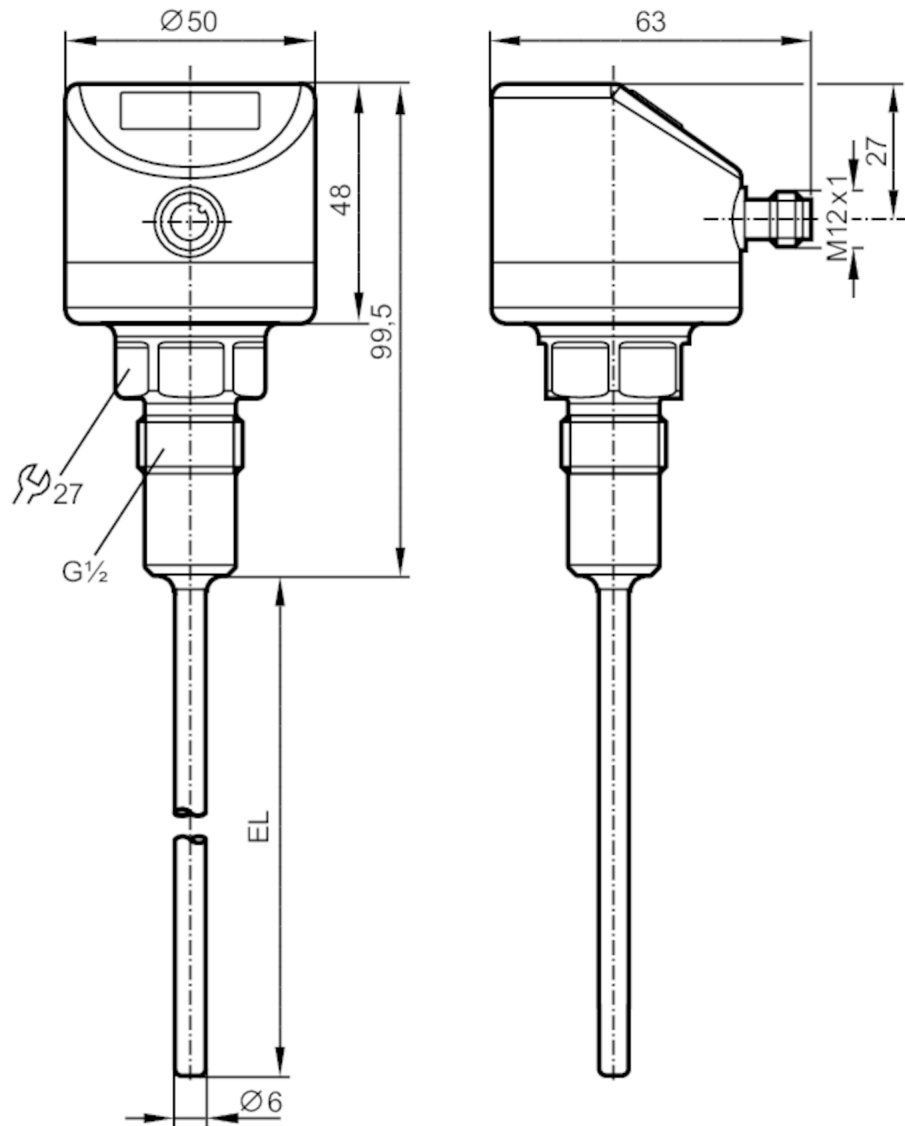


TD2511



Temperature Transmitter with Display

TD-050CFER12-A-ZVG/US



EL = Installation length



Product characteristics

Number of inputs and outputs	Number of analog outputs: 1	
Measuring range	-50...150 °C	-58...302 °F
Communication interface	IO-Link	
Process connection	threaded connection G 1/2 external thread sealing cone	
Installation length EL [mm]	50	

Application

Measuring element	1 x Pt 1000; (to DIN EN 60751, class A)	
Media	liquids and gases	
Pressure rating	160 bar	16 MPa
Vacuum resistance	-1000 mbar	-0.1 MPa

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MAWP (for applications according to CRN)	[bar]	160
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Electrical data

Operating voltage	[V]	18...32 DC; (cULus - Class 2 source required)
Current consumption	[mA]	< 50
Protection class		III
Reverse polarity protection		yes
Power-on delay time	[s]	2

Inputs / outputs

Number of inputs and outputs	Number of analog outputs: 1
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Outputs

Total number of outputs	1	
Output signal	analog signal; IO-Link; (configurable)	
Number of analog outputs	1	
Analog current output	[mA]	4...20
Max. load	[Ω]	300
Short-circuit protection		yes
Overload protection		yes

Measuring/setting range

Probe length L	[mm]	50
Measuring range		-50...150 °C -58...302 °F
Factory setting		-10...150 °C
Resolution		
Resolution of analog output	[K]	0.04
Resolution of display	[K]	0.1

Accuracy / deviations

Precision analog output	[K]	± 0,3 + (± 0,1 % MS)
Temperature coefficient	[% of the span / 10 K]	0,1; (In case of deviation from the reference condition 25 °C)

Reaction times

Dynamic response T05 / T09	[s]	1 / 3
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Interfaces

Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1	
Profiles	Smart Sensor - SSP 0 Generic Profiled Sensor	
Min. process cycle time	[ms]	2.3
Supported DeviceIDs	Type of operation DeviceID	
	default 375	

Operating conditions

Ambient temperature	[°C]	-25...80
Storage temperature	[°C]	-40...100
Protection		IP 67; IP 68; IP 69K

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Tests / approvals		
EMC	DIN EN 61000-6-2	
	DIN EN 61000-6-3	
Shock resistance	DIN IEC 68-2-27	50 g (11 ms)
Vibration resistance	DIN IEC 68-2-6	10 g (10...2000 Hz)
MTTF [years]	405	
Note on approval	Factory certificate available as download at www.factory-certificate.ifm	
UL approval	UL approval number	K001

Mechanical data		
Weight [g]	345.5	
Housing	tubular	
Dimensions [mm]	Ø 50 / L = 149.5	
Material	stainless steel (1.4404 / 316L); PEI; FKM	
Materials (wetted parts)	stainless steel (1.4404 / 316L) electropolished	
Tightening torque [Nm]	30...50	
Process connection	threaded connection G 1/2 external thread sealing cone	
Surface characteristics Ra/Rz of the wetted parts	Ra < 0.8 µm	
Probe diameter [mm]	6	
Installation length EL [mm]	50	

Displays / operating elements		
Display	7-segment LED display, 4-digit	
	Display unit / status, °C / °F	

Remarks		
Remarks	MS = set measuring span	
	The values for accuracy apply to flowing water.	
Pack quantity	1 pcs.	

Electrical connection

Connector: 1 x M12; coding: A



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Connection

