

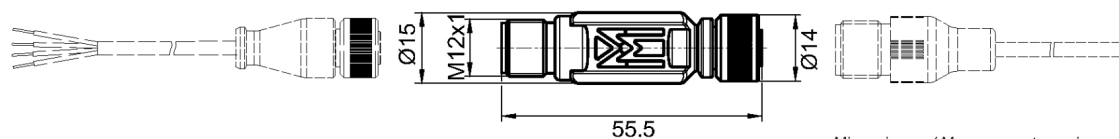
EVO040

Rev. 1 - 08/12/2022

EvominiSerC-RTD

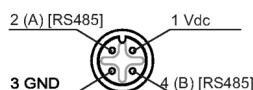
Programmable temperature signal converter with RTD input and Modbus RTU digital output (RS485)

By using a single cable, it is possible to build a sensors network which can be directly connected to a PLC or a PC equipped with a supervisory software (SCADA). These devices are equipped with M12 connectors allowing for an easy and quick installation with degree of protection IP67. It is compatible with Italcoppie TRM and TRC probe series.



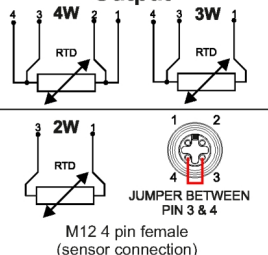
Misure in mm / Measurements are in mm

Input



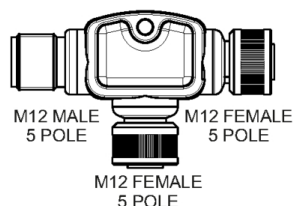
M12 4 pin male
(power supply connection)

Output

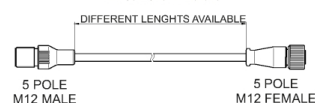


M12 4 pin female
(sensor connection)

«T» Distributor



Extension Cable



TECHNICAL SPECIFICATION

Power supply	9 ±32 Vdc (polarity protected)
Electronic board input	RTD Pt100 / Pt1000 ($\alpha= 0,00385$ / $\alpha= 0,003916$) 2, 3 o 4 wire connection
Sensor exciting current	~100 uA
Sensor wire maximum resistance	2 wire connection: 40 ohm 3 or 4 wire connection: 20 ohm/wire
Accuracy (*) (*) @25°C	Converter: $\leq \pm 0.2^{\circ}\text{C}$ of the range $(-200 \div 850)^{\circ}\text{C}$ Sensor element: Pt100 class A up to 300 °C according to IEC751
Temperature influence (*) (*) deviation from 20°C	$< \pm 0.25^{\circ}\text{C}/25^{\circ}\text{C}$ of the range $(-200 \div 850)^{\circ}\text{C}$
Electronic board operating temperature	-40 ÷80°C
Resolution	0,1 °C
Linear error	Negligible
Sensor error compensation	(±5°C) over two points
Current consumption	<4mA with RS485 (<10mA at power on for approx. 8mS)
Communication protocol	Modbus RTU (max. baud rate 38.400)
Serial interface	RS-485 (not insulated)
Input/Output insulation	None
Maximum connection distance	1000 meters, this distance depends on the power supply voltage and the type of cable used to connect the various devices
Maximum devices on network	maximum 32 (over is required to add a serial repeater) Maximum 256 nodes (it is recommended to use isolators / repeaters along the serial line)
Indicator LED	Blue LED, power supply and device operations indicator Red LED (ERR), sensor error indicator White LEDs (TX and RX), serial transmission and reception indicators
International protection marking (*) (*) According to IEC 60529	IP65/67
EMC	In accordance to EN 61326-1:2013 (CE) In accordance to BS EN 61326-1:2013 (UKCA)
Configuration	By using the EVOPLATFORMSET configuration kit (a PC with Windows OS is required).
Main device design parameters	Maximum and minimum temperature peak measured Temperature offset for measurement correction Serial communication and power-on watch-dog Temperature tenths °C
RTD sensor range	-200 ÷850°C
Connector	1 input connector M12 x 4 male according to IEC 61076-2-101 STANDARDS (power supply / serial interface) 1 output connector M12 x 4 female in accordance with IEC 61076-2-101 STANDARDS (sensor connection)
Material body	Thermoplastic
Weight	12g
Option	"T" distributor Female / Male / Female M12 x 5 poles Extension cables with M12 overmoulded female and male connectors Wall mounting bracket EVOPLATFORMSET configuration kit

ORDER CODES

EVO040

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TEMPERATURE