



Temperature Switches for liquids

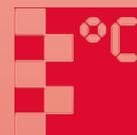


measuring
•
monitoring
•
analysing

TWR



- Easy to install
- Mounting position independent
- Material: nickel-plated brass or stainless steel
- Connection: G $\frac{3}{4}$ male
- Switch point fixed: +30 °C... 120 °C



T1

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Description

The KOBOLD temperature switches work with a bi-metal switch and serve to monitor temperature of liquids in piping and vessels. The instruments are available in brass or stainless steel and are screwed through a G $\frac{3}{4}$ screw-in thread into a screwed socket that is welded onto the line or vessel. The temperature contacts have a fixed switch point in intervals of 5 °C in the range 30 °C up to 50 °C, and in intervals of 10 °C between 50 °C and 120 °C. They are available as N/C or N/O contacts. Standard electrical connection is made through a plug connector, in which a pilot lamp can be integrated as an additional output state indicator.

Technical Details

- Contact operation: N/O contact or N/C contact
- Electrical connection: plug connector according to DIN 43 650
optional with pilot lamp
- Max. Switch capacity: 250 V_{AC}, 30 V_{DC} (TWR-1...0, TWR-2...0)
250 V_{AC}, 42 V_{DC} (TWR-3...0, TWR-4...0)
24 V_{DC} (TWR-...L)
230 V_{AC} (TWR-...G)
- Switching current: 0.1 ... 4 A (TWR-1 ... 0, TWR-2 ... 0)
0.1 ... 1 A (TWR-1 ... L, TWR-2 ... L)
0.1 ... 1 A (TWR-1 ... G, TWR-2 ... G)
max. 5 ... 200 mA (TWR-3, TWR-4)
- Housing: brass or stainless steel 1.4301
- Connection: G $\frac{3}{4}$ male
- Nominal pressure: PN 64
- Weight: 0.5 kg
- Ambient temperature: -30 ... 125 °C
- Switching hysteresis max.: 20 °C
- Accuracy:

Switch points	Model	
	TWR-1/2	TWR-3/4
30...90 °C	± 5 K	± 3 K
100...120 °C	± 7 K	± 4 K

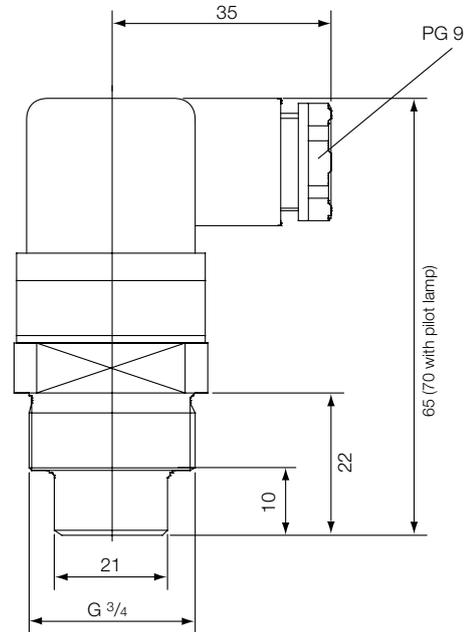
Protection: IP 65

Order Details (Example: TWR-11030 L)

Switching function (with rising temperature)	Model		Switching range	Pilot lamp
	Brass	Stainless steel		
N/C contact	TWR-11..	TWR-12..	..030.. = 30 °C ..035.. = 35 °C ..040.. = 40 °C ..045.. = 45 °C ..050.. = 50 °C ..060.. = 60 °C ..070.. = 70 °C ..080.. = 80 °C ..090.. = 90 °C ..100.. = 100 °C ..110.. = 112 °C ..120.. = 118 °C	..0 = without ..L = LED 24 V _{DC} ..G = pilot lamp 230 V _{AC}
N/O contact	TWR-21..	TWR-22..		
N/C contact* (for SPS; intrinsically safe)	TWR-31..	TWR-32..		..0 = without
N/O contact* (for SPS; intrinsically safe)	TWR-41..	TWR-42..		

* Intrinsically safe only without LED and pilot lamp

Dimensions [mm]



Electrical connection

