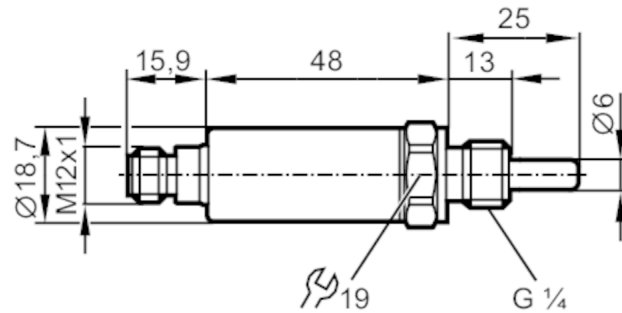


# TV7105



## 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
Communication interface	IO-Link
Process connection	threaded connection G 1/4 external thread
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
Pressure rating [MPa]	40
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
------------------------------	------------------------------

### 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

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Permanent current rating of switching output DC [mA]	100
<b>Measuring/setting range</b>	
Probe length L [mm]	12
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
<b>Resolution</b>	
Resolution of switching output [K]	0.1
<b>Accuracy / deviations</b>	
Switch point accuracy [K]	± 0,3
Temperature drift per 10 K [K]	0.1 **)
<b>Response times</b>	
Dynamic response T05 / T09 [s]	1 / 3; (to DIN EN 60751)
<b>Software / programming</b>	
Parameter setting options	hysteresis / window; normally open / normally closed; switching logic; switch-on/switch-off delay; Damping; Display unit
<b>Interfaces</b>	
Communication interface	IO-Link
Transmission type	COM2 (38,4 kBaud)
IO-Link revision	1.1
<b>Operating conditions</b>	
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
<b>Tests / approvals</b>	
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
<b>Mechanical data</b>	
Weight [g]	71.5
Housing	cylindrical
Dimensions [mm]	Ø 18.7 / L = 88.9
Materials	stainless steel (316L/1.4404); FKM
Materials (wetted parts)	stainless steel (316L/1.4404); O-ring: FKM
Tightening torque [Nm]	35
Process connection	threaded connection G 1/4 external thread

# TV7105



## Temperature sensor with IO-Link

TV7-025CLER14-QFRVG/US

Probe diameter	[mm]	6
Installation length EL	[mm]	25

### Remarks

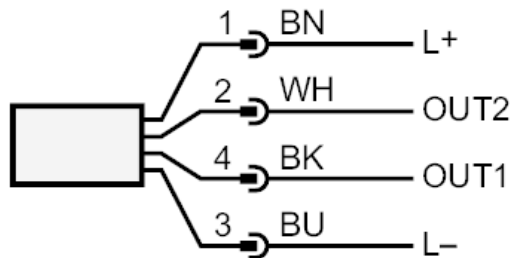
Remarks	The values for accuracy apply to flowing water.
Pack quantity	1 pcs.

### Electrical connection

Connector: 1 x M12; coding: A; 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