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 Span100°CMinimum Temperature Span100°C

Output 4 to 20 mA

 Field of View
 See table of Model Numbers

 Accuracy
 \pm 1°C or 1%, whichever is greater

 Repeatability
 \pm 0.5°C or 0.5%, whichever is greater

Emissivity Setting Range 0.20 to 1.00 (pre-set to 0.95)

Emissivity Setting Method User configurable via USB interface

Response Time, t90 240 ms (90% response)

 $\textbf{Spectral Range} \hspace{1.5cm} 8 \text{ to } 14 \, \mu \text{m}$

 $\textbf{Supply Voltage} \hspace{1.5cm} 12 \text{ to } 24 \text{ V DC} \pm 5\%$

Maximum Current Draw 25 mA

Maximum Loop Impedance See Application Guide (available separately)

MECHANICAL

Construction Stainless Steel 316

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

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)

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
Weight with 5 m cable 475 g

HAZARDOUS AREA CLASSIFICATION

ATEX Classification Ex II 1GD IECEx Classification (Gas) Ex ia IIC T4 Ga Ex ia IIIC T135°C IP65 Da **IECEx Classification (Dust) Ambient Temperature Rating** -20°C < Ta < 70°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 mH**ATEX Certificate Number** CML 14ATEX2079 **IECEx Certificate Number** IECEx CML 14.0032

MODEL NUMBERS

EX-FFF-TT-C-LL

Cable Length

5 = 5 m **10** = 10 m **25** = 25 m

Custom lengths also available

User Configurable

C = Configurable via optional USB adapter

Temperature Range

LT = -20°C to 100°C MT = 0°C to 250°C HT = 0°C to 500°C

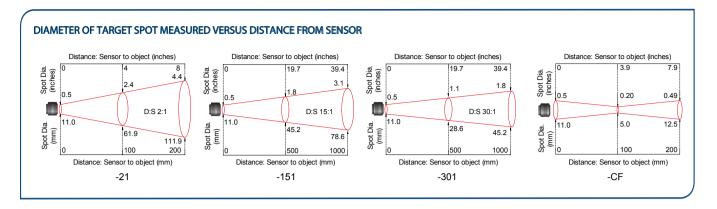
XT = 0°C to 1000°C **ST** = Special temperature range

Temperature range may be re-scaled between limits -20°C and 1000°C via optional USB adapter and software

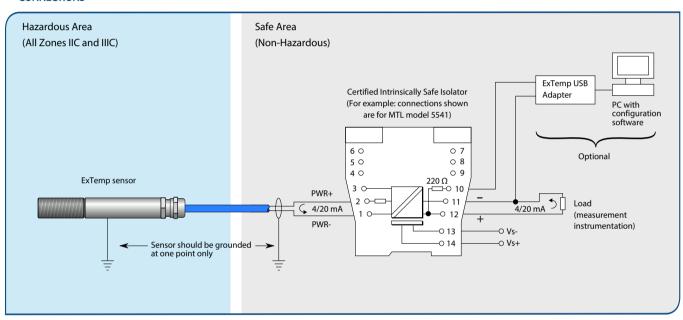
Field of View

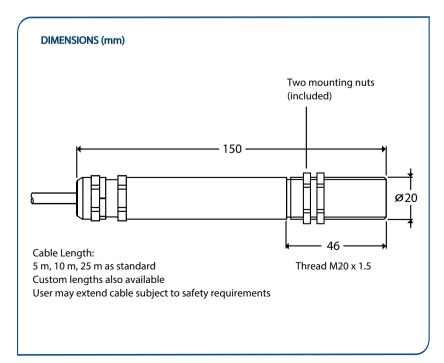
21 = 2:1 divergent optics 151 = 15:1 divergent optics 301 = 30:1 divergent optics CF = Close focus optics

(Spot Ø 5 mm at distance 100 mm)



CONNECTIONS





CONFIGURATION

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

Adjustable 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