

THERMAL PTC RELAY

PT-1

WARNING!

The device is constructed to be connected into 1-phase main and must be installed in accordance with regulations and norms applicable in a particular country. Installation and connection can be done only by a person with an adequate electro-technical qualification which has read and understood this instruction manual and product functions. To install the device please use 4mm width screwdriver or PH1 screwdriver. In case you notice any signs of damage, deformation, malfunction or missing piece, do not install this device and claim it at the seller. Removing the cover will void the warranty and can cause a risk of electric shock.

FUNKCJE

PT-1 thermal relay controls temperature of motor winding and other devices. The temperature is controlled by a PTC sensor located indoor motor or other device. It is possible to connect few PTC sensors serial connected. Maximum resistance of serial connected sensors in cold conditions is 1.5k Ω .

In the normal state, green „OK” LED lights. In case of motor winding overheating (resistance of PTC sensor is above 3.3k Ω), thermal relay passes in the failure state, relay contacts changes state, red „PTC” LED lights and green LED „OK” does not light. If the motor is cool (resistance of PTC sensor is below 1.8k Ω), thermal relay passes in the normal state. When the MEMORY MODE is activated, even cool the motor windings failure status will be maintained until you press the RESET button.

RESET button is also used to start and stop MEMORY MODE by pressing and holding the RESET button for 5 seconds. Yellow „M” LED lights when the MEMORY MODE is enabled. When you enable the MEMORY MODE the device passes in the failure state, then just press the RESET button to cancel failure state.

In the normal state, pressing and holding the RESET button for 1 second activates TEST MODE, until the button is pressed.

If you want to activate TEST MODE, while MEMORY MODE is activated, failure state will be memorized, then just press the RESET button to cancel failure state.

Flashing of red „PTC” LED indicates short circuit or disconnection of PTC sensor.

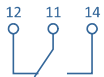
Miganie czerwonej diody PTC informuje o zwarciu lub odłączeniu czujnika PTC. This situation occurs when the resistance of the PTC sensor is above 7k Ω or below 40 Ω . In this case PT-1 passes in the failure state.

PT-1 is equipped with an external reset terminal.

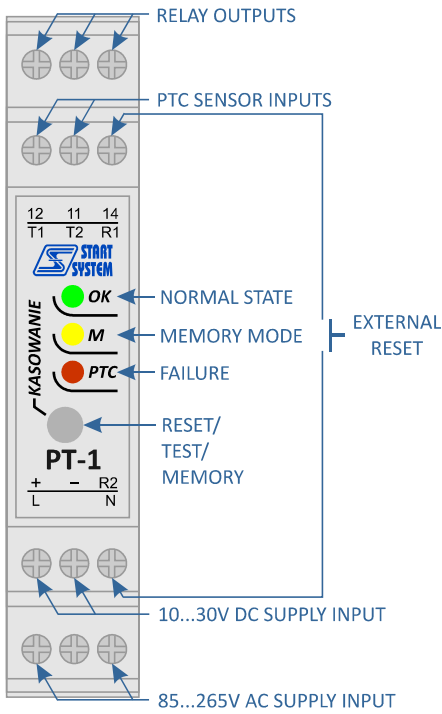
Memory fault state is maintained even after power failure.

Inputs and outputs are galvanically isolated from the mains power.

Supply voltage is 10...30 V DC or 85...265V AC.

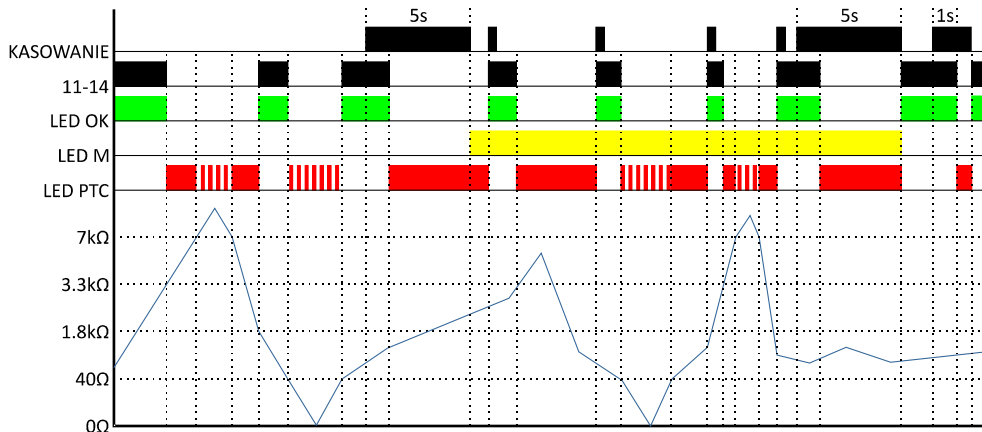


12-11 CONTACTS ARE CLOSED
IN CASE OF FAILURE OR NO
POWER

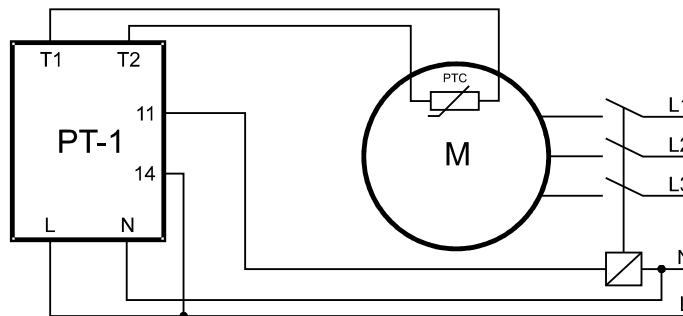


TECHNICAL PARAMETERS

Supply voltage:	10...30V DC, 85...265V AC
Consumption:	1.4W
Dimensions (W x H x D):	17.5 x 90 x 56.4 [mm]
Weight:	62g
Temperature sensor fault resistance:	>3.3kΩ
Sensor resistance in cold condition:	50...1500Ω
Max. resistance of serial connected sensors in cold condition:	1.5kΩ
Max. relay load current:	AC1 5A/250V AC, DC1 5A/30V DC
Cable size:	max. 2.5mm ²
Mounting:	TH-35 rail
Operating position:	any
Protection rate:	IP40
Operating temperature:	-30...+60°C
Storage temperature:	-60...+70°C
Overtoltage category:	III
Class:	II
Standards:	PN-EN 60730-1:2012E PN-EN 60730-2-2:2003/A1:2008P



EXAMPLE OF WIRING DIAGRAM



Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

This marking on indicates that the product should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.