

Thermocouple Input Signal Conditioner DIN Rail-mounted

BRT TC-D11 Series (Single input single output)

BRT TC-D11 Series Thermocouple Signal Conditioner converts a type of thermocouple input signal to a cold junction compensated, linear, amplified analog dc current voltage output. Its input thermocouples signal available: type-K, type-E, type-J, type-T, type-B, type-R, type-S, type-N, etc., and output standard 4-20mA, 0-20mA 0-5V, 0-10V, 1-5V, etc. dc current or voltage to be connected with PLC, DCS, meters, instruments, etc. Its terminal blocks are pluggable, easy-to-use. Among its input, output, power supply, the isolation voltage is up to 1500VDC. 35mm DIN rail-mounted flame-retardant package, slim design makes the analog converter become the most suitable signal conditioning and conversion solution in industrial site.

Main Features

- Accuracy grade: 0.2%F.S. 0.5% F.S. high reliability.
- Default 24VDC, 12 VDC or 220VAC power supply optional.
- Type-K, 0-1200°C/0-1300°C, etc. input or other type input optional.
- Internal automatic cold-junction compensation.
- Output standard 4-20mA, 0-20mA 0-5V, 0-10V, 1-5V, etc. dc current or voltage signal.
- Pluggable barrier wiring terminal blocks, easy-to-use.
- Have anti-surge protection (1S), high performance in anti-interference.
- Standard universal flame-retardant package, 35mm DIN Rail-mounting.
- EMC compatibility: in compliance with IEC61326-1.
- Operating temperature range: -20-+70°C.

Technical Parameters

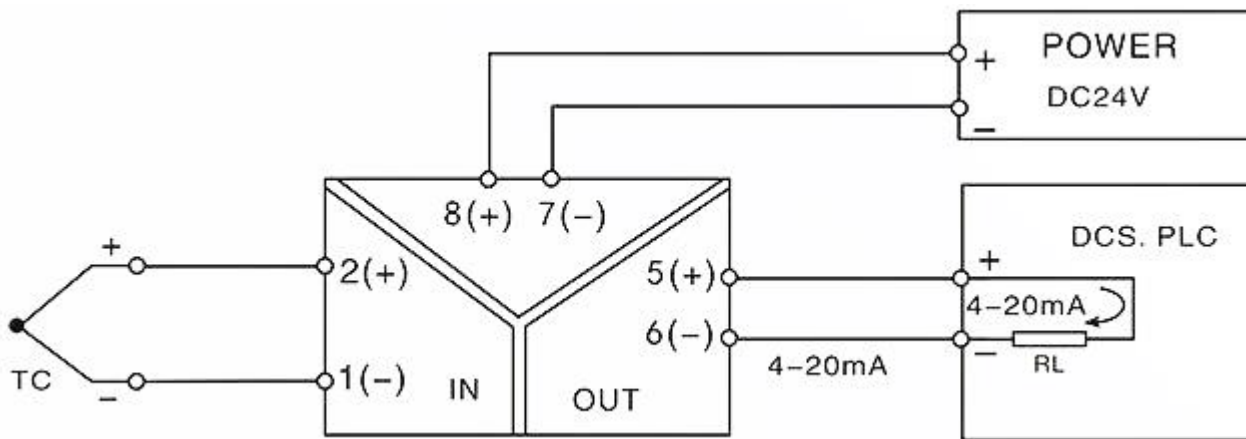
Input signal	K type thermocouple signal 0-1200°C/0-1300°C (type J, E, S, B, N, T optional)
Cold-junction compensation	Internal automatic cold-junction compensation. Compensation range: -25-+75°C (1°Cerror per 20°C) Or user can connect the compensation wire to the input terminal directly
Output signal	0-5VDC, 0-10VDC, 0-20mADC, 4-20mADC. (optional)
TC break alarm current	3mA, input in short-circuit or break or not in 0-100°C, the indicator keeps flashing.
Output load capacity	RL ≤ 500Ω when output is current signal RL ≥ 10KΩ when output is voltage signal
Power supply	DC24V, ±10% (12V optional)
Current consumption	≤ 70mA (24V power supply, 20mA output)
Accuracy	0.5% F.S or 0.2% F.S..
Temperature drift	≤ 25ppm. /°C (-20-+60°C)
Response time	≤ 200mSec.
Isolation voltage	1500VAC/1min, among input, output, power supply
Power consumption	0.65W (24V operating power supply input)
Insulation resistance	≥ 100MΩ among input, output, operating power supply
Dimension	114.5x100.0x12.0mm (H x W x T)
Operating temperature	-20-+70°C
EMC Compatibility	IEC61326-1

Terminal Definition

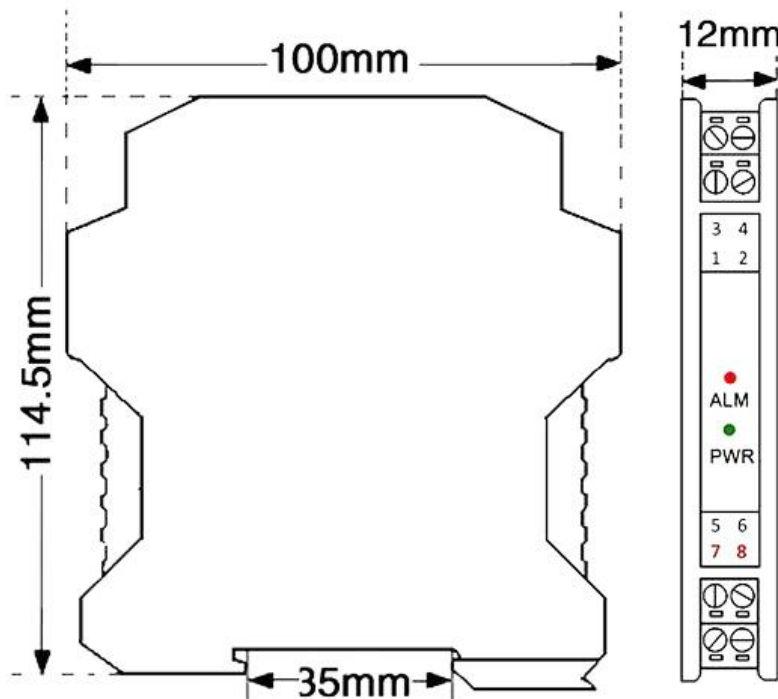
Terminal No.	Definition
1	TC input -
2	TC input +
3-4	No connection
5	Output +
6	Output-
7	Power supply 24V -
8	Power supply 24V+



Referential Wiring Circuit



Dimension



*The specification is subject to change without notice. For technical support, please contact: brightwinelectronics@hotmail.com.