EXERGEN Global Industrial OEM Sales

Infrared Temperature Sensors

DATASHEET

Product Overview

IRt/c.20A Base Model



• 20:1 Field of View

Technical Data

Target SurfaceType	Hi E (non-metal)	Lo E (metal)
Sensing Range	500 to 3000°F (260 to 1650°C)	1000 to 3500°F (540 to 1930°C)
Optimum Range Selections	One model each J, K: adjustable over entire sensing range, output tables available	
Minimum Spot Size at dist. (with supplied apertures)	No Aperture: 0.8" (20 mm) at <16" (400 mm) ½" Aperture: 0.5" (13 mm) at <9" (230 mm) ¼" Aperture: 0.25" (6 mm) at<3.5" (90 mm)	
Field-of-View at > min. spot	20:1 (3°) approximately	
Spectral Response	2 to 20 μ	0.1 to 5 μ
Output Impedance	6 to 13 Kohms approx	9 to 18 Kohms approx
Cable	Twisted shielded pair of base thermocouple material (J,K,etc.), 3 ft (.9 m) std length, Teflon sheathed, rated to 392°F (200°C) continuous service.	
Dimensions	4.15" x 1.375" Dia. (105 x 35 mm)	
Weight	8.7 oz (248 g) with cable	
Housing	Stainless steel, hermetically sealed, exceeds NEMA 4,4x; IP65,67, intrinsically safe, cable shield grounded to housing and electrically isolated fromsignal	
Air Purge	Built-in; cooling capacity to 400°F (200°C) ambient; 3' (0.9 m) polyurethane tubing provided	

Set-up and calibration instructions

For all IRt/c Models with "A" in model designation (IRt/c.xxxA)

- 1. Connect air purge first if installing in process already at operating temperature. Provide minimum 5 psig (30 kPa) air pressure.
- 2. Install IRt/c and align to view the desired target. Bring target to operating temperature if not already there. Connect leads to readout device to be used (controller, PLC, etc.).
- 3. If the target temperature is not known, measure the target temperature with an accurate reference. Remove the setscrew to expose the calibration screw. Adjust the calibration screw to obtain reading desired. Replace the setscrew cover when complete. For final process adjustments, the ZERO or OFFSET adjustments available on readout devices can be conveniently used.



- Installation and calibration complete.
- To maximize the linear range, see Tech Note #70.
- Calibration screw operates like a radio volume control: clockwise increases signal.

Exergen Global offices:

The Netherlands Pastoor Clercxstraat 26 5465 RH Veghel Tel: +31 (0)413 376 599 Fax: +31 (0)413 379 310 USA 400 Pleasant Street Watertown, MA 02472 Tel: +1 617 649 6322 Fax: +1 617 923 9911 office@exergenglobal.com www.exergenglobal.com