



DMU2/A

Pressure transducer for pressure difference with EMC thread

Measuring size: pressure

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

Highlights: EMC thread, 8 different scales per device



Description

The pressure transducer DMU2/A registers the over-pressure, under-pressure and the pressure difference at the two pressure outlets and converts the measured value into a linear output signal 0-10 V respectively 4-20 mA um. 8 different scales can be selected, which can be switched freely using the innovative DIP switch technology. The output attenuation of the pressure transducer (0 sec / 1 sec / 5 sec / 10 sec) can also be selected using a DIP switch. For a manual calibration of the zero point the pressure transducer performs a zero point balance in situ at the push of a button. If required the pressure transducer can be finely calibrated in situ using an SPAN controller. The aluminium housing ensures an extremely high mechanical robustness and has an EMS thread for the easy and safe EMC conform wiring.



Technical Specifications

Pressure type	positive, negative or differential pressure
Medium	air, non-aggressive, non-flammable, non-condensing gases
Measurement range pressure	V1: 0...+/-500 Pa, V2: 0...+/-5000 Pa, V3: 0...+/-100 Pa
Scales	V1: 0...+/-100, 0...+/-200 Pa, 0...+/-300 Pa, 0...+/-500 Pa; V2: 0...+/-1000, 0...+/-2000 Pa, 0...+/-3000 Pa, 0...+/-5000 Pa; V3: 0...+/-25, 0...+/-50 Pa, 0...+/-75 Pa, 0...+/-100 Pa
Accuracy	±3,0% FS (at 20°C)
Temperature dependency	±2,5% FS / 10 K
Linearity inaccuracy	±1,0% final value
Long term stability	±1% FS/year
Zero-point adjustment	max. +2% final value
Offset	±5% from the selected scale by 270° potentiometer
Reaction rate	< 1 s, at 5% alteration relating to final value
Output attenuation	0 s / 1 s / 5 s / 10 s selectable by DIP switch
Sensor protection	mounted inside housing
Running-in time	< 30 min at initial operation because of tempering
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} *0,02A)
Current consumption at 0-10 V	typ. 15 mA
Current consumption at 4-20 mA	max. 20 mA / output
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
Electrical connection	screw terminals max. 1,5 mm ²
Pressure resistance	5-times of measurement range
Housing	die-cast (aluminium), colour silver grey like RAL 7001
Dimensions	Housing: L 64 x W 58 x H 34,5 mm
Cable gland	M16x1,5 high-strength cable gland with strain relief and EMC grounding
Protection type	IP65, IP20 if pressure connection port is open
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	Housing: screw fastening, Pressure connection: 2 plastic duct connecting nipple with fastening screws and 2 m PVC tube Ø 6 mm (in scope of delivery)
Manual zero-point adjustment	The zero point adjustment is started by pressing the button on the circuit board (push 10 s until LED stops flashing or by the display version the countdown 10-0 is completed). Before, a continuous operation of at least 1 hour must be sure, the offset must be in the middle position and the pressure inputs P+ and P- must be an obvious offense to the environment. The successful calibration will be signalized by 5 sec durable lightning of the LED.
Approvals	CE, EAC, RoHS



Variants

Article Number		
Pressure	Output pressure	Version
DMU2/A-I/V1		
0...+/-500 Pa	4-20 mA	without display
DMU2/A-I/V2		
0...+/-5000 Pa	4-20 mA	without display
DMU2/A-U/V1		
0...+/-500 Pa	0-10 V	without display
DMU2/A-U/V2		
0...+/-5000 Pa	0-10 V	without display
DMU2/A-U/V3		
0...+/-100 Pa	0-10 V	without display

Accessories

SAS/D
Hose connection set



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



motrona AX020
AX020: Process Indicator for Analog Signals





Dimensional Drawing

