



OM1/E

Surface temperature transducer - self-adhering

Measuring size: temperature

Output: 0-10 V, 4-20 mA, 2 Relay

Highlights: aluminium contacting block, incl. self-adhesive cap



Description

The self-adhering OM1/E surface transducer registers the temperature on surfaces 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.

Using the self-adhering mounting cap, including in the scope of delivery, the temperature sensor is quickly and securely mounted, e.g. on window fronts.



Technical Specifications

Measurement range temp.	-20...+105°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
Sensor	Pt100 DIN EN 60751 Cl. B
Supply voltage analog 0-10 V	24 V AC/DC (±5%)
Supply voltage analog 4-20 mA	15...36 V DC, depends on liability ($U_{bmin} = 15 V + R_{load} \cdot 0,02 A$)
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. $R_{Load}(Ohm) = (+U_b - 15 V) / 0,02 A$
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 mm ²
Cable	2 m PVC cable (max. +105°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	Contacting block: aluminium
Dimensions	Housing: L 89 x W 80 x H 47 mm, Contacting block: L 30 x W 6 x H 6 mm, bore hole Ø 3 mm
Protection type	IP65
Protection class	III
Working range r.H.	0...98% r.H. in contaminant-free, non-condensing air
Working temperature	Probe: -20...+105°C, Electronic: -20...+70°C
Storage temperature	-20...+70°C
Installation	self-adhesive fixing cap (in scope of delivery), screw fastening
Approvals	CE, EAC, RoHS



Variants

Article Number			
MR temp. preset	Output temperature	Cable	Version
OM1/E-I			
0...+100°C	4-20 mA	2 m PVC (2x0,14 mm ²)	without display
OM1/E-I2R			
0...+100°C	4-20 mA, 2 changer	2 m PVC (2x0,14 mm ²)	without display
OM1/E-I2RD			
0...+100°C	4-20 mA, 2 changer	2 m PVC (2x0,14 mm ²)	with display
OM1/E-ID			
0...+100°C	4-20 mA	2 m PVC (2x0,14 mm ²)	with display
OM1/E-U			
0...+100°C	0-10 V	2 m PVC (2x0,14 mm ²)	without display
OM1/E-U2R			
0...+100°C	0-10 V, 2 changer	2 m PVC (2x0,14 mm ²)	without display
OM1/E-U2RD			
0...+100°C	0-10 V, 2 changer	2 m PVC (2x0,14 mm ²)	with display
OM1/E-UD			
0...+100°C	0-10 V	2 m PVC (2x0,14 mm ²)	with display



Dimensional Drawing

