# ExTemp

# Intrinsically Safe Infrared Temperature Sensor





- Suitable for hazardous areas, Zone
   0, 1 and 2 (gas), and Zone 20,
   21 and 22 (dust), with a suitable
   Intrinsically Safe isolator
- Temperature range: -20°C to 1000°C
- Two wire, 4-20 mA output
- Rescalable output and adjustable emissivity setting via optional USB adapter
- Fast response time and high stability
- Stainless steel 316 housing ideal for offshore applications
- IP65 sealed
- Supplied with up to 25 m cable

## **GENERAL SPECIFICATIONS**

Temperature range See table of Model Numbers

Maximum Temperature Span1000°CMinimum Temperature Span100°COutput4 to 20 mA

Field of View
See table of Model Numbers
Accuracy
± 1°C or 1%, whichever is greater

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Emissivity Setting Method User configurable via USB interface

Response Time, t<sub>90</sub> 240 ms (90% response)

Spectral Range 8 to 14  $\mu$ m Supply Voltage 12 to 24 V DC  $\pm$  5%

Maximum Current Draw 25 m.

Maximum Loop ImpedanceSee Application Guide(available separately)

### **MECHANICAL**

 Construction
 Stainless Steel 316

 Major Dimensions
 Ø 20 x length 150 mm (see Dimensions)

**Mounting** M20 x 1.5 mm thread, length 46 mm,

supplied with two mounting nuts

Cable Length 5 m, 10 m or 25 m as standard
(custom lengths also available)

Weight with 5 m Cable 475 g

# **ENVIRONMENTAL**

Environmental Rating IP65 (NEMA 4)

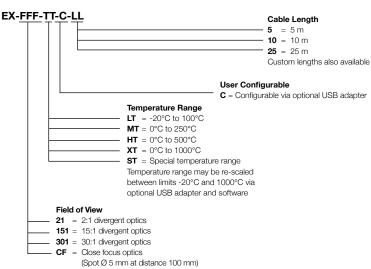
Ambient Temperature Range 0°C to 70°C (Operating range)
Relative Humidity Max. 95% non-condensing

CE Marked Yes RoHS Compliant Yes

#### HAZARDOUS AREA CLASSIFICATION

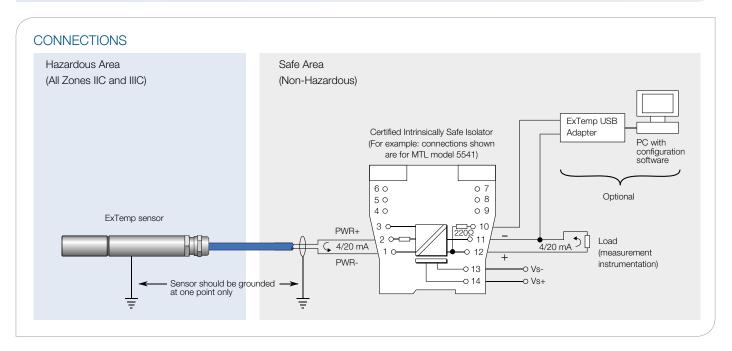
ATEX Classification Ex II 1GD **IECEx Classification (Gas)** Ex ia IIC T4 Ga **IECEx Classification (Dust)** Ex ia IIIC T135°C IP65 Da **Ambient Temperature Rating**  $-20^{\circ}\text{C} \le \text{Ta} \le 70^{\circ}\text{C}$ **Maximum DC Input Voltage** Ui = 28 V**Maximum Input Current** li = 93 mA**Maximum Input Power** Pi = 650 mW **Maximum Internal Capacitance** Ci = 8 nFMaximum Internal Inductance Li = 0 mHCML 14ATEX2079 ATEX Certificate Number **IECEx Certificate Number** IECEx CML 14.0032

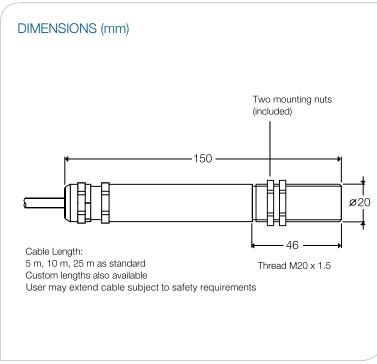
# **MODEL NUMBERS**





#### DIAMETER OF TARGET SPOT MEASURED VERSUS DISTANCE FROM SENSING HEAD Distance: Sensor to object (inches) 19.7 39.4 39 Spot Dia. (inches) Spot Dia. (inches) Dia. Spot Dia. (inches) Spot (inch 1.8 1.1 8. 0.20 0.49 D:S 2:1 D:S 15:1 D:S 30:1 11.0 11.0 11.0 5.0 12.5 Dia. 45.2 Spot Dia 28.6 Dia. 45.2 78.6 Spot Spot 100 500 1000 500 1000 100 200 Distance: Sensor to object (mm) -151 -21 -301 -CF





# **CONFIGURATION**

The ExTemp sensor may be connected to a PC via the optional USB adapter and included Windows software.

Configurable settings include the emissivity setting, 4-20 mA temperature range, averaging, peak and valley hold processing and reflected energy compensation.



### **ACCESSORIES**

FBL Fixed mounting bracket (1-axis rotation)

ABL Adjustable mounting bracket (2-axis rotation)

APMW Air purge collar (for 2:1 optics)

APMN Air purge collar (for all other optics)

CALCERTA Calibration certificate, 3 temperature points, UKAS traceable

LCT USB adapter and configuration software