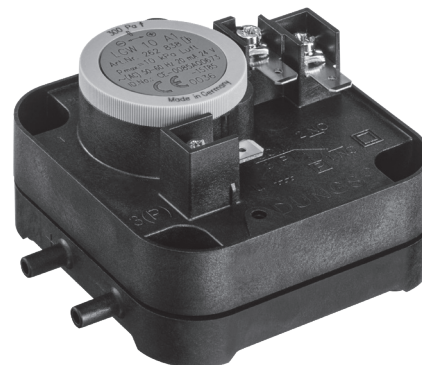


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Approvals



UL Recognized: UL 353
File # MH16628



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

Attention



The installation and maintenance of this product must be done under the supervision of an experienced and trained specialist. Never perform work if gas pressure or power is applied, or in the presence of an open flame.



Check the ratings in the specifications to verify that they are suitable for your application.



Please read the instruction before installing or operating. Keep the instruction in a safe place. You find the instruction also at www.dungs.com. If these instructions are not heeded, the result may be personal injury or damage to property.



On completion of work on the pressure switch, perform a leakage and function test.



Any adjustment and application-specific adjustment values must be made in accordance with the equipment manufacturers instructions.



This product is intended for installations covered by, but not limited to, the following codes and standards: NFPA 86, ANSI Z83.4/CSA 3.7, ANSI Z83.18/CSA 4.9, ANSI Z21.13, CSD-1, UL 795, CSA B149.1 or CSA B149.3

Explanation of symbols

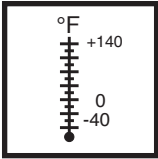
1, 2, 3 ... = Action
• = Instruction

Specifications

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.



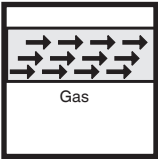
Max. Operating Pressure
MOP = 1.5 PSI (103 mbar)



Ambient / Medium Temperature
-40 °F ... +150 °F
(-40 °C ... +66 °C)



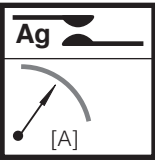
Electrical Connection
1/4 x 1/32" (6.3 x 0.8 mm)
flat male terminals



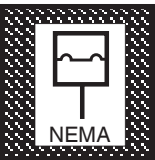
Gases
Air and non-aggressive gases.
Not suitable for natural gas, propane, butane and other combustible gases.

Materials in contact with Gas

Housing: Polycarbonate
Switch: Polycarbonate
Diaphragm: NBR-based rubber
Switching contact: Silver (Ag)



Nominal Current Rating
5 A resistive @ 240 VAC
3 A inductive (pilot duty) @ 240 VAC
1 A @ 24 - 48 VDC



Enclosure
IP 20 with appropriate cover

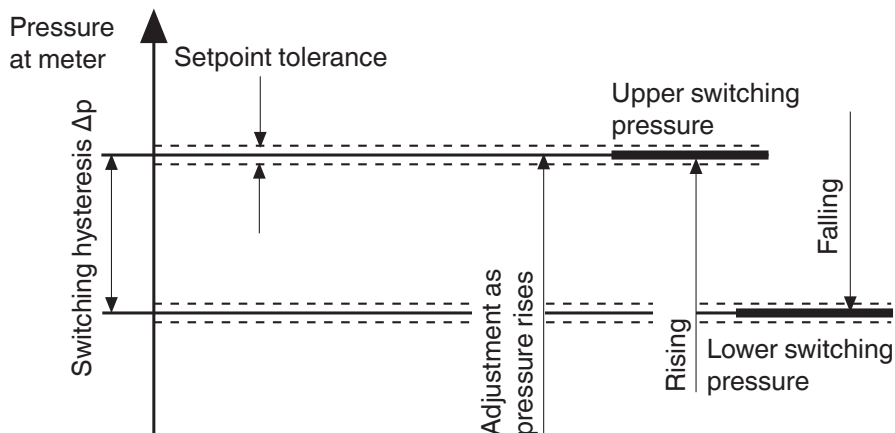
Model Designation Ranges

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	277329	0.16 - 1.20	≤ 0.14
	AA-A1-0-3	No cover	277328	0.40 - 4.00	≤ 0.20

Operation

Definition of switching hysteresis Δp

The pressure difference between the upper and lower switching pressures.



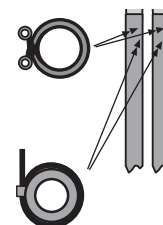
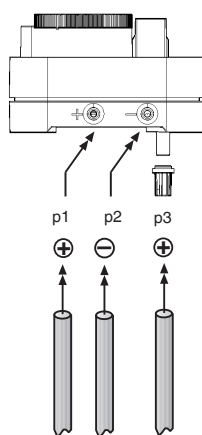
Pressure Connection

Connection p1 (+) = higher pressure

Connection p2 (-) = lower pressure

Optional

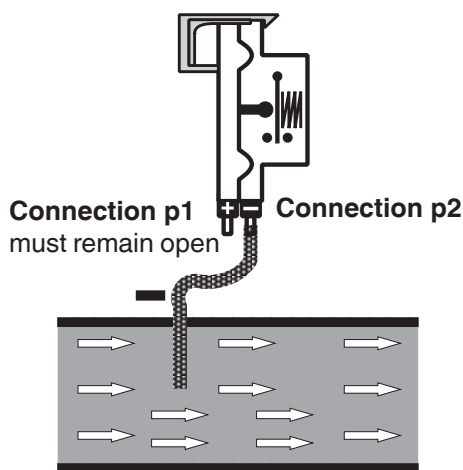
Connection p3 (+) = higher pressure



AA...A1 Mounting Procedure

- Use suitable hoses for the medium.
- Use a maximum 5/32" ID hose
- Secure the hoses with a cable tie or a cable clip.

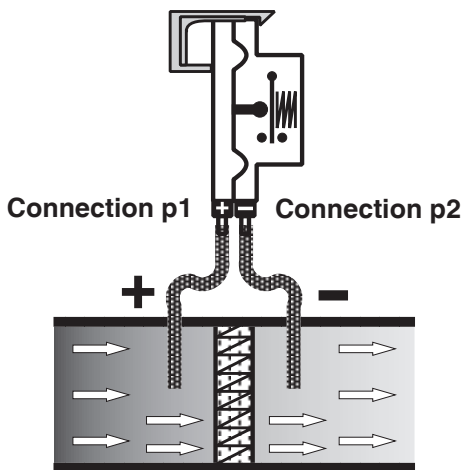
Application & Connection Examples



System vacuum monitor

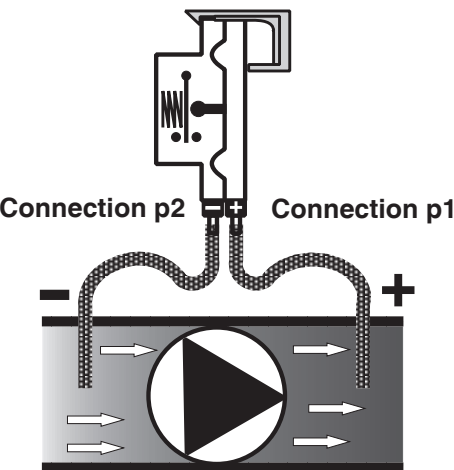
AA...A1 is connected to the air duct with the p2 (-) connection. p1 (+) is not connected with the air duct.

Do not seal the p1 (+) connection; it must be open to the atmosphere.



Filter monitoring

To monitor a filter, the AA...A1 can be connected as shown above.



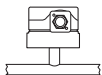
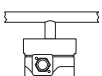
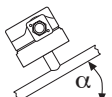
Blower monitoring

For blower monitoring, connect connection p1 (+) to the air duct on the downstream side of the blower and connection p2 (-) to the air duct upstream of the blower.



Prevent dirt from entering into the device through connection p1(+)

Installation Position

	Standard installation position is vertical upright diaphragm.
	When installed horizontally , the pressure switch switches at a pressure higher by approx. 0.2 in. W.C.
	When installed upside down , the pressure switch switches at a pressure lower by approx. 0.2 in. W.C.
	When installed in other positions , the pressure switch switches at pressure deviating from the set reference value by max. ± 0.2 in. W.C.

Wiring

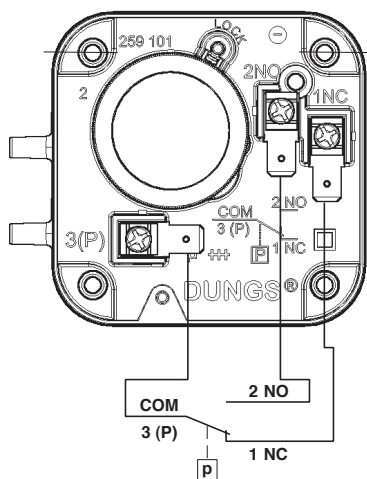
- If applicable, remove the clear cover from the switch.
- Use 14 or 16 AWG wire rated for at least 75 °C.
- Connect the wiring to the appropriate 1/4 x 1/32" (6.3 x 0.8 mm) flat male terminals.



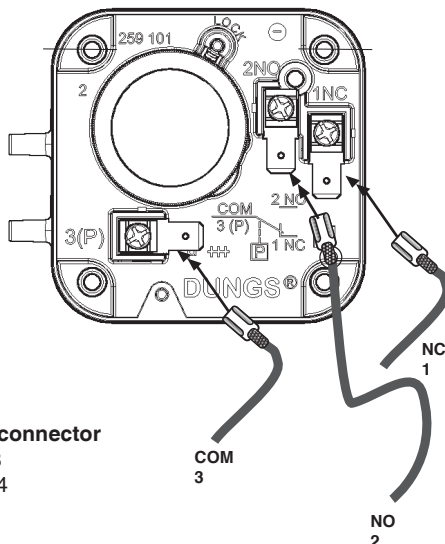
All wiring must comply with local electrical codes, ordinances and regulations.



Do not exceed the switch ratings given in the specifications and on the switch.



Flat-type connector
A 6,3 x 0,8
DIN 46 244



AA-A1... switching function

As pressure rises:

1 NC opens, 2 NO closes

As pressure falls:

1 NC closes, 2 NO opens

Adjustment & Operation

Adjusting the Set Point

- Turn the dial until switch trips at the desired pressure.
- Use pressure gauge to verify trip pressure. Readjust dial if needed.

Automatic Reset

- The NC contact of the AA...A1 breaks when pressure rises above the set point. It makes automatically when pressure falls below set point.

Maintenance & Testing

Annually check the switch for proper operation

Set Point Calibration

1. Connect a meter capable of reading ± 0.1 ohms to the NC and COM contacts.
2. Measure the resistance across the NC and COM contacts. If the resistance is more than 1.0 ohm, the switch should be replaced, since this indicates that the switch contacts are starting to either corrode or carbonize.

3. Connect a manometer and air pressure source to the + air pressure connection and an ohm meter to the NC and COM contacts. Starting a 0" W.C., gradually increase the pressure until the NC breaks and verify that it breaks at the required pressure for the application. If too high or too low, re-adjust switch and repeat test. Replace switch if correct trip pressure cannot be achieved. If switch trips, then confirm that the resistance across the NO and COM contacts is less than 1.0 ohm. If not replace the switch.

Accessories & Replacement

Accessories for pressure switch	Order No.
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IP 20 Cover (1 pcs)	262045
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Mounting plate (1 pcs)	230301
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Screw $\varnothing 3 \times 14$ (2 pcs)	266045
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Klima-Set (Duct mounting kit)	258247
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Adapter $\varnothing 4 \text{ à } \varnothing 6$ (2 pcs)	266037
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We reserve the right to make modifications in the course of technical development.

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