

Description

The hager range is composed of two Astronomical time switches EE180/EE181

Technical data

- Supply voltage 230V AC \pm 15%
- Power consumption : max. 6 VA
- Max. load 16A AC1
- Galvanic insulation between power supply and output
- Output (EE180): 1 changeover voltage free contact
(EE181): 2 changeover voltage free contact

Features & benefits

- Programming of the lighting interruption
- Automatic change of winter / summer time
- Astro program and expert program with individual Astro program steps
- Programming for day or group of days
- Anticipation ON
- Maintained ON
- Temporary overrides

- Programming via the PC software and the associated interface (EG003)
- Weekly program



EE180



EG005

Description	Characteristics	Modules	Catalogue No.
Astro time switch 1 channel delivered with USB key EG005	capacity: 56 program steps 1 changeover contact 230V 50Hz	2	EE180
Astro time switch 2 channel delivered with USB key EG005	capacity: 56 program steps 2 changeover contact 230V 50Hz	2	EE181
PC programming Kit	for EE180, EE181, EG103E, EG293B		EG003U
Spare USB key	for EE180, EE181, EG103E		EG005
Spare USB key	for EG293B		EG007

Description

- Time switches improve comforts by switching loads automatically as per real time
- Helps in saving energy

Technical data

- Conforms to IEC 60730
- Operating voltage : 230V ~ 50 Hz
- Connection : 6 for EG103E (screws)
1 to 2.5mm² for EG293B (quick connect)

Features & benefits

- Large backlit display
- Protective cover for LCD display
- Easy programming on the product
- 20, 56, 300 (yearly) programming steps
- Programmable via PC & software (EG003U)
- 5 years battery reserve
- Yearly programming cycle



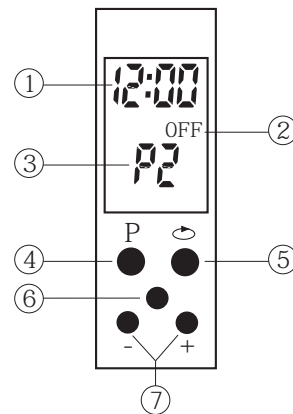
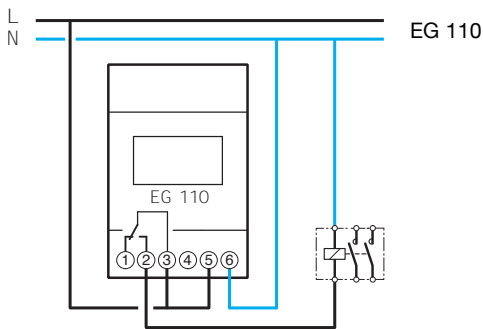
EG103E

Description	Characteristics	Modules	Catalogue No.
1 channel daily program	capacity : 20 program steps 1 changeover contact 16A - 230V AC1	3	EG110
1 channel weekly program	capacity : 20 program steps 1 changeover contact 16A - 230V AC1	3	EG170
1 channel weekly program delivered with USB key EG005	capacity : 56 program steps 1 changeover contact 16A - 230V AC1 with "holiday" function impulse function programming via software or using local keypad	2	EG103E
2 channel yearly program	capacity : 300 program steps 2 changeover contacts 10A - 250V AC1 with "holiday" function 10 sub programs programming through software or using local keypad	4	EG293B

Technical specifications

	EG 110	EG 170	EE 180	EE 181	EG 103E	EG 293B
Width in 17.5mm	3	3	2	2	2	4
Version	daily	weekly	astro	astro	weekly	yearly
Electrical characteristics						
voltage supply	230V +15/-15% 50/60Hz					
consumption	1VA	1VA	3VA	3VA	6VA	2 VA
output	changeover contact					
Switching capacity						
AC1	16A/250V		16A			
incandescent lamps	1000W		2300W			1500W
Characteristics						
accuracy	+/- 1 sec per day		+/- 1.5 sec per hr			0.2 sec/day
supply failure reserve	Lithium battery 3 years		Lithium battery 5 years			
manual override	permanent ON/OFF					
	temporary ON/OFF					
Environment						
ingress protection	IP20					
working temperature	-10 to +50°C		-10 to +55°C		-5 to +45°C	-10 to 45°C
storage temperature	-10 to +50°C		-20 to +60°C		-20 to +70°C	-20 to 70°C
connection	0.5 to 4mm ²					

Electrical connections

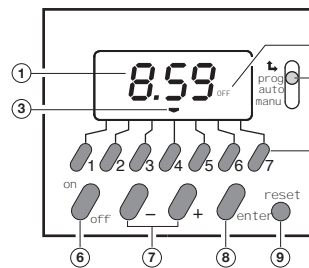
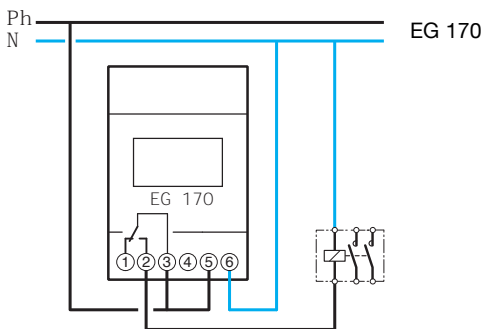


Display :

1. Time
2. Output contact (ON or OFF)
3. Program selected

Buttons :

4. To select the program to apply
5. To scroll program steps
6. Reset
7. + and - : change time settings

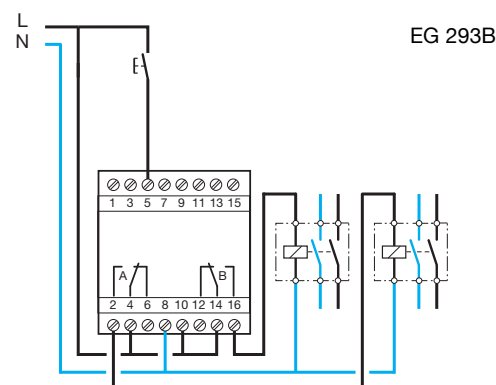


Display :

1. Time
2. Circuit status (ON or OFF)
3. Day of the week (1=Monday, 2= Tuesday,...)

Buttons :

4. Mode selector : to select one of the following modes :
 - time setting
 - programming
 - running mode
 - manual override
5. "1" to "7" : selection of the days
6. "ON/OFF" : chooses whether the circuits is ON or OFF.
7. "+" and "-" : changes settings
8. "enter" : to confirm selection
9. "reset"



Selection of days of the week
1 = Monday, 2 = Tuesday
... 7 = Sunday

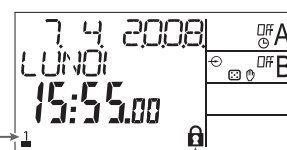
Keyboard locked by PIN code

Enter in PROGRAMME mode & return to previous step

Navigation & value setting

Validation

- ← Channel A command
- ← Channel B command



menu

-

+

ok

Description

- Time switches improve comfort by switching loads automatically as per real time
- Helps in saving energy

Applications

- Residential, commercial & industrial premises
- To control lighting, heating
- Household appliances
- Shop windows

Technical data

- Conforms to IEC 60730
- Programming by captive segments

• Manual override function :

- For EH011 :
 - automatic
 - permanent ON
- For EH111 :
 - automatic
 - permanent ON
 - permanent OFF
- For EH711
 - automatic
 - permanent ON
 - permanent OFF
- For EH771
 - automatic
 - permanent ON
 - permanent OFF

- Minimum switching time :
 - 15 min for daily version din rail mounted
 - 20 min for daily version wall mounted
 - 2 Hour for weekly version wall mounted

- Operating voltage :
 - 230V ~ 50 Hz

- Connection :
 - 1 to 4mm² for 1M
 - 1 to 6mm² for 3M

Features & benefits

- Battery reserve of 200 hrs.
- Easy time setting
- Sealing of cover to avoid unwanted modifications
- Possibility of manual override

Description	Characteristics	Modules	Catalogue No.
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EH111

1 channel, daily dial with battery reserve of 200 hours after being connected for 120 hours	1 NO 16A - 230V AC1 1 module device	1	EH011
	1 changeover contact 16A - 230V AC1 3 module device	3	EH111

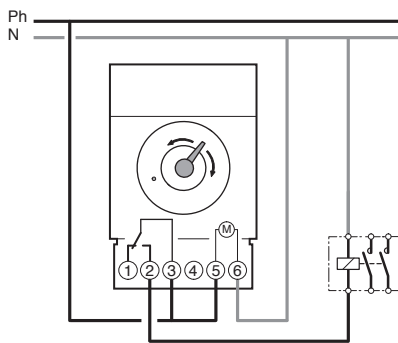


EH711

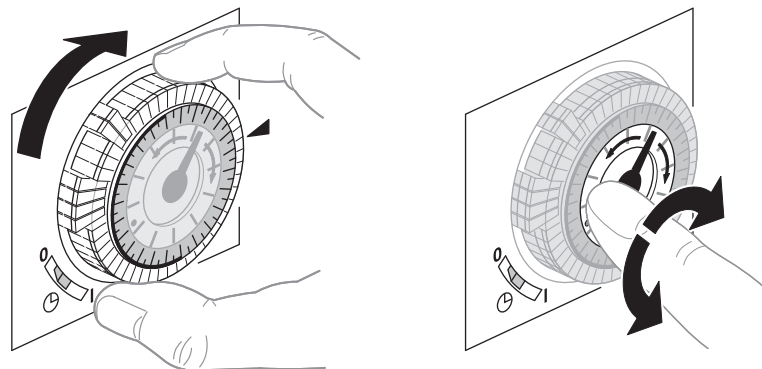
1 channel, daily dial din rail / wall mounted with battery reserve upto 200 hours after being connected for 120 hours	1 changeover contact 16A-230V AC / wall mounted	-	EH711
	1 channel, weekly dail din rail /wall mounted with battery reserve upto 200 hours after being connected for 120 hours	1 changeover contact 16A-230V AC / wall mounted	-

Technical specifications

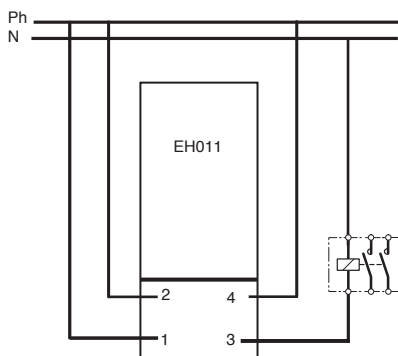
	EH 011	EH 111	EH 711	EH 771
Width in 17.5mm	1	3	Wall Mount	Wall Mount
Version	daily	daily	daily	weekly
Electrical characteristics				
voltage supply	230V +10/-10%		230V + 10% - 15%	230V + 10% - 15%
frequency	50/60Hz		50/60Hz	50/60Hz
consumption	0.5VA		0.5VA	0.5VA
output	1NO	1 changeover	1 changeover	1 changeover
Switching capacity				
AC1	16A/250V		16A/250V	16A/250V
inductive load (cos phi = 0.6)	4A/250V		3A/250V	3A/250V
incandescent lamps	900W		1000W	1000W
Characteristics				
technology	Quartz		Quartz	Quartz
dial	24 hours		24 hours	7 days
min. switching	15 min		20 min	2 Hour
max. number of switching	96			
accuracy	+/- 1 sec per day		+/- 1 sec per day	+/- 1 sec per day
supply failure reserve	200 hours	200 hours	200 hours	200 hours
reached in	120 hours	120 hours	120 hours	120 hours
manual override	auto/ON	auto/ON/OFF	auto/ON/OFF	auto/ON/OFF
Environment				
ingress protection	IP20		IP20	IP20
working temperature	-10°C to +55°C		-10°C to +50°C	-10°C to +50°C
storage temperature	-20°C to +60°C		-20°C to +60°C	-20°C to +60°C
connection	1 to 4 mm ²		1 to 6 mm ²	1 to 6 mm ²



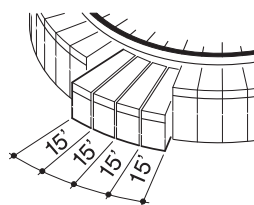
EH 111 Electrical connections



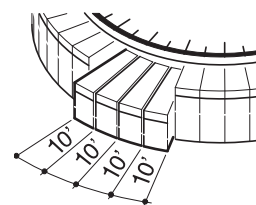
Simple time setting and programming using dual direction dial



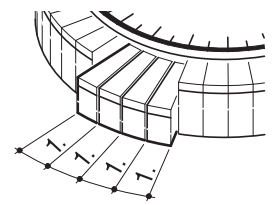
EH 011 electrical connections



EH 111 Programming by captive segments



EH 711



EH 771