EN

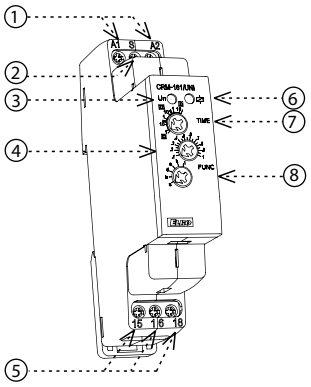
CRM-161

Multi-function time relay

Characteristics

- Multi-function time relay for universal use in automation, control and regulation or in house installations.
- Universal supply voltage: AC 24 – 240 V (AC 50-60 Hz) and DC 24V
- Comfortable and well-arranged function and time-range setting by rotary switches.
- Time scale 0.1 s - 10 hrs divided into 6 ranges:
  (0.1 s - 1 s / 1 s - 10 s / 0.1 min - 1 min / 1 min - 10 min / 0.1 hrs - 1 h / 1 h - 10 hrs)
- Output contact: 1x changeover / SPDT 8 A
- Multifunction red LED flashes or shines depending on the operating status.

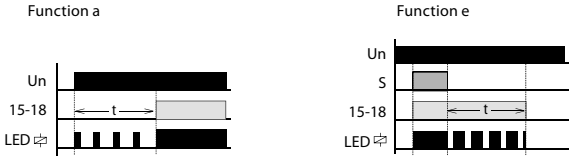
Description



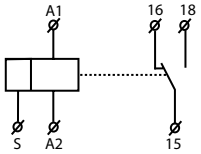
1. Supply terminals
2. Control input „S“
3. Supply indication
4. Fine time setting
5. Output contact
6. Output indication
7. Time setting
8. Function setting

Indication of operating states

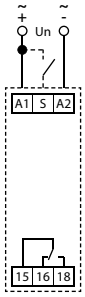
Examples of signaling



Symbol

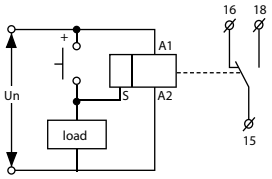


Connection



Possibility to connect load onto controlling input

It is possible to connect the load (e.g.: contactor) between terminals S-A2, without any interruption of correct relay function.

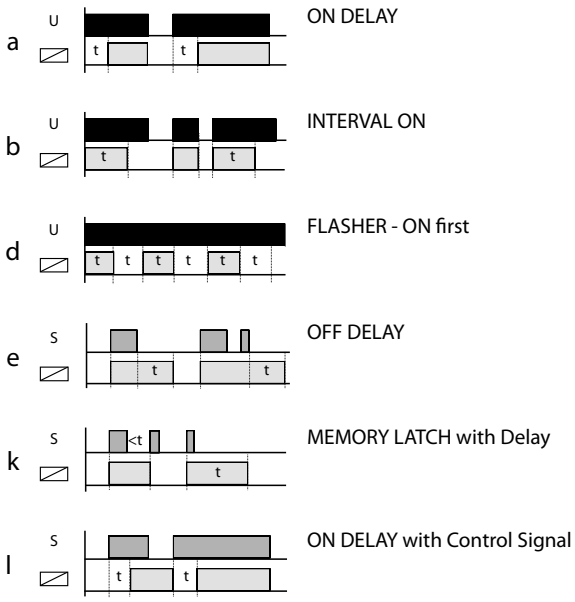


Type of load	cos φ ≥ 0.95 AC1	AC2	AC3	AC5a uncompensated	AC5a compensated	HAL.230V AC5b	AC6a	AC7b	AC12
Mat. contacts AgNi, contact 8A	250V / 8A	250V / 3A	250V / 2A	230V / 1.5A (345VA)	x	300W	x	250V / 1A	250V / 1A
Type of load	AC13	AC14	AC15	DC1	DC3	DC5	DC12	DC13	DC14
Mat. contacts AgNi, contact 8A	x	250V / 3A	250V / 3A	24V / 8A	24V / 3A	24V / 2A	24V / 8A	24V / 2A	x

Technical parameters

CRM-161	
Power supply	
Supply terminals:	A1 - A2
Voltage range:	AC 24 - 240 V (AC 50 - 60 Hz) and DC 24 V
Power input (max.):	2 VA / 1.5 W
Supply voltage tolerance:	-15 %; +10 %
Supply indication:	green LED
Time circuit	
Number of functions:	6
Time ranges:	0.1 s - 10 hrs
Time setting:	rotary switch and potentiometer
Time deviation:	5 % - mechanical setting
Repeat accuracy:	0.2 % - set value stability
Temperature coefficient:	0.01 % / °C, at = 20 °C (0.01 % / °F, at = 68 °F)
Output	
Number of contacts:	1x changeover / SPDT (AgNi)
Current rating:	8 A / AC1
Breaking capacity:	2000 VA / AC1, 192 W / DC
Switching voltage:	250V AC / 24V DC
Max. power dissipation:	0.6 W
Output indication:	multifunction red LED
Mechanical life:	10 000 000 operations
Electrical life (AC1):	50 000 operations
Control	
Control. terminals:	A1-S
Load between S-A2:	Yes
Impulse length:	min. 25 ms / max. unlimited
Reset time:	max. 150 ms
Other information	
Operating temperature:	-20 °C to +55 °C
Storage temperature:	-30 °C to +70 °C
Dielectrical strength:	4kV AC (supply - output)
Operating position:	any
Mounting:	DIN rail EN 60715
Protection degree:	IP40 from front panel / IP20 terminals
Overvoltage category:	III.
Pollution degree:	2
Max. cable size (mm^2):	solid wire max. 1x 2.5 or 2x 1.5 / with sleeve max. 1x 2.5 (AWG 12)
Dimensions:	90 x 17.6 x 64 mm (3.5 x 0.7 x 2.5 inch)
Weight:	62 g (2.2 oz)
Standards:	EN 61812-1

Function



More accurate setting of timing for long periods of time

Example of time setting to 8 hours period:

For rough setting use time scale 1 - 10 s on the potentiomenter.

For fine time setting aim for 8 s on potentiometer, then recheck accuracy (using stopwatch etc).

On rough time setting, set potentiometer to originally desired scale 1 - 10 hours, leave a fine setting as it is.

Warning

Device is constructed for connection in 1-phase main alternating current 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 interference. 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.