



Intrinsically Safe Infrared Temperature Sensor

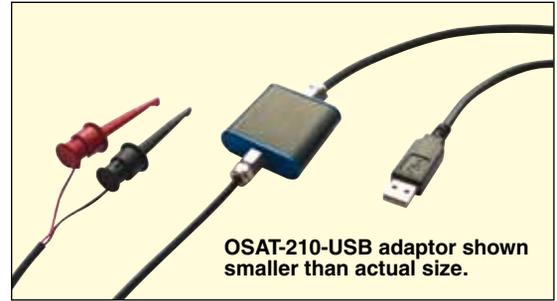
For Use in Hazardous Areas

OSAT Series

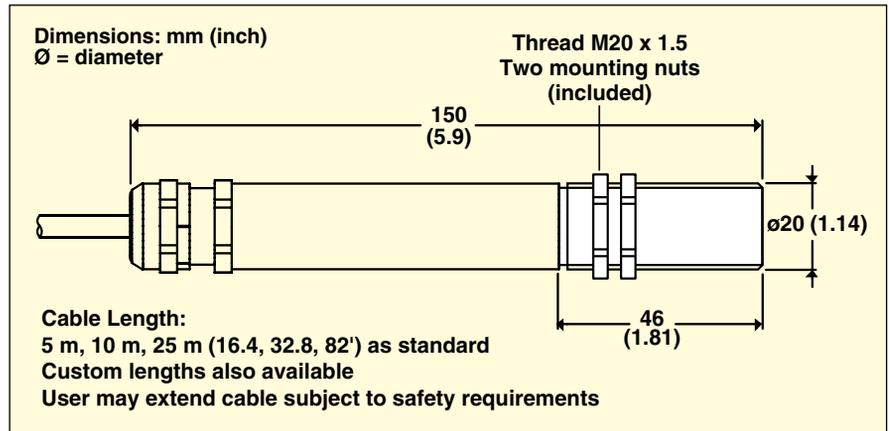


OSAT-151-C-LT-5 shown smaller than actual size.

- ✓ 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 to 1000°C (-4 to 1832°F)
- ✓ Two-Wire, 4 to 20 mA Output
- ✓ Re-Scalable Output and Adjustable Emissivity Setting via Optional USB Adaptor
- ✓ Fast Response Time and High Stability
- ✓ 316 Stainless Steel Housing—Ideal for Offshore Applications
- ✓ IP65 Sealed
- ✓ Supplied with Up to 25 m Cable



OSAT-210-USB adaptor shown smaller than actual size.



General Specifications

Output: 4 to 20 mA
Temperature Range: See To Order chart on next page
Maximum Temperature Span: 1000°C (1832°F)
Minimum Temperature Span: 100°C (180°F)
Field of View: See To Order chart on next page for details
Accuracy: $\pm 1^\circ\text{C}$ or 1%, whichever is greater
Repeatability: $\pm 0.5^\circ\text{C}$ 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, t_{90} : 240 ms (90% response)

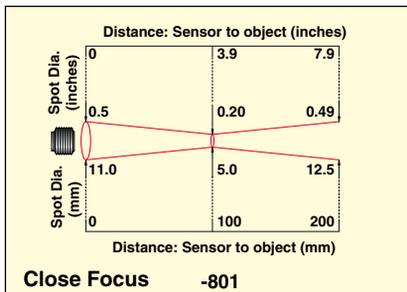
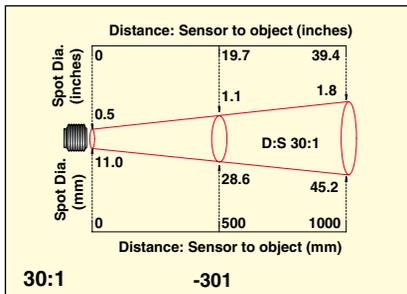
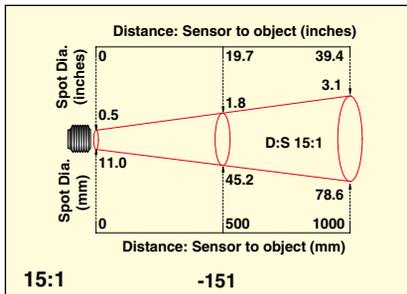
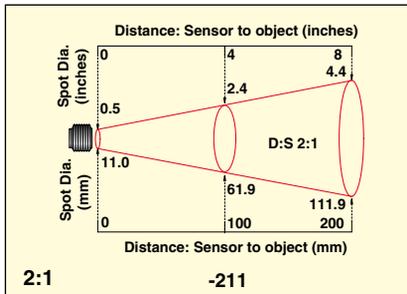
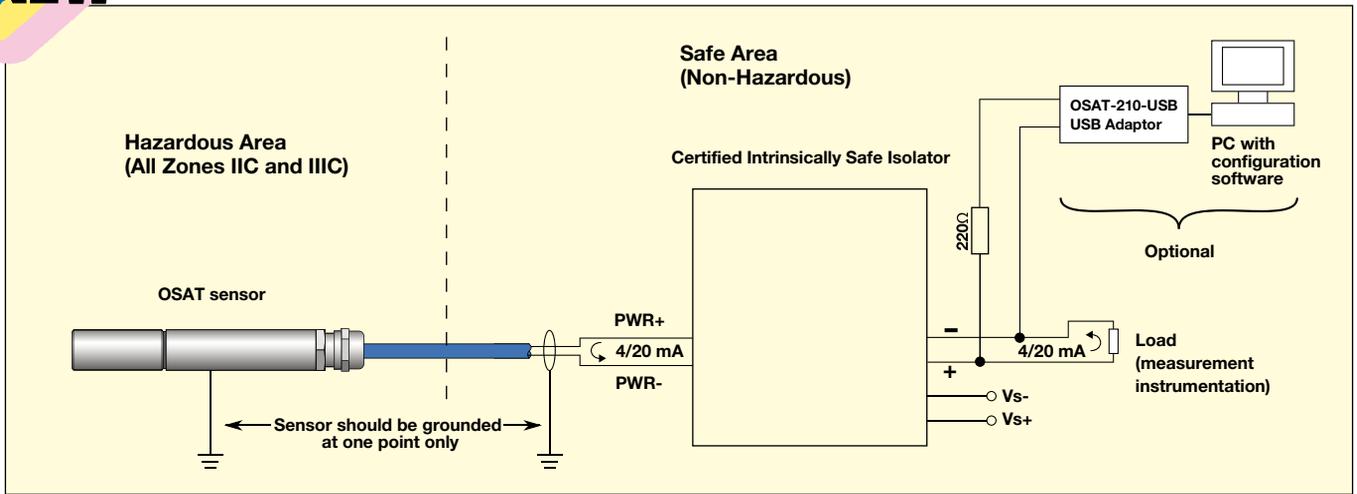
Spectral Range: 8 to 14 μm
Supply Voltage: 12 to 24 Vdc, $\pm 5\%$
Maximum Current Draw: 25 mA
Construction: Stainless Steel 316
Dimensions: $\varnothing 20 \times$ length 150 mm (5.9")
Mounting: M20 x 1.5 mm thread, length 46 mm (1.81"), supplied with two mounting nuts
Cable Length: 5, 10 or 25 m (16.4, 32.8, 82') as standard (custom lengths also available)
Weight: 475 g (1 lb), with 5 m (16.4') cable

ENVIRONMENTAL

Environmental Rating: NEMA 4 (IP65)
Ambient Temperature Operating Range: 0 to 70°C (32 to 158°F)
Relative Humidity: 95% non-condensing maximum

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: $-20^\circ\text{C} \leq T_a \leq 70^\circ\text{C}$
Maximum DC Input Voltage: $U_i = 28\text{V}$
Maximum Input Current: $I_i = 93\text{ mA}$
Maximum Input Power: $P_i = 650\text{ mW}$
Maximum Internal Capacitance: $C_i = 8\text{ nF}$
Maximum Internal Inductance: $L_i = 0\text{ mH}$
ATEX Certificate Number: CML 14ATEX2079
IECEx Certificate Number: IECEx CML 14.0032



| To Order | |
|-------------------------------|---|
| Model No. | Description |
| OSAT-[*]-C-[**]-[***] | ATEX infrared temperature transmitter |
| Field of View [*] Select | |
| 211 | 2:1 |
| 151 | 15:1 |
| 301 | 30:1 |
| 801 | 5 mm diameter at 100 mm (1/5" at 4") |
| Temperature Range [**] Select | |
| LT | -20 to 100°C (-4 to 212°F) |
| MT | 0 to 250°C (32 to 482°F) |
| HT | 0 to 500°C (32 to 932°F) |
| XT | 0 to 1000°C (32 to 1832°F) |
| ST | Custom, within -20°C (-4°F) and 1000°C (1832°F) |
| Cable Length [***] Select | |
| 05 | 5 m (16') |
| 10 | 10 m (33') |
| 25 | 25 m (82') |

To order with a UKAS traceable calibration certificate at 3 temperature points add **"-CALCERTA"** to end of model number, contact Sales for additional cost.
 If ordering **"ST"** custom range option, then specify range required in order comments.
Ordering Example: **OSAT-151-C-LT-05**, ATEX infrared temperature sensor with 15:1 optics, -20 to 100°C (-4 to 212°F) measurement range, user configurable, with 5 m (16') of cable.

| Accessories | |
|---------------------|---|
| Model No. | Description |
| OSUSB-FBL | Fixed mounting bracket (1-axis rotation) |
| OSUSB-ABL | Adjustable mounting bracket (2-axis rotation) |
| OSAT-210-APM | Air purge collar |
| OSAT-210-USB | USB adaptor and configuration software |