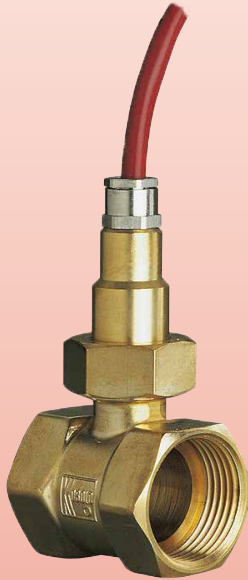


Temperature Sensor for Liquids and Gases



measuring
•
monitoring
•
analyzing

TSA



- Measuring Range: -40...150 °C
- Measuring Accuracy: ± 2.5 °C or Class B According to IEC 751
- Connection: 1/4" ... 1 1/2" NPT
- Wetted Materials: Brass, Stainless Steel
- PTC Resistive or Pt100 Sensor



KOBOLD companies worldwide:

ARGENTINA, AUSTRALIA, AUSTRIA, BELGIUM, BULGARIA, CANADA, CHILE, CHINA, COLOMBIA, CZECH REPUBLIC, EGYPT, FRANCE, GERMANY, HUNGARY, INDIA, INDONESIA, ITALY, MALAYSIA, MEXICO, NETHERLANDS, PERU, POLAND, REPUBLIC OF KOREA, ROMANIA, SINGAPORE, SPAIN, SWITZERLAND, TAIWAN, THAILAND, TUNISIA, TURKEY, UNITED KINGDOM, USA, VIETNAM

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Description

The KOBOLD TSA temperature sensor is suitable for service in applications requiring temperature monitoring, detection, or regulation of gases or liquids. It responds quickly and operates with fluid temperatures between -40 and 150 °C. The rugged pipe section housing is available in either brass or stainless steel material with 1/4" to 1 1/2" female NPT threads. The laser-trimmed electronic sensor generates a strong signal, so no line compensation is required for supply leads less than 20 meters in length. The available output signals are compatible with many conventional control and indicating devices. KOBOLD offers a range of transmitters and displays for further evaluation and processing of the output signal if desired.

Specifications

Housing: Brass or 304 Stainless Steel
Seal: FKM
Cable: 1.5 m, Silicone Rubber Jacket

Operating Pressure

Brass: 230 PSI Max.
Stainless Steel: 360 PSI Max.

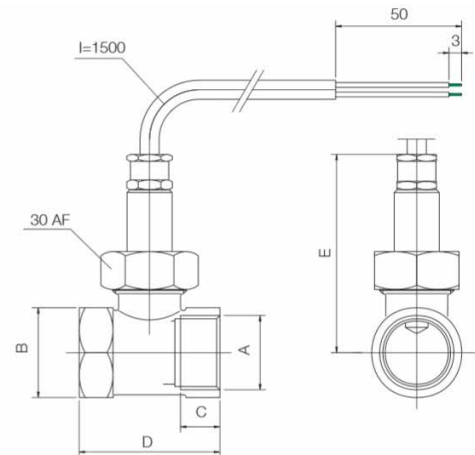
Media Temperature: -40...150 °C

Max. Supply Current: 1 mA

Measuring Accuracy

TSA-5...: ±0.7 °C at 20 °C, ±2.5 °C Max.
TSA-6...: Class B According to IEC 751

Dimensions (mm)



A	B	C	D	E (max)
1/4"	27 AF	10	50	77
3/8"	27 AF	13	50	77
1/2"	27 AF	15	50	77
3/4"	32 AF	15	52	78
1"	39 AF	20	56	81
1 1/4"	50 AF	20	66	85
1 1/2"	60 AF	20	66	87

Order Details (Ex: TSA-6105)

Connection (NPT)	Model (PTC Sensor)		Model (Pt 100 Sensor)	
	Brass	SS	Brass	SS
1/4"	TSA-5105	TSA-5205	TSA-6105	TSA-6205
3/8"	TSA-5110	TSA-5210	TSA-6110	TSA-6210
1/2"	TSA-5115	TSA-5215	TSA-6115	TSA-6215
3/4"	TSA-5120	TSA-5220	TSA-6120	TSA-6220
1"	TSA-5125	TSA-5225	TSA-6125	TSA-6225
1 1/4"	TSA-5132	TSA-5232	TSA-6132	TSA-6232
1 1/2"	TSA-5140	TSA-5240	TSA-6140	TSA-6240

TSA-5... Resistance Values (1 mA Max. Supply Current)

Temperature	Resistance (Ω)	Temperature	Resistance (Ω)
-40 °C	1584 ± 12 (1.9 °C)	60 °C	2314 ± 9 (1.1 °C)
-30 °C	1649 ± 11 (1.7 °C)	70 °C	2397 ± 10 (1.2 °C)
-20 °C	1715 ± 10 (1.5 °C)	80 °C	2482 ± 12 (1.4 °C)
-10 °C	1784 ± 9 (1.3 °C)	90 °C	2569 ± 14 (1.6 °C)
0 °C	1854 ± 8 (1.1 °C)	100 °C	2658 ± 16 (1.8 °C)
10 °C	1926 ± 6 (0.8 °C)	110 °C	2748 ± 18 (2.0 °C)
20 °C	2000 ± 5 (0.7 °C)	120 °C	2840 ± 19 (2.0 °C)
30 °C	2076 ± 5 (0.7 °C)	130 °C	2934 ± 21 (2.2 °C)
40 °C	2153 ± 6 (0.8 °C)	140 °C	3030 ± 23 (2.4 °C)
50 °C	2233 ± 7 (0.9 °C)	150 °C	3128 ± 25 (2.5 °C)