

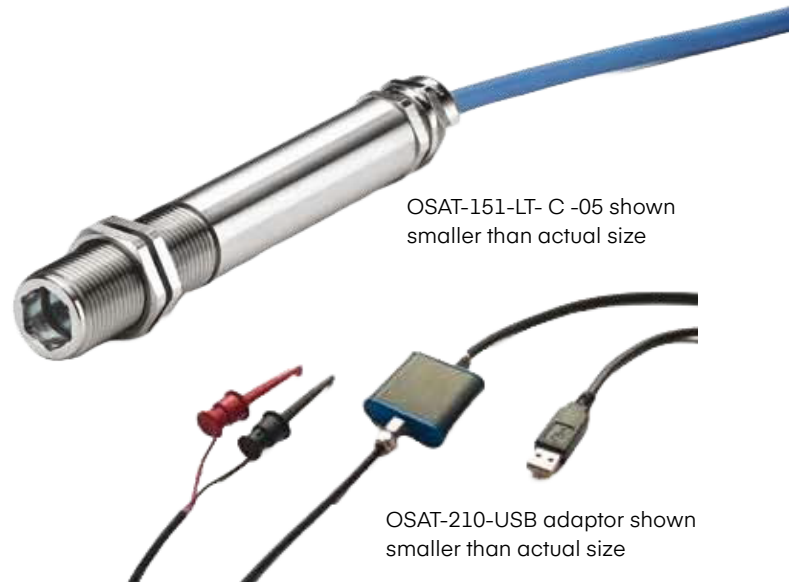
OSAT Series

Intrinsically Safe Infrared Temperature Sensor for Use in Hazardous Areas

- 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 (-4 °F to 1832 °F)
- Two-Wire, 4 mA 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

General Specifications

Output	4 mA to 20 mA
Temperature Range	See Ordering Guide on the next page for details
Maximum Temperature Span	1000 °C (1832 °F)
Minimum Temperature Span	100 °C (180 °F)
Field of View	See Ordering Guide on the next page for details
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, τ_{90}	240 ms (90 % response)
Spectral Range	8 μ m to 14 μ m
Supply Voltage	12 Vdc to 24 Vdc, ± 5 %
Maximum Current Draw	25 mA
Construction	Stainless Steel 316
Dimensions	$\varnothing 20$ x length 150 mm (5.9 in)
Mounting	M20 x 1.5 mm thread, length 46 mm (1.81"), supplied with two mounting nuts
Cable Length	5 m, 10 m or 25 m (16.4 ft, 32.8 ft, 82 ft) as standard (custom lengths also available)
Weight	475 g (1 lb), with 5 m (16.4 ft) cable



Environmental Specifications

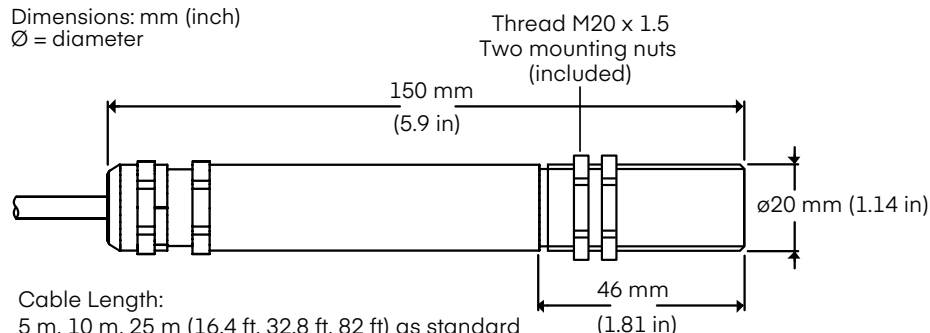
Environmental Rating	NEMA 4 (IP65)
Ambient Temperature Operating Range	0 °C to 70 °C (32 °F to 158 °F)
Relative Humidity	95% non-condensing maximum

Hazardous Area Classification

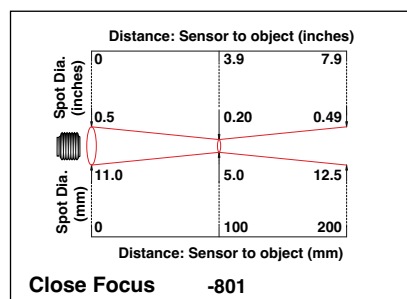
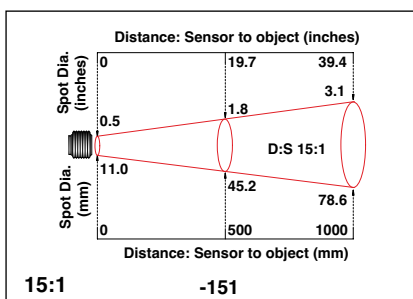
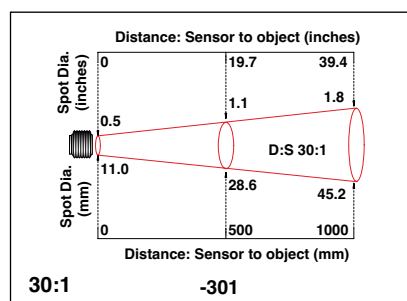
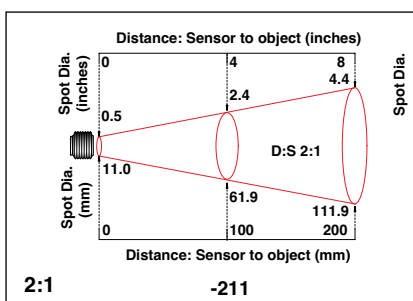
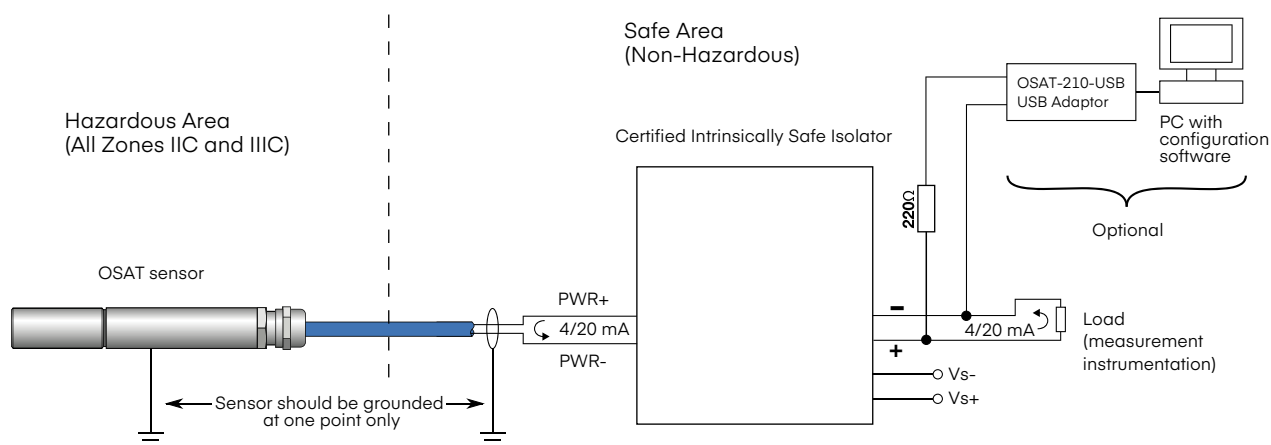
ATEX Classification	Ex II 1GD
IECEx Classification (Gas)	Ex ia IIC T4 Ga
IECEx Classification (Dust)	Ex ia IIIC T135°C IP65 Da
Ambient Temperature Rating	-20 °C $\leq$ Ta $\leq$ 70 °C
Maximum DC Input Voltage	Ui = 28V
Maximum Input Current	Ii = 93 mA
Maximum Input Power	Pi = 651 mW
Maximum Internal Capacitance	Ci = 8 nF
Maximum Internal Inductance	Li = 0 mH
ATEX Certificate Number	CML 14ATEX2079
IECEx Certificate Number	IECEx CML 14.0032

Dimensions and Wiring Diagram

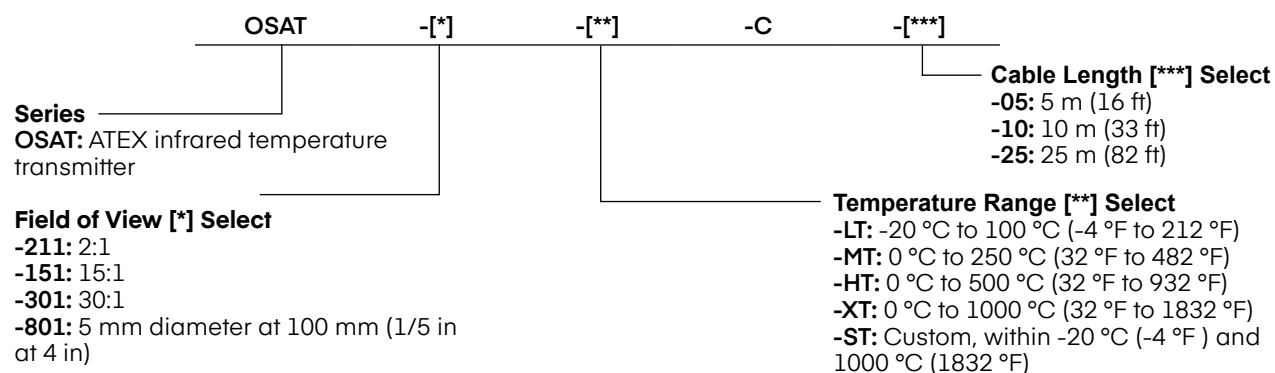
Dimensions: mm (inch)
Ø = diameter



Cable Length:
5 m, 10 m, 25 m (16.4 ft, 32.8 ft, 82 ft) as standard
Custom lengths also available
User may extend cable subject to safety requirements



Ordering Guide



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-LT-C-05, ATEX infrared temperature sensor with 15:1 optics, -20 °C to 100 °C (-4 °F to 212 °F) measurement range, user configurable, with 5 m (16 ft) 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



DS-OSAT

