## PROTHERM Wärmeschutz GmbH

## Technical Data Bimetal Temperature Manual Reset Type 05EP

example of product	
version	05EP
contact version	automatic disconnection and manual connection of a circuit by resetting pin (temperature limiting)
contact type	NC = Normally Closed
housing material	phenol
nominal switching temperature	40°C until 150°C
max. ambient temperature	24h at 150°C (according to internal test setup)
standard-tolerance range	< 110°C = ±3K to ±4K > 110°C = ±5K
standard reset temperature	manual reset after cooling down
rated voltage	230 VAC (U <sub>N</sub> 50/60Hz) 30 VDC 42 VDC
rated current at $U_N$ ohmic cos $\phi = 1,0$	100mA / 250 VAC for 6.000 cycles (acc. C-UL) 100mA / 30 VDC for 6.000 cycles (acc. C-UL) 200mA / 250 VAC for 3.000 cycles (acc. VDE) 200mA / 42 VDC for 3.000 cycles (acc. VDE) (recommended minimum current = 1mA)
approvals	C-UL (#E43273), VDE (#40012267)
connection and mounting	see separate configuration card
high voltage insulation	2 kV for 1 second
degree of protection	equivalent to IP00
contact resistance	<10mΩ

The indicated pictures, drawings and dates are exemplary. Depending on the switch configuration it may differ. Thermostats are safety components! For the use in a specific application technical guidelines, requirements or approvals must be considered and the thermostats must be tested in real environmental conditions. Please consider also the electrical power in relation with the voltage supply of your application. The approvals also differ depending on the various nominal voltage. We will be glad to help you, please ask.

Temperature controls from **PROTHERM**, for best price and service

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## **Bimetal Temperature Manual Reset Type 05EP**

## **Functions & Types**

#### Bimetal switch as manual reset type

After reaching its factory-adjusted **N**ominal **S**witching **T**emperature (NST) the bimetal disc suddenly turns over from its stable initial position into a stable end position and thereby activates the switching device. The electrical circuit is disconnected (NC-type). After cooling down, the bimetal disc must be reset using the pin to close the circuit again.

#### Normally Closed (NC)

At rising temperature contacts **open** and disconnect the electric circuit. (Interruption of the signalling pathway at temporary overheating, for example temperature control of a switch cabinet)

#### Connectivity and mounting options pursuant to our configuration card

### **Important Information**

A Manual Reset Type is an important protective element, which needs to be chosen carefully and handled correctly. We would be pleased to advise you in detail.

The listed specifications and information are based on tests and test series. They are of a standard nature and therefore deviations may occur in connection with specific applications. Please note that outside influences like moisture, gas formation, ultraviolet radiation, magnetic fields or vibrations can affect the function of the thermostat. Especially any influence of silicon must be avoided.

### **Benefits & Advantages**

The outstanding quality level of our Manual Reset Type 05EP satisfies highest demands for safety and reliability. They are provided with a patented, fully developed and reliable switching device system.

Standard type	diameter 16,2mm (half-inch) and hole spacing 24,5mm
Save, reliable & durable	100% tests while production process / 100% final test if required
Temperature sensitive	mechanical unstressed and electrically unloaded bimetal disk
Fast reaction	excellent heat transfer induced by an ideally placed bimetal disk
Flexible use	many terminals and mountings are available (see configuration card) as well as specific customer requests

The manufacturing and production of our Thermostats is certified to DIN ISO 9001 and of course the current RoHS-conformity is complied.

Our friendly team will give you detailed information of all our products. Of course, we want to help you, to find the best solution for your application. Please call us for further information.

Internet: www.protherm.info
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