

PROGRAMMABLE TEMPERATURE TRANSMITTERS - SERIES 441

Output

Output (Analog)

Output signal	4 to 20 mA or 20 to 4 mA
Transmission as	Temperature linear, resistance linear, voltage linear
Maximum load	(V _{power supply} - 8 V) /0.025 A (current output)
Digital filter 1st degree	0 to 8 s
Induced current required	≤3.5 mA
Current limit	≤25 mA
Switch on delay	4 s (during power up) I _{on} = 3.8mA)
Electronic response time	1 s

Failure Mode

Undershooting measurement range	4 to 20 mA or 20 to 4 mA
Exceeding measurement range	Temperature linear, resistance linear, voltage linear
Sensor breakage/short circuit ⁽¹⁾	≤3.5 mA or ≥1.0 mA

Failure Mode




Power Supply	U _{in} = (8 to 30) V dc, polarity protected
Galvanic Isolation (In/out)	Û = 3.75 kV ac
Allowable ripple	U _{ripple} ≤5 V at U _{in} 13 V, f _{ripple} 1 KHz

Accuracy





Output (Analog)

Reference conditions	Calibration temperature: 23 ±0.5 °C (73 ±1°F)
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Resistance Thermometer (RTD)

TYPE	MEASUREMENT ACCURACY
Pt100, Ni100	0.2° C or 0.08% 
Pt500, Ni500	0.5° C or 0.20% 
Pt1000, Ni1000	0.3° C or 0.12% 

Resistance

TYPE	MEASUREMENT RANGE	MINIMUM RANGE
Resistance	0.1  or 0.08% ⁽²⁾	10 to 400 
	1.5  or 0.12% ⁽²⁾	10 to 2000 

(1) not for thermocouple

(2) % is related to the adjusted measurement range (the value to be applied is the greater)