BELIMO

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.

5 YEAR WARRANTY

Type Overview

Type	Measuring range rel. pressure	Output signal active pressure	Overpressure range	Display type
22ADP-584	-	DC 0...10 V, DC 0...5 V, 4...20 mA	40 kPa / 160 inch WC	-
22ADP-584L	-	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, ±10%, 1.1 W
	Power supply AC	24 V, ±10%, 1.7 VA
	Electrical connection	removable spring loaded terminal block max. 11 GA [2.5 mm²]
	Cable entry	Cable gland with strain relief Ø6...8 mm (1/2" NPT 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 kΩ 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	Measuring values	differential pressure			
	Measuring media	air and non-aggressive gases			
	Measuring range settings pressure	Setting	range [Pa]	range [inch WC]	Factory setting
		S0	0...2500	0...10	✓
		S1	0...2000	0...8	
		S2	0...1500	0...6	
		S3	0...1000	0...4	
		S4	0...500	0...2	
		S5	0...250	0...1	
		S6	0...100	0...0.4	
		S7	-100...100	-0.4...0.4	
	Accuracy pressure	measuring range ≤2 inch WC (500 Pa): ±0.02 inch WC (±5 Pa) measuring range >2 inch WC (500 Pa): ±0.04 inch WC (±10 Pa)			
Materials	Cable gland	PA6, black			
	Housing	cover: lexan, orange base: lexan, orange seal: 0467 NBR70, black			
Safety Data	Ambient humidity	max. 95% RH non-condensing			
	Ambient temperature	15...120 °F [-10...50 °C]			
	Medium temperature	15...120 °F [-10...50 °C]			
	Protection class IEC/EN	III safety extra-low voltage (selv)			
	Protection class UL	UL Class 2 Supply			
	EU Conformity	CE-Kennzeichnung			
	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			

Safety Notes

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

This device has been designed for use in stationary heating, ventilation and air conditioning systems and must not be used outside the specified field of application. Unauthorised modifications are prohibited. The product must not be used in relation with any equipment that in case of a failure may threaten human, 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 until the LED lights permanently
• Wait until the LED flashes again and reinstall the connection tubes to the pressure ports (note + and -)
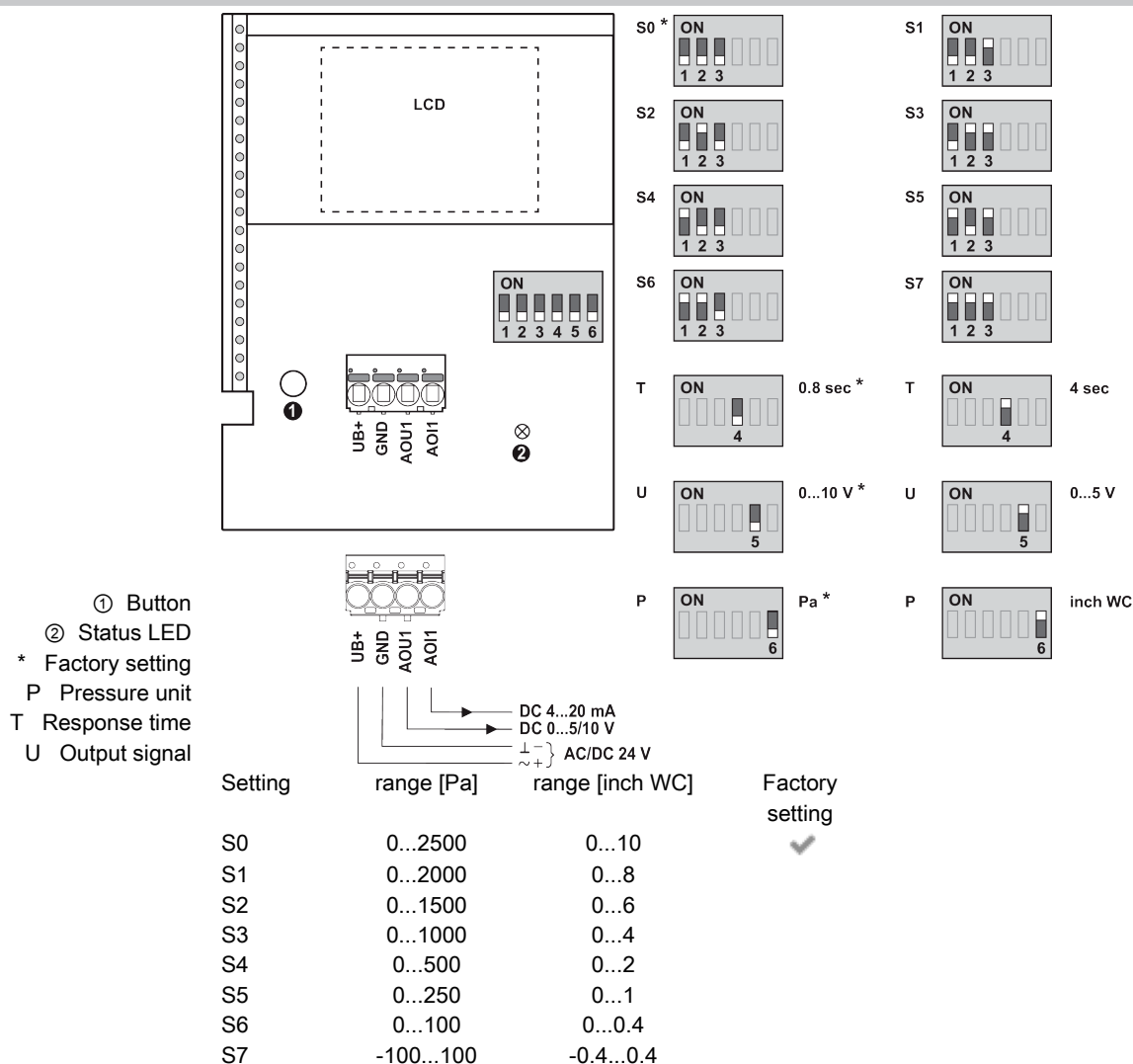
Scope of delivery

mounting plate
dowel
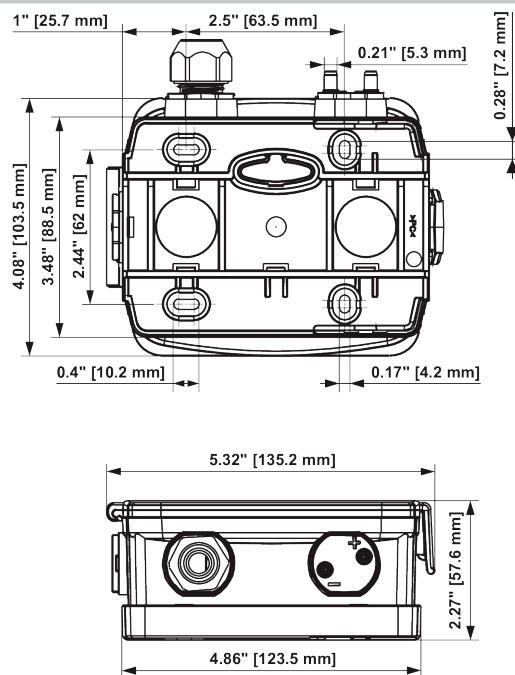screws
1/2" NPT conduit adapter

Accessories

Optional accessories	Description	Type
	Duct connector (metal) 1.57" [40 mm]	A-22AP-A01
	Duct connector (metal) 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...2500	0...10	✔
S1	0...2000	0...8	
S2	0...1500	0...6	
S3	0...1000	0...4	
S4	0...500	0...2	
S5	0...250	0...1	
S6	0...100	0...0.4	
S7	-100...100	-0.4...0.4	

Dimensions

Dimensions

Type	Probe length	Weight
22ADP-584	-	0.63 lb [0.29 kg]
22ADP-584L	-	0.66 lb [0.30 kg]