

Differential pressure switch for air, flue and exhaust gases

AA-A1...

DUNGS®



UL Recognized

- UL 353
- File # MH 16628

CSA Certified

- CSA C22.2 No. LR 53222
- Certification # 201527

FM Approved

- Class 3510, 3530
- File # J.I. 1T7A8.AF



European models tested to EN1854 per Gas Appliance Directive 90/396/EEC and per Pressure Equipment Directive 97/23/EC.

DUNGS is an ISO 9001 manufacturing facility.

Description

AA-A1... differential pressure switches are factory set, compact pressure switches for automatic burner controls. Available with hose connections.

AA-A1... differential pressure switches are suitable for making and/or breaking a circuit when the medium pressure changes relative to the set point.

Application

Differential pressure monitoring in firing, ventilation and air-conditioning systems. The AA-A1... can be used as a pressure, vacuum or differential pressure switch for air and non-aggressive gases. Not suitable for natural gas, propane, butane and other combustible gases.

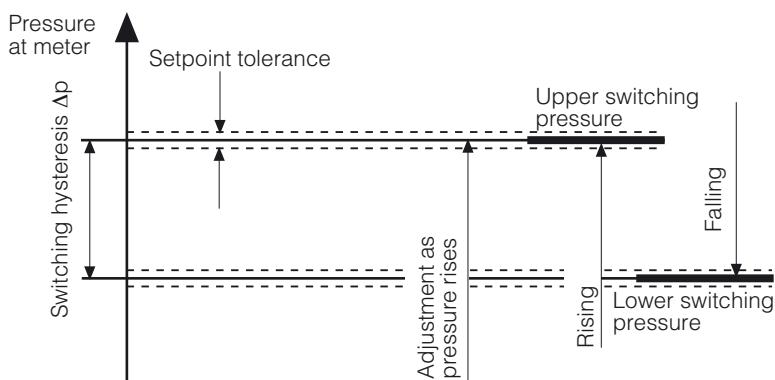
AA-A1... SPDT differential pressure switch in pressure and vacuum ranges. The differential pressure acts via the diaphragm against the force of the setting spring on the microswitch. The pressure switch operates without any auxiliary power.

Specifications

Max. operating pressure	1.5 PSI (103 mbar)	
Pressure connection	0.16" (4 mm) diameter hose connection	
Temperature range	Ambient temperature	-40 °F to +140 °F (-40 °C to +60 °C)
	Medium temperature	-40 °F to +140 °F (-40 °C to +60 °C)
Materials	Housing:	Polycarbonate
	Switch:	Polycarbonate
	Diaphragm:	NBR-based rubber
	Switching contact:	Silver (Ag)
Electrical ratings	AC eff.	min. 24 V max. 250 V
	DC	min. 24 V max. 48 V
Current ratings	AC 5 A resistive @ 120 VAC AC 2.5 A inductive @ 120 VAC DC min. 20 mA @ 24 VDC DC max. 1 A @ 48 VDC	
Electrical connection	1/4 x 1/32" (6.3 x 0.8 mm) flat male terminals	
Enclosure rating	NEMA Type 1 with no cover NEMA Type 1 with 46000-1 cover NEMA Type 1 with 46000-2 cover NEMA Type 12 with 46000-3 cover	
Setting tolerance	± 15% switching point deviation referred to set point, respectively adjustable set point, different at each specification.	
Installation position	Multipoised; the setting point changes by approx. ±0.2 In. W.C. if the mounting position is different than the setting position.	

Definition of switching hysteresis Δp

The pressure difference between the upper and lower switching pressures.



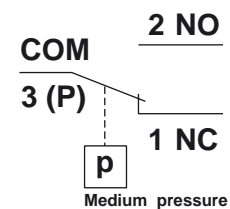
AA-A1... switching function

As pressure rises:

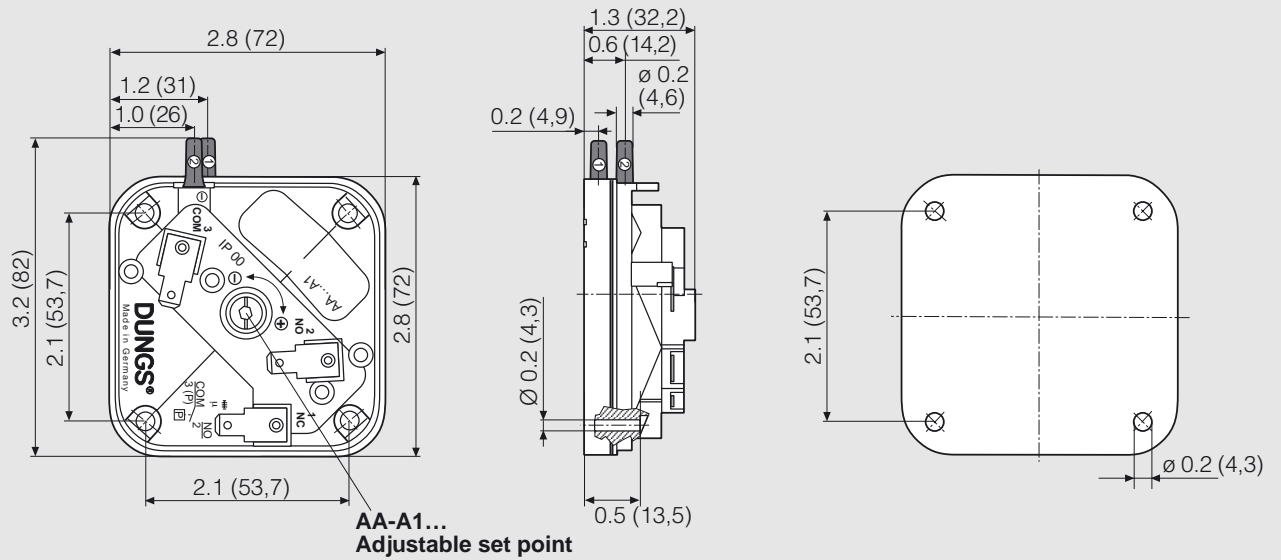
1 NC opens, 2 NO closes

As pressure falls:

1 NC closes, 2 NO opens



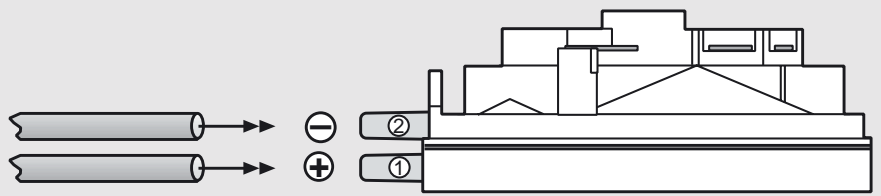
Dimensions inch (mm)



Height inclusive cover: 1.80 (45,6)

Pressure connection

Connection p1 (+) = higher pressure
Connection p2 (-) = lower pressure



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Type	Version	Description	Order No.	Factory setting range In. W.C.	Switching hysteresis In. W.C.
AA-A1-0-...	AA-A1-0-2	No cover	46011-2	0.16 - 1.2"	≤ 0.14"
	AA-A1-0-3	No cover	46011-3	0.4 - 4"	≤ 0.20"
	AA-A1-0-4	No cover	46011-4	1 - 20"	≤ 0.40"
AA-A1-3-...	AA-A1-3-2	Includes cover and strain relief	46011-42	0.16 - 1.2"	≤ 0.14"
	AA-A1-3-3	Includes cover and strain relief	46011-43	0.4 - 4"	≤ 0.20"
	AA-A1-3-4	Includes cover and strain relief	46011-44	1 - 20"	≤ 0.40"

Accessories for pressure switch Order No.

Contact protection	46000-1
Contact protection	46000-2
Complete cover and strain relief	46000-3
Mounting bracket (metal)	D230 289
Mounting plate (plastic)	D230 273
Mounting plate (flat plastic)	D230 301



We reserve the right to make any changes in the interest of technical progress.

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