



AD/A

Pressure transducer for atmospheric / barometric pressure

Measuring size: atm. air pressure, bar. air pressure

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

Highlights: enter altitude above sea level for calculation bar. air pressure on the device



Description

The pressure transducer AD/A registers the atmospheric or barometric pressure in the range of 500...1150 mbar and converts this measured value into a linear output signal 0-10 V respectively 4-20 mA.

As an option the pressure transmitter has a potential-free changeover contact and a backlit display.

The display content can be rotated in 90° steps using a menu and the actual value, the switching threshold set, the state of the 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 altitude above sea level can be entered and switched between atmospheric and barometric air pressure.

The atmospheric air pressure is defined by the weather conditions and the altitude above sea level. The barometric air pressure is defined by the weather conditions and normalised

according to the altitude above sea level.

If required the pressure transducer can be finely calibrated in situ using an SPAN controller.



Technical Specifications

Pressure type	atmospheric air pressure / barometric air pressure (display version only)
Medium	air, non-aggressive, non-flammable, non-condensing gases
Measurement range atm. air pressure	500-1150 mbar
Scales	500...1150 mbar, 750...1150 mbar
Accuracy	±5 mbar (at 20°C)
Temperature dependency	1 mbar / 10 K
Linearity inaccuracy	±1,0% final value
Offset	max. ±50 mbar
Output attenuation	0 s / 1 s / 5 s / 10 s selectable by DIP switch
Sensor	Piezoresistive on-chip silicon sensor
Sensor protection	stainless steel sinter filter
Supply voltage analog 0-10 V	24 V AC/DC (±5%)
Supply voltage analog 4-20 mA	15...36 V DC ($U_{bmin} = 15 V + R_{Load} \cdot 0,02 A$)
Current consumption at 0-10 V	typ. 15 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	1 x potential-free change-over contact, 48 V, 1 A
Switching Hysteresis Relay	2% of the selected scaling (without display), 0,5...5% of the selected scaling adjustable (with display)
Electrical connection	screw terminals max. 1,5 mm ²
Pressure resistance	5-times of measurement range
Housing	Polycarbonate PC UL 94 V0 with hinge locks, color signal white similar to RAL 9003
Dimensions	Housing: L 89 x W 80 x H 47 mm
Cable gland	PG11 high-strength cable gland with strain relief
Display	optional LCD display with backlight on/off/auto
Protection type	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	0...+50°C
Installation	screw fastening
Approvals	CE, EAC, RoHS



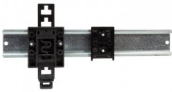
Variants

Article Number		
Pressure	Output pressure	Version
AD/A-I		
500...1150 mbar	4-20 mA	without display
AD/A-ID		
500...1150 mbar	4-20 mA	with display
AD/A-IR		
500...1150 mbar	4-20 mA, changer	without display
AD/A-IRD		
500...1150 mbar	4-20 mA, changer	with display
AD/A-U		
500...1150 mbar	0-10 V	without display
AD/A-UD		
500...1150 mbar	0-10 V	with display
AD/A-UR		
500...1150 mbar	0-10 V, changer	without display
AD/A-URD		
500...1150 mbar	0-10 V, changer	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

