

TD2941



Temperature transmitter with display

TD-150CFEC02-A-ZVG/US



1 2" Clamp ISO 2852
EL = installation length



EC 1935/2004

EHEDG Certified

FCM



IO-Link



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	Clamp DN50 (2") DIN 32676 (ISO 2852)	
Installation length EL [mm]	150	

Application

Measuring element	1 x Pt 1000; (to DIN EN 60751, class A)
Media	liquids and gases



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Pressure rating	100 bar	10 MPa
Vacuum resistance	-1000 mbar	-0.1 MPa
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	
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]	150
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
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 no.	K001
Mechanical data		
Weight [g]	484.5	
Materials	stainless steel (316L/1.4404); PEI; FKM	
Materials (wetted parts)	stainless steel (316L/1.4404) electropolished	
Process connection	Clamp DN50 (2") DIN 32676 (ISO 2852)	
Surface characteristics Ra/Rz of the wetted parts	Ra < 0.8 µm	
Probe diameter [mm]	6	
Installation length EL [mm]	150	
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

