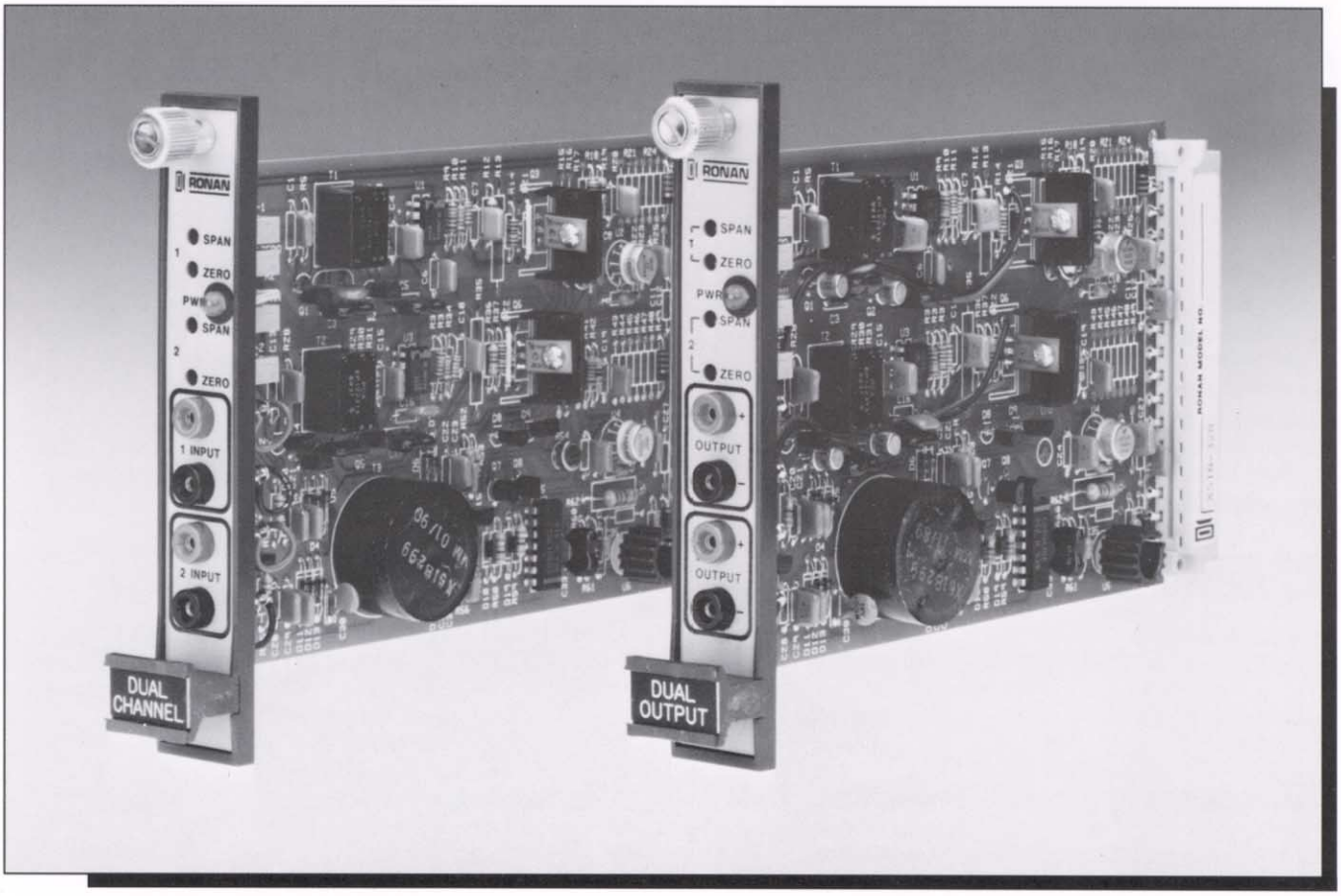
SERIES X51N-300

RONAN

Dual Channel & Output Transmitter Modules



FEATURES

- ***All RTD, T/C, mV, mA and V inputs.***
- ***Total input, output, power and channel-to-channel isolation.***
- ***Front accessible zero and span adjustments.***
- ***Front panel input jack for in-circuit calibration.***
- ***RFI protected.***
- ***High density packaging to save panel space.***
- ***Allows single input with multiple output formats.***
- ***Nonstandard inputs and outputs available.***

Ronan's Dual Channel Modules, X51N-302, -312 and -322 can significantly reduce the amount of space required in your panel or enclosure. For example, our earlier models would allow 20 channels in a 19" wide by 5" high rack-mount chassis. Now, with dual channel modules, 40 channels will fit into the same space. This reduces chassis and module costs while saving valuable space.

Ronan's Dual Output Modules, X51N-308, -318 and -328 also save space and money by eliminating the need for a second transmitter module in situations where the transmitter:

1. Must drive loads greater than 1,000 ohms.
2. Must drive two single ended loads with different ground references.
3. Must transmit two different signal formats.

SPECIFICATIONS

Input Types:
Thermocouple: Type E, J, K, T, R or S; Z in > 10 Mohms.
RTD: 2 or 3-wire, 10 to 20 kohms spans; Z in > 100 k.
Voltage: 10 mV to 5 Vdc spans; Z in > 10 Mohms
Span > 5 Vdc; Z in > 200 kohms.
Current: 4-20 mA; Z in = 100 ohms.
10-50 mA; Z in = 10 ohms.

Output Types:
Current: 1-5 mA (into 0-4 kohms load).
4-20 mA (into 0-1 kohms load).
Voltage: 1-5 Vdc (R out = 250 ohms).
2-10 Vdc (R out = 500 ohms).
0-5 Vdc (R out = 250 ohms).
0-10 Vdc (R out = 500 ohms).

Input Test Jacks: Front panel mounted jacks allow monitoring of input signals or injection of calibration signal without disconnecting the input wiring.

Accuracy: ± 0.15% of span.

Span Adjustment: Front panel mounted, multi-turn infinite resolution potentiometer permits a minimum of ± 10% deviation from nominal span.

Zero Adjustment: Front panel mounted multi-turn infinite resolution potentiometer permits a minimum of ± 15% of span adjustment.

Zero Suppression (T/C or mV): –10 mV to +100 mV.

Open Input Circuit Response: Upscale drive standard, (downscale drive optional).

Isolation: 500 Vrms input to output to power.

Common Mode Rejection: > 100 dB from dc to 60 Hz at 115 Vrms.

Common Mode Voltage: 500 Vrms maximum without damage.

Operating Temperature: – 5° to +60°C.

Temperature Stability: < ± 0.03%/°C.

Typical RFI Susceptibility: < .5 mV (referred to input) +.2% of span (referred to output) when exposed to 5 W transmitter (frequency range 20 to 450 MHz) at a distance of 4 feet.

Power Requirements: 24 Vdc ± 10%.

Power On: LED indicates green.

Typical Response Time: 125 msec to 10% of final value.

Note: Specifications apply at 23°± 2°C unless otherwise indicated. Specifications subject to change without notice.

ORDERING INFORMATION

Dual Channel RTD
X51N-302-(*)-(**)-(***) - (*)-(**)-(***)
— Ch. 1 — — Ch. 2 —

Dual Channel T/C
X51N-312-(*)-(**)-(***) - (*)-(**)-(***)
— Ch. 1 — — Ch. 2 —

Dual Channel mV, Vdc & mA
X51N-322-(*)-(**)-(***) - (*)-(**)-(***)
— Ch. 1 — — Ch. 2 —

Dual Output RTD
X51N-308-(*)-(**)-(***) - (***)
Ch. 1 Ch. 2

Dual Output T/C
X51N-318-(*)-(**)-(***) - (***)
Ch. 1 Ch. 2

Dual Output mV, Vdc & mA
X51N-328-(*)-(**)-(***) - (***)
Ch. 1 Ch. 2

*** Input Type: RTD**
9 = 10 ohms @ 25°C
10 = 10 ohms @ 0°C
100 = 100 ohms
120 = 120 ohms

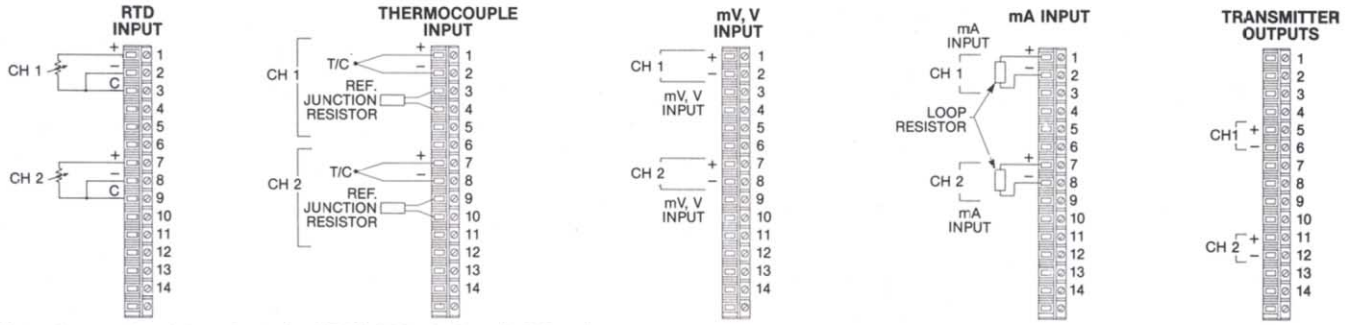
*** Input Type: T/C**
E = Chromel Constantan
J = Iron Constantan
K = Chromel Alumel
T = Copper Constantan
R = Rhodium Platinum
S = Rhodium Platinum

*** Input Type: mA, mV, Vdc**
mA = milliamps dc
mV = millivolts dc
Vdc = Volts dc

**** Input Range**
e.g. (0/300 °C) = 0 to 300 °C
e.g. (0/100 mV) = 0 to 100 mV
e.g. (4/20 mA) = 4 to 20 mA

***** Output**
A = 1-5 mA
B = 4-20 mA
D = 1-5 Vdc
E = 2-10 Vdc
F = 0-5 Vdc
G = 0-10 Vdc

WIRING



Note: Inputs 7 and 8 apply to the X51N-302, -312 and -322 only.

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