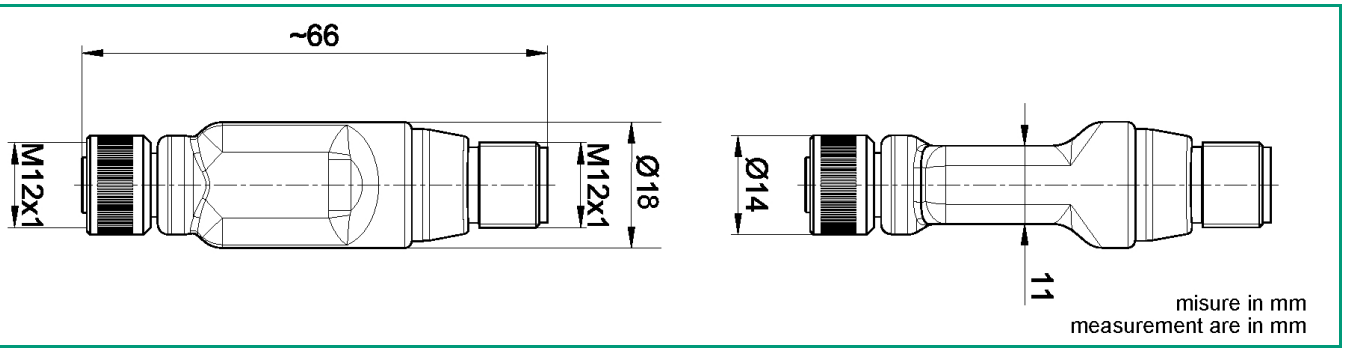
IOC-

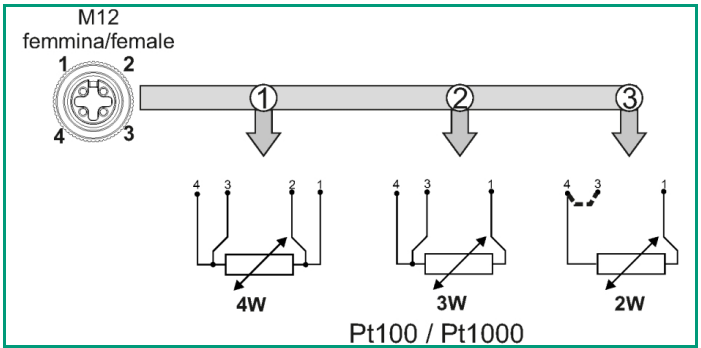
Rev. 8 - 20/02/2026

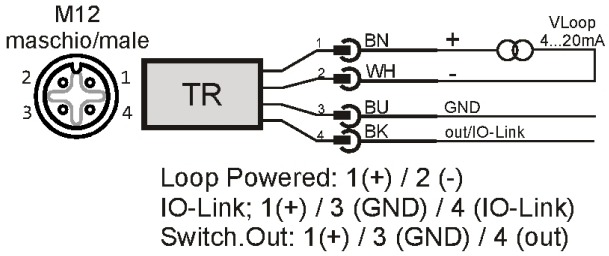
EVOMINI IOC

Signal converter for RTD Pt100 and Pt1000 temperature sensors with IO-Link interface

Can be configured in three operating modes: IO-Link, 4÷20mA loop powered and switching output with alarm thresholds (SIO). Moulded body with dual M12 connector and IP67 protection degree. External influences such as ambient temperature, vibrations, moisture and EMC interference have minimal influence on the measurement thanks to the compact and robust design. Compatible with Italcoppie TRM and TRC sensors series.







ITALCOPPIE SENSORI srl
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WE SENSE TEMPERATURE

TECHNICAL SPECIFICATION

Ambient temperature	-40 ÷70°C
Storage temperature	-40 ÷70°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
Electronic board input	RTD Pt100/Pt1000 (α= 0,00385) 2, 3 o 4 wire connection
Sensor input signal filter (*) **(*) time to reach 90% of signal**	Configurable from 0.1s to 3.7s
Sensor exciting current	~100 uA
Sensor wire maximum resistance	20 ohm / wire
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	In accordance with 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.)	In accordance with 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 in the range -200...500°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 with EN 61326-1 (CE) In accordance with BS EN 61326-1 (UKCA)
Measurement range	-200 ÷800°C
Accuracy (*) **(*) @25°C**	Maximum value between ±0.15K and ±0.15% of span (Loop Powered operating mode) ±0.1K between -200÷400°C and ±0.2K >400°C (IO-Link operating mode)
Connection body material	THERMOPLASTIC
Type of connector	Female 4-pin connector (INPUT SENSOR), 4-pin male connector (OUTPUT), both with M12x1 metal screw lock (in accordance with IEC 61076-2-101)
Vibration resistance	In accordance with IEC 60068-2-6,10 g
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	4-wire Pt100 input 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

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ORDER CODES

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