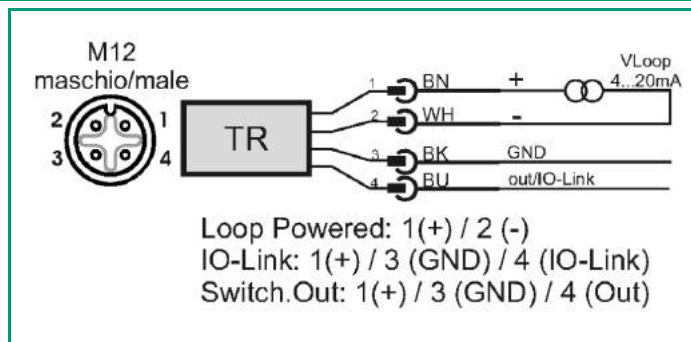
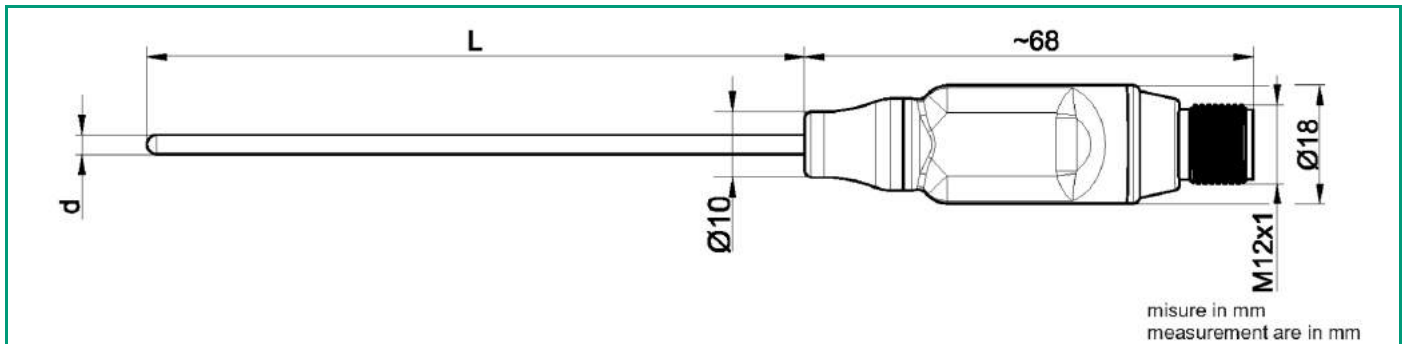


Temperature transmitter with IO-Link interface and integrated mineral insulated (MgO) cable probe

Can be configured in three operating modes: IO-Link, 4-20mA loop powered and switching output with alarm thresholds (SIO). Moulded body with M12 output connector and IP67 protection degree. Very good alternative to traditional thermometric assemblies with connection head.



TECHNICAL SPECIFICATION

Electronic board operating temperature	-40 +85°C
Operating humidity	0 ÷100%
Operating Voltage	18÷32 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: 250mA 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 61326-1:2013 (CE) In accordance to BS EN 61326-1:2013 (UKCA)
Measurement range	-50 +500°C
Accuracy (*) (*) @25°C	Maximum value between ±0.15K and ±0.15% of span (Loop Powered operating mode) ±0.15K between -50÷400°C and ±0.25K between 401÷500°C (IO-Link operating mode)
Connection body material	THERMOPLASTIC
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 250 mm 350 mm Other lengths on request
Dimensional notes	Lengths other than those listed can be produced for minimum quantities to be agreed (after our feasibility study)
Sheet material	AISI 316L
Sheath diameter d	Ø 3 mm Ø 3.17 mm Ø 6 mm Ø 6.35 mm
M.I.C. min. bending radius	3 times the outer diameter (except the sensing tip which length is ~30 mm)
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	less than 3.5 seconds for Ø 3 mm and less than 13 seconds for diameter Ø 6 mm
International protection marking (*) (*) According to IEC 60529	IP67

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TECHNICAL SPECIFICATION

Programming	With any IO-Link programming 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

IOI- [] X

Diameter d (mm)

∅3	30
∅3.17	32
∅6	60
∅6.35	63

Lenght L (mm)

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

Other lengths on request

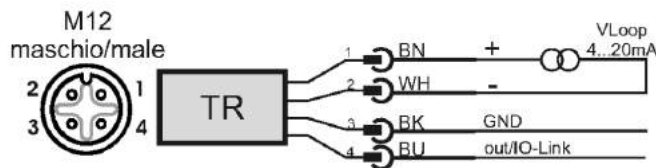
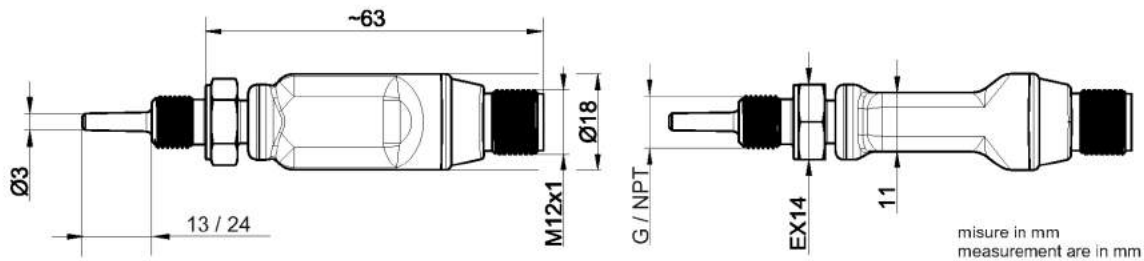
IOTP

Rev. 0 - 31/08/2023

EVOMINI IOTP

Temperature transmitter with IO-Link interface, integrated probe and process connection

Can be configured in three operating modes: IO-Link, 4-20mA loop powered and switching output with alarm thresholds (SIO). Moulded body with M12 output connector and IP67 protection degree. G1/8" threaded connection fitted as standard, suitable for temperature measurement in fluids up to 110°C.



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

TECHNICAL SPECIFICATION

Electronic board operating temperature	-40 ÷85°C
Operating humidity	0 ÷100%
Operating Voltage	18÷32 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: 250mA 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 61326-1:2013 (CE) In accordance to BS EN 61326-1:2013 (UKCA)
Measurement range	-50 ÷110°C
Accuracy (*) (*) @25°C	Maximum value between ±0.15K and ±0.15% of span (Loop Powered operating mode) ±0.15K (IO-Link operating mode)
Connection body material	THERMOPLASTIC
Type of connector	male 4-pin connector with M12x1 metal screw lock (in accordance with IEC 61076-2-101 STANDARDS)
Stem length L	24 mm 13 mm
Sheath diameter d	Ø 3,5 tapered conic to Ø 3 mm
Sheet material	AISI 316L
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	< 3,5 seconds
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)	1/8" GAS CIL. sec. UNI-ISO 228 1/4" GAS CIL 1/8" NPT 1/4" NPT
Maximum working pressure	PN 100 BAR
International protection marking (*) (*) According to IEC 60529	IP67
Programming	With any IO-Link programming platform and the relative master.
Option	On request adjustment on 1 or 2 points

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TECHNICAL SPECIFICATION

Factory default

Loop powered operating mode: (4±20)mA output / Range 0÷100°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

IOTP X

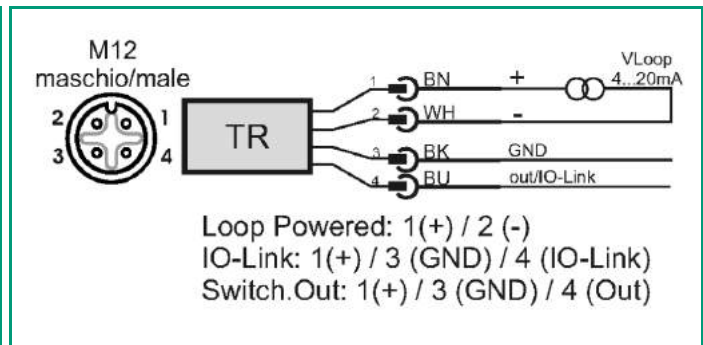
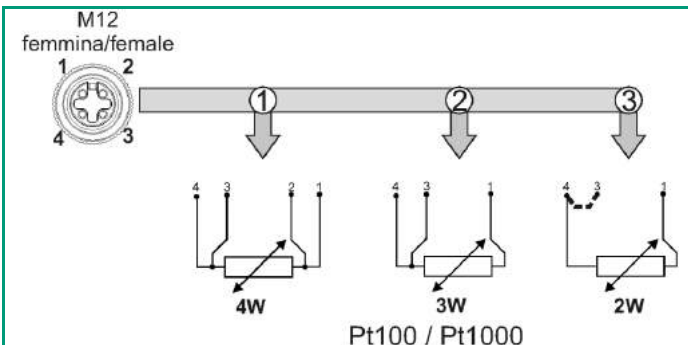
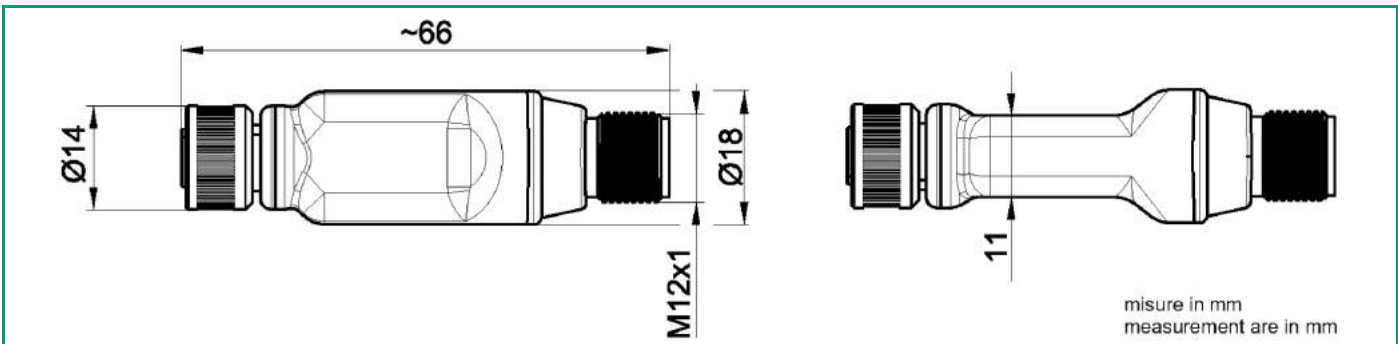
Process connection

1/8" GAS CIL. Ø3 L= 13mm	01
1/8" GAS CIL. Ø3 L= 24mm	02
1/8" NPT Ø3 L= 13mm	05
1/8" NPT Ø3 L= 24mm	06
1/4" GAS CIL. Ø3 L= 13mm	0D
1/4" GAS CIL. Ø3 L= 24mm	0E
1/4" NPT Ø3 L= 13mm	0B
1/4" NPT Ø3 L= 24mm	0C

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.



TECHNICAL SPECIFICATION

Electronic board operating temperature	-40 ÷85°C
Operating humidity	0 ÷100%
Operating Voltage	18÷32 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 ($\alpha= 0,00385$) 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 μ A
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	727 Ω @ 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 ($\leq 3,6$ 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: 250mA 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 $\pm 0,3^{\circ}\text{C}/25^{\circ}\text{C}$ and $\pm 0,3\%$ of span/ 25°C (Loop powered operating mode) $\pm 0,3^{\circ}\text{C}/25^{\circ}\text{C}$ (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 61326-1:2013 (CE) In accordance to BS EN 61326-1:2013 (UKCA)
Measurement range	-200 ÷800°C
Accuracy (*) (*) @25°C	Maximum value between $\pm 0.15\text{K}$ and $\pm 0.15\%$ of span (Loop Powered operating mode) $\pm 0.1\text{K}$ between -200÷400°C and $\pm 0.2\text{K}$ between 401÷800°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)
International protection marking (*) (*) According to IEC 60529	IP67
Programming	With any IO-Link programming 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 $\geq 21\text{mA}$ / Sensor short-circuit $\leq 3.6\text{mA}$ 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

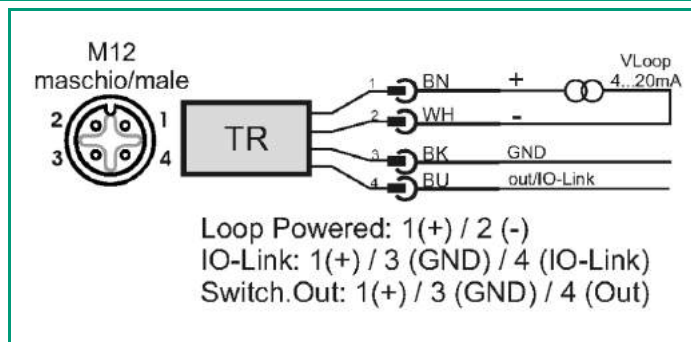
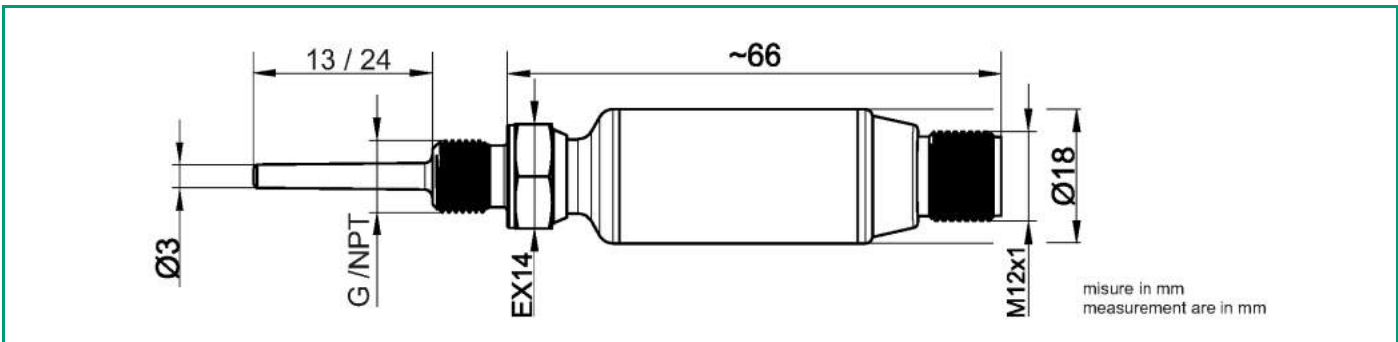
IOTM

Rev. 0 - 01/09/2023

EVOMINI IOTM

Temperature transmitter with IO-Link interface, integrated probe and process connection, metallic body

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. G1/8" threaded connection fitted as standard, suitable for temperature measurement in fluids up to 120°C.



TECHNICAL SPECIFICATION

Electronic board operating temperature	-40 ÷85°C
Operating humidity	0 ÷100%
Operating Voltage	18÷32 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: 250mA 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 61326-1:2013 (CE) In accordance to BS EN 61326-1:2013 (UKCA)
Measurement range	-50 ÷120°C
Accuracy (*) (*) @25°C	Maximum value between ±0.15K and ±0.15% of span (Loop Powered operating mode) ±0.15K (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	13 mm 24 mm
Sheath diameter d	Ø 3,5 tapered conic to Ø 3 mm
Sheet material	AISI 316
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	< 3,5 seconds
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)	1/8" GAS CIL. sec. UNI-ISO 228 1/4" GAS CIL 1/8" NPT 1/4" NPT
Maximum working pressure	PN 100 BAR
International protection marking (*) (*) According to IEC 60529	IP67
Programming	With any IO-Link programming platform and the relative master.
Option	On request adjustment on 1 or 2 points

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TECHNICAL SPECIFICATION

Factory default

Loop powered operating mode: (4±20)mA output / Range 0÷100°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

IOTM X

Process connection

1/8" GAS CIL. Ø3 L= 13mm	01
1/8" GAS CIL. Ø3 L= 24mm	02
1/8" NPT Ø3 L= 13mm	05
1/8" NPT Ø3 L= 24mm	06
1/4" GAS CIL. Ø3 L= 13mm	0D
1/4" GAS CIL. Ø3 L= 24mm	0E
1/4" NPT Ø3 L= 13mm	0B
1/4" NPT Ø3 L= 24mm	0C

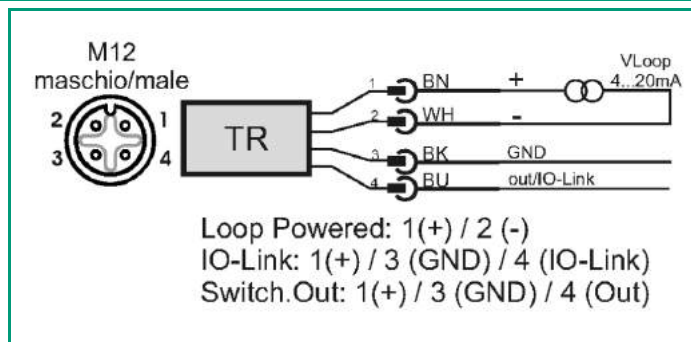
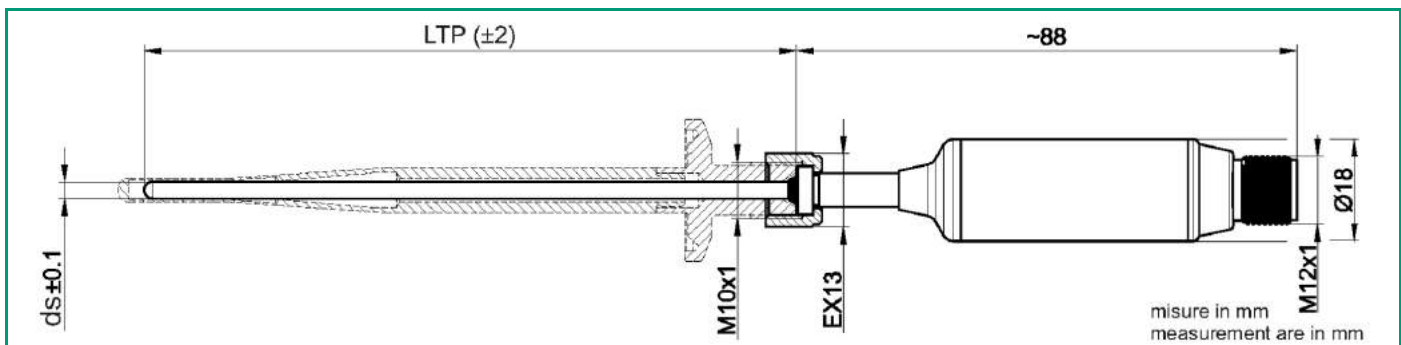
IOD-

Rev. 0 - 01/09/2023

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.



IOF-

Rev. 0 - 01/09/2023

EVOMINI IOF-

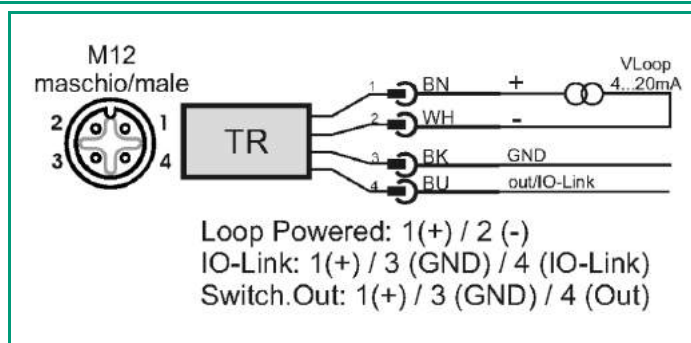
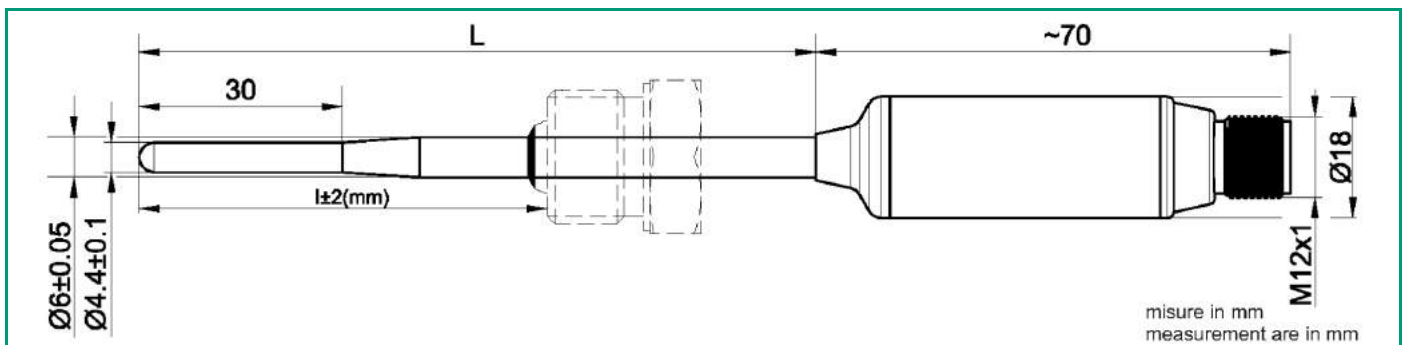
Temperature transmitter with IO-Link interface, full stainless steel construction with $\varnothing 6\text{mm}$ stem and $\varnothing 4.4\text{mm}$ swaged tip for optimized response time

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



TECHNICAL SPECIFICATION

Electronic board operating temperature	-40 +85°C
Operating humidity	0 ÷100%
Operating Voltage	18÷32 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: 250mA 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 61326-1:2013 (CE) In accordance to BS EN 61326-1:2013 (UKCA)
Measurement range	-50 +500°C
Accuracy (*) (*) @25°C	Maximum value between ±0.15K and ±0.15% of span (Loop Powered operating mode) ±0.15K between -50÷400°C and ±0.25K between 401÷500°C (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
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
International protection marking (*) (*) According to IEC 60529	IP67
Programming	With any IO-Link programming platform and the relative master.

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TECHNICAL SPECIFICATION

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

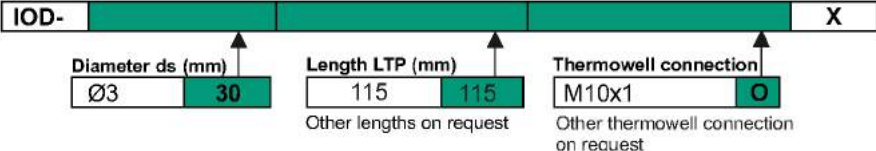
ORDER CODES

IOF-					X
Stem diameter (mm)		Length (mm)		Process connection	Immersion l (mm)
Tube Ø6 mm tapered to Ø4,4 mm	C	100	100	1/4" GAS CIL	D
Tube Ø6 mm	6	150	150	1/4" NPT	F
		250	250	1/2" GAS CIL	L
		350	350	1/2" NPT	N
		500	500	CLAMP 3/4"	1
		750	750	CLAMP 1 1/2"	2
		Other lengths on request		DIN11851 DN25	3
				NONE	X
					Other immersion depths on request

TECHNICAL SPECIFICATION

Electronic board operating temperature	-40 +85°C
Operating humidity	0 ÷100%
Operating Voltage	18÷32 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: 250mA 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 61326-1:2013 (CE) In accordance to BS EN 61326-1:2013 (UKCA)
Measurement range	-50 +500°C
Accuracy (*) (*) @25°C	Maximum value between ±0.15K and ±0.15% of span (Loop Powered operating mode) ±0.15K between -50÷400°C and ±0.25K between 401÷500°C (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)
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 programming 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

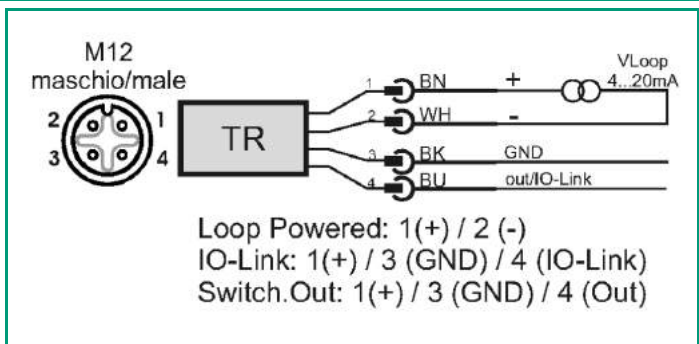
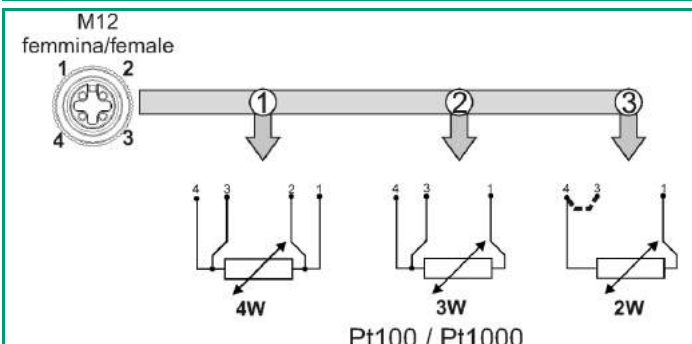
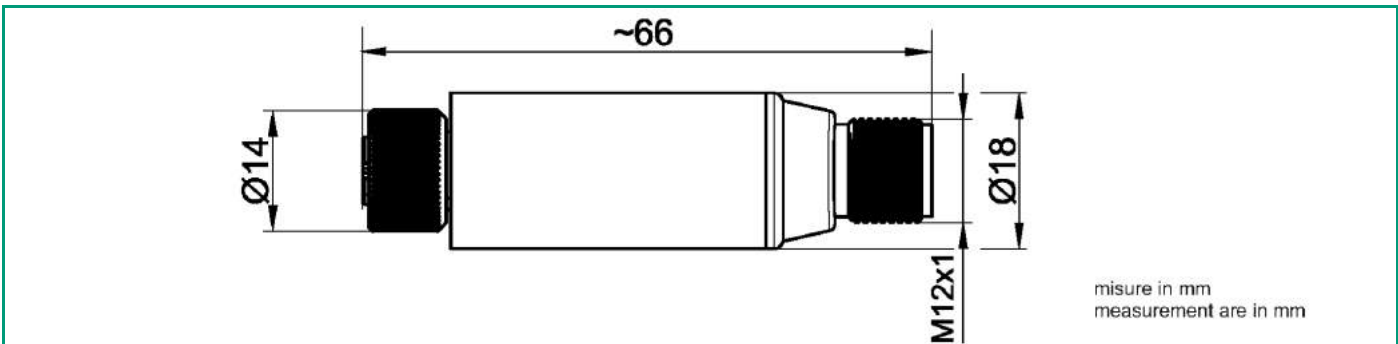
ORDER CODES



EVOMINI IOCM

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

Can be configured in three operating modes: IO-Link, 4+20mA loop powered and switching output with alarm thresholds (SIO). Stainless steel 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.



TECHNICAL SPECIFICATION

Electronic board operating temperature	-40 +85°C
Operating humidity	0 ÷100%
Operating Voltage	18÷32 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 ($\alpha= 0,00385$) 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	According to NAMUR NE43, selectable between: Upper scale (≥ 21.0 mA) Lower scale ($\leq 3,6$ 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: 250mA 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 $\pm 0,3^{\circ}\text{C}/25^{\circ}\text{C}$ and $\pm 0,3\%$ of span/ 25°C (Loop powered operating mode) $\pm 0,3^{\circ}\text{C}/25^{\circ}\text{C}$ (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 61326-1:2013 (CE) In accordance to BS EN 61326-1:2013 (UKCA)
Measurement range	-200 +800°C
Accuracy (*) (*) @25°C	Maximum value between $\pm 0.15\text{K}$ and $\pm 0.15\%$ of span (Loop Powered operating mode) $\pm 0.1\text{K}$ between -200÷400°C and $\pm 0.2\text{K}$ between 401÷800°C (IO-Link operating mode)
Connection body material	AISI 316L Stainless Steel
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)
International protection marking (*) (*) According to IEC 60529	IP67
Programming	With any IO-Link programming 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 $\geq 21\text{mA}$ / Sensor short-circuit $\leq 3.6\text{mA}$ 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