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CONAX TECHNOLOGIES
2300 WALDEN AVENUE, BUFFALO, NY 14225

INSTALLATION AND MAINTENANCE MANUAL

FOR

CONAX

TEMPERATURE TRANSMITTERS

MODEL DRTx-RTD

PREPARED BY P. R. Calabrese, Prin. Elec. Design Engineer DATE 8/13/97

APPROVED BY R. A. Lyon, Product Marketing Engineer DATE 8/14/97

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REVISION RECORD				
Revision	Affected Paragraphs	Brief Description of Revision	Date	Approval Signature
Orig.	All	Original Release per E.O. QP-1498	8/13/97	P. Calabrese
A	Appendix A	Revised per E.O. QP-2517	3/23/00	P. Calabrese
B	5.0 & Appendix A	Revised per E.O. QP-3431	7/18/01	R. Crawford
C	All	Revised per E.O. QP-8607	6/10/08	G. Barnhard

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Conax™ TECHNOLOGIES

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1.0 SCOPE

This manual provides basic ordering information and specifications for Pt-100 RTD Input, DIN rail mounted, 2 and 4 Wire powered Temperature Transmitter, Model DRTx-RTD, Conax P/N 318555-xxx.

2.0 APPLICABLE DOCUMENTS

2.1 Conax Sales Order.

2.2 Customer purchase order (specified in Conax sales order).

3.0 GENERAL DESCRIPTION

The DRTx is a low cost, non-isolated, linearized, compensated temperature transmitter. The units provide an output which is linear with respect to the sensor's temperature.

The DRTx is powered by standard industrial loop powered supply and provide a 4-20mA current loop output on 2-wire transmitter systems (DRT2-RTD) or any standard current or voltage output on a 4-wire system (DRT4-RTD).

4.0 SPECIFICATIONS

Output (DRT2-RTD):	Current loop: 4-20 mA
(DRT4-RTD):	0...1...4...20mA
	0...1...4...5...10V
Input:	Pt-100,2,3 or 4 wire RTD.
	Other Pt, Ni, NiFe, Cu RTD's
Input Temperature Range:	-200ºC to 850ºC (-328ºF to 1562ºF).
Input Span:	20ºC Min. to 800ºC Max.
Supply Voltage:	24 VDC ±20% polarity protected.
Operating Temp.:	-20 to +70ºC (0 to 160ºF) .
Linearity:	Better than 0.1% referred to the sensor's actual temperature.
Lead Wire Error:	4-wire, negligible.

3-wire, better than 100:1 compensation.

Stability: < ± 0.01% of range/ºF (100ºC span)

Adjustments: ± 25% on both zero and span.

Mounting: DIN rail, 35mm.

5.0 INSTALLATION

The DRT may be mounted on standard 35 mm DIN rails. Simply place the lower rear rail groove onto the rail and push the unit until it snaps in its place. To dismount, pull the unit in a downward tilt movement away from the rail.

For wiring information, see Appendix A.

6.0 CALIBRATION AND OPERATION

The DRT has been factory calibrated prior to shipment. If trimming is required, access to the zero and span potentiometer (pot) is provided without disassembling the DRT housing.

The following procedure is provided with the assumption the DRT has been properly ranged at the factory.

1) Connect a RTD simulator to the DRTx-RTD as indicated in Para. 5.0 above.
   (allow 15 minutes for temperature gradients to equalize)

2) Connect a digital current meter to the output loop for the DRT2-RTD or a digital voltmeter for the DRT4-RTD.

3) Set the minimum input signal level on the simulator and adjust the zero pot until the output current/voltage reads the minimum value.

4) Set the maximum input signal level on the simulator and adjust the span pot until the output current/voltage reads the maximum value.

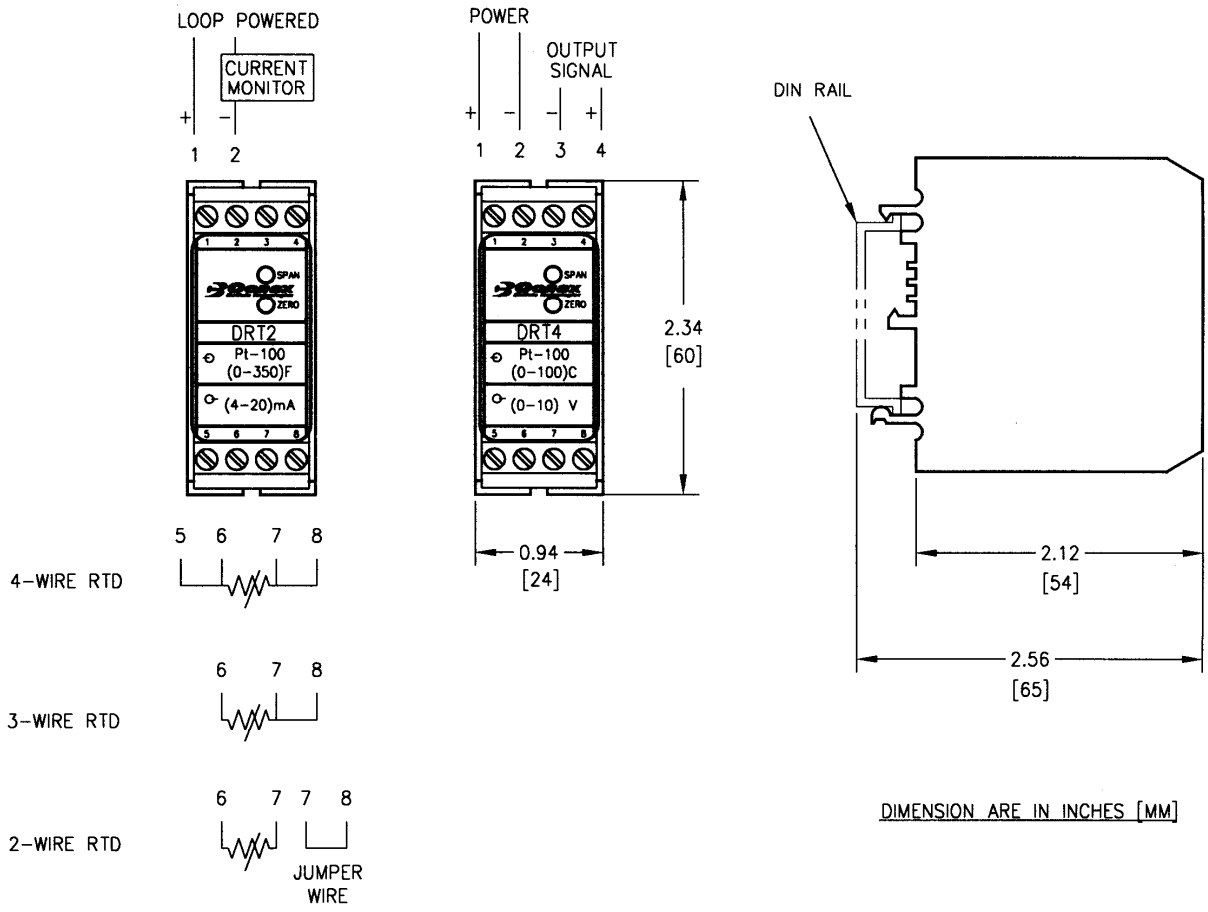
5) Repeat steps 3 and 4 until no further adjustment is needed.

7.0 MAINTENANCE

The electronic components should not be exposed to water or excessive amounts of dust of dirt. Periodic inspection of all wire connections is recommended. Insure all electrical connections are tight, clean and free of corrosion.

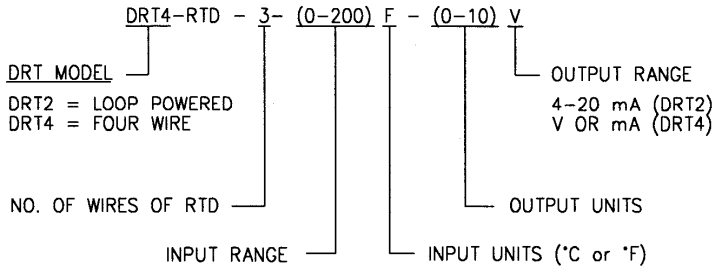
APPENDIX A

WIRING INFORMATION



DIMENSION ARE IN INCHES [MM]

ORDERING INFORMATION



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