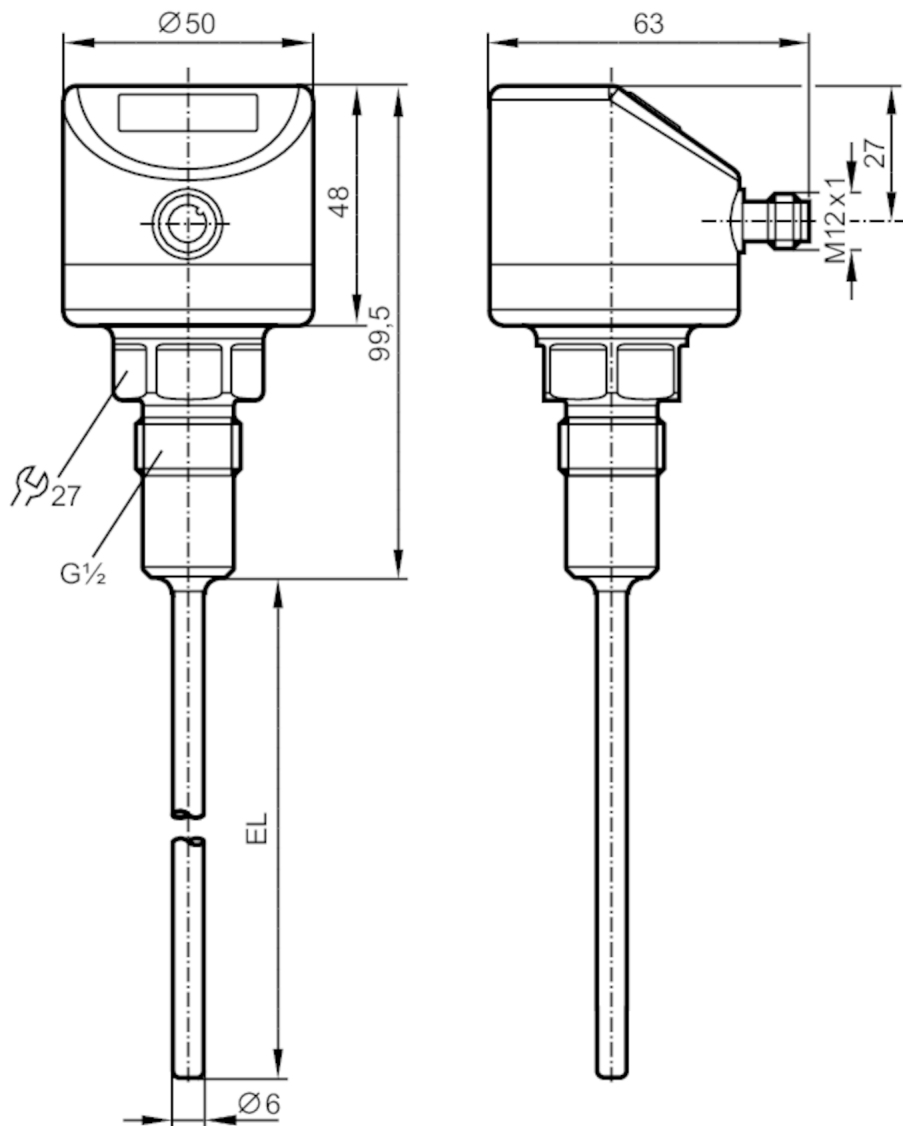


TD2511



Temperature transmitter with display

TD-050CFER12-A-ZVG/US



EL = installation length



Product characteristics

Number of inputs and outputs	Number of analogue 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; ("supply class 2" to cULus)
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 analogue outputs: 1
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Outputs

Total number of outputs		1
Output signal		analogue signal; IO-Link; (configurable)
Number of analogue outputs		1
Analogue 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 analogue output	[K]	0.04
Resolution of display	[K]	0.1

Accuracy / deviations

Precision analogue 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)

Response 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 default	DeviceID 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 no.	K001

Mechanical data		
Weight [g]		345.5
Housing		cylindrical
Dimensions [mm]		Ø 50 / L = 149.5
Materials		stainless steel (316L/1.4404); PEI; FKM
Materials (wetted parts)		stainless steel (316L/1.4404) 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



Connection

