

Product overview
Grässlin time switch
technology 2023



#### Reliable technology meets maximum user convenience

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

#### A strong partner to industry

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

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### UNIVERSAL TIME SWITCH GRASSLIN Tactic 111A

17810011

The universal timers from the tactic product range offer a wide range of uses throughout the building and also outdoors. They are used in switchgear, machine controls and specific solutions such as swimming pool controls or sprinkler systems. The analog 1-channel universal time switches of the tactic series are suitable for surface-mounting, installation and DIN rail mounting, are easy to use and are equipped with a quartz or synchronous drive.

SPECIFICATIONS	
Operating voltage	230V AC
Frequency	50Hz
Type of installation	Surface mounting
Type of contact	Changeover contact
Program	Daily program
Number of switching segments	96
Number of channels	1
Manual switch	Auto/Fix ON/Fix OFF
Power reserve	-
Drive	Synchronous motor
Switching output	Potential-free and phase-independent
Switching capacity at 250V AC, cos phi = 1	16A
Switching capacity at 250V AC, cos phi = 0.6	8A
Incandescent/halogen lamp load	1400 W
Shortest switching time	15 min
Programmable every	15 min
Time accuracy	Synchronised with mains
Standby output	0,9W
Housing and insulation material	High-temperature resistant, self-extinguishing thermoplastic
Protection rating	IP 20
Ambient temperature	−20°C ~ +55°C







#### **UNIVERSAL TIME SWITCH GRASSLIN Tactic 211A**

27810011

The universal timers from the tactic product range offer a wide range of uses throughout the building and also outdoors. They are used in switchgear, machine controls and specific solutions such as swimming pool controls or sprinkler systems. The analog 1-channel universal time switches of the tactic series are suitable for surfacemounting, installation and DIN rail mounting, are easy to use and are equipped with a quartz or synchronous drive.

SPECIFICATIONS	
Operating voltage	110~230V AC
Frequency	50~60Hz
Type of installation	Surface mounting
Type of contact	Changeover contact
Program	Daily program
Number of switching segments	96
Number of channels	1
Manual switch	Auto/Fix ON/Fix OFF
Power reserve	max. 5 days
Drive	Quartz-controlled stepper motor
Switching output	Potential-free and phase-independent
Switching capacity at 250V AC, cos phi = 1	16A
Switching capacity at 250V AC, cos phi = 0.6	8A
Incandescent/halogen lamp load	1400 W
Shortest switching time	15 min
Programmable every	15 min
Time accuracy	≤ ± 1.5s/day (Quartz) at 25°C
Standby output	0,6W
Housing and insulation material	High-temperature resistant, self-extinguishing thermoplastic
Protection rating	IP 20
Ambient temperature	−20°C ~ +55°C









#### **UNIVERSAL TIME SWITCH GRASSLIN Tactic 211A**

27810021

The universal timers from the tactic product range offer a wide range of uses throughout the building and also outdoors. They are used in switchgear, machine controls and specific solutions such as swimming pool controls or sprinkler systems. The analog 1-channel universal time switches of the tactic series are suitable for surfacemounting, installation and DIN rail mounting, are easy to use and are equipped with a quartz or synchronous drive.

SPECIFICATIONS	
Operating voltage	230V AC
Frequency	50~60Hz
Type of installation	Surface mounting
Type of contact	Changeover contact
Program	Daily program
Number of switching segments	96
Number of channels	1
Manual switch	Auto/Fix ON/Fix OFF
Power reserve	-
Drive	Quartz-controlled stepper motor
Switching output	Potential-free and phase-independent
Switching capacity at 250V AC, cos phi = 1	16A
Switching capacity at 250V AC, cos phi = 0.6	8A
Incandescent/halogen lamp load	1400 W
Shortest switching time	15 min
Programmable every	15 min
Time accuracy	≤ ± 1.5s/day (Quartz) at 25°C
Standby output	0,6W
Housing and insulation material	High-temperature resistant, self-extinguishing thermoplastic
Protection rating	IP 20
Ambient temperature	−20°C ~ +55°C







### DIN RAIL TIME SWITCH GRASSLIN Talento 111 Mini

10600041

The analogue DIN rail time switches from the house of Grässlin allow switching commands in daily 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.

SPECIFICATIONS	
Operating voltage	230V AC
Frequency	50Hz
Width	1 module
Type of installation	DIN-rail
Program	Daily program
Type of contact	NO contact
Number of channels	1 Channel
Power reserve	-
Switching capacity at 250V AC, cos phi = 1	16A
Switching capacity at 250V AC, cos phi = 0.6	4A
Incandescent/halogen lamp load	1000W
Compact fluorescent lamps	150W
LED lamp < 2 W (typ.)	30W
LED lamp > 2 W (typ.)	300W
Shortest switching time	15 min
Programmable every	15 min
Time accuracy at 25°C	Synchronised with mains
Standby output	0.9W
Protection rating	IP 20
Ambient temperature	−25°C ~ +50°C









### DIN RAIL TIME SWITCH GRASSLIN Talento 211 Mini

20300031

The analogue DIN rail time switches from the house of Grässlin allow switching commands in daily 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.

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







#### **DIN RAIL TIME SWITCH GRASSLIN Talento Smart B10 Mini**

430200051

Single mod DIN-rail timer without display. Programmable Via Bluetooth App. The programs can be created with or without a date, according to need.

Ability to combine and group multiple weekdays individually. Space available for date-independent and date-dependent programs up to 100 memory slots. Suited for retrofitting in closely packed DIN-rail timer cabinets

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

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### **DIN RAIL TIME SWITCH GRASSLIN Talento Smart B15**

430200011

Digital DIN-rail timer- 100 memory (ON/OFF) and ten date-independent programmes - min switching 1 minute. Summer/winter adjustment scan be automatic, date-specific or deactivated. 12/24 h setting. Integrated hours counter with maint. mode. Manual: Auto, Fix ON/OFF, O/ride.

NV memory for storing programmes Power reserve, eight years. The clock can be sealed to prevent unauthorised access. Programming is either on the clock or by app. (Android and iOS) and PC software.

SPECIFICATIONS	
Operating voltage	110~230V AC
Frequency	50~60Hz
Width	2 modules
Type of installation	DIN-rail
Type of contact	Changeover contact
Power reserve	8 years
Switching capacity at 250V AC, cos phi = 1	16A
Shortest switching time	1min/1sec pulse
Memory locations	100
Switching capacity at 250V AC, cos phi = 0.6	10A
Incandescent/halogen lamp load	2600W
Compact fluorescent lamps	1000W
LED lamp < 2W (typ.)	100W
LED lamp > 2W (typ.)	600W
Shortest switching time	1 min
Time accuracy at 20°C	Typically ± 0.3s/day (quartz)
Standby output	< 1W
Protection rating	IP 20
Ambient temperature	−20°C ~ +55°C







## DIN RAIL TIME SWITCH GRASSLIN Talento Easy B1

36100011

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

SPECIF	SPECIFICATIONS	
Operating voltage	230V AC	
Frequency	50/60Hz	
Width	2 modules	
Type of installation	DIN-rail	
Type of contact	NO contact	
Power reserve	6 years	
Number of channels	1 channel	
Switching capacity at 250V AC, cos phi = 1	16A	
Switching capacity at 250V AC, cos phi 0.6	10A	
Shortest switching time	1 min/1s (pulse)	
Time accuracy at 20°C	Typically ± 0.5 s/day (quartz)	
Standby output	6VA	
Protection rating	IP 20	
Ambient temperature	−10°C ~ +55°C	









#### **DIN RAIL TIME SWITCH GRASSLIN Talento Easy C1**

36100021

Digital time switch DIN, 1 CH, Astro/daily/weekly, 50 mem locations. Min switching time of 1 min or 1 sec (cycle, pulse). Geo database for 45 countries and 280 cities. Trigger modes for sunrise/sunset or dawn/dusk. Summer-winter time changeover is automatic, on a specific date or can also be deactivated.

12/24 h setting. Manual/auto mode, fixed ON/OFF, override. Battery reserve for up to 6 years. Can be sealed and also PIN-protected against unwanted access.

SPECIFICATIONS	
Operating voltage	230V AC
Frequency	50/60Hz
Width	2 modules
Type of installation	DIN-rail
Type of contact	NO contact
Power reserve	6 years
Program setting	Daily/weekly/astro
Number of channels	1 channel
Memory locations	50
Switching capacity at 250V AC, cos phi = 1	16A
Switching capacity at 250V AC, cos phi 0.6	10A
Shortest switching time	1 min/1s (pulse)
Time accuracy at 20°C	Typically ± 0.5 s/day (quartz)
Standby output	6VA
Protection rating	IP 20
Protection class	II
Ambient temperature	−10°C ~ +55°C











### UNIVERSAL TIME SWITCH GRASSLIN Tactic Smart A

438700021

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

SPECIFICATIONS	
Operating voltage	110V~230V AC
Frequency	50~60Hz
Switching capacity at 250 VAC, cos phi = 1	16A
Switching capacity at 250 VAC, cos phi = 0.6	10A
Incandescent/halogen lamp load	2600W
LED load	400W
Ambient temperature	−20°C ~ +55°C
Time accuracy	< ± 0.3s/day at 20°C
Power reserve	8 years
Standby output	< 1W
Relay outputs	1
PROG. Functions	Weekly function, yearly function, Astro function, pulse/cycle function
Protection	IP 20
Type of installation	Wall-mounted
Shortest switching time	1min/1sec pulse









#### **TIME SWITCH MODULES GRASSLIN FM/1 STuZH**

17610011

The analogue timer modules 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 analogue time switch modules of the FM series have improved dust protection and are used for controlling devices, motors, pumps, household appliances and boilers. Replacement module for Tactic 111A.

SPECIFICATIONS	
Operating voltage	230V AC
Frequency	50Hz
Type of installation	Module, for installation in end devices
Type of contact	Changeover contact
Program	Daily program
Number of switching segments	96
Number of channels	1 channel
Manual switch	Auto/Fix ON/Fix OFF
Power reserve	-
Drive	Synchronous motor
Switching output	Potential-free and phase-independent
Switching capacity at 250V AC, cos phi = 1	16A
Switching capacity at 250 V AC, cos phi = 0.6	8A
Incandescent/halogen lamp load	1400W
Shortest switching time	15 min
Programmable every	15 min
Time accuracy	Synchronised with mains
Standby output	0,9W
Housing and insulation material	High-temperature resistant, self-extinguishing thermoplastic
Protection rating	IP 20
Ambient temperature	−20°C ~ +55°C









#### **TIME SWITCH MODULES GRASSLIN FM/1 QRTuZH**

27610011

The analogue timer modules 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 analogue time switch modules of the FM series have improved dust protection and are used for controlling devices, motors, pumps, household appliances and boilers. Replacement module for Tactic 211A

SPECIFICATIONS		
Operating voltage	110~230V AC	
Frequency	50~60Hz	
Type of installation	Module, for installation in end devices	
Type of contact	Changeover contact	
Program	Daily program	
Number of switching segments	96	
Number of channels	1	
Manual switch	Auto/Fix ON/Fix OFF	
Power reserve	max. 5 days	
Drive	Quartz-controlled stepper motor	
Switching output	Potential-free and phase-independent	
Switching capacity at 250V AC, cos phi = 1	16A	
Switching capacity at 250 V AC, cos phi = 0.6	8A	
Incandescent/halogen lamp load	1400W	
Shortest switching time	15 min	
Programmable every	15 min	
Time accuracy	≤ ± 1.5s/day (Quartz) at 25°C	
Standby output	0,6W	
Housing and insulation material	High-temperature resistant, self-extinguishing thermoplastic	
Protection rating	IP 20	
Ambient temperature	−20°C ~ +55°C	











#### **TIME SWITCH MODULES GRASSLIN FMD Smart**

436000011

The time switch module FMD smart C15 is suitable for installation and provides versatile application options throughout buildings and outdoors. It is used for universal switching tasks such as in switchgears, machine controls, or specific solutions as swimming pool controls and sprinkler systems. The FMD smart is designed for installation in customer-specific switching applications. The device can be operated and programmed via Bluetooth with the talento smart App. Replacement module for Tactic Smart A

SPECIFICATIONS		
Operating voltage	110V~230V AC	
Frequency	50~60Hz	
Switching capacity at 250V AC, cos phi = 1	16A	
Switching capacity at 250VAC, cos phi = 0.6	10A	
Incandescent/halogen lamp load	2600W	
LED load	400W	
Ambient temperature	-20°C ~ +55°C	
Time accuracy	< ± 0.3s/day at 20°C	
Shortest switching time	1min/1sec pulse	
Number of channels	1 channel	
Power reserve	8 years	
Standby output	< 1W	
Relay outputs	1	
PROG. Functions	Weekly function, yearly function, Astro function, pulse/cycle function	
Protection	IP 20	









#### **TWIGHLIT SWITCHES GRASSLIN Turnus 200**

181700011

The turnus 200 twilight switch offers maximum functionality and allows the individual control of the desired situation in residential, office, commercial and industrial buildings and on the entire outside area and also provides noticeably more energy efficiency. It precisely controls according to light intensity through its integrated light sensor. The turnus is ideally suited for use in shop windows, for illuminated billboards or street lighting. The turnus is characterised by simple and flexible installation through surface mounting and simple design.

SPECIFICATIONS	
Operating voltage	230V AC
Frequency	50~60Hz
Standby output	6W
Brightness setting range	2–2000lx
On/off switching delay	20~120s
Switching capacity	10A (at 250V AC, cos phi = 1), 2A (at 250V AC, cos phi = 0.6)
Incandescent/halogen lamp load	1200W
Ambient temperature	−35°C ~ +60°C
Protection rating	IP 54







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