ACCURACY (continued)

Physical input range of the sensors

TYPE	MEASUREMENT ACCURACY[1]
(10 to 400) Ω	Cu10, Cu50, Cu100, polynomial RTD, Pt50, Pt100, Ni100, Ni120
(10 to 2000) Ω	Pt200, Pt500, Pt1000, Ni1000
(-20 to 100) mV	Thermocouple type: C, D, E, J, K, L, N, U
(-5 to 30) mV	Thermocouple type: B, R, S, T

[1] % is related to the adjusted measurement range (the value to be applied is the greater)

General

Repeatability	0.0015% of the physical input range (15 Bit) Resolution A/D conversion: 18 Bit
Load influence	≤ ± 0.005%/V deviation from 24 V, related to the full-scale value
Long term stability	≤ 0.1 °C [0.18 °F] / year or ≤ 0.05%/year Date under reference conditions. % relates to the set span. The larger value applies.

Temperature Drift

Total temperature drift = input temperature drift + output temperature drift	Effect on the accuracy when ambient temperature changes by 1 °C [1.8 °F]	
	Input (10 to 400) Ω	0.001% of measured value, minimum 1 m Ω
	Input (10 to 2000) Ω	0.001% of measured value, minimum 10 m Ω
	Input (-20 to 100) mV	typ. 0.002% of measured value, minimum 0.2 µV
	Input (5 to 30) mV	typ. 0.001% of measured value, minimum 0.2 µV
	Output (4 to 20) mA	typ. 0.001% of span

INSTALLATION CONDITIONS

Ambient Conditions

Ambient temperature	Without display: (-40 to 85) °C [-40 to 185] °F With display: (-40 to 80) °C [-40 to 176] °F NOTE: The display can react slowly for temperature < -20 °C [< -4 °F]
Storage temperature	Without display: (-50 to 100) °C [-58 to 212] °F With display: (-50 to 80) °C [-58 to 176] °F
Allowable Altitude	6560 ft. above sea level
Climatic class	As per EN 60 654-1, Class C
Moisture condensation	Allowable
Shock and vibration protection	3 g / (2 to 150) Hz according to IEC 60 068-2-6
EMC immunity	Interference immunity and interference emission as per EN 61 326-1 (IEC 1326) (0.08 to 2) GHz 10 V/m; (1.4 to 2) GHz 30 V/m to EN 61 000-4-3
Protection	IP67, NEMA 4X, Class 1, Division 1, Group A, B, C; Class II Division I, Groups E, F, G and Class III, Division I (when specified)