

Temperature Sensor for Contactless Measurement

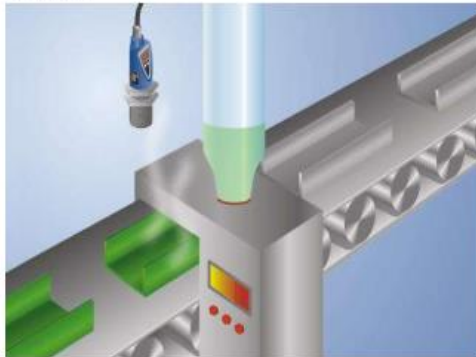
TIF352U0089 LASER

Part Number



- Analog output
- Degree of emission adjustable or teachable from 0,1...1
- Integrated laser alignment aid
- Target performance-value comparison through 2 adjustable switching outputs

This temperature sensor has a spectral sensitivity of 8...14 μm . It receives the emitted radiation within this range and processes this to output signals. Temperatures from -25 to 350 $^{\circ}\text{C}$ can be measured. Via the 4-digit 7-segment display the sensor can be adjusted easily and the measured temperature can be displayed.



Technical Data

Sensor-specific data	
Working Range	-25...350 $^{\circ}\text{C}$
Measuring Range	375 $^{\circ}\text{C}$
Resolution	0,1 $^{\circ}\text{C}$
Spectral Sensitivity	8...14 μm
Linearity Deviation (-25 $^{\circ}\text{C} < T_{\text{obj}} \leq 350$ $^{\circ}\text{C}$)	3,4 K
Linearity Deviation (-20 $^{\circ}\text{C} < T_{\text{obj}} \leq 200$ $^{\circ}\text{C}$)	0,7 K
Switching Hysteresis	1 K
Opening Angle	10 $^{\circ}$
Degree of Emission	0,1...1
Service Life ($T = +25$ $^{\circ}\text{C}$)	100000 h
Laser Class (EN 60825-1)	1
Electrical Data	
Supply Voltage	18...30 V DC
Current Consumption ($U_b = 24$ V)	< 60 mA
Switching Frequency	15 Hz
Response Time	0,065...30 s
Temperature Drift (-20 $^{\circ}\text{C} < T_u \leq 0$ $^{\circ}\text{C}$)	< 0,63 $^{\circ}\text{C}/\text{K}$
Temperature Drift (0 $^{\circ}\text{C} < T_u \leq 60$ $^{\circ}\text{C}$)	< 0,14 $^{\circ}\text{C}/\text{K}$
Temperature Range	-20...60 $^{\circ}\text{C}$
Number of Switching Outputs	2
Switching Output/Switching Current	200 mA
Analog Output	0...10 V/4...20 mA
Reproducibility	2,5 K
Short Circuit Protection	yes
Reverse Polarity and Overload Protection	yes
Interface	RS-232
Protection Class	III
Mechanical Data	
Setting Method	Menu
Housing Material	Stainless Steel, Plastic
Degree of Protection	IP67
Connection	M12 x 1; 8-pin
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	712,08 a
Analog Output	●
Switchable to NC/NO	●
Configurable as PNP/NPN	●
Connection Diagram No.	530
Control Panel No.	U2
Suitable Connection Equipment No.	89
Suitable Mounting Technology No.	130

Complementary Products

Interface Cable S232W3
Software