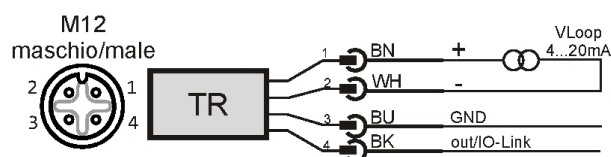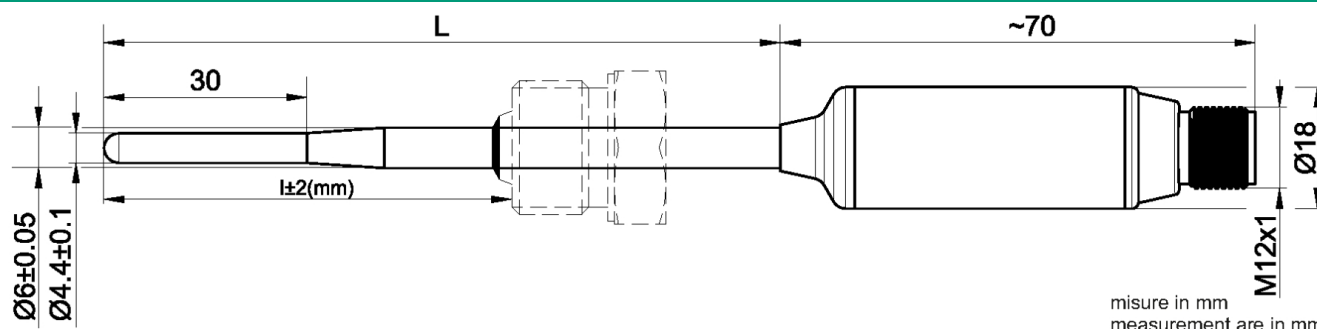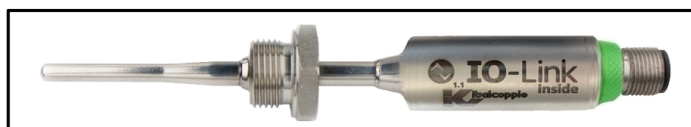# EVOMINI IOF-

Temperature transmitter with IO-Link interface, full stainless steel construction with Ø6mm stem and Ø4.4mm swaged tip for optimized response time

Can be configured in three operating modes: IO-Link, 4-20mA loop powered and switching output with alarm thresholds (SIO). Full stainless steel construction with M12 output connector and IP67 protection degree. Different types of process connections are available, sliding or welded. Particularly suitable for food, chemical and pharmaceutical industry applications.

UK CA

RoHS   CE

misure in mm
measurement are in mm

M12 maschio/male

TR

1 BN +   VLoop 4...20mA
2 WH -
3 BU GND
4 BK out/IO-Link

Loop Powered: 1(+) / 2 (-)
IO-Link; 1(+) / 3 (GND) / 4 (IO-Link)
Switch.Out: 1(+) / 3 (GND) / 4 (out)

WE SENSE
TEMPERATURE

TECHNICAL SPECIFICATION

Ambient temperature	-40 ÷80°C
Storage temperature	-40 ÷80°C
Operating humidity	0 ÷100%
Operating Voltage	18÷30 Vdc reverse polarity protection (IO-Link operating mode) 8÷32 Vdc reverse polarity protection (Loop Powered operating mode)
Current consumption	0.65 W (IO-Link operating mode) 0.8 W (SIO operating mode)
Input/Output insulation	None
Sensor input signal filter (*) **(*) time to reach 90% of signal**	Configurable from 0.1s to 3.7s
Output signal type	Configurable between: 4÷20mA analogue signal; IO-Link; switching PNP or NPN output (SIO);
Permitted load	727Ω @ 24 Vdc [Rload= (Vpw. - 8) / 0,022] (Loop Powered operating mode)
Sensor break or short-circuit monitoring	According to NAMUR NE43, selectable between: Upper scale (≥ 21.0 mA) Lower scale (≤ 3,6 mA) (Loop Powered operating mode)
Communication interface	IO-Link Vers. 1.1 (COM2 - 38,4Kbaud) Class A port M12x1 - 4 pos. A-coded
IO-Link Smart Sensor Profile (2nd ed.)	According to SSP type 3.1
Switching output (*) **(*) SIO operating mode**	NO/NC programmable, PNP/NPN Overload and short circuit protection Hysteresis or window function Maximum current: 150mA Programmable output activation/deactivation delay RGB LED for output status signaling (configurable color for OFF state and ON state)
Display elements (*) **(*) IO-Link operating mode**	Green color LED (IO-Link), RGB LED with configurable color (Locator), RGB LED with configurable color (SIO)
Temperature influence (*) **(*) deviation from 20°C**	Maximum value between ±0,3°C/25°C and ±0,3% of span/25°C (Loop powered operating mode) ±0,3°C/25°C (IO-Link and SIO operating mode)
Long-term stability	Maximum 0.1% of span per year
Linear error	Negligible
Sensor error compensation	Offset or over two points
EMC	In accordance to EN 61326-1 (CE) In accordance to BS EN 61326-1 (UKCA)
Measurement range	-50 ÷350°C
Accuracy (*) **(*) @25°C**	Maximum value between ±0.15K and ±0.15% of span (Loop Powered operating mode) ±0.1K (IO-Link operating mode)
Connection body material	AISI 316L Stainless Steel
Type of connector	male 4-pin connector with M12x1 metal screw lock (in accordance with IEC 61076-2-101 STANDARDS)
Stem length L	150 mm Other lengths on request
Sheath diameter d	Ø6 tapered a Ø4.4
Insulation resistance	100 M Ω@ 100 Vdc.
Immersion I	100 mm other immersion lengths on request
Process connection (*) **(*) Thread STANDARDS (CYL. GAS in accordance with UNI-ISO 228) (CON. GAS in accordance with UNI-ISO 7-1) (NPT in accordance with ANSI B 1.20.1)**	male thread G 1/2"UNI ISO 228 1/2" NPT 1/4" GAS CIL 1/4" NPT CLAMP 3/4" CLAMP 1 1/2" DIN11851 DN25
Pt100 sensor accuracy	Class A up to 300°C according to IEC 751
Response time (*) **(*) test in water in accordance with IEC 751. Time taken to reach 63.2% of temperature step**	< 5 seconds

WE SENSE **TEMPERATURE**

TECHNICAL SPECIFICATION

International protection marking (*) (*) According to IEC 60529	IP67
Programming	With any IO-Link programmation platform and the relative master.
Option	On request adjustment on 1 or 2 points
Factory default	Loop powered operating mode: (4÷20)mA output / Range 0÷150°C / Sensor break ≥21mA / Sensor short-circuit ≤3.6mA Switching output operating mode (SIO): PNP type output with hysteresis function NO, SP=80°C, RSP=70°C, no delay, output status signaling: LED color red

ORDER CODES

IOF-					X

Stem diameter (mm)

Tube Ø6 mm tapered to Ø4,4 mm	C
Tube Ø6 mm	6

Lenght (mm)

100	100
150	150
250	250
350	350
500	500
750	750

Other lengths on request

Process connection

1/4" GAS CIL	D
1/4" NPT	F
1/2" GAS CIL	L
1/2" NPT	N
CLAMP 3/4"	1
CLAMP 1 ½	2
DIN11851 DN25	3
NONE	X

Immersion I (mm)

NONE	000
100	100

Other immersion depths on request

WE SENSE **TEMPERATURE**