

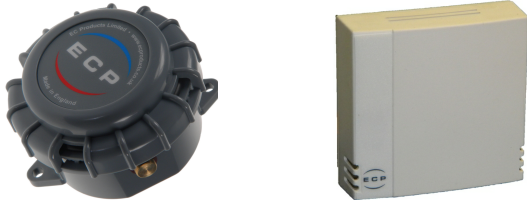


4...20mA Temperature Sensors TE-420

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Description

The TE-420 range of temperature sensors are designed to interface with a wide variety of HVAC control equipment. Units are available with a high quality PT100 platinum element and 4...20mA output transmitter which is supplied in a default range but can be reprogrammed to suit any temperature range required. Units are available for space, duct, surface, immersion and outside mounting.



Features

- 4...20mA loop powered output
- Range can be reprogrammed by the user
- Choice of sensor styles.



Technical Specification

Sensor Type:	PT100 100Ω @ 0°C, 2 or 3 wire, Class A
Output:	2 wire 4...20mA current loop
Accuracy:	0.1°C ±0.05% of reading + sensor accuracy
Power Supply:	10...30Vdc
Loop Voltage Effect:	0.2 uA/V
Thermal Drift:	1 uA/°C
Max. Output Load:	700Ω @ 24Vdc

Order Codes

TE-R420	Space Temperature Sensor -10°C...+40°C
TE-D420	Duct Temperature Sensor -10°C...+40°C
TE-I420	Immersion Temperature Sensor -10°C...+110°C
TE-S420	Strap-on Temperature Sensor -10°C...+110°C
TE-O420	Outside Air Temperature Sensor -10°C...+40°C

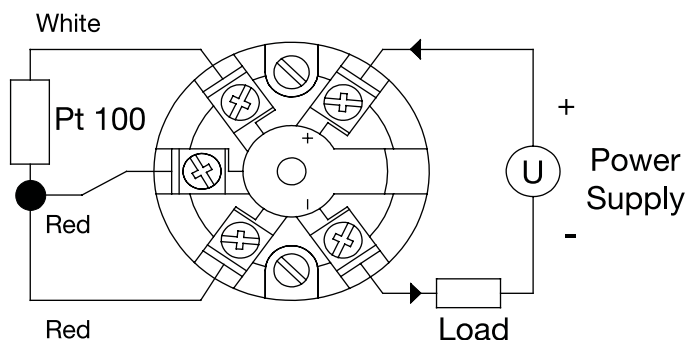
Other sensor types available. Contact us for details

User Configuration

The unit is factory programmed to a default range as shown in the order code but can be re-configured.

Please contact our office for details of user configuration functions.

Wiring



Installation

The TE-420 sensor should be installed by a suitably qualified technician in conjunction with any guidelines for the equipment which it is to be connected to. As a general rule, screened cable should be used to connect the sensor to a BMS or other controller. Please note that none of the TE-420 sensors are suitable for use with mains voltage.

The TE-R420 is a two part unit. The base can be separated from the main body by pushing the latch on the underside of the unit and then levering the case upwards. The base can be fixed to a standard conduit or patress box. The two centre holes can also be used to mount the sensor directly on a wall. The type of fixings required will depend upon what the sensor is being fixed to. The base also has a 15mm square cut-out for passing the cable through.

The TE-D420 can be mounted directly on to the duct. Drill a 7mm diameter hole in the duct and mark the position of the 2 fixing holes with 85mm fixing centres. Drill 2 pilot holes in the positions marked. Insert the sensor probe into the duct, and screw to the duct with 2 screws supplied.

For the TE-I420 choose an accessible location for the sensor pocket where it will lie in the liquid to be measured. Ensure no stratification in liquid flow being measured (e.g. downstream of mixing valves or junctions). Screw the pocket into a 1/2" BSPT threaded. Apply sealant to boss thread. If the boss is threaded incorrectly, an adaptor should be used. Slide sensor probe into pocket with the cable entry at the desired angle. Ensure that the end of the probe is hard against the end of the pocket, and tighten the grub screw to fix the sensor.

For the TE-S420 choose a location where the probe will lie on the surface at a point representative of the temperature to be measured. The sensor can be mounted directly on to the surface using the strap included or other fixing arrangement. Mount the housing nearby by marking the position of the 2 fixing holes with 85mm fixing centres. Drill 2 pilot holes in the positions marked and mount the enclosure with 2 screws supplied.

The TE-O420 should be mounted out of direct sunlight preferably on a north facing wall. Mark the position of the 2 fixing holes with 85mm fixing centres. Drill 2 pilot holes in the positions marked. Mount the housing with 2 screws supplied.

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