

Datasheet: ANDKBTFL/MU

Immersion temperature sensor with flexible silicone cord

Application

Immersion temperature sensor with flexible silicone connection **ANDKBTFL/MU** active sensor for measuring the temperature in gaseous media. In combination with an immersion sleeve, ANDKBTFL/MU can also be used for measuring the temperature of liquid media (as in pipes, kettles or water tanks). The ANDKBTFL is well-suited for immersion applications thanks to the 200 mm sleeve. The sensors are equipped with a standardized 0...10 V or 4...20mA output and can be connected to any PLC or DDC.

Characteristics

Our temperature transmitters with an accuracy of 0.3 °C, offer customers the opportunity to choose a temperature range with a dip switch. A potentiometer offset can be set manually by +/- 1 Kelvin. The standard series covers several different measuring ranges of temperature (see configuration table). The measuring transducer reads the data via an internal sensor and converts the result into a standardized analogue output signal (0-10 V, 4-20 mA). Our sensors are extensible with an optional color LCD display, that shows measured values in real time.

Technical Data

General information	
Power supply	12(20)...34 V AC/DC (Relay)
Connection	Screw clamps, max 1.5 mm ²
Switching output (optional)	Relay 24 V / 1A, potential free changer
Power consumption	24...44 mA

Signal output	
Type I (3-wired)	4...20 mA
Analogue output burden	50...500 Ohm
Type U (3-wired)	0...10 V
Analogue output load	10...100 kOhm



Casing	
Dimensions	75x69x44 mm
Material	PA6, similar RAL 9010
Cable inlet	M16x1.5 for wire diameter 4...10 mm
Admissible environmental conditions	-30...70 °C; 0...98% r.H.
Protection class	IP65

Sensor	
Type	PT1000 Class B, DIN EN 60751
Measuring range	24 measuring ranges available
Tolerance	+/- 0,2 °K +/- 1,0% full scale (after 60 min)
Protection sleeve	6x200 mm
Material	stainless steel
Supply cord	2m - Silicone max 180°C
Mounting equipment (incl.)	Mounting flange

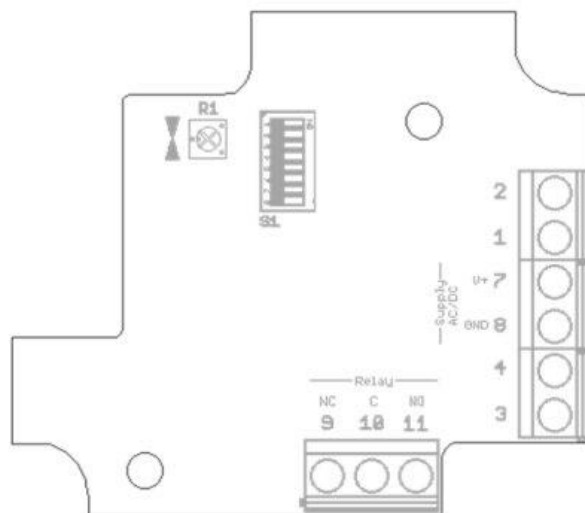
Special sensor models available on demand.

Measurement ranges DIP-Switch (S1)

ANDKBTFL/MU

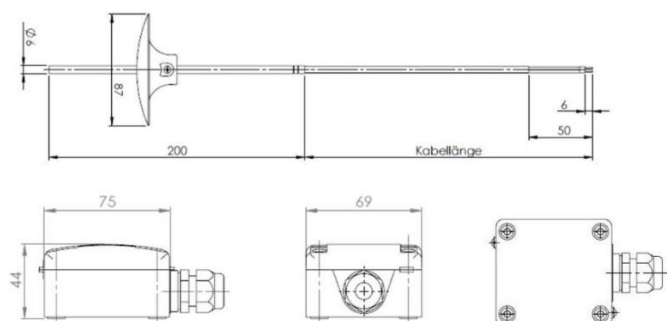
Temperature Ranges						
Range	1	2	3	4	5	6/7/8
-100... 50 °C	OFF	OFF	OFF	OFF	OFF	N/A
-50...0 °C	ON	OFF	OFF	OFF	OFF	N/A
-50...50 °C	OFF	ON	OFF	OFF	OFF	N/A
-50...150 °C	ON	ON	OFF	OFF	OFF	N/A
-30...20 °C	OFF	OFF	ON	OFF	OFF	N/A
-30...60 °C	ON	OFF	ON	OFF	OFF	N/A
-30...70 °C	OFF	ON	ON	OFF	OFF	N/A
-20...50 °C	ON	ON	ON	OFF	OFF	N/A
-20...80 °C	OFF	OFF	OFF	ON	OFF	N/A
-20...120 °C	ON	OFF	OFF	ON	OFF	N/A
-20...150 °C	OFF	ON	OFF	ON	OFF	N/A
-10...15 °C	ON	ON	OFF	ON	OFF	N/A
-10...120 °C	OFF	OFF	ON	ON	OFF	N/A
0...40 °C	ON	OFF	ON	ON	OFF	N/A
0...50 °C	OFF	ON	ON	ON	OFF	N/A
0...70 °C	ON	ON	ON	ON	OFF	N/A
0...100 °C	OFF	OFF	OFF	OFF	ON	N/A
0...150 °C	ON	OFF	OFF	OFF	ON	N/A
0...160 °C	OFF	ON	OFF	OFF	ON	N/A
0...200 °C	ON	ON	OFF	OFF	ON	N/A
0...250 °C	OFF	OFF	ON	OFF	ON	N/A
0...400 °C	ON	OFF	ON	OFF	ON	N/A
0...600 °C	OFF	ON	ON	OFF	ON	N/A
10...35 °C	ON	ON	ON	OFF	ON	N/A

Electrical connection

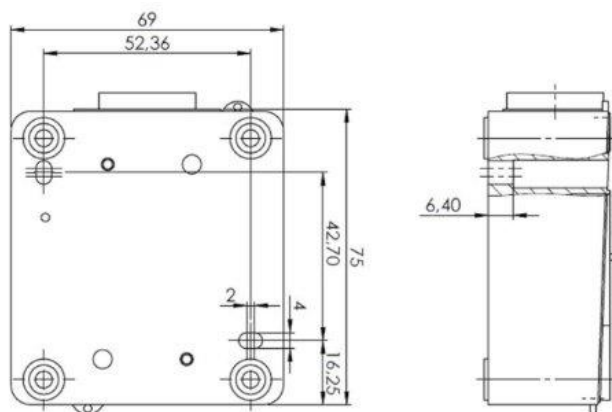


Electrical connection		
Pin	Typ U (0-10 V)	Typ I (4-20 mA)
1	temp	-
2	-	-
3	-	temp
4	-	-
5	-	-
6	-	-
7	-	V+
8	-	GND
9	-	(relay NC)
10	-	(relay C)
11	-	(relay NO)
R1	-	temp. adjustment

Technical drawing



Mounting



General notifications

Important: In-phase connection is necessary for parallel operation with 24 V/AC in order to avoid short circuits. The devices are built for safety extra-low volt-age operation. The technical data from the data sheet apply when connecting the devices. Especially with passive sensors (f. ex. PT100...) in two-wire configurations, the output resistance of the feed line must be observed and possibly adjusted via the evaluation electronics. The measuring current affects the accuracy of the measurement due to self-heating. Therefore, this current should be set to the sensor specs. These instruments must be installed by authorised specialists only! Devices shall only be used for their intended purpose. The customer has to ensure adherence to the building and safety regulations and has to avoid all dangers of any kind.

Standards

EU-Richtline 2014/30/EU

DIN EN 61326-2-1:2013

Installation / Guarantee

The installation of the devices should be done only by qualified personnel. - The device may only be connected with the power off. - The safety of the VDE, the states, the TÜV and the local energy supply company must be observed. - The EMC directives must be observed. It must be shielded connecting lines, laying parallel with current-carrying - Lines should be avoided. - Operation in the vicinity of equipment that do not comply with EMC directives may adversely affect the functioning - The buyer has to ensure compliance with the relevant building and safety guidelines - This product should not be used for safety-related tasks, such as the protection of persons as an emergency stop switch on equipment. - Improper use of any defects and damages are excluded from the warranty and liability. - Consequential damages caused by a fault in this device are excluded from warranty or liability. - Solely the technical data and connecting conditions of the mounting and operating instructions supplied with the instrument. Changes are possible at any time in the sense of technical progress and the improvement of products. - Changes of the device by the user, all warranty claims.

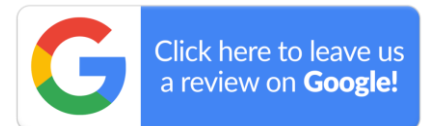
Product Web Links:

EN <https://www.andivi.com/sensors/temperature-sensors/immersion-temperature-sensor-with-flexible-silicone-connction/>

SI <https://www.andivi.si/senzorji-tipala/temperaturni-senzorji-in-tipala/potopno-temperaturno-tipalo-s-silikonskim-vodnikom/>

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