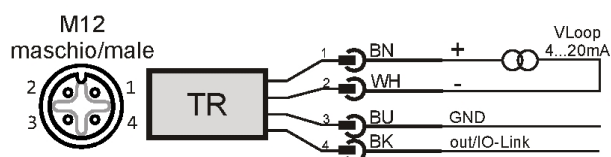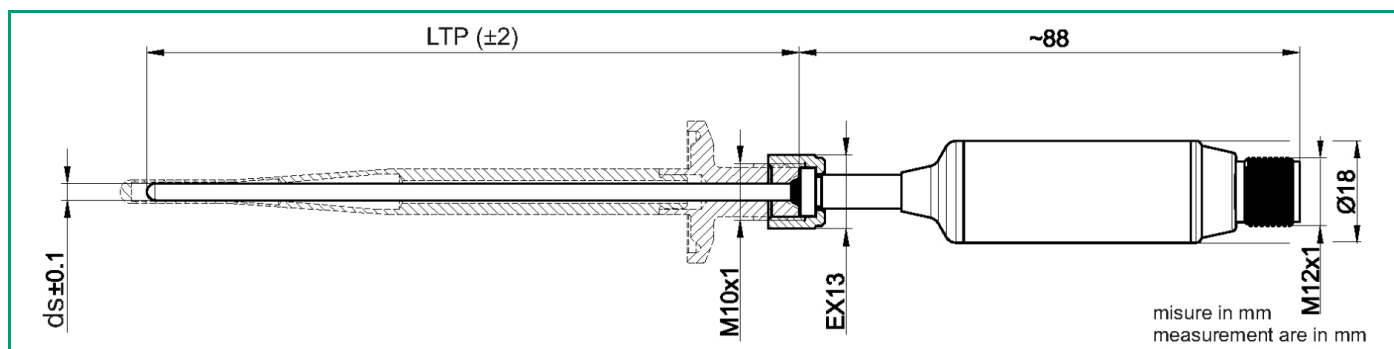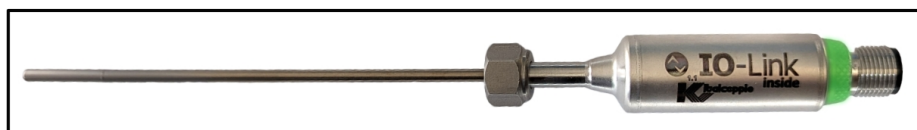# EVOMINI IOD-

Temperature transmitter with IO-Link interface, stainless steel construction with connection for food thermowells

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. Process connection by Italcoppie Sensori TWF (DIN 11851/Tri-clamp) thermowells. Particularly suitable for food, chemical and pharmaceutical industry applications.

LTP (±2)   ~88

ds±0.1   Ø18

M10x1   EX13   M12x1

misure in mm
measurement are in mm

M12
maschio/male

2   1
3   4

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)
Insulation resistance	100 M Ω
Sheet material	AISI 316L
Sheath diameter d	Ø 3 mm
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)**	TWF serie thermowells (excluded TWF2)
Pt100 sensor accuracy	Class A up to 300°C according to IEC 751
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

WE SENSE
TEMPERATURE

TECHNICAL SPECIFICATION

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

IOD-				X

Diameter ds (mm)

Ø3	30

Length LTP (mm)

115	115

Other lengths on request

Thermowell connection

M10x1	O

Other thermowell connection on request

WE SENSE

TEMPERATURE