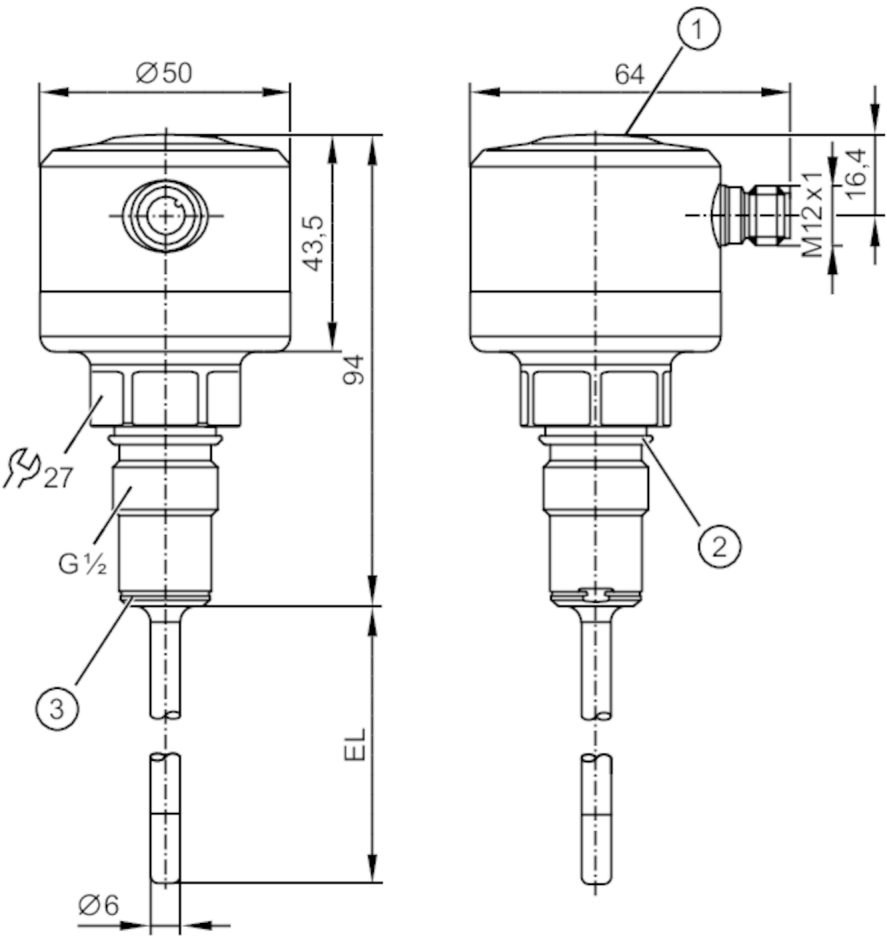


TCC551



Temperature transmitter

TCC999K1ER12-A-DKG/US



- 1 LED
- 2 Gasket FKM (for sealing on the back - not pressure resistant) / removable
- 3 metallic sealing area



Product characteristics

Number of inputs and outputs	Number of digital outputs: 1; Number of analog outputs: 1	
Measuring range	-25...160 °C	-13...320 °F
Communication interface	IO-Link	
Process connection	threaded connection G 1/2 external thread sealing cone	
Installation length EL [mm]	1000	

Application

System	gold-plated contacts	
Measuring element	1 x Pt 1000	
Reference element	1 x NTC	
Installation	a thermowell is required for use in hygienic applications	
Media	liquids and gases	
Pressure rating	160 bar	16 MPa
Minimum installation depth [mm]	15	

Electrical data

Operating voltage [V]	18...32 DC; (cULus - Class 2 source required)
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Temperature transmitter

TCC999K1ER12-A-DKG/US

Current consumption	[mA]	10; (24 V)
Protection class		III
Reverse polarity protection		yes
Power-on delay time	[s]	6
Integrated watchdog		yes

Inputs / outputs

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

Total number of outputs		2
Output signal		analog signal; IO-Link; (calibration check status)
Electrical design		PNP/NPN
Number of digital outputs		1
Output function		normally closed; (diagnostic signal)
Max. voltage drop switching output DC	[V]	2
Permanent current rating of switching output DC	[mA]	100
Diagnostic output		calibration check status and error diagnostics
Number of analog outputs		1
Analog current output	[mA]	4...20
Max. load	[Ω]	(U _b - 15 V) x 50
Short-circuit protection		yes
Type of short-circuit protection		yes (non-latching)
Overload protection		yes

Measuring/setting range

Probe length L	[mm]	1000
Measuring range		-25...160 °C -13...320 °F
Note on measuring range		scalable
Factory setting		-10...150 °C / 14...302 °F
Calibration check limit	[K]	0.5...3
In steps of	[K]	0.05

Resolution

Resolution of analog output	[K]	0.05
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Accuracy / deviations

Precision analog output	[K]	± 0,2
Precision IO-Link	[K]	± 0,2
Temperature coefficient analog output		< ± 0,02; (In case of deviation from the reference condition 25 ± 5 °C)
	[% of the span / 10 K]	
Temperature coefficient IO-Link		< ± 0,01; (In case of deviation from the reference condition 25 ± 5 °C)
	[% of the span / 10 K]	

Reaction times

Dynamic response T05 / T09	[s]	1,5 / 4
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Temperature transmitter

TCC999K1ER12-A-DKG/US

Software / programming		
Parameter setting options	Display unit; scaling of the analog output; calibration check limit; switching logic diagnostic output; simulation mode	
Interfaces		
Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1	
SDCI standard	IEC 61131-9 CDV	
Profiles	BLOB	Binary Large Object transfer
	Common - I&D	Identification and Diagnosis
	Function	Measurement data, standard resolution
SIO mode	yes	
Required master port class	A	
Process data analog	1	
Process data binary	1	
Min. process cycle time [ms]	4.4	
IO-Link resolution temperature [K]	0.01	
Supported DeviceIDs	Type of operation	DeviceID
	default	1129
Operating conditions		
Ambient temperature [°C]	-25...70	
Note on ambient temperature	max. internal device temperature: 125 °C	
Storage temperature [°C]	-40...100	
Protection	IP 68; IP 69K	
Tests / approvals		
EMC	DIN EN 61000-6-2	
	DIN EN 61000-6-3	
Shock resistance	DIN EN 60068-2-27	50 g (11 ms)
Vibration resistance	DIN EN 60068-2-6	35 g (10...2000 Hz)
MTTF [years]	329	
Mechanical data		
Weight [g]	820	
Housing	tubular	
Dimensions [mm]	Ø 50 / L = 1094	
Material	stainless steel (1.4404 / 316L); PEI; FKM; PFA	
Materials (wetted parts)	stainless steel (1.4404 / 316L)	
Tightening torque [Nm]	30...50	
Process connection	threaded connection G 1/2 external thread sealing cone	
Probe diameter [mm]	6	
Installation length EL [mm]	1000	
Remarks		
Remarks	MS = set measuring span	
	cULus - Class 2 source required	
Pack quantity	1 pcs.	

TCC551



Temperature transmitter

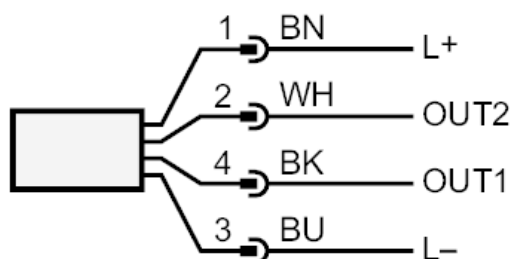
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Electrical connection

Connector: 1 x M12; coding: A; Contacts: gold-plated



Connection



OUT2: analog output
OUT1: Diagnostic output / IO-Link