



BREARLEY

An **RM&C** Brand

TEMPERATURE

Product Data Sheet

DS3008

Temperature Transmitter

GEN1500 SERIES

The GEN1500/TC is a universal thermocouple input DIN rail mounted transmitter designed to accept most common thermocouple types and to isolate and convert them to the industry standard 4-20 mA transmission signal. Automatic cold junction compensation is provided. The unit can also accept milli-volt inputs between -5 and +50 milli-volts from, for example, strain gauges.

The small size of the unit (only 12.5mm wide) enables many more units to be fitted in a smaller space than was previously possible. The output signal is galvanically isolated from the thermocouple by 500 volts DC to remove the effects of earth loops or earth leakage.

STANDARD RANGES

The GEN1500/TC may be purchased pre-ranged to any of the following standard ranges, others available at extra cost or alternatively they can be user re-ranged.



Range	Thermocouple Type						Milli Volt V
	N	K	T	J	R	S	
0 to 100	✓	✓	✓	✓			
0 to 200	✓	✓	✓	✓			
0 to 400	✓	✓	✓	✓			
0 to 600	✓	✓		✓			
0 to 800	✓	✓		✓			
0 to 1000	✓	✓					
0 to 1200	✓	✓			✓	✓	
0 to 1600					✓	✓	
0 to 50mV							✓

SPECIFICATION @ 20°C

<u>Input</u>	
T/C Type	J, K, N, R, S, T
MilliVolt	-5 to 50 mV signals
Isolation	INPUT to OUTPUT 500 VDC (Flash tested to 1Kv)
Burnout	UP Scale standard (DOWN scale to order)
Impedance	>1M ohm
Cold Junction	Automatic compensation may be selected for use with the T/C types indicated or fixed zero compensation may be selected or fixed zero compensation may be selected for mV or differential T/C measurement
Accuracy CJ Overall	±0.2°C @ 20°C ±0.05°C/°C Typical 0.1% FRO
<u>Output</u>	
Type	Passive two wire current output
Range	4-20mA (30mA A MAX)
Linearity	MV input linearity ±0.02% FRO T/C ranges are cold junction. Compensated and directly Referenced to T/C mV values
Protection	Reverse connection plus over voltage
<u>Enclosure</u>	
Case Material	Polyamide (Grey)
Case	To UL94-V0 VDE 0304, Part 3,
Flammability	Level IIIA
Mounting	"Top Hat" rail to DIN EN 50022-35
Protection	IP20
Connections	Captive screw connections
Cable Size	4mm sq solid/2.5mm sq stranded
<u>General</u>	
Supply	10-30 V DC
Load	700 ohms @ 24V Max
Thermal Stability	2µV/°C
Ripple	<40µA/V (measured at 1V ripple 50Hz)
Response Time	200m Secs to reach 70% of final value Operating Ambient temperature 0-50°C RH 10-95% Non-condensing
<u>Approvals</u>	
EMC	BS EN 61326

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