EM-M21A Pt-100 TO 4...20 mA CURRENT LOOP CONVERTER



FEATURES:

- Wide operating voltage range4...20 mA / 1...5 V output
- Multiple ranges
- Three wire compensated
- Linearisation inbuilt
- Adjustable zero and gain
- Over voltage protected
- Incorrect polarity protected
- Easy to connect
- Rail mountable

EM-M21A is a multiscale converter for thermal transducer Pt-100. Pt-100 transducer is connected to converter with three wires. In this way the cable resistance is compensated. The converter has four selectable temperature ranges and a -50 °C settable offset. The gain and zero adjustments have no mutual effect. The output signal is 4...20 mA current signal, and the unlinearity of the Pt-100 is already corrected in the converter. The converter acquires its operating voltage from the current loop and needs no additional supply. EM-M21A can be connected as a voltage transmitter 1...5 V according to the figure below. Converter is efficiently protected against misconnections and voltage surges.

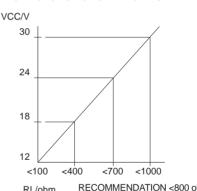
TECHNICAL DATA:

Supply 12...32 Vdc 0...100 °C Température ranges 0...200 °C 0...300 °C 0...400 °C -50...+50 °C -50...+150 °C -50...+250 °C -50...+350 °C Output signal 4...20 mA / 1...5 V Linearity error < 0.1 %

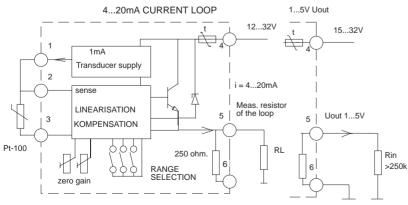
Thermal drift Cable compensation Transducer supply Loop resistance

0...700 ohm (24 V) 0...60 °C Oper. ambient temp.

LARGEST POSSIBLE MEAS. RESISTOR AS A FUNCTION OF OPER. VOLTAGE



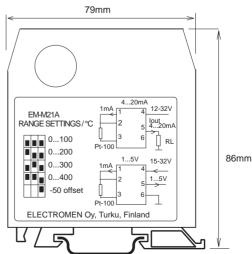
RECOMMENDATION <800 ohm. RL/ohm



< 100 ppm/°C

appr. 1 mA

0.1 %/ 10 ohm (Rc<50 ohm)



WIDTH OF THE HOUSING IS 25 mm

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