



Zakład Mechaniki i Elektroniki
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DESCRIPTION

The one mode time relay PCM-01 has a delayed switch on function (reverse) in automation and control systems. The relay is released by power supply voltage. It has a wide time adjustment range from 0,1 s to 10 days. Additional ON/OFF functions enable constant switch on, switch off of the output (load). The system has the indicators of power supply voltage, relay mode, and time measure with the help of red LED diode.

FEATURES

- ⚡ Operating mode: switch on delay (input voltage release),
- ⚡ supply voltage control indicator - LED green,
- ⚡ power/relay supply indicator and time measure - LED red,
- ⚡ time measure accuracy,
- ⚡ wide time adjustment range,
- ⚡ constant switch on, switch off function,
- ⚡ voltage relay output - 1 change over contact (NO/NC) contact max 16 A capacity,
- ⚡ TH-35 DIN rail installation.

TECHNICAL PARAMETERS

PCM - 01

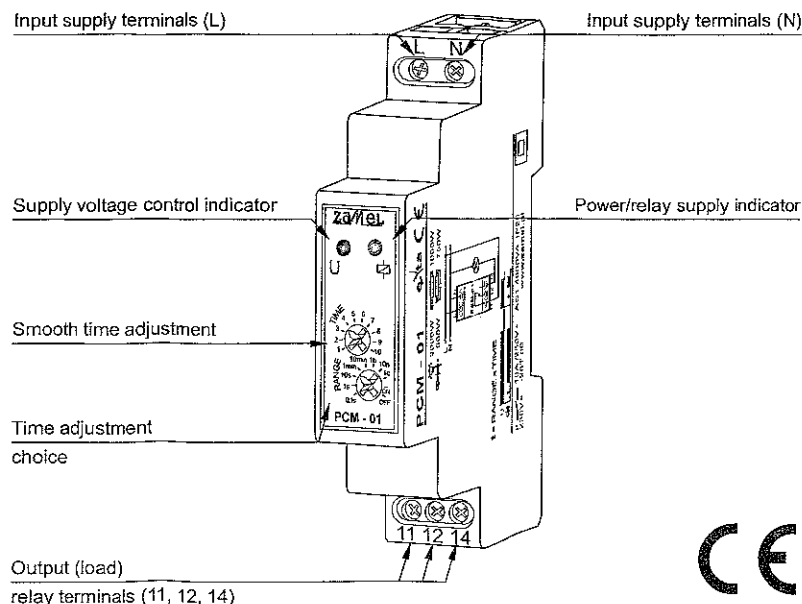
Input (supply) terminals:	L, N
Input rated voltage:	230 V~
Input voltage tolerance:	from -15 to +10 %
Supply voltage control indicator:	LED green
Nominal frequency:	50 / 60 Hz
Rated power consumption:	25 mA
Operating mode number:	1 (switch on delay)
Time adjustment range t:	from 0,1 s to 10 days
Time measure accuracy:	0,2 %
Time adjustment:	2x potentiometer (rotary + step)
Power/relay supply indicator and time measure:	LED red
Output relay parameters:	1NO/NC - 16 A / 250 V AC1 4000 VA
Number of terminal clamps:	5
Section of connecting cables:	from 0,2 to 2,50 mm ²
Ambient temperature range:	from -20 to +60 °C
Operating position:	any
Mounting:	TH35 rail (EN 60715)
Protection degree:	IP20 (EN 60529)
Protection class:	II
Overvoltage category:	II
Pollution degree:	2
Rated impulse withstand voltage:	2 kV (EN 61000-4-5)
Dimensions (height / width / depth):	monomodular (17,5 mm) 90x17,5x66 mm
Weight:	75 g
Reference standards:	EN 60730-1 EN 60730-2-7 EN 61000-4-2,3,4,5,6,11

APPEARANCE



CAUTION

The device is designed for one-phase installation and must be installed in accordance with standards valid in a particular country. The device should be connected according to the details included in this operating manual. Installation, connection and control should be carried out by a qualified electrician staff, who act in accordance with the service manual and the device functions. Disassembling of the device is equal with a loss of guarantee and can cause electric shock. Before installation make sure the connection cables are not under voltage. The cruciform head screwdriver 3,5 mm should be used to instal the device. Improper transport, storage, and use of the device influence its wrong functioning. It is not advisable to instal the device in the following cases: if any device part is missing or the device is damaged or deformed. In case of improper functioning of the device contact the producer.



MOUNTING

1. Disconnect the power supply from the mains by the phase fuse, the circuit-breaker or the switch-disconnector that are joined to the proper circuit,
2. Check if there is no voltage on connection cables by means of a special measure equipment,
3. Install PCM-01 device in the switchboard on TH-35 DIN rail,
4. Connect the cables with the terminals according to installing diagram,
5. Switch on the power supply from the mains,
6. Adjust the time using the TIME and RANGE knobs, where $t = \text{TIME} \times \text{RANGE}$.

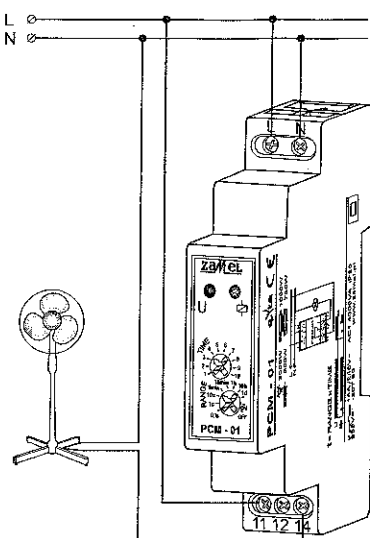
FUNCTIONING



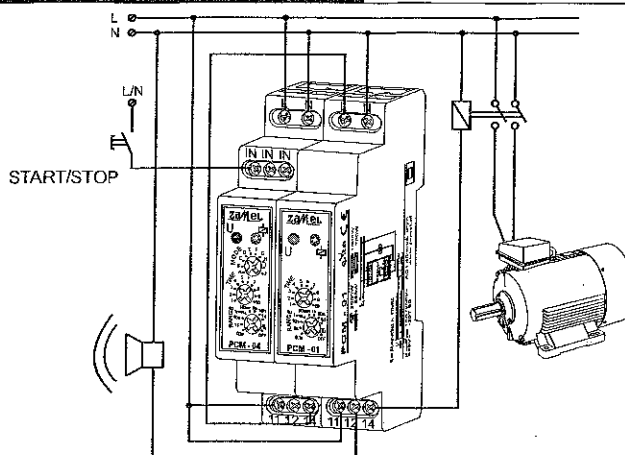
SWITCH ON DELAY - after the supply voltage [U] has been applied the time measure t starts. After the time is over the relay switches on (pos. 11-14). The next switch on interval appears after power supply voltage reset.

U	Diodes' function description	Time adjustment example t	
	relay switched on (closed contacts 11-14), counting time off		$t = \text{TIME} \times \text{RANGE}$ $t = 8 \times 1 \text{ d} = 8 \text{ d}$
	relay switched off (closed contacts 11-12) counting time on		$t = \text{TIME} \times \text{RANGE}$ $t = 3 \times 1 \text{ h} = 3 \text{ h}$

CONNECTING



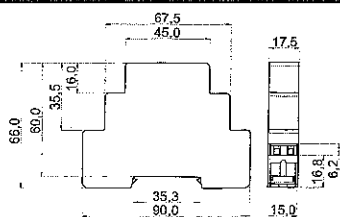
EXAMPLE OF INSTALLATION



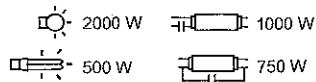
Warning system before the motor starts up.

PCM-01 time relay works in the system where after pushing the START/STOP button a warning acoustic signal is heard to inform the motor is just to start up. This relay cooperates with PCM-04 in bistable relay mode with limited time (MODE=I), it enables to switch on/off the engine by means of one button as well as to set max possible working time.

DIMENSIONS



RELAY CAPACITY



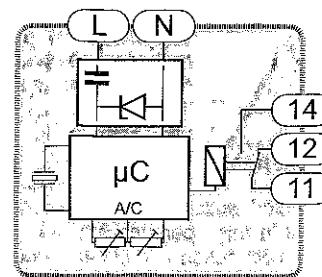
PRODUCT FAMILY

PCM-01 time relay belongs to PCx time relay product family.

PCX - xx (/24V)

Supply version 24 V AC/DC
Device versions:
01 - switch on delay mode
02 - switch off delay mode
03 - cyclic switch mode
04 - 10 working modes
10 - 10 modes with 2 times setting
Casing type:
M - single module (double module for 10 series)
Symbol

INNER DIAGRAM



GUARANTEE CARD

There is 24 months guarantee on the product

1. ZAMEL provides a two-year warranty for its products.
2. The ZAMEL warranty does not cover:
 - a) mechanical defects resulting from transport, loading / unloading or other circumstances,
 - b) defects resulting from incorrect installation or operation of ZAMEL products,
 - c) defects resulting from any changes made by CUSTOMERS or third parties, to products sold or equipment necessary for the correct operation of products sold,
 - d) defects resulting from force majeure or other aleatory events for which ZAMEL is not liable.
3. All complaints in relation to the warranty must be provided by the CUSTOMER in writing to the retailer after discovering a defect.
4. ZAMEL will review complaints in accordance with existing regulations.
5. The way a complaint is settled, e.g. replacement of the product, repair or refund, is left to the discretion of ZAMEL.

Salesman stamp and signature, date of sale