



TW/A

Dew point controller

Measuring size: rel. humidity
Output: 0-10 V, 4-20 mA, Relay
Highlights: clamping band



Description

The dew point controller TW/A measures the relative humidity 0...100% r.H. via the contact surface of the contact block, e.g. on cooled pipes, surfaces or cooling ceilings. For further processing, it provides a linear output signal 0-10 V, 4-20 mA or a change-over contact. The dew point controller with change-over contact has a 2-digit LED display which visualize the actual value of % r.H., the limit setting 5...95% r.H. and the exceeding of the limit. The sensor element is mounted inside the contacting block and is protected by a sinter plate. Due to its geometric shape the dew point controller allows an easy mounting on pipes by a tension band.

Technical Specifications

Measurement range r.H.	0-100% r.H.
Accuracy humidity	±3% r.H. (30-70% r.H., else ±5% r.H., at 20°C)
Long term stability	±1%/year
Sensor protection	sinter filter, sensor mounted inside the contact block
Flow rate	< 2 m/s
Supply voltage analog 0-10 V	24 V AC/DC (±5%)
Supply voltage analog 4-20 mA	15...36 V DC (U _{min} = 15 V + R _{Load} *0,02A)
Supply voltage at relay	24 V AC/DC (±5%)
Current consumption at 0-10 V	typ. 10 mA
Current consumption at 4-20 mA	max. 20 mA / output
Current consumption at relay	max. 30 mA
Analogue output 0-10 V	3-wire connection, load current < 0,1 mA
Analogue output 4-20 mA	2-wire connection (transmitter), max. R _{Load} (Ohm) = (+U _b - 15 V) / 0,02 A
Alarm output	1 x potential-free change-over contact, 48 V, 1 A
Switching Hysteresis Relay	3%
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	2-digit LED display for visualization of actual value and limit setting / exceeded
Dimensions	Housing: L 89 x W 80 x H 47 mm
Protection type	Housing/electronic: IP65, Sensor: IP30



Protection class	III
Working range r.H.	0...98% r.H. in contaminant-free, non-condensing air
Working temperature	0...+50°C
Storage temperature	-20...+50°C
Installation	clamping band, band width 9 mm, chucking capacity 50-110 mm, galvanized steel (in scope of delivery)
Approvals	CE, EAC, RoHS

Variants

Article Number		
Humidity	Output r.H.	Equipment
TW/A-I		
0-100% r.H.	4-20 mA	-
TW/A-R		
0-100% r.H.	change-over contact	LED-Display
TW/A-U		
0-100% r.H.	0-10 V	-

Accessories



motrona AX350

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



motrona AX020

AX020: Process Indicator for Analog Signals



Dimensional Drawing

