Time switches and twilight switches selection chart

Analogue time switches (din rail mounted) :

width in 1 ▮ :
EH 010, EH 011

width in 3 ▮ :
EH 110, EH 111, EH 171

width in 5 ▮ :
EH 191

Analogue time switches (72 x 72mm) :

EH 710, EH 711, EH 770
EH 771, EH 712, EH 715
EH 716

Technical characteristics	Analogue time switches (din rail mounted)						Analogue time switches (72 x 72mm)						
	EH 010	EH 011	EH 110	EH 111	EH 171	EH 191	EH 710	EH 711	EH 770	EH 771	EH 712	EH 715	EH 716
Width in ▮ 17.5mm	1	1	3	3	3	5	-	-	-	-	-	-	-
Voltage supply	230V	230V	230V	230V	230V	230V	230V	230V	230V	230V	230V	48V DC 110-240VAC	
Operating cycle	24 hrs.	24 hrs.	24 hrs.	24 hrs.	7 days	24 hrs./ 7 days	24 hrs.	24 hrs.	7 days	7 days	24 hrs.	24 hrs.	24 hrs.
Minimum switching	15 min	15 min	15 min	15 min	2 hrs.	15 min/ 2 hrs.	20 min	20 min	2 hrs.	2 hrs.	20 min	20 min	20 min
Supply failure reserve	-	200 hrs.	-	200 hrs.	200 hrs.	200 hrs.	-	200 hrs.	-	200 hrs.	-	-	200 hrs.
Manual override	auto/ on	auto/ on	auto/ on/off	auto/ on/off	auto/ on/off	auto/ on/off	on/off	on/off	on/off	on/off	on/off	on/off	on/off

Digital time switches (din rail mounted) :

width in 1 ▮ :
EG 010, EG 071

width in 3 ▮ :
EG 110, EG 170, EG 171, EG 210, EG 270

width in 5 ▮ :
EG 470

Twilight switches (din rail mounted) :

EE 170

Technical characteristics	Digital time switches (din rail mounted)										Twilight switches				
	EG010	EG071	EG110	EG170	EG103B/E	EG171	EG210	EG270	EG203B/E	EG470	EE100	EE101	EE110	EE170	EE171
Width in ▮17.5mm	1	1	3	3	2	3	3	3	2	5	3	3	5	3	3
Operating cycles	24hrs	7days	24hrs	7days	7 days	7days	24hrs	7days	7days	7days	-	-	24hrs	7days	7days
Program steps	5	20	20	20	56	20	20	20	56	84	-	-	15min	1min	1min
Voltage supply	230V	230V	230V	230V	230V	230V & DC	110/ 230V	110/ 230V	230V	230V	230V	230V	230V	230V	230V
N° of channels	1	1	1	1	1	1 (pulsed output)	2	2	2	4	-	-	1	1	1

Analogue time switches modular

Description
Electromechanical time switches 1 channel for daily or weekly programming.
To control lighting, heating, household appliances, shop windows etc...
To improve comfort and save energy.

Applications
Domestic and commercial premises.

DIN rail mounting

Complies with EN60730

Technical data
- programming by captive segments.
- manual override :
  On 1 module devices :
  - automatic
  - permanent ON
  On 3 and 5 module devices :
  - automatic
  - permanent ON
  - permanent OFF

Minimum switching time:
- 15 min for daily versions
- 2 hours for weekly versions
- 15 min and 2 hours on the daily+weekly version

Connection capacity :
1 to 4□

□ *For technical details see page 396*


EH010


EH111

Designation	*Characteristics*	*Width in 17.5mm*	*Pack qty.*	***Cat. ref.***
1 channel daily dial without battery reserve	voltage supply : 230V 50/60Hz output : 1M devices = 1NO 16A - 250V AC1	1	1	**EH010**
	3M devices = 1NO changeover 16A - 250V AC1	3	1	**EH110**
1 channel daily dial with battery reserve reserve : 200 hours after being connected for 120 hours	voltage supply : 230V 50/60Hz output : 1M devices = 1NO 16A - 250V AC1	1	1	**EH011**
	3M devices = 1NO changeover 16A - 250V AC1	3	1	**EH111**
1 channel weekly dial with battery reserve reserve : 200 hours after being connected for 120 hours	voltage supply : 230V 50/60Hz output : 1 changeover = 1NO 16A - 250V AC1	3	1	**EH171**
1 channel daily + weekly dial with battery reserve reserve : 200 hours after being connected for 120 hours	voltage supply : 230V 50/60Hz output : 1 changeover = 1NO 16A - 250V AC1	6	1	**EH191**
Sealable terminal cover kit for 3 modules time switches				**EH901**
Flush mounting kit for 3 modules time switches				**EH902**

Analogue time switches 72 x 72 mm

Description
For daily or weekly programming.
1 channel for the control of lighting, heating, household appliances, shop windows etc..
To improve comfort and save energy.

Applications
Domestic and commercial premises.

Complies with EN60730

Technical data
- suitable for surface, flush or din rail mounting
- programming by captive segments
- manual override with automatic return to programme
- operating reserve : 200 hours after being connected for 120 hours
- output : voltage free changeover contact 16A/250V

Daily version :
Programming in steps of 10 minutes.
Minimum time between 2 switching intervals : 20 min

Weekly version :
Programming in steps of one hour.
- minimum time between 2 switching intervals : 2 hours
- switching accuracy : 10 min

☐ *For technical details see page 396*

EH770

Designation	*Characteristics*	*Pack qty.*	***Cat. ref.***
1 channel daily cycle	supply : 230V 50/60Hz		
without battery reserve		1	**EH710**
with battery reserve		1	**EH711**
economy version		1	**EH712**
reserve : 200 hours after being connected for 120 hours			
1 channel weekly cycle	supply : 230V 50/60Hz		
without battery reserve		1	**EH770**
with battery reserve		1	**EH771**
reserve : 200 hours after being connected for 120 hours			
1 channel daily cycle	supply : 48V 110 to 240V 50/60Hz		
without battery reserve		1	**EH715**
with battery reserve		1	**EH716**
reserve : 200 hours after being connected for 120 hours			
Flush mounting kit			**EH900**

Digital time switches

Description
Use : domestic and commercial buildings
For the control of lighting, heating, household appliances, shop windows, signage etc..., to improve comfort and to save energy.
EG103B and EG203B
(basic version)
Product set at current time and date when delivered.
Automatic change of summer / winter time.
Programming key :
- to allow easy back up and re-installation of the program to allow permanent program overrides.
- programming per day or group of days
- 56 ON/OFF programme steps
- permanent ON/OFF overrides
- temporary ON/OFF overrides
- bar graph indication showing the daily profile
- programming without the need to be energised.

EG103E and EG203E
(evolution version)
Same characteristics as EG103B and EG203B plus more :
- holidays mode : forcing ON or OFF between two dates
- presence simulation - random switching
- backlighted screen
- impulse programming capability (1s to 30min)

Operating voltage :
230V~ 50/60Hz
☐ *For technical details see page 398*


EG 071


EG 210


EG 203E


EG 400 / EG 002

Designation	*Characteristics*	*Width in 17.5mm*	*Pack qty.*	***Cat. ref.***
1 channel daily cycle	5 adjustable pre-recorded programs : 6 commutations per day (3 ON and 3 OFF) 230V 50/60Hz	1	1	**EG010**
	capacity : 20 program steps 230V 50/60Hz	3	1	**EG110**
2 channels daily cycle	capacity : 20 program steps to be divided between the 2 channels 110/230V 50/60Hz	3	1	**EG210**
1 channel weekly cycle	capacity : 20 program steps 230V 50/60Hz	1	1	**EG071**
	capacity : 20 program steps 230V 50/60Hz	3	1	**EG170**
	capacity : 56 program steps output : 1 changeover contact µ 16A - 250V~ AC1	2	1	**EG103B**
	version delivered with key EG 005	2	1	**EG103E**
1 channel weekly cycle pulsed output	capacity : 20 program steps 230V 50/60Hz pulsed output adjustable from 1 sec. to 99 mins.	3	1	**EG171**
2 channels weekly cycle	capacity : 20 program steps be divided between the 2 channels 110/230v 50/60Hz	3	1	**EG270**
	capacity : 56 program steps output : 2 changeover contacts µ 16A - 250V~ AC1 version delivered	2	1	**EG203B**
	with key EG 005	2	1	**EG203E**
4 channels weekly cycle	capacity : 84 program steps to be divided between the 4 channels. 230V 50/60Hz	5	1	**EG470**
4 channels digital time switch weekly / annual cycle programm setting : 1 minute increments	capacity : 102 program steps 230V~ 50/60Hz output : 3 changeover contacts 10A - 250V~ AC1 1NO contact : 10A - 250V ~ AC1 lithium battery total of 10 years	5	1	**EG400**
Programming key	for EG 400		1	**EG002**
Programming key	for EG103 / EG 203		1	**EG005**
Interface and software	for computer PC via connection RS232 with software on CD		1	**EG003**
	with USB		1	**EG003U**

Astronomical time switches

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

That range offers the following features :
- 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 (same concept than our existing clocks with key)
- Anticipation ON
- Maintained ON
- Temporary overrides
- Programming of holidays period
- Programming via the PC software and the associated interface (EG003)
- Weekly program

☐ *For technical details see page 403*

EE180

Designation	*Characteristics*	*Width in 17.5mm*	*Pack qty.*	***Cat. ref.***
Astronomical time switch 1 channel (weekly cycle) delivered with key EG005	230V~ , 50Hz changeover contact 16A AC1 operating reserve lithium battery 5 years	2	1	**EE180**
Astronomical time switch 2 channels (weekly cycle) delivered with key EG005	230V~ , 50Hz 2 changeover contacts 16A AC1 operating reserve lithium battery 5 years	2	1	**EE181**

Twilight switches

Description
A photo-electric cell measures the light level and in conjuction with the relay provides ON / OFF control of a circuit.

This device controls lighting circuits in relation to ambient light, based on user settings.

Front cover sealability

Applications
Street lighting, display lighting, illuminated signes etc....

Connection
protected cable clamps
capacity :
rigid : 1.5 to 10mm²
flexible : 1 to 6mm²
on board LED shows status of changeover contact.

Technical data
4 position override switch allowing :
- auto : normal operating mode
- on : permanently switched on
- off : permanently switched off
- test : setting mode for easy adjustement

output : 1 changeover AC1
contact 16A AC1 230V
8A AC1 (EE701)

Maximum distance : 50m between photocell and controller

Must be used in conjunction with a suitable rated contactor
☐ *For technical details see page 403*

EE110

EE170

EE702

EE002

EE003

	Designation	*Characteristics*	*Width in 17.5mm*	*Pack qty.*	***Cat. ref.***
	Twilight switch delivered with a separate surface photo electric cell (EE003)		3	1	**EE100**
	Twilight switch delivered with a separate flush photo eletric cell (EE002)		3	1	**EE101**
	Programmable twilight switch with surface cell	daily cycle electromech. switch	5	1	**EE110**
	Programmable twilight switch with surface cell	weekly cycle electronical program 8 presetted programs	3	1	**EE170**
	Programmable twilight switch with surface cell	weekly cycle electronical program free setting	3	1	**EE171**
new	**Compact light switch basic 8A (without settings)** Fix lux : 10...30lux Fix ON delay : 40s/OFF delay:120s	230V~ 50 Hz normally open contact (cutting phase) 8A AC1 IP55 / Integrated cell 1000W incandescent	-	1	**EE701**
new	**Compact light switch enhanced 16A (with settings)** Fix lux : 2 to 1000 lux Time settings : from 1s to 120s	230V~ 50 Hz normally open contact (cutting phase) 16A AC1 IP55 / Integrated cell 2300W incandescent	-	1	**EE702**
	Flush cell	IP54 for EE100, 101, 110 & 170		1	**EE002**
	Surface cell	IP54 for EE100, 101, 110 & 170		1	**EE003**