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EN

SHT-6G

Time switch with GPS control

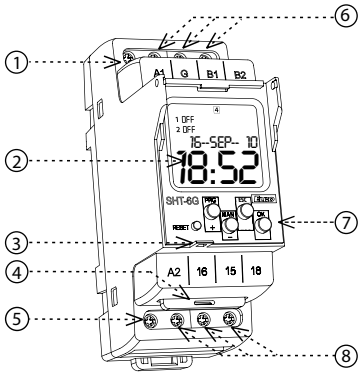
Characteristics

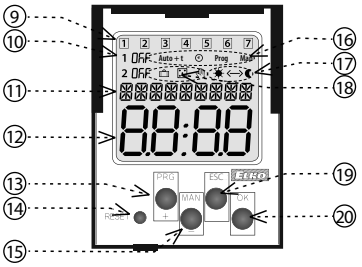
Time switch with GPS control is used for the automatic real-time controlling of appliances. The timer operates all year round without the need for continuous maintenance, with minimum operating costs and maximum savings of electrical energy (for example for turning on heating, pumps, ventilators, public lighting etc.). Appliances can be controlled in regular time cycles or based on a pre-set programme.
Time switch SHT-6 is synchronized by a GPS signal using external receiver GPSR-1. Time switch can operate independently without a GPS receiver. In the case of a power supply interruption, the timer retains all set values required for its reliable activation after power is restored.

- Switching modes:
  - *AUTO* - automatic switching mode:
    - *PROGRAMME* - switching based on a programme (astro or time).
    - *RANDOM* - switches randomly in a 10-120 minute interval.
  - *HOLIDAY* - holiday mode - option of setting up a period for which the timer will be blocked, i.e. will not switch based on the set programmes.
  - *MANUAL* - manual mode - option of controlling the individual output relay manually
- Options of the automatic switching programme:
  - *TIME PROGRAMME* - switching based on a pre-set time programme
- Memory capacity for 100 time programmes.
- Programming can be performed both when power is on or in backup mode.
- Output relays only operate with a supply voltage of AC 230 V.
- Menu display selection - CZ / SK / EN / ES / PL / HU / RU (default factory setting EN).
- Selection of automatic switching between summer / winter time based on location.
- Backlit LCD display.
- Simple and easy setup using 4 control buttons.
- Sealable transparent cover on the front panel.
- The timer has a backup battery that preserves data in case of a power supply failure (reserve backup time up to 3 years).
- Supply voltage: AC 230 V.
- 2-module, mounted onto a DIN rail, clamping terminals.

- After plugging the timer in for the first time, the current time, date and geographic location must be set for correct operation of the clock.
  Settings can be done:
  - manually: only if the GPS signal is disabled
  - automatically: if the receiver GPSR-1 is connected and GPS signal is enabled.

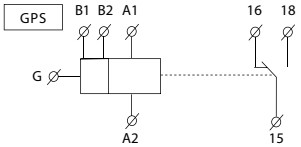
Description



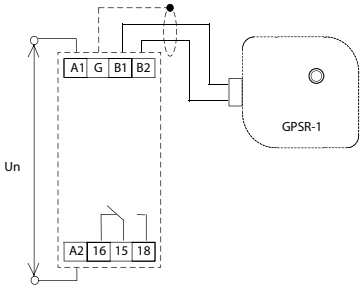


1. Supply voltage terminal (A1)
2. Display with back-light
3. Place for seal
4. Plug-In with battery backup
5. Supply voltage terminal (A2)
6. Connectors for the GPSR-1 receiver
7. Control buttons
8. Output - channel (16-15-18)
9. Indicates the day in the week
10. Indication
11. Indication of date / setting menu *
12. Time display **
13. Control button PRG / +
14. Reset
15. Control button MAN / -
16. Operating modes indication
17. 12/24 hours format /
18. Indication of the switch program
19. Control button MAN2 / ESC
20. Control button OK

Symbol



Connection



Mode precendence

Mode precedence	Display	Output mode
mode with the highest priority ➤➤➤	ON / OFF	manual control
➤➤	ON / OFF	holiday mode
➤	ON / OFF	time program Prog

Type of load	cos φ ≥ 0.95	M	M			HAL.230V			
	AC1	AC2	AC3	AC5a uncompensated	AC5a compensated	AC5b	AC6a	AC7b	AC12
Mat. contacts $AgSnO_2$, contact 16A	250V / 16A	250V / 5A	250V / 3A	230V / 3A (690VA)	230V / 3A (690VA) to max. input C=14uF	1000W	x	250V / 3A	x
Type of load				M	M				
	AC13	AC14	AC15	DC1	DC3	DC5	DC12	DC13	DC14
Mat. contacts $AgSnO_2$, contact 16A	x	250V / 6A	250V / 6A	24V / 10A	24V / 3A	24V / 2A	24V / 6A	24V / 2A	x

Technical parameters

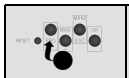
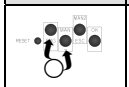
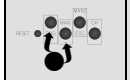
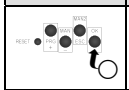
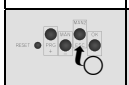
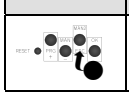
SHT-6G	
Supply terminals:	A1 - A2
Supply voltage:	AC 100-240V; DC 140-340V (AC 50-60 Hz)
Burden (max.):	5 VA / 2 W
Max. dissipated power (Un + terminals):	4.2 W
Supply voltage tolerance:	-15 %; +10 %
Output	
Number of contacts:	1x changeover ($AgSnO_2$)
Rated current:	16 A / AC1
Switching capacity:	4000 VA / AC1, 384 W / DC
Peak current:	30 A / < 3 s
Switching voltage:	250 V AC / 24 V DC
Mechanical life:	30.000.000 ops.
Electrical life (AC1):	100.000 ops.
Time circuit	
Real time back-up:	up to 3 years
Accuracy - without GPS receiver:	max. ± 1 s / day at 23 °C (73 °F)
Minimum interval:	1 min.
Data stored for:	min. 10 years
Program circuit	
Number of memory places:	100
Program:	daily, yearly (up to year 2099)
Data readout:	LCD display, with back light
Other information	
Operating temperature:	-10.. +55 °C (14 to 131 °F)
Storage temperature:	-30.. +70 °C (-22 °F to 158 °F)
Electrical strength:	4 kV (supply - output) 3.3 kV (supply - receiver)
Operating position:	any
Mounting:	DIN rail EN 60715
Protection degree:	IP10 terminals, IP40 from the front panel
Overvoltage category:	III.
Pollution degree:	2
Max. cable size (mm^2):	max. 1x 2.5, max. 2x 1.5/ with sleeve max.1x 1.5
Dimensions:	90 x 35 x 64 mm (3.5˝ x 1.4˝ x 2.5˝)
Weight	114 g (4 oz.) - without battery
Standards:	EN 61812-1

Warning

Device is constructed for connection in 1-phase main alternating current voltage AC 100-240V or DC 140-340V and must be installed according to norms valid in the state of application. Connection according to the details in this direction. Installation, connection, setting and servicing should be installed by qualified electrician staff only, who has learnt these instruction and functions of the device. This device contains protection against overvoltage peaks and disturbancies in supply. For correct function of the protection of this device there must be suitable protections of higher degree (A, B, C) installed in front of them. According to standards elimination of disturbancies must be ensured. Before installation the main switch must be in position "OFF" and the device should be de-energized. Don´t install the device to sources of excessive electro-magnetic interfe rence. By correct installation ensure ideal air circulation so in case of permanent operation and higher ambient temperature the maximal operating temperature of the device is not exceeded. For installation and setting use screw-driver cca 2 mm. The device is fully-electronic - installation should be carried out according to this fact. Non-problematic function depends also on the way of transportation, storing and handling. In case of any signs of destruction, deformation, non-function or missing part, don´t install and claim at your seller it is possible to dismount the device after its lifetime, recycle, or store in protective dump.

No product circuits, including sensor circuits, can be considered as ELVs.
Cable shield to the sensor, fulfills a functional purpose in terms of EMC does not fulfill any protection or safety function and it is not associated with any EP protection. It is not possible to touch the shield as well as the other product wiring circuits!
Security against electric shock is ensured by reinforced insulation product, cable, sensors and their correct and professional installation.

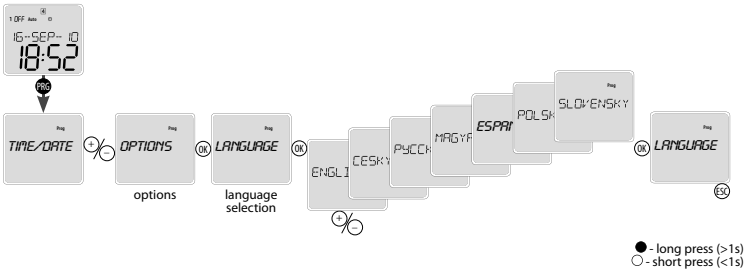
Control description

	PROG	entrance into programming menu
	+ / −	browsing in menu
		setting of values
	+ / −	quick shifting during setting of values
	OK	entrance into required menu
		confirmation
	ESC	one level up
		a step back
	ESC	back to the starting menu

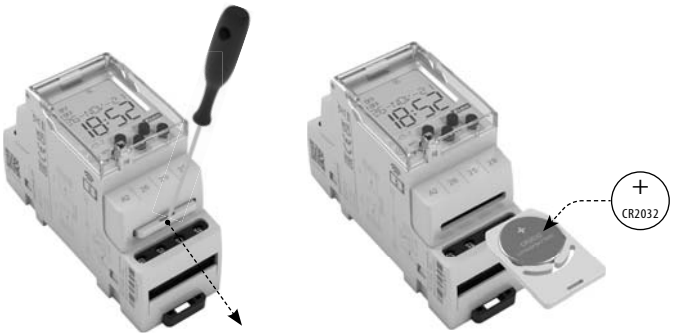
Device differs short and long button press.
In the manual marked as:
○ - short button press (< 1s)
● - long button press (> 1s)

After 30s of inactivity (from the last press of any button) will device automatically returns into starting menu.

Language settings



Battery replacement



You can change the battery without disassembling the device.

- remove the plug-in module with the battery
- replace the original battery
- enter a new battery so that its upper edge (+) lines up with the plug-in module
- slide the plug-in module in the device and pay attention to polarity (+ up)