

AX-ADPT-B

Multi Range Air Differential Pressure Transmitter

AXIO



Product Overview

The AX-ADPT-B multi range differential pressure transmitters are a cost effective solution for air flow monitoring applications.

The units are available in a number of pressure ranges covering 25 to 7000 Pa and can be used for static pressure monitoring applications by allowing one of the ports to remain open to normal atmospheric pressure. AX-ADPT-B units are suitable for use with air, non aggressive and non-combustible gases.

Features

- Cost-Effective Solution
- Multiple ranges in a single unit
- Selectable Uni or Bi-directional range
- 4-20ma, 0-5Vdc and 0-10Vdc output
- Optional LCD (-L)
- Calculate Air Velocity (Requires LCD)

Product Specifications

Maximum Pressure:	B1-8 & B2-8:	3.6psi max operation, 6psi burst
	B3-8 & B4-8:	6psi max operation, 6psi burst
Output / Display:	Pressure:	Pascals, mm W.C or inches W.C.
	Flow/Velocity:	m ³ /hr, CFM / m/s, FPM
Pressure Connection:		Plastic pipe suitable for use with 5mm and 6mm ID flexible tube
Electrical Connection:		Screw Terminals suitable for use with cable up to 1.5mm ²
Output: selectable:	4-20mA	2 wire loop powered - Loop resistance 0-1250Ω
	Voltage	3 wire - Load resistance 1KΩ min
Power Supply:	4-20mA	10 to 36Vdc
	Voltage	21.6 to 33Vac or 17-36Vdc at 40mA max
Current Consumption:		40mA Max
Accuracy:		+/- 1% FS
Response time:		Instantaneous (default) or 3s (selectable)
Zero & Span adjustment:		Digital push button
Stability:		< ±1% FS/Year
Display (optional):		4 digit LCD (optional)
Protection:		IP66
Ambient Temp range:		-20°C to 70°C
Weight & Dimensions:		230g, see drawings
Country of Origin:		USA

Order Codes

AX-ADPT-B1-8	ADPT 25,30,40,50,60,75,100,125 Pa, voltage and current output
AX-ADPT-B2-8	ADPT 25,40,50,60,100,150,160,250 Pa, voltage and current output
AX-ADPT-B3-8	ADPT 250,300,400,500,600,750,1000,1250 Pa, voltage and current output
AX-ADPT-B4-8	ADPT 1000,1500,2000,2500,3000,4000,5000,7000 Pa, voltage and current output
-L	Optional LCD Display (e.g. AX-ADPT-B2-8-L)

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Multi Range Air Differential Pressure Transmitter

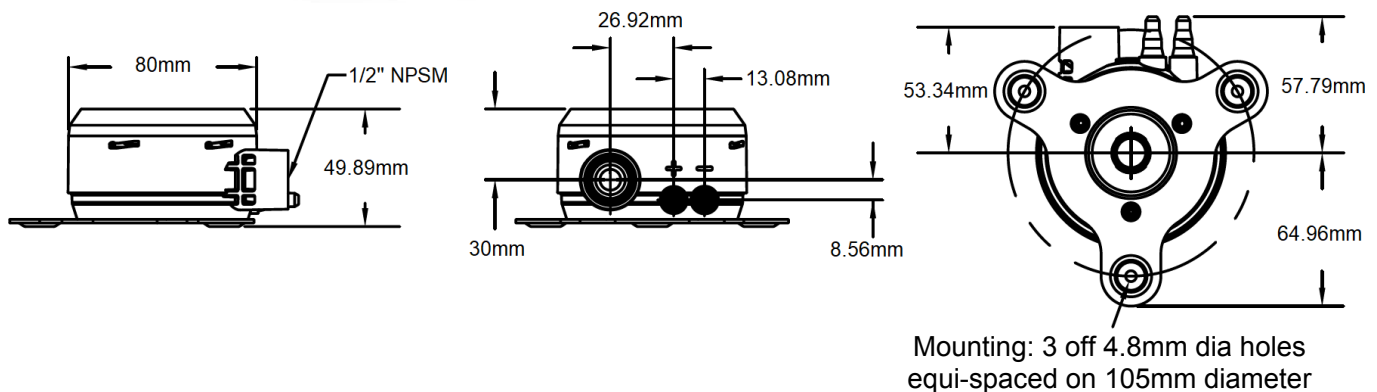


Installation

The AX-ADPT-B should be installed by a suitably qualified technician in accordance with prevailing regulations and any guidelines for the equipment to which it is to be connected. The AX-ADPT-B is not suitable for use with mains Voltage.

The AX-ADPT-B has three fixing lugs moulded into the base for use with screws up to 4mm in diameter. When fixing the switch, care should be taken not to stress the unit. The switch is designed to be mounted on a vertical plane with

Dimensions (mm)



Connections

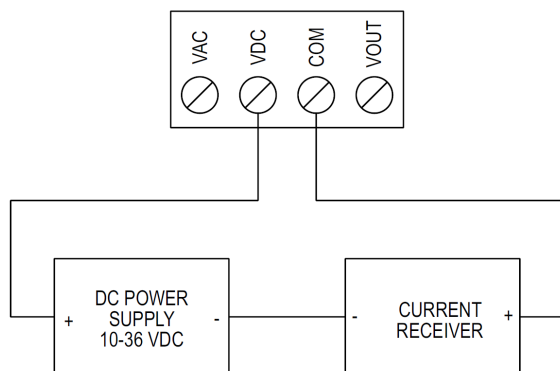
Pressure:

Pressure connections are made by pushing 5-6mm PVC tube over the pressure pipes beside the cable gland. Connect the high pressure side to the inlet pipe marked +.

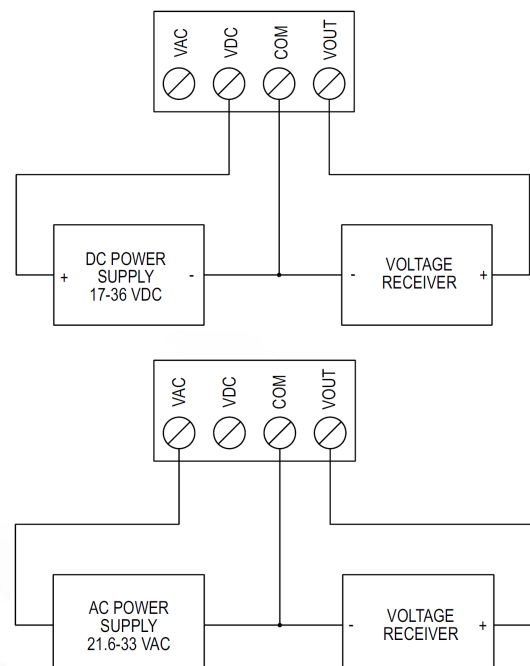
Electrical:

The sensor should be wired as per the appropriate diagram below. The terminal block is a push-fit removable type for ease of wiring. Shielded cable is recommended for loop setup. Ground the shield at the power supply end only.

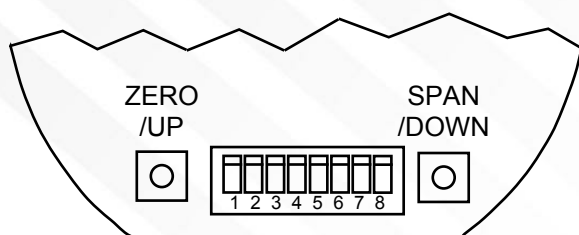
2-Wire 4-20mA connection



3-Wire 0-10V and 0-5V connection



Dip Switch settings



Setting the Units of Pressure

DIP Switch			Units
1	2	3	
ON	ON	OFF	Pa (low ranges)
ON	OFF	OFF	Pa (high ranges)
OFF	ON	OFF	mm w.c.
OFF	OFF	OFF	inches w.c.

Setting the Units of Velocity/Flow

DIP Switch			Units
1	2	3	
ON	ON	ON	m ³ /hr (Flow)
ON	OFF	ON	m/s (velocity)
OFF	ON	ON	CFM (Flow)
OFF	OFF	ON	FPM (velocity)

Setting voltage output range

DIP switch 4 OFF/down = 0 to 10V output

DIP switch 4 ON/up = 0 to 5V output

Setting output action (Uni/Bi-directional)

DIP switch 5 OFF/down = transmitter set for unidirectional measurement, i.e. 0 to 25 Pa

DIP switch 5 ON/up = transmitter set for bidirectional measurement, i.e. -25 to +25 Pa

Setting response time

Dip switch 6 OFF/down = transmitter response time will be instantaneous

Dip switch 6 ON/up = transmitter response time will be 3 seconds

Setting the full scale range

Low ranges Pa (See switch 1,2 and 3)

DIP Switch		AX-ADPT-			
7	8	B1-8	B2-8	B3-8	B4-8
ON	ON	25	25	250	1000
OFF	ON	30	40	300	1500
ON	OFF	40	50	400	2000
OFF	OFF	50	60	500	2500

High ranges Pa (See switch 1,2 and 3)

DIP Switch		AX-ADPT-			
7	8	B1-8	B2-8	B3-8	B4-8
ON	ON	60	100	600	3000
OFF	ON	75	150	750	4000
ON	OFF	100	160	1000	5000
OFF	OFF	125	250	1250	7000

Velocity m/s (See switch 1,2 and 3)

DIP Switch		AX-ADPT-			
7	8	B1-8	B2-8	B3-8	B4-8
ON	ON	5	7.5	20	55
OFF	ON	8	10	25	70
ON	OFF	11	15	35	90
OFF	OFF	14	20	45	107

Datasheet Contents

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