

AX-ADPS-8

Air Differential Pressure Switch

AXIO



Product overview

The AX-ADPS Differential Pressure Switches are a cost effective solution for air flow proving and filter status monitoring applications. The switches are available in six ranges and can be used for static pressure switching applications by leaving one of the ports to remain open to normal atmospheric pressure. AX-ADPS units are suitable for use with air, non-aggressive and non-combustible gases.

Features

- Cost effective solution
- Six pressure ranges available
- ATEX version available
- Switch contacts rated up to 250Vac, 1.5A switching (non-ATEX version)
- Duct fitting kit available

Product specifications

Range:	AX-ADPS-80-300/EX	20Pa to 300Pa (10Pa Switching Differential)
	AX-ADPS-83	50Pa to 500Pa (20Pa Switching Differential)
	AX-ADPS-84	30Pa to 400Pa (15Pa Switching Differential)
	AX-ADPS-85	200Pa to 1000Pa (100Pa Switching Differential)
	AX-ADPS-86	500Pa to 2500Pa (150Pa Switching Differential)
	AX-ADPS-87	1000Pa to 4000Pa (250Pa Switching Differential)
Maximum Pressure:		10kPa
Pressure Connection:		Plastic pipe suitable for use with 6mm plastic tube
Electrical Connection:		6.3mm Male Spade Lugs with Screw Terminal Adaptors (Supplied)
Electrical Rating:		250Vac 1.5Amp resistive maximum
ATEX Version:		See ATEX data
Cable Entry:		M20 Compression Gland
Protection Category:		IP54 (versions available installed in IP65 enclosure)

Order codes

IP54	Supplied in IP65 enclosure	
AX-ADPS-80-300	AX-ADPS-80-300-IP65	Air Differential Pressure Switch 20Pa to 300Pa
AX-ADPS-80-300-EX	AX-ADPS-80-300-EX-IP65	ADPS 20Pa to 300Pa - ATEX version
AX-ADPS-83	AX-ADPS-83-IP65	Air Differential Pressure Switch 50Pa to 500Pa
AX-ADPS-84	AX-ADPS-84-IP65	Air Differential Pressure Switch 30Pa to 400Pa
AX-ADPS-85	AX-ADPS-85-IP65	Air Differential Pressure Switch 200Pa to 1000Pa
AX-ADPS-86	AX-ADPS-86-IP65	Air Differential Pressure Switch 500Pa to 2500Pa
AX-ADPS-87	AX-ADPS-87-IP65	Air Differential Pressure Switch 1000Pa to 4000Pa
AX-DFK		Duct Fitting Kit

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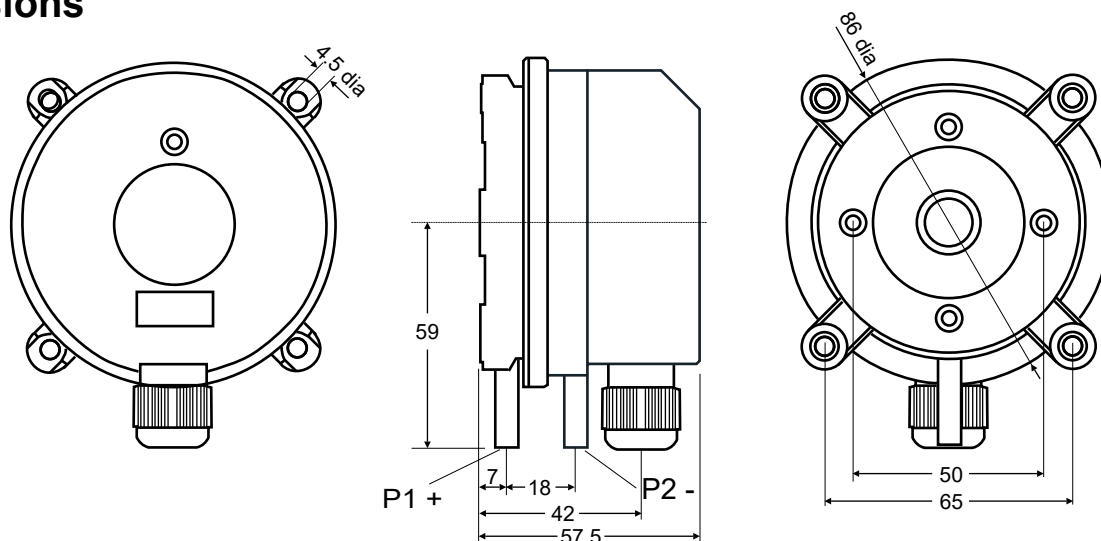
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Product specifications cont.

Material:	Body	Polyamide (Nylon 6.6)
	Lid	Polystyrene
	Diaphragm	Silicone
Ambient Temperature Range:		-20°C to 85°C
Dimensions:		88 x 103 x 57.5mm (max.)
Weight:		150g
Country of Origin:		Germany

Dimensions



Installation

The AX-ADPS switch should be installed by a suitably qualified technician. Field wiring should be installed to satisfy the requirements set out by the manufacturer of the equipment that the switch is being connected to and in accordance with prevailing regulations.

CAUTION!

The AX-ADPS is suitable for use with mains voltage. Always isolate the power before removing the cover.

The AX-ADPS has four fixing lugs moulded into the base for use with screws up to 4mm in diameter. When installing the switch, care should be taken not to stress the unit through incorrect alignment of fixing holes etc. The switch is designed to be mounted on a vertical plane with the gland and pressure connection at the bottom of the unit. The switch can be fixed in other orientations but this will affect the accuracy of the unit and when setting the required switching point the dial will need to be adjusted to take account of any error. For example, with the unit installed horizontally, the switching values are approximately 20Pa higher.

Connections

Pressure:

Pressure connections are made by pushing 6mm PVC tube over the pressure pipes behind the cable gland. P1 is the high pressure connection and P2 is the low pressure connection. For a flow proving application, the positive side of the fan would be connected to P1 whilst the “suction” side of the fan is connected to P2. For a filter monitoring application, P1 should be connected to the “dirty” side of the filter where air is entering it and P2 to the “clean”, exit side of the filter. As the filter becomes soiled, the differential pressure will increase until the switch activates at the designated threshold.

Electrical:

The switch should be wired as per the following diagram. 6.3mm spade connectors can be used, or the terminal screw adaptors can be fitted if required.



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IP65 Housing (option)

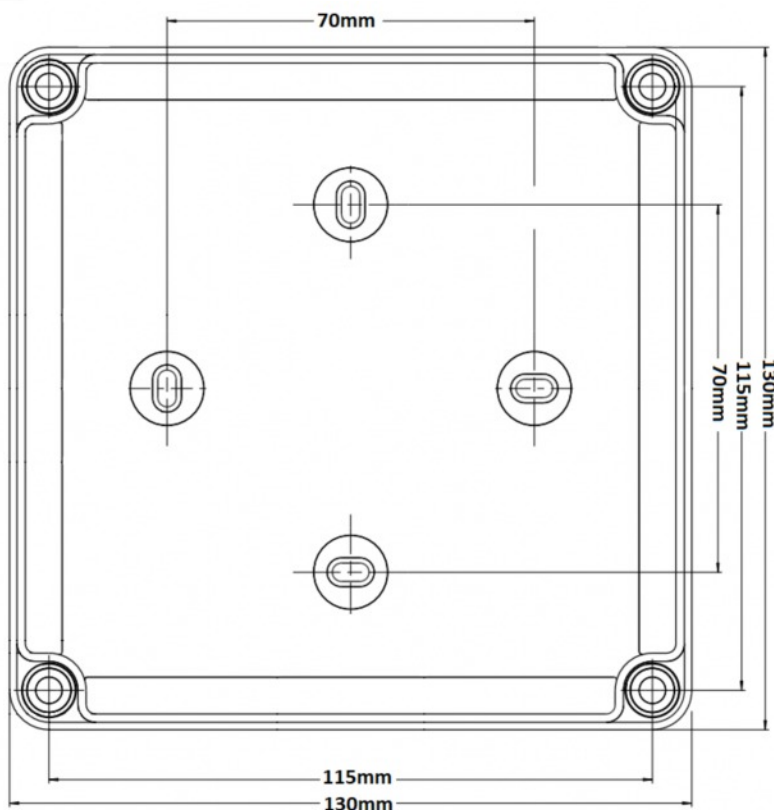
Dimensions: 130 x 130 x 99mm

Weight: 500g

Protection: IP65



Mounting Dimensions



ATEX data (-EX version)

EC type examination BVS 06 ATEX E 141X

Device category II 2G and II 2D

Ignition protection type Ex ia IIB T4 Gb

Ex ia IIIB T135 C Db

CE conformity ATEX Directive 2014/34/EU

RoHS Directive 2011/65/EU

EX I-Circuits

This pressure switch can be used in potentially explosive zones 1, 2 and 21, 22. In the safe area, an associated isolating means (separating barrier, switching amplifier) must be connected before. The switch must then be proved to keep inherent safety. For this purpose, the power specifications (P, I, U) of the barrier must be lower and the characteristics (L, C) higher than those of the pressure switch and of the connection line.

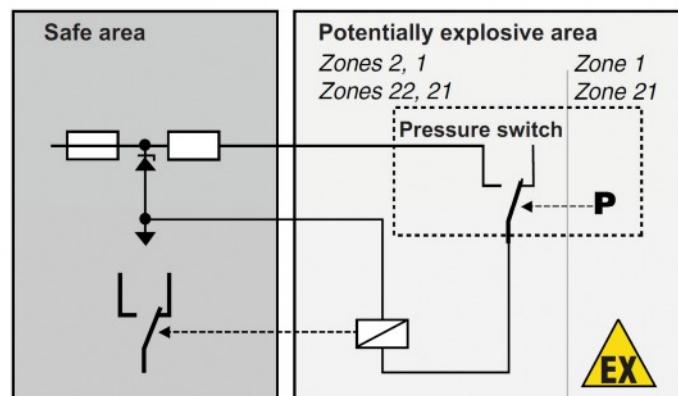
Characteristics:

Gas for IIB: 30VDC / 60mA; 24VDC / 100mA

Gas for IIIB: 30VDC / 60mA / 0.6W

Capcitance Ci 0 F

Inductance Li 0 mH



Datasheet contents

Every effort has been taken in the production of this data sheet to ensure accuracy. Axio do not accept responsibility for any damage, expense, injury, loss or consequential loss resulting from any errors or omissions. Axio has a policy of continuous improvement and reserves the right to change this specification without notice.