



AM1/E

Outside temperature transducer

Measuring size: temperature

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

Highlights: 16 measuring ranges per device, 1 freely programmable measurement range, optional with LCD-Display, DIP-switch-technology



Description

The AM1/E outside transducer registers the temperature via the sensor inside the shock resistant, moisture proof plastic housing 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.

In weather dependent areas the temperature transducer is, for example, fitted to outside walls, whereby direct sunlight is to be avoided.



Technical Specifications

Measurement range temp.	-20...+70°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
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
Dimensions	Housing: L 89 x W 80 x H 47 mm
Protection type	IP65
Protection class	III
Working range r.H.	0...98% r.H. in contaminant-free, non-condensing air
Working temperature	Electronic: -20...+70°C
Storage temperature	-20...+70°C
Installation	screw fastening
Approvals	CE, EAC, RoHS



Variants

Article Number		
MR temp. preset	Output temperature	Version
AM1/E-I		
0...+100°C	4-20 mA	without display
AM1/E-I2R		
0...+100°C	4-20 mA, 2 changer	without display
AM1/E-I2RD		
0...+100°C	4-20 mA, 2 changer	with display
AM1/E-ID		
0...+100°C	4-20 mA	with display
AM1/E-U		
0...+100°C	0-10 V	without display
AM1/E-U2R		
0...+100°C	0-10 V, 2 changer	without display
AM1/E-U2RD		
0...+100°C	0-10 V, 2 changer	with display
AM1/E-UD		
0...+100°C	0-10 V	with display



Dimensional Drawing

