

ACCURACY (continued)

Physical input range of the sensors

(10 to 400) Ω	Cu50, Cu100, polynomial RTD, Pt50, Pt100, Ni100, Ni120
(10 to 2000) Ω	Pt200, Pt500, Pt1000
(-20 to 100) mV	Thermocouple type: B, C, D, E, J, K, L, N, R, S, T, U

General

Load influence	$\leq \pm 0.0025\%/V$ with reference to the span
Long term stability	$\leq 0.1\text{ }^{\circ}\text{C}$ [0.18 $^{\circ}\text{F}$] / year or $\leq 0.05\%/year$ Date under reference conditions. % relates to the set span. The larger value is valid.

Influence of ambient temperature (temperature drift)

Total temperature drift = input temperature drift + output temperature drift	Impact on the accuracy when ambient temperature changes by 1 $^{\circ}\text{C}$ [1.8 $^{\circ}\text{F}$]		
	Input (10 to 400) Ω	typ. 0.001% of measured value, min. 1 m Ω	
	Input (10 to 2000) Ω	typ. 0.001% of measured value, min. 10 m Ω	
	Input (-20 to 100) mV	typ. 0.001% of measured value, min. 0.2 μV	
	Output (4 to 20) mA	typ. 0.0015% of the span	

INSTALLATION CONDITIONS

Ambient Conditions

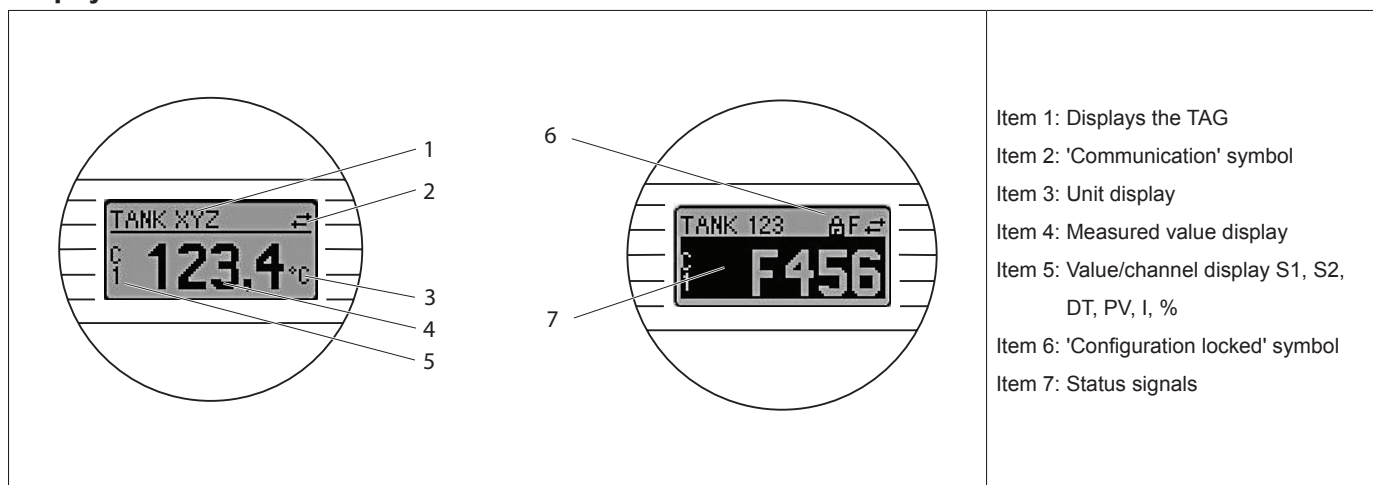
Ambient temperature	Without display: (-40 to 85) $^{\circ}\text{C}$ [-40 to 185] $^{\circ}\text{F}$ non-hazardous location (for hazardous locations, see XP documentation)			
Storage temperature	Without display: (-50 to 100) $^{\circ}\text{C}$ [-58 to 212] $^{\circ}\text{F}$			
Altitude	Up to 4000 m (4374.5 yards) above mean sea level per IEC 61010-1, CAN/CSA C22.2 No. 61010-1			
Climatic class	As per EN 60 654-1, Class C			
Humidity	Condensation permitted per IEC 60 068-2-33/Max. rel. humidity: 95% per IEC 60068-2-30			
Shock and vibration protection	(25 to 100) Hz for 4g			
Electromagnetic compatibility (EMC)	Electromagnetic compatibility in accordance with all the relevant requirements of the EN 61326 series and NAMUR Recommendation EMC (NE21),			
	ESD (electrostatic discharge)	EN/IEC 61000-4-2		6 kV cont., 8 kV air
	Electromagnetic fields	EN/IEC 61000-4-3	0.08 to 2.7 GHz	10 V/m
	Burst (fast transients)	EN/IEC 61000-4-4		2 kV
	Surge (surge voltage)	EN/IEC 61000-4-5		0.5 kV sym./1 kV assym.
	Conducted RF	EN/IEC 61000-4-6	0.01 to 80 MHz	10 V
Protection	IP 20 with screw terminals in the installed state. NEMA 4X, IP 66/67 when installed in field housing option 36.			

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INTERFACE

Display Elements



Remote Operation

Interface	HART® (Version 6) communication via transmitter power supply
Configurable device parameters	Sensor type and connection type, engineering units (°C/°F), measurement ranges, internal/external cold junction, compensation of wire resistance with 2-wire connection, failure mode, output signal (4 to 20) mA (20 to 4) mA, digital filter (damping), offset, TAG+descriptor (8+16 characters), output simulation, analog output: option: customized linearization

APPROVALS

Approvals

CE marked	Unit complies with the legal requirements set forth by the EU regulations.
FM APPROVED and CSA	Intrinsically safe and non-incendive Class I, Division 1 and 2, Groups A, B, C and D

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MECHANICAL CONSTRUCTION

Dimensions	Side view dimensions: 3.80 [96] (width), 4.53 [115] (height), 0.82 [21] (base height), 1.97 [50] (base width). Top view dimensions: 0.18 [4] (display width), 0.27 [7] (display height), 1.30 [33] (terminal spacing), 1.73 [44] (terminal width). Display view dimensions: 0.95 [24] (display height).
Weight	Housing, transmitter, and display: approximately 970 g (2 1/4 lbs) Transmitter only: approximately 50 g (1/4 lb)
Materials	Housing: die-cast aluminum with powder coating
Terminals	15 AWG Maximum

Terminal Connections

TC SINGLE (INPUT 1) DUPLEX (INPUT 2)	2 WIRE RTD OR Ω	3 WIRE RTD OR Ω	4 WIRE RTD OR Ω

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