

Bolt-On Temperature Sensors

Thermocouples and RTDs in an easy-install package

Overview

Bolt-on temperature sensors are designed for easy installation in industrial and commercial environments. The sensors can be mounted on machines, against process pipes, or embedded directly into a machined part. Threaded fasteners install in seconds and can be easily removed for installation at another location.

These sensors are ideal for process control measurements, test and verification of existing systems, and retrofitting existing machines. Standard designs allow prototyping without high setup costs, while significant discounts are available for large quantities.

Standard platinum RTD elements provide stable and reliable output compatible with most control and monitoring systems. Alternatively, physically interchangeable thermocouple designs allow you to easily customize your installation to different instrumentation.

- Removable and reusable
- Wide temperature range
- Configurations to fit most applications
- Standard 100 Ω platinum and 1000 Ω platinum RTD elements
- Type E, J, K or T thermocouples

Case Styles

The illustration to the right shows Minco's standard case styles with RTD (part numbers beginning with S) and thermocouple (part numbers beginning with TC). In addition, the next page offers a number of configuration options including choosing leadwire length and covering.

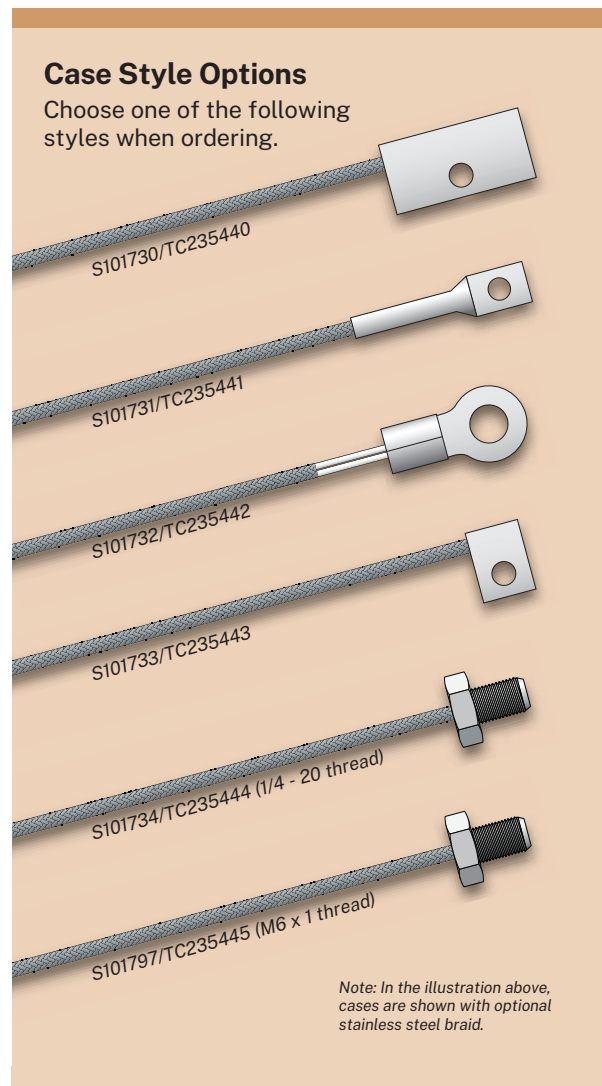
We can provide custom solutions for your sensor needs, including non-standard elements (such as thermistors) and specialized case designs.

Specifications

Time constant: Less than 10 seconds in moving water.




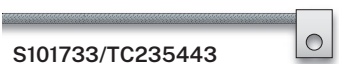

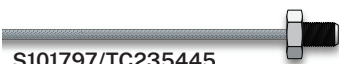
Insulation resistance: 10 megohms minimum at 100 VDC, leads to case.

Vibration: Withstands 10 to 2000 Hz at 20 G's minimum per MIL-STD-202. Method 204, test condition D.



Bolt-On Sensor Options

Customize the sensor to best fit application needs

Case	Case Dimensions	RTD Temp Range	TC Temperature Range	Element Options	Case Material	Leadwire
 S101730/TC235440	0.50 x 1.00 x 0.188" (12.7 x 25.4 x 4.8 mm) w/ 0.161" (4.1 mm) diameter hole	-70 to 500°C (-94 to 932°F)	E, J, K: -270 to 550°C (-454 to 1022°F)	RTD elements: PD: Platinum (0.00385 TCR) 100 Ω ±0.12% at 0°C. (Meets EN60751, Class B) PF: Platinum (0.00385 TCR) 1000 Ω ±0.12% at 0°C Thermocouple elements: E, J, K, T	Stainless steel	RTD: AWG 22, mica-glass insulated TC: AWG 20 solid, glass braid insulated
 S101731/TC235441	0.29 x 1.25 x 0.188" (7.4 x 31.8 x 4.8 mm) w/ 0.161" (4.1 mm) diameter hole	-70 to 500°C (-94 to 932°F)	T: -270 to 350°C (-454 to 662°F)		Stainless steel	RTD: AWG 22, mica-glass insulated TC: AWG 20 solid, glass braid insulated
 S101732/TC235442	0.265" (6.7 mm) ID ring lug	-50 to 260°C (-58 to 500°F)			Nickel-plated copper	RTD: 2-lead: AWG 24, 3-lead: AWG 26, PTFE insulated TC: AWG 24 stranded, TFE insulated
 S101733/TC235443	0.50 x 0.375 x 0.188" (12.7 x 9.5 x 4.8 mm) w/ 0.166" (4.2 mm) diameter hole	-50 to 260°C (-58 to 500°F)	E, J, K: -184 to 260°C (-299 to 500°F)		Stainless steel	RTD: 2 lead: AWG 24, 3 lead: AWG 26, PTFE insulated TC: AWG 24 stranded, TFE insulated
 S101734/TC235444	1/4 - 20 x 3/8" long thread w/ 7/16" hex head	-50 to 260°C (-58 to 500°F)	T: -184 to 200°C (-299 to 392°F)		Stainless steel	
 S101797/TC235445	M6 x 1 thread, 10 mm long, with 10 mm hex				Stainless steel	

RTD Specifications

S101732 Model number from table

PD	Platinum (0.00385 TCR), 100 Ω ±0.12% at 0°C (Meets EN60751, Class B)
3	Number of leads: 2 or 3 2 leads not recommended for PD models
S	Leadwire covering: S101730 or S101731 G = Mica-glass insulated S101732, S101733, S101734 or S101797 T = PTFE insulated S = Stainless steel braid over PTFE insulated
40	Leadwire length in inches: 40" (1000mm) standard: 40,120

S101732PD3S40 = Sample part number

Thermocouple Specifications

TC235442 Model number from table

K	Thermocouple type: E, J, K or T
U	Ungrounded Thermocouple Junction (Junction insulated from case)
36	Leadwire length in inches: 36" (914mm) standard: 36, 72 Leadwire covering: TC235440 or TC235441 G = AWG #20 solid thermocouple wire with glass braid insulation S = Stainless steel braid over glass braid insulated AWG #20 solid thermocouple wire
T	TC235442 through TC235445 T = AWG #24 Stranded Thermocouple wire with TFE insulation S = Stainless steel braid over TFE insulated AWG #24 stranded thermocouple wire

TC235442KU36T = Sample part number