

THERMOCONT TG/TF

Temperature Sensors

The wide range of **THERMOCONT** temperature sensors covers almost all demands in the area of industrial temperature measurement. The numerous versions and multiple kinds of applicable probes make **THERMOCONT** a suitable choice for all industries.

The **THERMOCONT TFP** resistance thermometers are primarily used as sensors for heated tools and bearings. The sensor tip of the **TFP-500/600** types is made from copper to provide a faster response time. The **TFP-300/400** has a process connection with a suitable mounting bolt. **TFP-100/200/500/600** devices have different types of mounting bolts that are ordered separately. The mounting bolts allow the sensors to be screwed into various threads.

The **THERMOCONT TGP** resistance thermometer can be used primarily for bearing temperature measurements of high-performance machines.



TGP
bearing temperature
sensor



TFP
temperature sensor

FEATURES

- Single or dual Pt100 sensor versions
- 2, 3 or 4-wire types
- Fast response sensor version
- Stainless steel protection tube
- Up to 500 mm (19.7") insertion length
- Temperature metering in bearing, baking tray
- Mounting bolts allow the sensors to be screwed into various threads

APPLICATIONS

- For temperature control of heated tools
- Bearing temperature sensing for motors, pumps
- Water & Wastewater Industry
- Chemical & Pharmaceutical
- Food & Beverage
- Oil & Gas
- Heavy Industry
- Packaging Industry

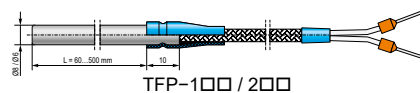


TFP-121-2

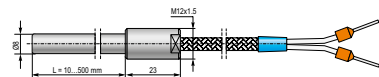
TECHNICAL DATA

	THERMOCONT TGP – bearing temperature sensor	THERMOCONT TFP – temperature sensor
Operating temperature	–50...+180 °C (–58...+356 °F)	–50...+200 °C (–58...+392 °F)
Ambient Temperature	–30...+100 °C (–22...+212 °F)	
Sensor	Pt100	
Sensor diameter	Ø8 mm (0.3")	Ø6, Ø8 mm (0.24", 0.3")
Accuracy class	"A" or "B" accuracy class in accordance to EN 60751	
Measuring current	1 mA	max. 5 mA
Material of sensor tube	1.4571 stainless steel / Cu protector cover	1.4571 stainless steel
Process connection	As per order code	
Electrical connection	SHFP type silicone rubber and shield, 3× 0.75 mm ² (AWG18)	PTFE-coated, 0.35 mm ² (AWG22) wire cross section cable
Cable Shielding	Tinned copper braid protective jacket	
Cable length	0.6...12 m (2...40 ft), as per order code	0.6...3 m (2...10 ft), as per order code
Insertion length	As per order code	
Ingress protection	IP65	IP54
Electrical protection	Class III	
Insulation resistivity	Min. 10 MΩ, @ +20 °C ±5 °C (+68 °F ±9 °F) min. 1 MΩ at the highest value operating temperature	
Voltage-test	500 V, 50 Hz AC for 1 min., @ +20 °C ±5 °C (+68 °F ±9 °F)	
Weight	max. ~600g (~1.2 lb), as per order length	
Time constant (9/10)	< 20 s	
Pressure	Max. 60 bar (870 psi)	

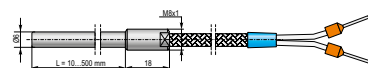
DIMENSIONS



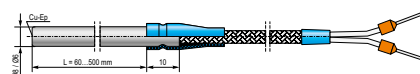
TFP-100 / 200



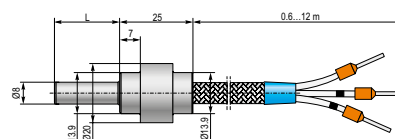
TFP-300



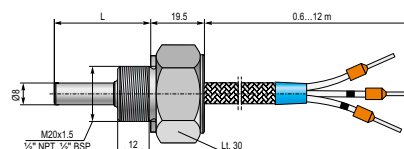
TFP-400



TFP-500 / 600



TGP-100



TGP-200

ORDER CODES (NOT ALL COMBINATIONS AVAILABLE)

Resistance thermometer

THERMOCONT TFP-■-■-■-■

Process connection	Code	Pt100 sensor	Code	Probe length	Code	Cable length	Code
Ø6 mm (0.24") 1.4571	1	Class "A", single	1	60 mm (2.4")	1	0.6 m (2 ft)	0
Ø8 mm (0.3") 1.4571	2	Class "B", single	2	100 mm (3.9")	2	1 m (3.3 ft)	1
Ø8 mm (0.3"), M12x1.5 (special)	3	Class "A", dual ⁽²⁾	4	160 mm (6.3")	3	2 m (6.6 ft)	2
Ø6 mm (0.24"), M8x1 (special)	4	Class "B", dual ⁽²⁾	5	250 mm (9.8")	4	3 m (10 ft)	3
Ø6 mm (0.24"), fast response ⁽¹⁾	5	Class "B", single, 4-wire ⁽²⁾	6	10 mm (0.4") ⁽³⁾	5	⁽¹⁾ Mounting bolts are ordered separately. ⁽²⁾ Only with Ø8 mm (0.3") tube diameter. ⁽³⁾ Only for TFP-300, TFP-400 types.	
Ø8 mm (0.3"), fast response ⁽¹⁾	6	Class "A", single, 4-wire ⁽²⁾	7	30 mm (1.2") ⁽³⁾	6		
				400 mm (15.7")	7		
				500 mm (19.7")	8		

Bearing resistance thermometer

THERMOCONT TGP-■-■-■-■

Process connection	Code	Pt100 sensor	Code	Probe length	Code	Cable length	Code
Rimmed	1	Class "A", 3-wire	1	30 mm (1.2")	1	0.6 m (2 ft)	0
M20x1.5	2	Class "B", 3-wire	2	50 mm (2")	2	1 m (3.3 ft)	1
1/2" NPT	3			100 mm (3.9")	3	2 m (6.6 ft)	2
1/2" BSP	4			160 mm (6.3")	4	3 m (10 ft)	3
				380 mm (15")	5	6 m (20 ft)	4
						12 m (39.4 ft)	5

