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 Span | 1000°C
Minimum Temperature Span | 100°C
Output | 4 to 20 mA
Field of View | See table of Model Numbers
Accuracy | ± 1°C or 1%, whichever is greater
Repeatability | ± 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)
Spectral Range | 8 to 14 μm
Supply Voltage | 12 to 24 V DC ± 5%
Maximum Current Draw | 25 mA
Maximum Loop Impedance | See 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°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 nF
Maximum Internal Inductance | Li = 0 mH
ATEX Certificate Number | CML 14ATEX2079
IECEx Certificate Number | IECEx CML 14.0032

MODEL NUMBERS

EX-FFF-TT-C-LL

<table>
<thead>
<tr>
<th>Cable Length</th>
<th>User Configurable</th>
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<tbody>
<tr>
<td>5 = 5 m</td>
<td>C = Configurable via optional USB adapter</td>
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<tr>
<td>10 = 10 m</td>
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<td>25 = 25 m</td>
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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)
DIAMETER OF TARGET SPOT MEASURED VERSUS DISTANCE FROM SENSING HEAD

CONNECTIONS

Hazardous Area
(All Zones IIC and IIIC)

Safe Area
(Non-Hazardous)

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