



## Temperature Switches for Liquids



measuring  
•  
monitoring  
•  
analysing



- Easy to install
- Mounting position independent
- Material: nickel-plated brass or stainless steel
- Connection: G 3/4 A
- Switch point fixed:  
+30°C to 120°C



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**Model:**  
TWR

**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 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 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.

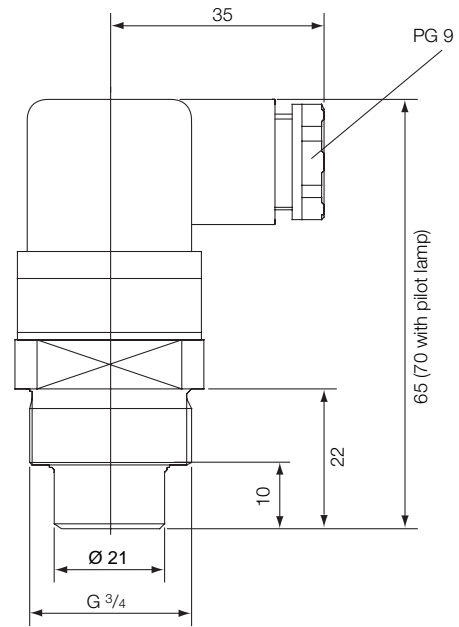
**Technical Details**

- 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<sub>AC</sub>, 30 V<sub>DC</sub> (TWR-1...0, TWR-2...0)  
250 V<sub>AC</sub>, 42 V<sub>DC</sub> (TWR-3...0, TWR-4...0)  
24 V<sub>DC</sub> (TWR-...L)  
230 V<sub>AC</sub> (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 3/4 male
- Nominal pressure: PN 64
- Weight: 0.5 kg
- Ambient temperature: -30...125 °C
- Switching hysteresis max.: 20 °C
- Accuracy:

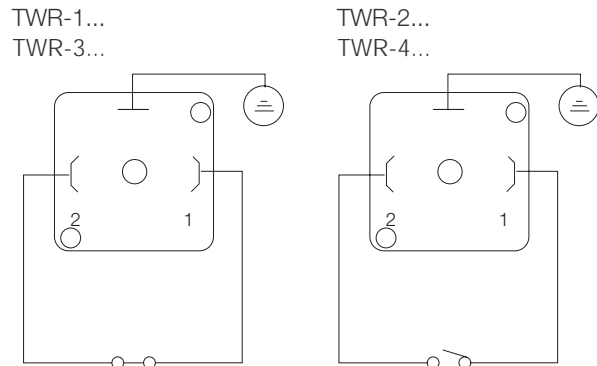
Switch points	Model	
	TWR-1/2	TWR-3/4
30...90 °C	± 5 K	± 3 K
100...120 °C	± 7 K	± 4 K

Protection: IP 65

**Dimensions**



**Electrical connection**



**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 <sub>DC</sub> ..G = pilot lamp 230 V <sub>AC</sub>
N/O contact	TWR-21..	TWR-22..		
N/C contact* (for SPS; intrinsically safe)	TWR-31..	TWR-32..		
N/O contact* (for SPS; intrinsically safe)	TWR-41..	TWR-42..		

\* Intrinsically safe only without pilot lamp