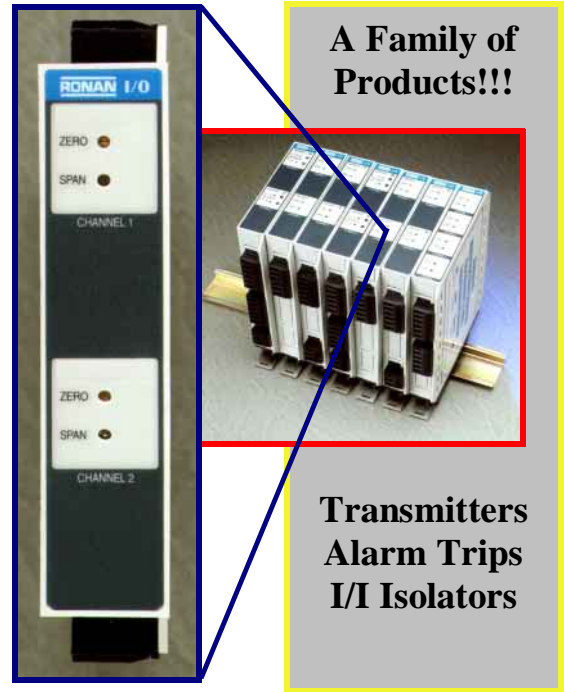


T/C, volt, mV, mA Transmitters - Field Configuration Options—DIN Rail Mounting

X54-3212 2-Wire (output loop powered) Dual Ch. Universal T/C, V, mV, mA Transmitter

- ◆ **High Density Dual Channel Packaging**
- ◆ **Field Configurable Options Including:**
 - (6) T/C types, volt, mV or mA inputs + (7) std. input spans with selectable zero offsets (for non-linearized ranges only)
- ◆ **Ideal for Dual Channel I-to-I Isolator Applications**
- ◆ **Max. Loop Load = 700 ohms at 24 vdc Loop Power**
- ◆ **Full Input/Output/Power and Channel Isolation**
- ◆ **Standard 35 mm DIN Rail Mounting**

DESCRIPTION: The X54-3212 is a dual channel transmitter powered by the output 4-20 mA current loop. Features include: two piece plug-in connectors for easy wiring and maintenance; internal cold junction compensation for T/C inputs, field configurable input types and ranges; optional linearized outputs; full 1000 vac isolation; and front panel access to ZERO and SPAN adjustments. RFI protection, wide operating temperature, and high accuracy are standard features. Custom inputs, outputs, scaling and linearization are available from the factory.



SPECIFICATIONS:

Inputs:

Thermocouple type E, J, K, T, R, S, or mV, volt, mA (linearized outputs available for thermocouples only)

Input Impedance:

T/C or mV > 100 M ohm; volts =>550 K ohm
mA = 10 ohm

Outputs: 4-20 mA into 700 ohms with 24 vdc loop power
I.e.: Max Rload = (Vloop supply- 10 vdc) / 20 mA

Span Adjustment:

Front-accessible, multi-turn, infinite resolution potentiometer permits minimum +/- 5% adjustment.

Zero Adjustment:

Front-accessible, multi-turn, infinite resolution potentiometer permits minimum +/- 5% adjustment

Sensor Failure Response:

Red front-panel LED with upscale drive or down scale drive (mA input are down scale only)

Calibrated Accuracy:

+/- 0.1% of span (linearization errors additional on large span applications, consult factory)

Isolation:

1,000 vac between channels, input and output.

Common Mode Rejection: > 120 dB, DC at 60 Hz.

Common Mode Voltage:

1000 volts peak AC maximum without damage.

Ambient Temperature Coefficient:

Ambient temperature range: 32 to 158°F (0 to 70°C).

Gain: < +/- 0.01 % /°F.

Zero: < +/- 0.005 % /°F.

Ambient Temperature Range:

Operating: -20 to 158°F (-25 to 70°C).

Storage: -40 to 158°F (-40 to 70°C).

Power Supply Range:

10 to 40 vdc (max. allowable at X54)
(reverse polarity protected)

Radio Frequency Effects:

< 0.4 mV (referred to input) + 0.2% of span (referred to output) when exposed to 5W transmitter with frequency range 20-460 MHz at a distance of meter.

Calibration:

Typically, factory calibrated to customer specified ranges. Customer configurable for non-linearized applications.

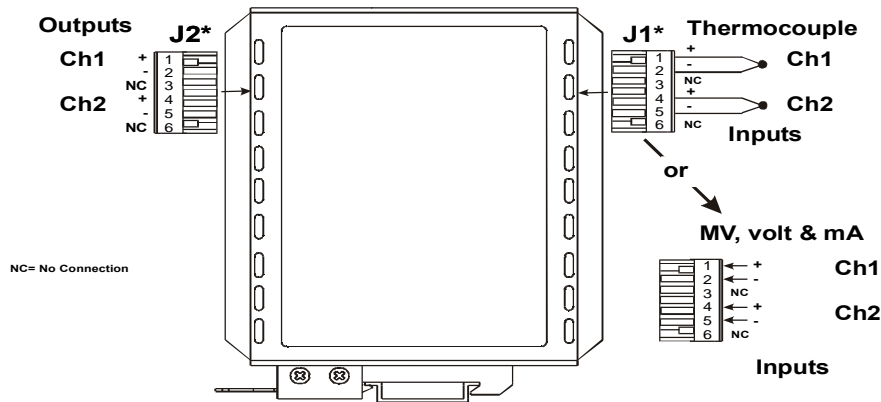
Terminals:

High temperature polyester type, wire size 12 AWG max., 10 A max., 300 V max.

Specifications apply at 23 +/- 2°C (74 +/- 2°F) unless otherwise specified, and are subject to change without notice,

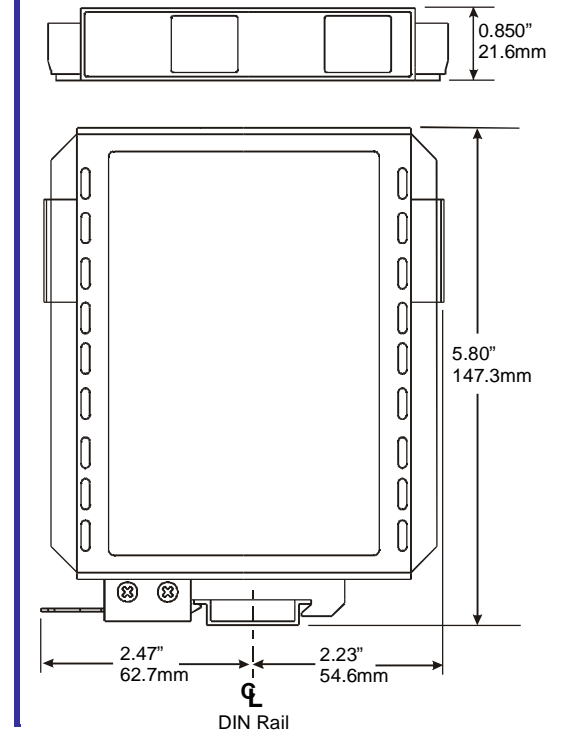
X54-3212 Dual Channel Thermocouple T/C, volt, mV, mA Transmitter (continued)

TERMINAL ARRANGEMENT:

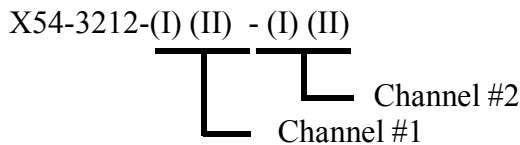


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- 1.) Plug-in connector design simplifies installation and maintenance.
 - 2.) Use up to 12 awg wiring.
 - 3.) When inserted, case back cover provides a mechanical cover for connector screws (as required by European standards).

MECHANICAL DETAIL:



ORDERING INFORMATION:



I = input type (E, J, K, R, S, or T) T/C
(V) Volt or mV
(I) milliamp

II = Standard Range code (A - H) or
specify special range; e.g. 0-750°F = (0/750)
or special range; e.g. 0-25 mvdc = (0/25mvdc)

Example: Std. Range 0-2500°F linearized for type K T/C
X54-3212-KD-KD

Example: Special Range 0-750°F linearized for type J T/C
X54-3212-JL(0/750°F) - JL(0/450°F)
(add "L" after T/C type to request linearized output)

Accessories:

D2-35X7.5 35 mm X 7.5 mm "U" style DIN rail, sold per foot

STANDARD INPUT RANGES:

Code	°F or input range	°C or input range	Sensor/Input Types
A	-450 to 0	-267 to -18	T, K, E
B	0 to +750	-18 to +399	J, T
C	0 to +2100	-18 to +1149	J, E
D	0 to +2500	-18 to +1371	K
E	0 to +3200	-18 to +1760	R, S
F	4-20 mA		I
G	Not available		
H	1 - 5 vdc		V

Above codes A-E are standard linearized T/C temperature ranges for fastest delivery. Contact Ronan for price and delivery of non-standard ranges with or without linearization. Codes F and H are also standards for fastest delivery.

These transmitters can be configured in the field or pre-configured at the factory to the customer's specific input type and temperature range. Factory configuration is only necessary if linearization is required. **Only the thermocouples inputs have the linearized output option.**