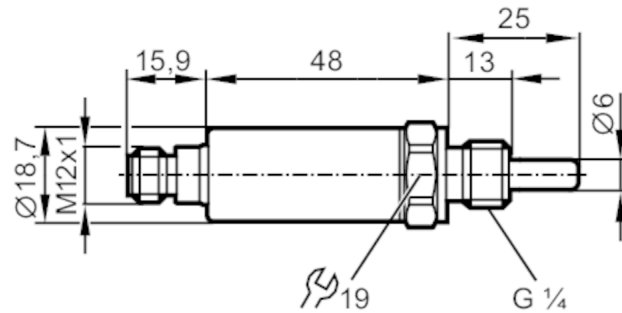


# TV7105



## 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	400 bar   40 MPa
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; (cULus - Class 2 source required)
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 / closed; (configurable)
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		
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
Resolution		
Resolution of switching output	[K]	0.1
Accuracy / deviations		
Switch point accuracy	[K]	± 0,3
Temperature drift per 10 K	[K]	0.1 **)
Reaction times		
Dynamic response T05 / T09	[s]	1 / 3; (according to DIN EN 60751)
Software / programming		
Parameter setting options	hysteresis / window; normally open / 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	
Profiles	Smart Sensor - SSP 0	Generic Profiled Sensor
	Function	Device identification
	Function	Process data variable
	Function	Device diagnosis
Min. process cycle time	[ms]	3.2
Supported DeviceIDs	<b>Type of operation</b> default	<b>DeviceID</b> 733
Operating conditions		
Ambient temperature	[°C]	-40...80
Note on ambient temperature	at medium temperature: < 125 °C	
	-40...50 °C	
Storage temperature	at medium temperature: < 150 °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 number	K019
Mechanical data		
Weight	[g]	71.5
Housing	tubular	

# TV7105



## Temperature sensor with IO-Link

TV7-025CLER14-QFRVG/US

Dimensions	[mm]	Ø 18.7 / L = 88.9
Material		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 external thread
Probe diameter	[mm]	6
Installation length EL	[mm]	25

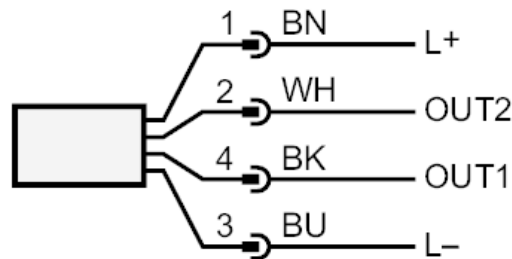
Remarks	
Remarks	The values for accuracy apply to flowing water.
Pack quantity	1 pcs.

### Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4, gold-plated



### Connection



OUT1: Switching output / IO-Link  
OUT2: Switching output  
Colors to DIN EN 60947-5-2  
Core colors :

BK = black  
BN = brown  
BU = blue  
WH = white