TRANSMITTER

Series 662 Programmable HART® Dual Input Field Temperature Transmitter Specifications

OUTPUT

Output (Analog)

Output signal	Analog (4 to 20) mA or (20 to 4) mA
Transmission as	Temperature linear, resistance linear, voltage linear
Maximum load	($V_{power\ supply}$ - 11V) / 0.023 A (current output)
Digital filter 1st degree	(0 to 60) s
Induced current required	≤ 3.5 mA
Current limit	≤ 23 mA
Switch on delay	4 s (during switch-on operation I_a = 4 mA)
Response time	1 s

Failure Mode

Undershooting measurement range	Decrease to 3.8 mA
Exceeding measurement range	Increase to 20.5 mA
Sensor breakage/short circuit	≤ 3.6 mA or ≥ 21.0 mA (configurable 21.6 mA to 23 mA)

Electrical Connection

Power supply	U_b = 11 to 40 V (8 to 40 without display), reverse polarity protected
Cable entry	Three 1/2" NPT openings
Allowable ripple	U_{ss} ≤ 3 V at U_b ≥ 13.5 V, f_{max} = 1 kHz

ACCURACY

Reference conditions	Calibration temperature (23 ± 5) °C [73.4 ± 9] °F

Resistance Thermometer (RTD)

TYPE	MEASUREMENT ACCURACY - DIGITAL	MEASUREMENT ACCURACY - D/A[1]
Cu100, Pt100, Ni100, Ni120	± 0.1 °C [0.18 °F]	± 0.02%
Pt500	± 0.3 °C [0.54 °F]	± 0.02%
Cu50, Pt50, Pt1000, Ni1000	± 0.2 °C [0.36 °F]	± 0.02%
Cu10, Pt200	± 1 °C [1.8 °F]	± 0.02%

Thermocouple (TC)

TYPE	MEASUREMENT ACCURACY - DIGITAL	MEASUREMENT ACCURACY - D/A[1]
K, J, T, E, L, U	Typical ± 0.25 °C [0.45 °F]	± 0.02%
N, C, D	Typical ± 0.5 °C [0.9 °F]	± 0.02%
S, B, R	Typical ± 1 °C [1.8 °F]	± 0.02%

Resistance (Ω)

TYPE	MEASUREMENT ACCURACY - DIGITAL	MEASUREMENT ACCURACY - D/A[1]	MEASUREMENT RANGE
Resistance	± 0.04 Ω	± 0.02%	(10 to 400) Ω
	± 0.08 Ω	± 0.02%	(10 to 2000) Ω

Voltage (mV)

TYPE	MEASUREMENT ACCURACY - DIGITAL	MEASUREMENT ACCURACY - D/A[1]	MEASUREMENT RANGE
Voltage	± 10 µV	± 0.02%	(-20 to 100) mV

[1] % relates to the set span. Accuracy = digital + D/A accuracy