



TEMPERATURE

RIGID AVERAGING THERMISTOR AND RTD SENSOR

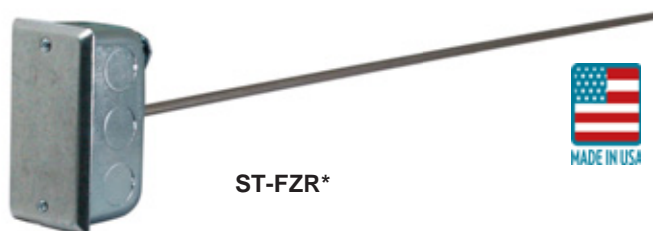
ST-FZR* SERIES



DESCRIPTION

The Precon **ST-FZR* Series Averaging Sensor** provides precision remote temperature sensing for building automation systems and mechanical equipment room instrumentation. The active sensing elements are constructed of highly stable precision thermistor materials or platinum RTDs.

The sensing elements are sealed in a 304 stainless steel probe attached to a standard handy box with mounting bracket attached.



ST-FZR*

FEATURES

- **Lifetime warranty**
- **$\pm 0.36^{\circ}\text{F}$ ($\pm 0.2^{\circ}\text{C}$) accuracy**
- **Wide selection of thermistor curves**
- **Four lengths to fit to most duct sizes**
- **Easy to mount to duct wall**
- **Four sensing elements in a series-parallel arrangement**
- **Rigid sensor**

OPTIONS

- **Weather resistant handy box**
- **25' lead length**

APPLICATION

The **ST-FZR* Series** is designed for direct mounting to sheet metal for average duct temperature sensing. The sensors contain four sensing elements. The thermistors are configured in a series/parallel method, which creates an end result of total average resistance, equal to the same span as a standard thermistor, with a temperature range of 32° to 160°F (0° to 71°C).

SPECIFICATIONS

Accuracy

Thermistor	$\pm 0.36^{\circ}\text{F}$ (0.2°C)
RTD	$\pm 0.54^{\circ}\text{F}$ (0.3°C) 375 curve, $\pm 0.27^{\circ}\text{F}$ ($\pm 0.15^{\circ}\text{C}$) 385 curve $\pm 0.54^{\circ}\text{F}$ (0.03°C) 385 curve

Sensor types

Thermistor @ 77°F	2.252 k Ω , 3 k Ω , 10 k Ω , 20 k Ω , 100 k Ω
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Temperature range

Thermistor	10° to 230°F (-12° to 110°C)
RTD	-67° to 240°F (-55° to 115°C)

Temperature response

Negative temperature coefficient

Stability

0.24°F (0.13°C) over five years

Heat dissipation

2.7 mW/ $^{\circ}\text{C}$ (power needed to raise the temperature by 1°C)

Connections

8' (2.4m) of 24 AWG, pigtails prestripped

Mounting

Directly to duct with black box

Warranty

Lifetime

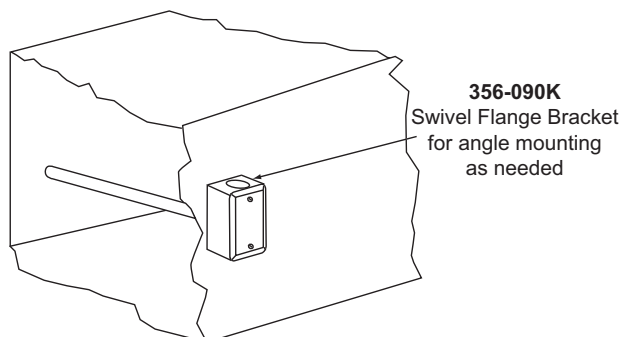
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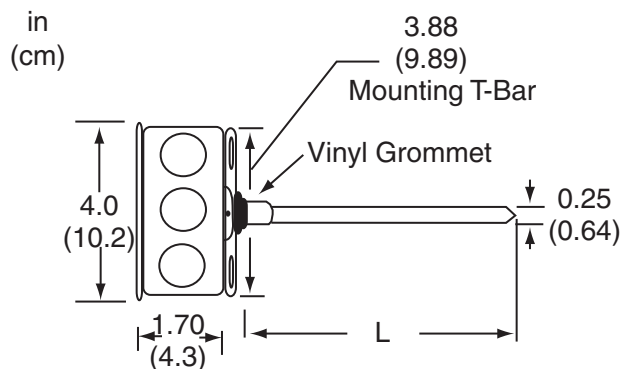


TYPICAL MOUNTING



Supports typically
not required

DIMENSIONS



ORDERING INFORMATION

MODEL	DESCRIPTION
ST-FZR3	10,000Ω averaging thermistor @ 77°F (25°C), Type III (gray leads)
ST-FZR21	2252Ω averaging thermistor @ 77°F (25°C), Type II (green leads)
ST-FZR22	3000Ω averaging thermistor @ 77°F (25°C), Type II (blue leads)
ST-FZR24	10,000Ω averaging thermistor @ 77°F (25°C) Type II (yellow leads)
ST-FZR27	100,000Ω averaging thermistor @ 77°F (25°C), Type II (gray leads)
ST-FZR42	20,000Ω averaging thermistor @ 77°F (25°C), Type IV (green leads)
ST-FZR81	100Ω Room RTD @ 32°F (0°C), 385 platinum curve (yellow leads)
ST-FZR85	1000Ω Room RTD @ 32°F (0°C), 385 platinum curve (blue leads)
ST-FZR91	1000Ω Room RTD @ 32°F (0°C), 375 platinum curve (green leads)
INSERTION LENGTH	
12 in	12" length (30.48 cm)
18 in	18" length (45.72 cm)
24 in	24" length (60.96 cm)
36 in	36" length (91.44 cm)
X¼	Nylon insulated Quick Disconnect ¼"
X25	25' (7.6m) lead length 24 AWG twin lead
XNB	½" MNPT brass close nipple
XW	Weather resistant housing

ST-FZR3 — 12

Example: ST-FZR3-12 in 10,000Ω Type III averaging thermistor sensor with 12" (7.62m) probe and four sensing elements

RELATED PRODUCTS

UR
356-090

Moisture resistant three-wire butt splice
Swivel flange bracket