AX-ADPS-8
Air Differential Pressure Switch

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 different 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 and available in IP65 & ATEX versions too.
Kits are available for both indoor and outdoor applications.

Products Features

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

Product Specifications

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 datasheet	
Cable Entry:	Switch	M20 Compression Gland
	IP65 Enclosure	M12 Compression Gland
Protection Category:	IP54 (versions available installed in IP65 enclosure)	
Material:	Body:	Polyamide (Nylon 6.6)
	Lid:	Polystyrene
	Diaphragm:	Silicone
Ambient Temperature Range:	-20ºC to 85ºC	
Dimensions:	88 x 103 x 57.5mm (max.)	
Weight:	150g	
Country Of Origin:	Germany	

Product Order Codes

AX-ADPS-80-300	Air Differential Pressure Switch 20Pa to 300Pa - (10Pa Switching Differential)
AX-ADPS-83	Air Differential Pressure Switch 50Pa to 500Pa - (20Pa Switching Differential)
AX-ADPS-84	Air Differential Pressure Switch 30Pa to 400Pa - (15Pa Switching Differential)
AX-ADPS-85	Air Differential Pressure Switch 200Pa to 1000Pa - (100Pa Switching Differential)
AX-ADPS-86	Air Differential Pressure Switch 500Pa to 2500Pa - (150Pa Switching Differential)
AX-ADPS-87	Air Differential Pressure Switch 1000Pa to 4000Pa - (250Pa Switching Differential)
AX-ADPS-DFK	Duct fixing Kit includes PVC Tube (2 Meters), Plastic Nozzles and Screws
AX-ADPS-DFK-S	Duct fixing Kit includes Silicon Tube (1 Meter), Stainless Steel Nozzles and Rubber Grommets
** Add “D”	For ADPS including duct fixing kit. Example “AX-ADPS-83D”
** Add “IP65D”	For ADPS in IP65 enclosure. Example “AX-ADPS-83-IP65D”
** Add “-EX”	For ADPS ATEX version. Example “AX-ADPS-83D-EX”

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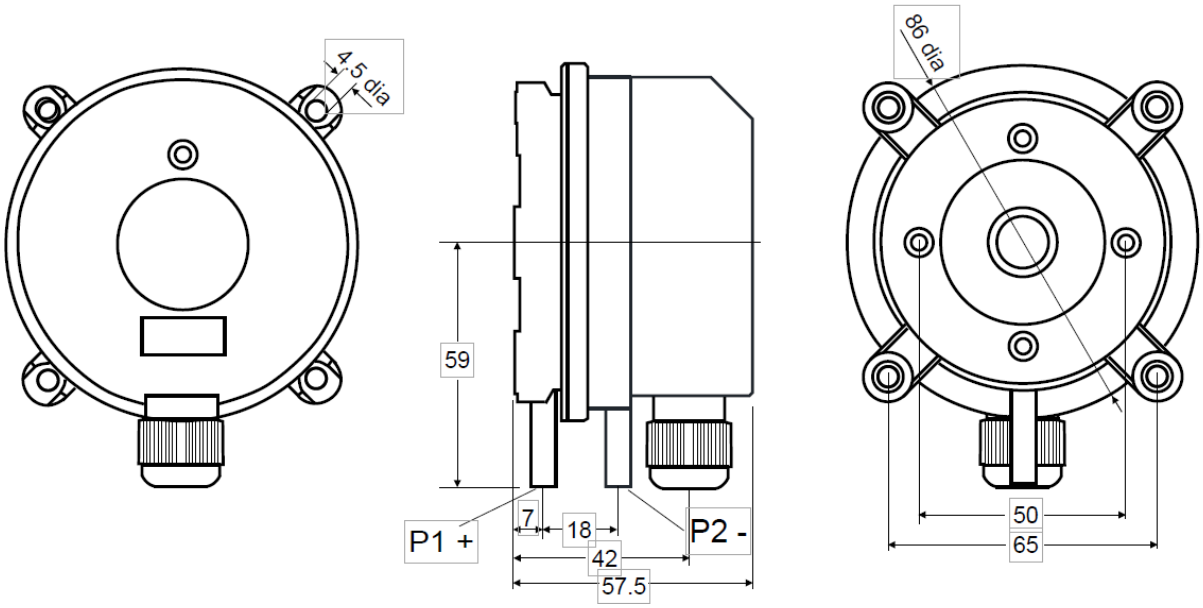
Dimensions



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 sat 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.

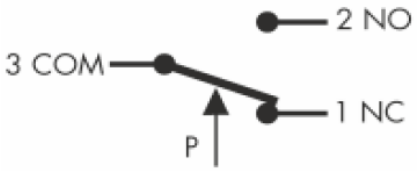
Connections

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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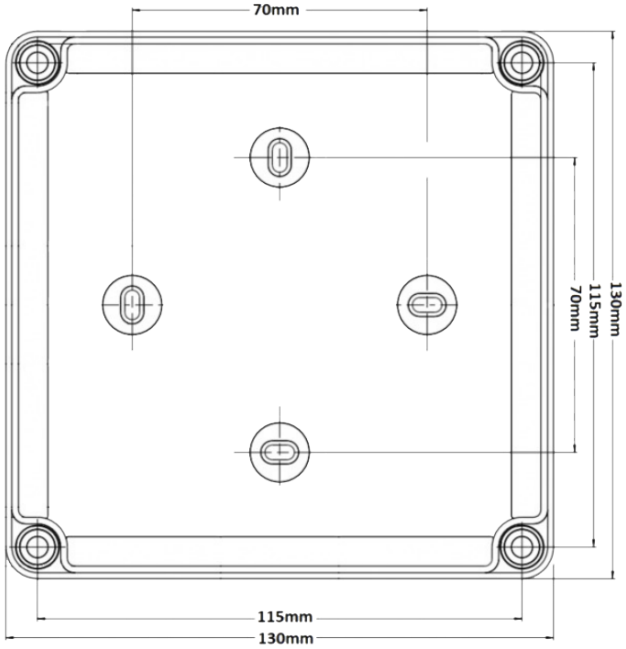
IP65 Housing (option)

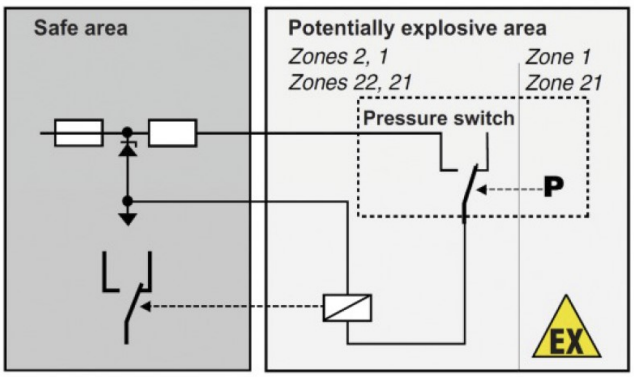
Dimensions: 130 x 130 x 99mm
Weight: 500g
Protection: IP65

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	
Capacitance	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.