

Differential Pressure Sensor (Air)

Differential pressure transmitter with 8 selectable ranges and outputs 0 to 5/10 V or 4 to 20 mA. NEMA 4X / IP65 rated enclosure. For monitoring the differential pressure of air and other non-flammable and non-aggressive gases. Monitoring air filters, fans, industrial cooling air cycles, control of air and fire dampers. Available with LCD display.


Type Overview

| Type | Measuring Range Pressure | Output Signal Active Pressure | Overpressure Limit | Display Type |
|------------|--------------------------|--|-------------------------|--------------|
| 22ADP-586 | - | DC 0...10 V, DC 0...5 V, 4...20 mA | 40 kPa / 160 inch WC | - |
| 22ADP-586L | - | DC 0...10 V, DC 0...5 V, 4...20 mA | 40 kPa / 160 inch WC | LCD |

Technical Data

| | | |
|------------------------|---------------------------|---|
| Electrical Data | Power Supply DC | 15...24 V, $\pm 10\%$, 1.1 W |
| | Power Supply AC | 24 V, $\pm 10\%$, 1.7 VA |
| | Electrical Connection | removable spring loaded terminal block max. 11 GA [2.5 mm ²] |
| | Cable Entry | cable gland PG11 $\varnothing 6$ to 10 mm, with strain relief $\varnothing 6$ to 8 mm, 1/2" conduit adapter included |
| Functional Data | Sensor Technology | piezo measuring element |
| | Multirange | 8 fields selectable |
| | Output Signal Active Note | output DC 0 to 5/10 V selectable with switch voltage output: min. 10 k Ω load current output: max. 500 Ω load |
| | Display | LCD, 1.14" x 1.38" [29 x 35 mm] with backlight measured values: Pa, inchWC (configurable) |
| | Media | air |

| | | | | | |
|-----------------------|-----------------------------------|--|------------|-----------------|-----------------|
| Measuring Data | Measured Values | differential pressure | | | |
| | Measuring media | air and non-aggressive gases | | | |
| | Measuring range settings pressure | Setting | range [Pa] | range [inch WC] | Factory setting |
| | | S0 | 0...7000 | 0...28 | ✓ |
| | | S1 | 0...5000 | 0...20 | |
| | | S2 | 0...4000 | 0...16 | |
| | | S3 | 0...3000 | 0...12 | |
| | | S4 | 0...2500 | 0...10 | |
| | | S5 | 0...2000 | 0...8 | |
| | | S6 | 0...1500 | 0...6 | |
| | | S7 | 0...1000 | 0...4 | |
| Materials | Accuracy Pressure | measuring range ≤8 inch WC (2000 Pa): ±0.04 inch WC (±10 Pa) measuring range >8 inch WC (2000 Pa): ±0.1 inch WC (±25 Pa) | | | |
| | Cable Gland | PA6, black | | | |
| | Housing | cover: lexan, Belimo orange NCS S0580-Y6OR base: lexan, Belimo orange NCS S0580-Y6OR seal: 0467 NBR70, black | | | |
| Safety Data | Ambient Humidity | max. 95% RH non-condensing | | | |
| | Ambient Temperature | 15°F to 120°F [-10°C to 50°C] | | | |
| | Medium Temperature | 15°F to 120°F [-10°C to 50°C] | | | |
| | Protection Class IEC/EN | III safety extra-low voltage (selv) | | | |
| | Protection Class UL | UL Class 2 Supply | | | |
| | EU Conformity | CE Marking | | | |
| | Certification IEC/EN | IEC/EN 60730-1 and IEC/EN 60730-2-6 | | | |
| | Certification UL | cULus acc. to UL60730-1A/-2-6, CAN/CSA E60730-1:02, CE acc. to 2004/108/EC and 2006/95/EC, NEMA 4X, IP65, UL Enclosure Type 4X | | | |
| | Degree of Protection IEC/EN | IP65 | | | |
| | Degree of Protection NEMA/ UL | NEMA 4X | | | |
| | Quality Standard | ISO 9001 | | | |
| Weight | 0.29 lbs | | | | |

Safety Notes


The installation and assembly of electrical equipment should only be performed by authorized personnel.

The product should only be used for the intended application. Unauthorized modifications are prohibited! The product must not be used in relation with any equipment that in case of a failure may threaten, directly or indirectly, human health or life or result in danger to human beings, animals or assets. Ensure all power is disconnected before installing. Do not connect to live/operating equipment.

Please comply with

- Local laws, health & safety regulations, technical standards and regulations
- Condition of the device at the time of installation, to ensure safe installation
- This data sheet and installation manual

Remarks

Manual Zero-Point Calibration In normal operation zero-point calibration should be executed every 12 months.
 Attention! For executing zero point calibration the power supply must be connected one hour before.
 • Release both connection tubes from the pressure terminals + and -
 • Press the button S1 until the LED lights permanently
 • Wait until the LED flashes again and reinstall the connection tubes to the pressure ports (note + and -)

Accessories

| | | |
|-----------------------------|---|-------------|
| Scope of Delivery | mounting plate dowel screws cable gland nut conduit 1/2" NPT | |
| Optional Accessories | Description | Type |
| | metal duct connectors 1.57" [40 mm] | A-22AP-A01 |
| | metal duct connectors 4" [100 mm] | A-22AP-A03 |

Wiring Diagram

① Button
 ② Status LED
 * Factory setting
 P Pressure unit
 T Response time
 U Output signal

| Setting | range [Pa] | range [inch WC] | Factory setting |
|---------|------------|-----------------|-----------------|
| S0* | 0...7000 | 0...28 | ✓ |
| S1 | 0...5000 | 0...20 | |
| S2 | 0...4000 | 0...16 | |
| S3 | 0...3000 | 0...12 | |
| S4 | 0...2500 | 0...10 | |
| S5 | 0...2000 | 0...8 | |
| S6 | 0...1500 | 0...6 | |
| S7 | 0...1000 | 0...4 | |

DC 4...20 mA
 DC 0...5/10 V
 AC/DC 24 V

Dimensions

