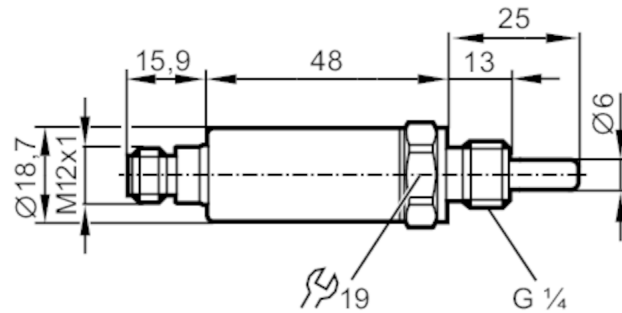


TV7105



Temperature sensor with IO-Link

TV7-025CLER14-QFRVG/US



Product characteristics

Number of inputs and outputs	Number of digital outputs: 2
Measuring range [°C]	-50...150
Process connection	threaded connection G 1/4
Installation length EL [mm]	25

Application

Special feature	Gold-plated contacts
Measuring element	1 x Pt 1000; (to DIN EN 60751, class A)
Media	liquids and gases
Pressure rating [bar]	400
Note on pressure rating	sensor
	When mounted in adapters the specifications of the adapter data sheet apply.

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]	1
Integrated watchdog	yes

Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 2
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Outputs

Total number of outputs	2
Output signal	switching signal; IO-Link; (configurable)
Electrical design	PNP/NPN
Number of digital outputs	2
Output function	normally open / normally closed; (parameterisable)
Max. voltage drop switching output DC [V]	2.5
Permanent current rating of switching output DC [mA]	100

TV7105



Temperature sensor with IO-Link

TV7-025CLER14-QFRVG/JS

Measuring/setting range		
Measuring range	[°C]	-50...150
Set point SP	[°C]	-49.8...150
Reset point rP	[°C]	-50...149.8
In steps of	[°C]	0.1
Resolution		
Resolution of switching output	[K]	0.1
Accuracy / deviations		
Switch point accuracy	[K]	± 0,3
Temperature drift per 10 K	[K]	0.1 **)
Response times		
Dynamic response T05 / T09	[s]	1 / 3; (to DIN EN 60751)
Software / programming		
Parameter setting options	hysteresis / window; normally open / normally closed; switching logic; switch-on/switch-off delay; Damping; Display unit	
Interfaces		
Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1	
Operating conditions		
Ambient temperature	[°C]	-40...80
Note on ambient temperature	at medium temperature: < 125 °C	
	-40...50 °C	
	at medium temperature: < 150 °C	
Storage temperature	[°C]	-40...100
Protection	IP 69K	
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 EN 60068-2-6	20 g (10...2000 Hz)
MTTF	[years]	542.6
UL approval	UL Approval no.	K019
Mechanical data		
Weight	[g]	71.5
Materials	stainless steel (1.4404 / 316L); FKM	
Materials (wetted parts)	stainless steel (1.4404 / 316L); O-ring: FKM	
Tightening torque	[Nm]	35
Process connection	threaded connection G 1/4	
Probe diameter	[mm]	6
Installation length EL	[mm]	25

TV7105



Temperature sensor with IO-Link

TV7-025CLER14-QFRVG/US

Remarks

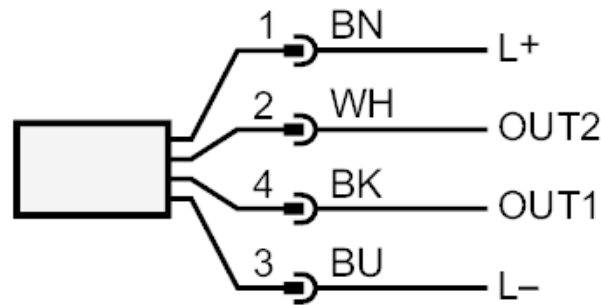
Remarks	The values for accuracy apply to flowing water.
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; Contacts: gold-plated



Connection



OUT1: switching output / IO-Link

OUT2: switching output

colours to DIN EN 60947-5-2

Core colours :

BK = black

BN = brown

BU = blue

WH = white