

# Differential Pressure Switch for air, flue and exhaust gases

AA-A1...

**DUNGS**<sup>®</sup>  
Combustion Controls



## Approvals

### UL Recognized

- UL 353
- File # MH 16628

### CSA Certified

- CSA C22.2 No. 14
- File # 201527

### FM Approved

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

### Commonwealth of Massachusetts Approved Product

- Approval code G3-0106-191
- Air pressure switch for differential, vacuum or pressure

### Codes and Standards

This product is recommended for installations covered by but not limited to NFPA 85, NFPA 86, UL 795, CSD-1, ANSI Z83.4, ANSI Z83.18, ANSI Z21.13, CSA B149.1, CSA B149.3 and CSA B149.6.

**DUNGS is an ISO 9001  
manufacturing facility.**



## Description

AA-A1... differential pressure switches are 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.

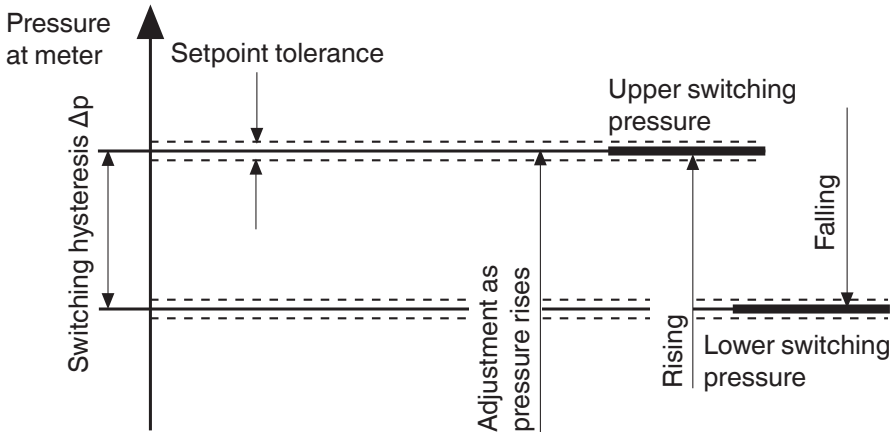
**AA-A1 ...** SPDT differential pressure switch in pressure and vacuum ranges. The differential pressure acts via the diaphragm against the force of the setting spring on the micro-switch. The pressure switch operates without any auxiliary power.

**Specifications**

Max. operating pressure	1.5 PSI (103 mbar)		
Pressure connection	0.16" (4 mm) diameter hose connection		
Temperature range	Ambient / Medium:	UL, FM	-40 °F to +150 °F (-40 °C to +66 °C)
		CSA	-40 °F to +104 °F (-40 °C to +40 °C)
	Storage:		-40 °F to +150 °F (-40 °C to +66 °C)
Materials	Housing:	Polycarbonate	
	Switch:	Polycarbonate	
	Diaphragm:	NBR-based rubber	
	Switching contact:	Silver (Ag)	
Electrical ratings	AC eff. min.	24 V	max. 240 V
	DC min.	12 V	max. 48 V
Current ratings	AC 5 A resistive @ 240 VAC		
	AC 3 A inductive @ 240 VAC		
	DC min. 20 mA @ 24 VDC		
	DC max. 1 A @ 12 - 48 VDC		
Electrical connection	1/4 x 1/32" (6.3 x 0.8 mm) flat male terminals		
Enclosure rating	Standard: No NEMA Type rating (no cover)		
	IP 20 with 262045 protection		
Setting tolerance	Tolerance as per specification		
Installation position	Any, as per specification. 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  $\Delta p$**

The pressure difference between the upper and lower switching pressures.



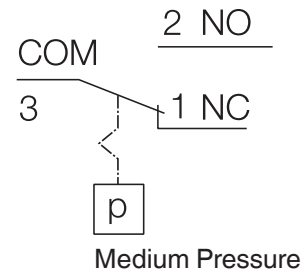
**AA-A1 ... switching function**

**As pressure rises:**

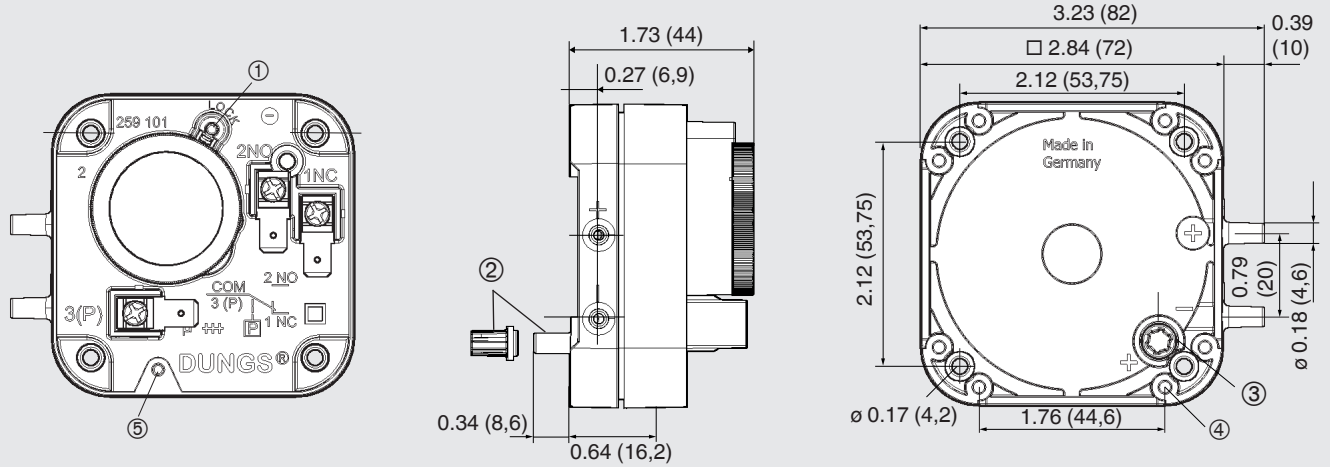
1 NC opens, 2 NO closes

**As pressure falls:**

1 NC closes, 2 NO opens



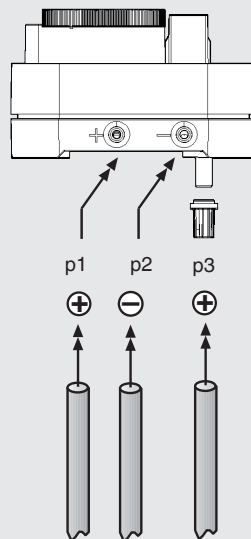
## Dimensions inch (mm)



Height with cover: 1.73 (44 mm)

- ① optional switching point lock cheese head screw  $\phi 3 \times 0.55$  (14 mm)
- ② optional sealing cap and connection p 3,  $\phi 0.18$  (4,6 mm)
- ③ Sealing face area for O-ring  $\phi 0.19$  (4,87 mm) x 0.07 (1,8 mm) to DIN 3371
- ④ Blind hole 8 x  $\phi 0.15$  (3,8 mm) deep
- ⑤ optionally Mounting of contact protection for cheese head screw  $\phi 3 \times 0.55$  (14 mm)

## Pressure connection



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

**Optional**  
**Connection p3 (+)**  
= higher pressure

Differential Pressure Switch  
for air, flue and exhaust gases

AA-A1...



Type	Version	Description	Order No. (1 piece)	Order No. (multi, 60 pieces)	Factory setting range in. W.C.	Switching hysteresis in. W.C.
AA-A1-0-...	AA-A1-0-2	No cover	277329	279935	0.16 - 1.20	≤ 0.14
	AA-A1-0-3	No cover	277328		0.40 - 4.00	≤ 0.20

Accessories for pressure switch      Order No.

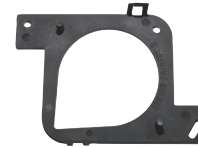
IP 20 Cover (1 pcs)

262045



Mounting plate (1 pcs)

230301



Screw  $\varnothing$  3 x 14 (2 pcs)

266045

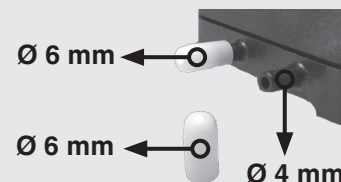
Klima-Set (Duct mounting kit)

258247



Adapter  $\varnothing$  4/6 (2 pcs)

266037



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

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