

## IN-LINE PRE-CALIBRATED TRANSMITTER FOR EASY, RELIABLE INSTALLATION

### Model t/c.XMTR- \* - \*\* 4-20 mA Transmitter

Current loop transmitters for thermocouples have traditionally been designed as “hockey pucks” in order to fit thermowell heads, thus complicating installation for applications not using a thermowell, and requiring a housing for protection. Additionally, they generally have to be calibrated to a specific range, usually with thermocouple simulators or other such device, thus requiring significant set up time and the possibility of unauthorized recalibration.

The t/c.XMTR is designed to overcome both of the costly inconveniences:

- In-line design is only slightly larger than the cable and requires no mechanical support.
- Precalibrated for thermocouple type and temperature range eliminates all adjustments, requirements for simulators, etc.
- Hermetically sealed stainless steel construction is suitable for the harshest service without any additional packaging.

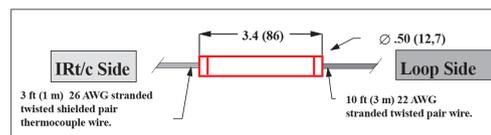
The t/c.XMTR is specifically designed to interface to any model IRt/c (or any conventional thermocouple) by a simple thermocouple connector or splice. The 2-wire current loop can be used in any conventional current loop circuit that is scaled for the temperature range of interest.

### Model Selection

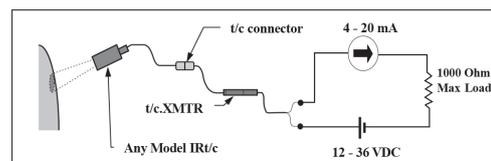
1. Select the correct IRt/c model for the application: target temperature, target material, field-of-view.
2. Select the t/c.XMTR model for the t/c type and temperature range from the table below.  
Example: t/c.XMTR-K150

### Installation

1. Install IRt/c as normal.
2. Connect IRt/c output cable to the thermocouple input side of the transmitter using standard t/c connector, splice, or other standard method of connecting thermocouple cables. Transmitter should be located in a an environment no higher than 158°F (70°C) in temperature. Additional t/c extension wire may be added as required. Use of twisted shielded t/c wire is recommended (same as on the IRt/c and transmitter), and maintain shield connections.
3. Check load on transmitter and power supply voltage for correct range (10 VDC minimum @ 10W; to 22 VDC minimum @ 1KW).



4. Set readout device (controller, computer, PLC, etc.) for 4 to 20 mA range to match the t/c.XMTR model range.
5. Perform final calibration of IRt/c installation in accordance with IRt/c instructions, using offset on current loop readout device.
6. Installation complete.



Model Numbers	J150	J500	J1200	K2000	S3000
Example: t/c.XMTR-J-150	K150	K500	K1200		
Temperature at 4 mA	32°F				
Temperature at 20 Ma	150°F (65°C)	500°F (260°C)	1000°F (540°C)	2000°F (1100°C)	3000°F (1650°C)

Exergen Corporation office:

USA  
400 Pleasant Street  
Watertown, MA 02472  
Tel: +1 617 923 9900 press 4 for industrial  
Fax: +1 617 923 9911

Exergen Industrial International/OEM Sales office:

Clever IR  
The Netherlands  
Pastoor Clercxstraat 26  
5465 RH Veghel  
Tel: +31 (0)413 376 599

industrial@exergen.com  
www.exergen.com