

Differential pressure sensor Air dual

Differential pressure transmitter with two independent measuring systems. With each 8 selectable ranges and one output 0...5 V/10 V. For monitoring the differential pressure of air and other non-flammable and non-aggressive gases. Typical application in HVAC systems for monitoring air filters, fans V-belts or fire and smoke control dampers. Options available with LCD display. IP65 / NEMA 4X rated enclosure.


Type Overview

Type	Measuring range pressure [Pa]	Output signal active pressure	Burst pressure	Display type
22ADP-124D	-100...2500	0...5 V, 0...10 V	40 kPa	-
22ADP-124F	-100...2500	0...5 V, 0...10 V	40 kPa	LCD

Technical Data

Electrical data	Nominal voltage	AC/DC 24 V			
	Nominal voltage range	AC 19...29 V / DC 15...35 V			
	Power consumption AC	1.7 VA			
	Power consumption DC	1.1 W			
	Electrical connection	Pluggable spring loaded terminal block max. 2.5 mm ²			
	Cable entry	Cable gland with strain relief Ø6...8 mm			
Functional data	Sensor Technology	Piezo measuring element			
	Multirange	8 measuring ranges selectable			
	Voltage output	2x 0...5 V, 0...10 V, min. load 10 kΩ			
	Output signal active note	Output 0...5/10 V selectable with switch			
	Display	LCD, 29x35 mm with backlight Measured values: Pa, inchWC (parametrisable)			
	Application	Air			
	Response time	Adjustable 0.8 s or 4.0 s			
	Measuring data	Measuring values	Differential pressure		
Measuring fluid		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		deviation compared to the reference device measuring range ≤500 Pa: ±5 Pa measuring range >500 Pa: ±10 Pa			
Long-term stability		±2.5% FSO (Full Scale Output) / 4 yr.			
Materials	Cable gland	PA6, black			

Housing	Cover: Lexan, orange Bottom: Lexan, orange Seal: 0467 NBR70, black UV resistant
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Safety data

Ambient humidity	Max. 95% r.H., non-condensing
Ambient temperature	-10...50°C [15...120°F]
Fluid temperature	-10...50°C [15...120°F]
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
Degree of protection IEC/EN	IP65
Degree of protection NEMA/UL	NEMA 4X
Quality Standard	ISO 9001

Safety notes


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 humans, animals or assets.

Ensure all power is disconnected before installing. Do not connect to live/operating equipment.

Only authorised specialists may carry out installation. All applicable legal or institutional installation regulations must be complied during installation.

The device contains electrical and electronic components and must not be disposed of as household refuse. All locally valid regulations and requirements must be observed.

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 -)

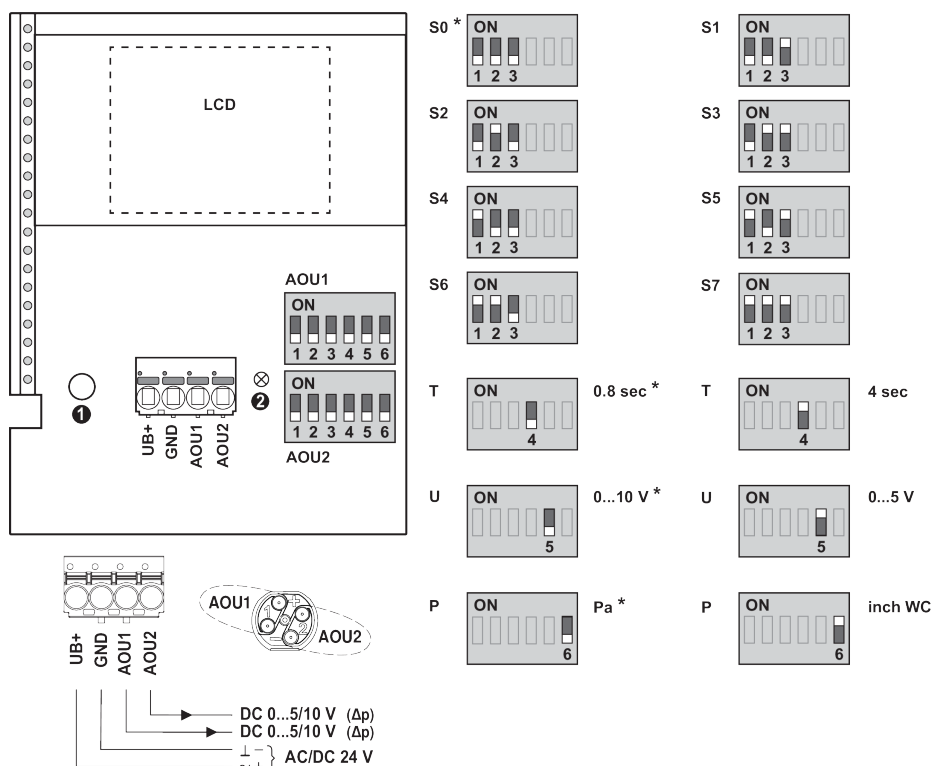
Scope of delivery

Scope of delivery	Description	Type
	Duct connector kit, PVC tube 2 m, 2 connection elements (Plastic) for 22ADP-..	A-22AP-A08
	Mounting plate L housing	A-22D-A10
	Dowel	
	Screws	

Accessories

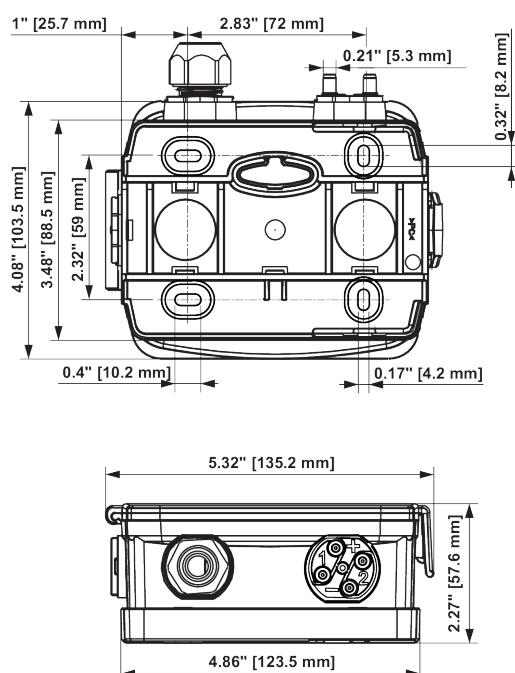
Optional accessories	Description	Type
	Duct connector, Metal, L 40 mm, Tube connection 5 mm	A-22AP-A02
	Duct connector, Metal, L 100 mm, Tube connection 5 mm	A-22AP-A04
	Connection adapter, M20x1.5, for cable 1x6 mm, Multipack 10 pcs.	A-22G-A01.1

Wiring diagram



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



Type	Weight
22ADP-124D	0.44 kg

22ADP-124F**0.48 kg**
