E-RTDS-E140 / -ER230

ENCAPSULATED RTD SENSORS

E-RTDS-E140

E-RTDS-ER230

CE

DESCRIPTION

E-RTDS-xxxx Sensors provide remote temperature sensing for building automation systems and mechanical equipment room instrumentation. The active sensing element is a highly stable thermistor material or platinum RTD.

The sensor is encapsulated with a low mass, high conductivity compound for good heat transfer characteristics. It is enclosed in a tough, miniature cylinder, 0.17" (0.43 cm) in diameter, which is small enough to be installed in most HVAC thermostat enclosures.

FEATURES

- *Three-year warranty*
- *Wide selection of thermistor and RTD curves*
- *Adaptable miniature sensor*
- *High heat dissipation constant*
- *Easy to mount with clips*
- *Pre-aged, highly stable thermistor material*

APPLICATION
-E140

The -E140 Encapsulated Sensor (white) is intended for indoor use only, in areas not subject to moisture or condensation. The sensor may be installed under the cover of an existing pneumatic thermostat. Caution should be exercised when applying the sensor to existing electric thermostats. Heat is often generated by anticipators or other electronics that will affect the sensor reading. The sensor operating range is 35° to 140°F (2° to 60°C). Do not use in conditions below 35°F (2°C) or where condensation could occur.
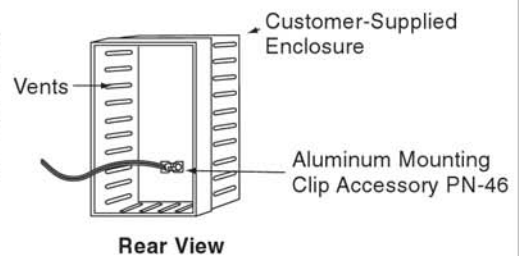
-ER230

The -ER230 Rugged Encapsulated Sensor (red) is suitable for temperature extremes and is immune to the effects of moisture and condensation. Precon uses a three-stage, rugged coating process to moistureproof any sensor which is to be used below ambient dewpoint. The sensor operating range is -30° to 230°F (-34° to 110°C). Vibration or wire stress below 32°F (0°C) can cause the rugged coating to crack.

SPECIFICATIONS

Accuracy	±0.60°F (0.33°C)	**Mounting**	Directly to wall or customer supplied enclosure using customer supplied clips
Sensor Type	100Ω Pt 385 Curve		
Temperature Range	-67° to 240°F (-55° to 115°C)		
Temperature Coefficient	Positive temperature coefficient	**Wiring Terminations**	8', 24 AWG wire leads, 18" leads
Temperature Stability	100% (no drift platinum)	**Approvals**	CE
Heat Dissipation	2.7 mW/°C (power needed to raise the temperature 1°C)	**Weight**	0.3 lb (0.14 kg)
		Warranty	3 years

MOUNTING

Mounting

Secure to enclosure or wall using cable ties, clips, or brackets. To obtain optimum performance, the sensor enclosure/assembly must be highly conductive. Any sensor element surrounded by insulating media will not perform properly at all temperatures or with the proper temperature response times. An accurate room sensor must have good ventilation and a high thermal-conducting metal which is in direct contact with the sensor. The enclosure must be insulated from the building mounting surface to limit wall temperature influence on the sensor.

Rear View

DIMENSIONS

E-RTDS-E140

E-RTDS-ER230