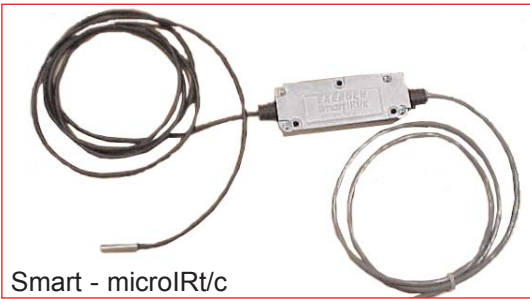


# EXERGEN

## Smart-microIRt/c SERIES

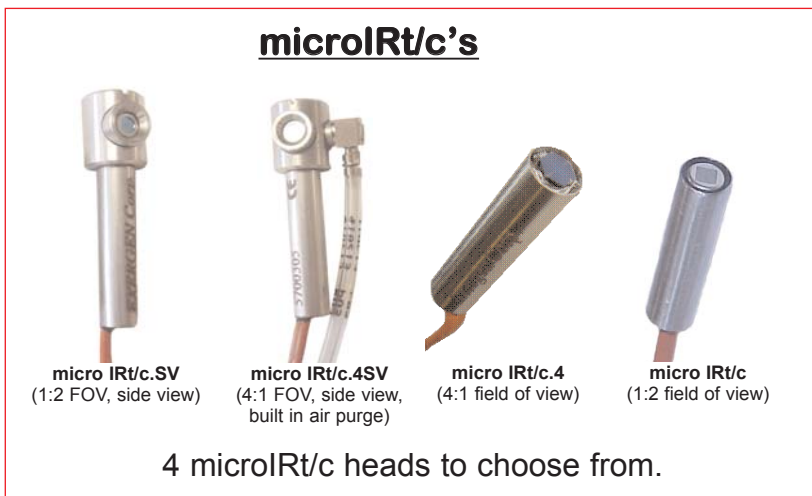


Smart - microIRt/c

**Adding Smart linearization to the smallest IR temperature sensors in the World!**

### FEATURES

- Non-Contact Temperature Measurement, that's Plug and Play
- No Impedance, leakage current, or linearity problems to worry about
- Sensor head is remote and without air purge can be used in ambient temperatures to 100 °C (212 °F) and with small sized air purge jacket can be cooled to 350 °F (177 °C)
- The sensor heads are the smallest sized in the market (0.25" diameter)
- Precision with changes in sensor head ambient
- All digital system
- LOW COST!



The smallest sized IR temperature sensor in the world now has brains. By combining the microIRt/c sensor head with the SmartIRt/c platform, precision in small places is now a reality. The Smart processes the signal from the microIRt/c, linearizes, and gives an analog output (4-20mA, 0-5V, 0-10V). Accuracy holds with changes in ambient from -45 to 100 °C, with no drifting. Four sensor heads with 1:2 and 4:1 optics, straight and side view mounting, built in air purge (cool to 120 °C), air purge jackets (cool to 175 °C), and mounting brackets are available. The IRt/c.01, IRt/c, IRt/c.1X, IRt/c.SV, IRt/c.5, IRt/c.10 and adjustable IRt/c's heads are also available (See specs at: <http://www.exergen.com/industrial/irtc/specs/index.htm>)

# SMALL SIZED AND LINEARIZED!

SPECIFICATIONS	Smart-microIRt/c	Smart-microIRt/c.SV	Smart-microIRt/c.4	Smart-microIRt/c.4SV
Sensing Ranges:	-30-70 °C, 0-100 °C, 0-250 °C, 0-500 °C (only 4:1's) (-22-158 °F, 32-212 °F, 32-482 °F, 32-932 °F)			
Output:	0-10V, 0-5V, 4-20mA, RS232			
Ambient Range:	Sensing Head: -40—212 °F (-40—100 °C) Transmitter: 0—70 °C (32 -158 °F)			-40—240 °F (-40—120 °C) With built in air purge
Field of View:	1:2 (3 mm, 0.1" min spot)		4:1 (3 mm, 0.1" min spot)	
Power Supply:	12 or 24 VDC (±10%), Shuts off when voltage is functionally low.			
Update Time:	< 250 milliseconds; Time constant = 40 milliseconds			
Accuracy: (Includes repeatability & interchangeability)	2% of full scale *		3% of full scale*	
Environmental:	Sensor Head: IP67, NEMA 4X, Non condensing humidity.			
Storage Temperature:	14 °F-158 °F (-10-70 °C)			
Relative Humidity:	Non-condensing			
Allowed Load Impedance	(voltage models) 750 Ω			
Loop Impedance	(4-20mA models) 50 Ω			
Cable Assembly:	10 feet (3 meters) from sensor to transmitter and 10 feet (3 meters) from transmitter, 24 AWG stranded			
Power Consumption:	< 800mW at 24VDC; < 400mW at 12VDC			
Emissivity Setting:	0.90, may be adjusted for large quantities			
Spectral Response:	5.5-20 μm		3-20 μm	
Minimum Spot Size:	0.1" (3 mm)		0.1" (3 mm)	
Size and Weight	See individual data sheets for sensors at: <a href="http://www.exergen.com/industrial">www.exergen.com/industrial</a>			
LED	Indicates normal operation and for diagnostics			

## ORDERING INFO: Smart-microIRt/c.\*-\*\*-\*\*\*-\*\*\*\*

\* - blank (1:2 FOV), SV (1:2 FOV, side view), 4 (4:1 FOV), 4SV (4:1 FOV, side view)

\*\* - 12V (12VDC power), 24V (24VDC power)

\*\*\* - 010 (0-10V), 05 (0-5V), 420 (4-20mA), 232 (RS-232)

\*\*\*\* - 100C (0-100C), 250C (0-250C), 70C (-30-70C), 500C(0-500C)

**Example:** Smart-microIRt/c.SV-010-100C (1:2 FOV, side view, 0-10V from 0-100C)

+ - Does not apply when target temperature is more than 10°C cooler than ambient.