015671	Daily program	230 V AC / 130 V DC
02.45.0003.1	4010940015695		30 V AC / 12 V DC
MIL/1 QRWuZH – 1-channel / quartz with power reserve / without base			
02.45.0004.1	4010940016142	Weekly program	230 V AC / 130 V DC
Replacement for: MIL 2008 SFTu – 1-channel		Daily program	220-240 V / 50 Hz
Replacement for: MIL 2008 SFWu – 1-channel		Weekly program	220-240 V / 50 Hz
Replacement for: MIL 2008 QFRTu – 1-channel / power reserve		Daily program	230 V AC / 130 V DC 30 V AC / 12 V DC
Replacement for: MIL 2008 QFRWu – 1-channel / power reserve		Weekly program	230 V AC / 130 V DC

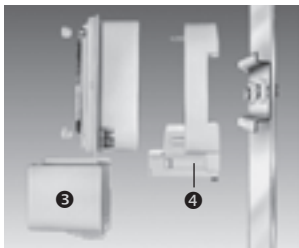
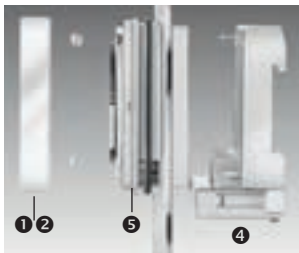
SU/1

(discontinued model)



SU/1 QRTuZH – quartz with power reserve / without base			
02.05.0001.1	4010940004347	Daily program	220-240 V / 50-60 Hz

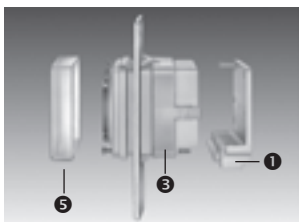
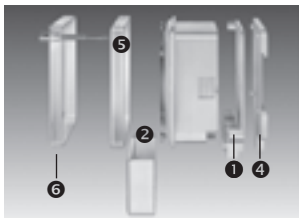
Universal time switches / time switch modules – Accessories



Accessories for:

- ▶ tactic 111.1
- ▶ tactic 171.1
- ▶ tactic 211.1
- ▶ tactic 271.1

	Scope of delivery	Replacement part /Item no. Accessories	EAN Code
1 Glass	●	● 01.46.0082.6	4010940037567
2 Sealing glass	–	● 46.13.0002.4	4010940003210
3 Terminal cover	●	● 01.78.0004.6	4010940002817
4 Base	●	● 01.78.0002.2	4010940003340
5 Sealing	–	● 01.45.0017.6	4010940002848
6 Installation base (For front panel mounting, when the sheet thickness is more than 1.5 mm)	–	● 01.79.0002.2	4010940002831



Accessories for:

- ▶ tactic 371.1 plus
- ▶ tactic 372.1 plus
- ▶ tactic 571.1 plus
- ▶ tactic 572.1 plus

	Scope of delivery	Replacement part /Item no. Accessories	EAN Code
1 Base (1-channel)	●	● 01.78.0002.2	4010940003340
Base (2-channel)	●	● 03.52.0003.2	4010940002718
2 Terminal cover (1-channel)	●	● 01.78.0004.6	4010940002817
Terminal cover (2-channel)	●	● 01.96.0043.6	4010940002749
3 Catch frame (2-channel)	●	● 03.52.0006.6	4010940002763
4 Mounting plate for rail (2-channel)	–	● 01.46.0334.2	4010940002770
5 Glass	●	● 01.46.0082.6	4010940037567
6 Sealing glass (1-channel)	–	● 01.78.0021.6	4010940003210

Time switch modules: The right solution for meeting customer-specific requirements

RELIABLE CONTROL, FLEXIBLE USE

Product lines FM,
FMD, EMD

The analogue and digital time switch modules from the product programs FM, FMD and EMD are only suitable for installation and offer versatility in the entire building and in the outdoor area. They are used in universal switching tasks such as in switching systems, machine control or specific solutions, such as swimming pools or sprinkler systems.

The digital time switch modules series FMD and EMD are available as 1-channel or 2-channel variants and are characterized by a simple menu or text programming.

The analogue time switch modules of the FM series have improved dust protection and are used for controlling devices, motors, pumps, household appliances and boilers.



The analogue time switch modules from Grässlin are mounting-compatible with the digital models of the Grässlin portfolio.

Time switch modules




▶ Digital time switch modules




Digital time switch modules – Selection guide	60
FMD 120	62
FMD 220	62
FMD 150	62
EMD 120	64
EMD 220	64
EMD 250	64

▶ Analogue time switch modules

Analogue time switch modules – Selection guide	66
FM/1 STuZH	68
FM/1 SWuZH	68
FM/1 QRTuZH	68
FM/1 QRWuZH	68

Digital time switch modules – Selection guide

	FMD 120	FMD 220	FMD 150
			
Channels	1	2	1
Memory spaces	20	20	50
Supply voltage	AC 230 V ± 10% 50-60 Hz	AC 230 V ± 10% 50-60 Hz	AC 230 V ± 10% 50-60 Hz
Maximum switching capacity	16 A / 250 V AC	5 A / 250 V AC	16 A / 250 V AC
Current output	Changeover, potential free	Switch contact, potential-free	Changeover, potential free
Program (switching programs)	Daily program (ON/OFF), weekly program (ON/OFF)	Daily program (ON/OFF), weekly program (ON/OFF)	Daily program (ON/OFF), weekly program (ON/OFF) Free weekday block formation
Text programming	–	–	●
Electrical connection	Flat connection DIN 6.3	Flat connection DIN 6.3	Flat connection DIN 6.3
Summer/winter time change	Manual	Manual	Automatic
Page	62	62	62

EMD 120	EMD 220	EMD 250
		
1	2	2
20	20	50
DC 3.4 - 6 V	DC 3.4 - 6 V	DC 3.4 - 6 V
0.1 mA / 3.4 V DC	0.1 mA / 3.4 V DC	0.1 mA / 3.4 V DC
CMOS	CMOS	CMOS
Daily program (ON/OFF), weekly program (ON/OFF)	Daily program (ON/OFF), weekly program (ON/OFF)	Daily program (ON/OFF), weekly program (ON/OFF) Free weekday block formation
–	–	●
4-pin flat plug	4-pin flat plug	4-pin flat plug
Manual	Manual	Automatic
64	64	64

Digital time switch module – FMD

FMD 120

FMD 220



APPLICATION AREAS

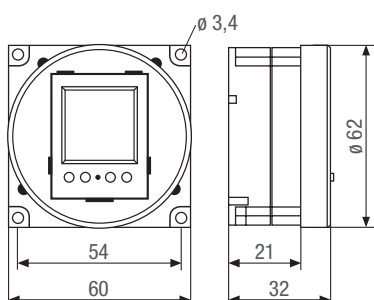
- ▶ Household devices control
- ▶ Gas boilers control
- ▶ Devices, motors and pumps control



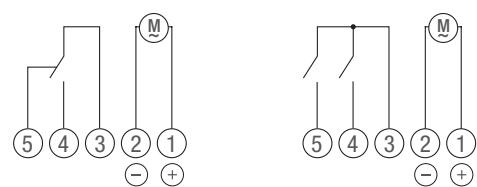
FMD 150



DIMENSIONAL DRAWINGS



CIRCUIT DIAGRAMS



FMD 120, FMD 150

FMD 220

TECHNICAL DATA

Electrical specifications

Supply voltage	AC 230 V ± 10% 50-60 Hz
Power consumption	4.4 VA
Current consumption	0.015 mA (without load)
Accuracy	± 1 second/day at 20° C
Power reserve	3 years

Electrical connection

Device	Flat connection DIN 6.3
--------	-------------------------

Operating data

Hand switch	Automatic mode, override
Programs	Daily program (ON/OFF), weekly program (ON/OFF)

Display and format

Format time display	12-hour format (AM/PM) and 24-hour format
Shortest switching time	ON/OFF 1 minute
Clock	Digital
Status display	Switching state display

Environmental conditions

Temperature (operation)	-10° C ... +55° C
-------------------------	-------------------

General data

Colour	Gray
Weight	90 g

Standard compliance

Approvals	CE
-----------	----

PRODUCT VARIANTS

	FMD 120	FMD 220	FMD 150
Item no.	03.58.0017.1	03.58.0019.1	03.60.0011.1
EAN Code	4010940037949	4010940037963	4010940037970

Electrical specifications

Current output	Changeover, potential free	Switch contact, potential-free	Changeover, potential free
Switching capacity - resistive load	16 A / 250 V AC	5 A / 250 V AC	16 A / 250 V AC
Switching capacity - inductive load cos. phi 0.6	4 A / 250 V AC	1 A / 250 V AC	8 A / 250 V AC
Load incandescent bulb	1,000 W	–	1,000 W
Switching capacity - DC	10 A / 24 V DC, 3 A / 60 V DC, 1 A / 100 V DC	2 A / 24 V DC, 0.3 A / 60 V DC, 0.1 A / 100 V DC	10 A / 24 V DC, 3 A / 60 V DC, 1 A / 100 V DC

Operating data

Channels	1	2	1
Programs	Set individual days or weekday block formation Menu programming with free and fixed programs	Set individual days or weekday block formation Menu programming with free and fixed programs	Free weekday block formation –
Memory spaces	20	20	50

Display and format

Summer/winter time change	Manual	Manual	Automatic, can be deactivated
---------------------------	--------	--------	-------------------------------

General data

Languages	–	–	CS, DE, EN, ES, FR, HU, IT, PT
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Digital time switch modules – EMD

EMD 120



APPLICATION AREAS

- ▶ Gas boilers control
- ▶ Devices, motors and pumps control



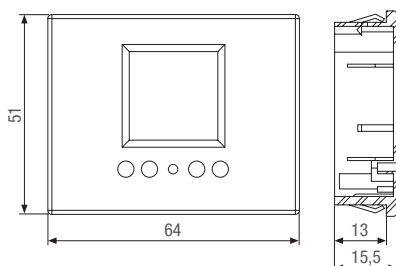
EMD 220



EMD 250

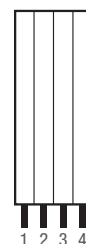


DIMENSIONAL DRAWINGS



CIRCUIT DIAGRAM

- 1 – +3,4V (red)
- 2 – 0V
- 3 – Channel 1, output
- 4 – Channel 2, output



TECHNICAL DATA**Electrical specifications**

Supply voltage	DC 3.4 - 6 V
Current output	CMOS
Switching capacity - DC	0.1 mA / 3.4 V DC
Power consumption	0.03 mA / 3.4 V DC (no load)
Accuracy	± 1 second/day at 20° C
Power reserve	3 years

Electrical connection

Device	4-pin flat plug
--------	-----------------

Operating data

Hand switch	Automatic mode Override
Programs	Daily program (ON/OFF) Weekly program (ON/OFF)

Display and format

Format time display	12-hour format (AM/PM) 24-hour format
Shortest switching time	ON/OFF 1 minute
Clock	Digital
Status display	Switching state display

General data

Colour	Gray
Weight	22 g

Standard compliance

Approvals	CE
-----------	----

PRODUCT VARIANTS

	EMD 120	EMD 220	EMD 250
Item no.	03.85.0003.1	03.85.0005.1	03.86.0003.1
EAN Code	4010940039424	4010940040123	4010940039448

Operating data

Channels	1	2	2
Programs	Set individual days or weekday block formation Menu programming with free and fixed programs	Set individual days or weekday block formation Menu programming with free and fixed programs	Free weekday block formation –
Memory spaces	20	20	50

Display and format

Summer/winter time change	Manual –	Manual –	Automatic Can be deactivated
---------------------------	-------------	-------------	---------------------------------

Analogue time switch modules – Selection guide

FM/1 STuZH



FM/1 SWuZH



Supply voltage	AC 220-240 V ± 10% 50 Hz	AC 220-240 V ± 10% 50 Hz
Shortest switching time	15 minutes	2 Hours
Accuracy	Network synchronous	Network synchronous
Power reserve	–	–
Program (switching programs)	Daily program (ON/OFF)	Weekly program (ON/OFF)
Drive type	Synchronous	Synchronous
Operating temperature	-40° C ... +85° C	-40° C ... +85° C
Accessories	Glass Installation base	Glass Installation base

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FM/1 QRTuZH

FM/1 QRWuZH



AC 230 V ± 10% 50-60 Hz	AC 230 V ± 10% 50-60 Hz
DC 130 V	DC 130 V
15 minutes	2 Hours
± 1.5 seconds/day at 20° C	± 1.5 seconds/day at 20° C
> 150 hours	> 150 hours
Daily program (ON/OFF)	Weekly program (ON/OFF)
Quartz	Quartz
-20° C ... +55° C	-20° C ... +55° C
Glass	Glass
Installation base	Installation base

68

68

Analogue time switch modules – FM

FM/1 STuZH

FM/1 SWuZH



APPLICATION AREAS

- ▶ Household devices control
- ▶ Gas boilers control
- ▶ Devices, motors or pumps control

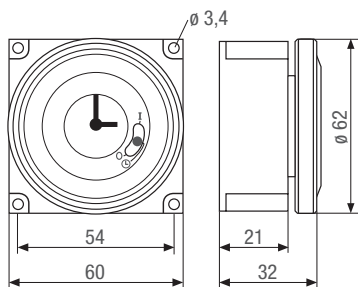


FM/1 QRTuZH

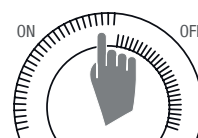
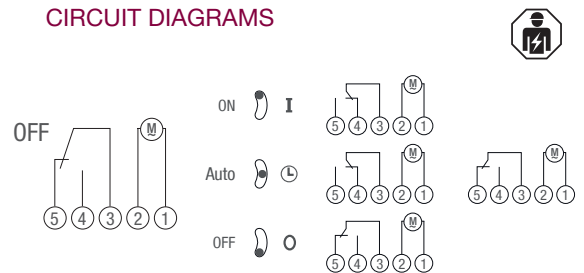
FM/1 QRWuZH



DIMENSIONAL DRAWINGS



CIRCUIT DIAGRAMS



FM/1S, FM/1Q

TECHNICAL DATA

Electrical specifications

Current output	Changeover, potential free
Switching capacity - resistive load	16 A / 250 V AC
	21 A / 250 V AC (UL)
Switching capacity - inductive load cos. phi 0.6	8 A / 250 V AC
Load incandescent bulb	1,350 W

Electrical connection

Device	Flat connection DIN 6.3
--------	-------------------------

Operating data

Hand switch	Automatic mode
	Fix ON/OFF
Channels	1

General data

Colour	Gray
Weight	75 g

Standard compliance

Protection class	II, after appropriate mounting
Approvals	CE, VDE, UL

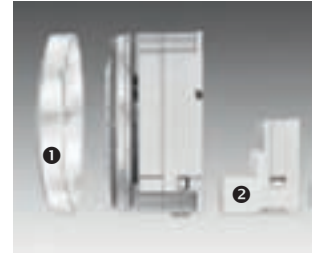
REPLACEMENT PARTS / ACCESSORIES

► Glass ①

Item no. 01.76.0054.6
EAN Code 4010940011215

► Installation base ②

Item no. 01.79.0002.2
EAN Code 4010940002831



PRODUCT VARIANTS

	FM/1 STuZH	FM/1 SWuZH	FM/1 QRTuZH	FM/1 QRWuZH
Item no.	01.76.0088.1	01.76.0089.1	02.76.0075.1	02.76.0076.1
EAN Code	4010940000264	4010940000271	4010940000592	4010940000608
Electrical specifications				
Supply voltage	AC 220-240 V ± 10% 50 Hz	AC 220-240 V ± 10% 50 Hz	DC 130 V / AC 230 V ± 10% 50-60 Hz	DC 130 V / AC 230 V ± 10% 50-60 Hz
Power consumption	1 VA	1 VA	2 VA	2 VA
Accuracy	Network synchronous	Network synchronous	± 1.5 seconds/day at 20° C	± 1.5 seconds/day at 20° C
Power reserve	–	–	> 150 hours	> 150 hours
Operating data				
Programs	Daily program (ON/OFF)	Weekly program (ON/OFF)	Daily program (ON/OFF)	Weekly program (ON/OFF)
Environmental conditions				
Temperature (operation)	-40° C ... +85° C	-40° C ... +85° C	-20° C ... +55° C	-20° C ... +55° C
Display and format				
Shortest switching time	ON/OFF 15 minutes	ON/OFF 2 hours	ON/OFF 15 minutes	ON/OFF 2 hours
General data				
Drive type	Synchronous	Synchronous	Quartz	Quartz

Household time switches: The perfect solution for reliable control of household appliances

RELIABLE CONTROL, SIMPLE OPERATION

Product lines topica
and rondomatic

The Grässlin portfolio of household time switches includes analogue and digital plug-in time switches that are simply plugged into the socket, as well as special solutions such as the rondomatic automatic fish feeders.

The plug-in time switches of the topica family have a user-friendly switching segments or a digital display, whereby household appliances, direct heating systems and lighting elements can be controlled simply and as required. The digital model topica 600 has a random number generator for presence simulation: This can turn the light on and off irregularly when the homeowners are absent, which deters potential burglars and provides additional safety.

The rondomatic automatic fish feeder can be mounted on all standard aquariums and be filled with different types of feed such as flakes, tablets or bloodworms and with different feed quantities. It supplies the fish for up to 28 days and also provides the option of food-free days or feeding several times a day. The operation with a safety extra-low voltage of 24 V is completely harmless.



Grässlin plug-in time switches are available with
different international plug systems.

Household time switches

▶ Plug time switches

Plug time switches – Selection guide	72
topica 200 S	74
topica 400 S	74
topica 450 S	74
topica 410 S	74
topica 600	74

▶ Automatic fish feeder

rondomatic 400	76
-----------------------	----

Plug-in time switches – Selection guide

topica 200 S

topica 400 S






Type	Analogue	Analogue
Clock	without hands	Analogue hands
Shortest switching time	15 minutes	15 minutes
Power reserve	–	–
Program (switching programs)	Daily program (ON/OFF)	Daily program (ON/OFF)
Memory spaces	–	–
Status display	–	–
Protection type	–	–

Page

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74

topica 450 S	topica 410 S	topica 600
		
Analogue	Analogue	Digital
Analogue hands	Analogue hands	Digital
2 Hours	15 minutes	1 minute
–	–	3 years
Weekly program (ON/OFF)	Daily program (ON/OFF)	Daily program (ON/OFF) Weekly program (ON/OFF) Random program
–	–	20
–	–	●
–	IP54	–
74	74	74

Plug-in time switches – topica

topica 200 S



topica 400 S
topica 450 S



APPLICATION AREAS

- ▶ Household devices control
- ▶ Direct heating systems control
- ▶ Light control
- ▶ Presence simulation



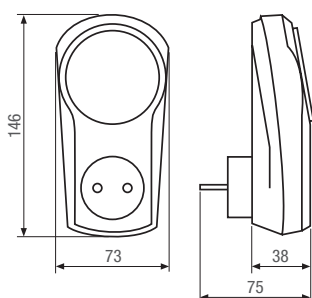
topica 410 S



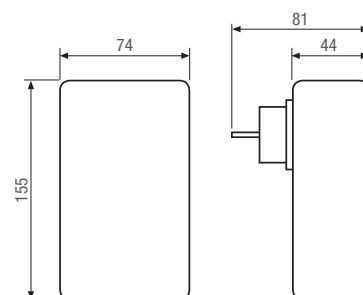
topica 600



DIMENSIONAL DRAWINGS



topica 200 S
topica 400 S
topica 450 S
topica 600



topica 410 S

TECHNICAL DATA

Electrical specifications

Switching capacity - resistive load	16 A / 250 V AC
Power consumption	5 VA

Operating data

Hand switch	Automatic mode Fix ON/OFF
-------------	------------------------------

Environmental conditions

Temperature (operation)	-10° C ... +55° C
-------------------------	-------------------

General data

Drive type	Synchronous (topica 200 S, 400 S, 450 S, 410 S)
------------	---

Standard compliance

Approvals	CE VDE
-----------	-----------

PRODUCT VARIANTS

	topica 200 S	topica 400 S	topica 450 S	topica 410 S	topica 600
Item no.	16.25.0008.1	16.26.0008.1	16.40.0001.1	16.27.0001.1	16.15.0001.1
EAN Code	4010940002428	4010940002435	4010940003906	4010940016241	4010940039387

Electrical specifications

Supply voltage	AC 220-240 V ± 10% 50 Hz	AC 220-240 V ± 10% 50 Hz	AC 220-240 V ± 10% 50 Hz	AC 220-240 V ± 10% 50 Hz	AC 230 V ± 10% 50-60 Hz
Switching capacity - inductive load cos. phi 0.6	8 A / 250 V AC	8 A / 250 V AC	8 A / 250 V AC	8 A / 250 V AC	4 A / 250 V AC
Power reserve	no	no	no	no	3 years

Operating data

Programs	Daily program (ON/OFF)	Daily program (ON/OFF)	Weekly program (ON/OFF)	Daily program (ON/OFF)	Daily program (ON/OFF) Weekly program (ON/OFF) Set individual days or week-day block formation Menu programming with free and fixed programs Random program (1 ... 45 min)
	–	–	–	–	
	–	–	–	–	
	–	–	–	–	
Memory spaces	–	–	–	–	20

Display and format

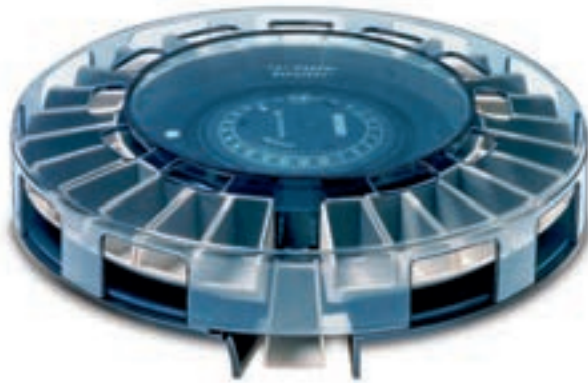
Shortest switching time	ON/OFF 15 minutes	ON/OFF 15 minutes	ON/OFF 2 hours	ON/OFF 15 minutes	ON/OFF 1 minute
Clock	Without hands	Analogue hands	Analogue hands	Analogue hands	Digital
Status display	–	–	–	–	Switching state display

Standard compliance

Protection type	–	–	–	IP54	–
-----------------	---	---	---	------	---

Automatic fish feeder – rondomatic 400 (automatic fish feeder)

Item no.. 16.58.0001.1 / EAN code: 4010940003364



PRODUCT DESCRIPTION

The rondomatic 400 automatic fish feeder takes care of ornamental fish even during your absence. Additionally, it offers aquarium owners the option of precisely matching the feeding times to the biorhythm of the fish. Thus, the automatic feeder enables a relaxed holiday with the good feeling that the fish remaining at home are well cared for.

Depending on requirements, a one-time filling can supply up to 28 days, so that even extended trips are possible. It does not matter what type of feed is used, the automatic feeder can handle anything: Whether flake food or larvae, tablets or drugs - anything can be fed exactly to schedule with the rondomatic 400. Multiple feedings per day are therefore possible. After returning, cleaning the feeders is not a problem because the feeding bowls are individually removable and dishwasher safe. There are several attachment options.

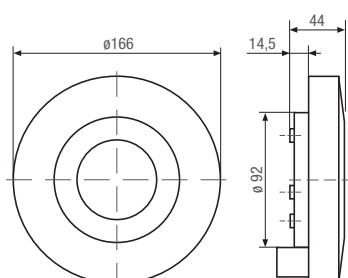
The additional use of a Grässlin timer is recommended for equally precise control of lighting.



APPLICATION AREAS

- Aquarium

DIMENSIONAL DRAWINGS



TECHNICAL DATA

Electrical specifications

Supply voltage	AC 230 V ± 10% 50-60 Hz
Equipment operating voltage	AC/DC 24 V 50 Hz
Power consumption	5 VA

Operating data

Minimum feeding interval	2 Hours
Longest possible feeding period	28 days (for daily feeding)
Feeding bowls	28
Feed volume	3.5 cc (per feeding bowl) about 100 cc (total)
Feeder program repetition	every 24 hours

Standard compliance

Approvals	CE
-----------	----

Scope of delivery

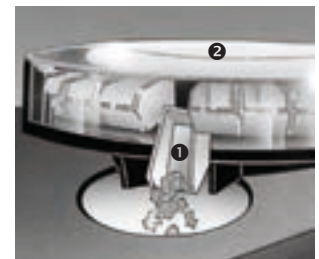
Housing	Mounting bracket Feeding bowl Glass Tappets
---------	--

SCOPE OF DELIVERY

- ▶ **Feeding bowl ①**
Item no. 85.21.0002.4
EAN Code 4010940017316
- ▶ **Glass ②**
Item no. 85.13.0001.3
EAN Code 4010940017323
- ▶ **Tappet**
Item no. 85.15.0006.4
EAN Code 4010940024079
- ▶ **Mounting bracket**
Item no. 16.58.0016.6
EAN Code 4010940024086

ACCESSORIES

- ▶ **Feeding bowl ①**
Item no. 85.21.0002.4
EAN Code 4010940017316
- ▶ **Glass ②**
Item no. 85.13.0001.3
EAN Code 4010940017323
- ▶ **Tappet**
Item number: 85.15.0006.4
EAN Code 4010940024079
- ▶ **Mounting bracket**
Item no. 16.58.0016.6
EAN Code 4010940024086
- ▶ **Assembly kit**
Item no. 16.58.0004.2
EAN Code 4010940024093



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 You can thus quickly and easily use the texts in your contract specifications:
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