EM5/E

Screwable temperature transducer with silicon cable

Measuring size: temperature
Output: 0-10 V, 4-20 mA, 2 Relay
Highlights: Pmax 40 bar, thread G1/2 inch

MADE IN GERMANY

Description

The EM5/E screwable transducer with silicon cable registers the temperature at a maximum pressure of 40 bar in gaseous and liquid media and converts this measured value into a linear output signal 0-10 V respectively 4-20 mA. As an option the temperature transducer has two potential-free changeover contacts and a backlit display. The display content can be rotated in 90° steps using a menu and the measured value, the switching threshold set, the state of the respective relay, the MIN/MAX measured values for the selected intervals(1 h / 6 h / 12 h / 24 h) etc. can be read out. On the display version the user can, via the menu, specify an individual temperature range.
The stainless steel screwable immersion sleeve, which protects the sensor from mechanical shocks, is connected splash-proof with the connecting cable and is screwed directly into the container or the pipeline using the G1/2 inch thread.

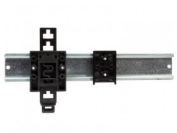
Technical Specifications

Measurement range temp.	-30...+180°C
Scales	-50...0°C, -50...+50°C, -50...+150°C, -30...+20°C, -30...+70°C, -20...+50°C, -20...+80°C, -20...+120°C, -20...+150°C, -10...+15°C, 0...+50°C, 0...+100°C, 0...+150°C, 0...+200°C, 0...+250°C, +10...+35°C
Measurement range configuration	1 freely programmable measuring range via the menu input in the display (span min. 25K)
Accuracy	±0,2 K + max. ±1,5% Span
Supply voltage analog 0-10 V	24 V AC/DC (±5%)
Supply voltage analog 4-20 mA	15...36 V DC, depends on liability (Ubmin = 15 V + Rload*0,02A)
Current consumption at 0-10 V	typ. 10 mA, 30 mA peak current consumption for 50 ms at switching moment at option relay
Current consumption at 4-20 mA	max. 20 mA / output, 40 mA peak current consumption for 50 ms at switching moment at option relay
Analogue output 0-10 V	3-wire connection, min. load resistance 100 kOhm
Analogue output 4-20 mA	2-wire connection (transmitter), max. RLoad(Ohm) = (+Ub - 15 V) / 0,02 A
Alarm output	2 x potential-free change-over contact, 48 V, 1 A
Switching Hysteresis Relay	Temperature: 2K (without display), 0,5...5K adjustable (with display)
Electrical connection	screw terminals max. 1,5 mm²
Cable	2 m silicone cable (max. +180°C)
Housing	Polycarbonate PC UL 94 V0 with hinge locks, color signal white similar to RAL 9003
Cable gland	PG11 high-strength cable gland with strain relief
Display	optional LCD display with backlight on/off/auto
Material	Protection sleeve: stainless steel VA 1.4571
Dimensions	Housing: L 89 x W 80 x H 47 mm, Protection sleeve: Ø 6 x 100 mm
Protection type	IP65
Protection class	III
Working range r.H.	0...98% r.H. in contaminant-free, non-condensing air
Working temperature	Probe: -50...+180°C, Electronic: -20...+70°C
Storage temperature	-20...+70°C
Installation	screw-in thread G1/2 inch
Approvals	CE, EAC, RoHS

Variants

Article Number			
MR temp. preset	Output temperature	Cable	Version
EM5/E-I			
0...+100°C	4-20 mA	2 m silicone (2x0,22 mm²)	without display
EM5/E-I2R			
0...+100°C	4-20 mA, 2 changer	2 m silicone (2x0,22 mm²)	without display
EM5/E-I2RD			
0...+100°C	4-20 mA, 2 changer	2 m silicone (2x0,22 mm²)	with display
EM5/E-ID			
0...+100°C	4-20 mA	2 m silicone (2x0,22 mm²)	with display
EM5/E-U			
0...+100°C	0-10 V	2 m silicone (2x0,22 mm²)	without display
EM5/E-U2R			
0...+100°C	0-10 V, 2 changer	2 m silicone (2x0,22 mm²)	without display
EM5/E-U2RD			
0...+100°C	0-10 V, 2 changer	2 m silicone (2x0,22 mm²)	with display
EM5/E-UD			
0...+100°C	0-10 V	2 m silicone (2x0,22 mm²)	with display

Accessories



SB/E

Snap-on mounting for DIN rails

motrona AX350

AX350: touchMATRIX® Process Indicator with two 16 bit Analog Inputs

motrona AX020

AX020: Process Indicator for Analog Signals

Dimensional Drawing