

Differential Static Pressure Airflow Switches



141 Differential Static Pressure Airflow Switches.

Description

The 141 Airflow Switch senses static differential pressure and at setpoint open/closes a set of electrical contacts.

Features

- Available in ranges:
 - 0.05 to 1" W.C. (12.45 to 249 Pa)
 - 1 to 12" W.C. (249 to 2988 Pa)
- Available with auto reset
- Can be used in multiple applications:
 - Proof of flow
 - High limit cut out
 - Filter 'dirty' indication

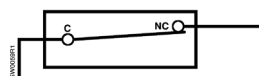
Applications

The 141 Airflow Switch actuates electrical circuits (positive pressure), fan inlet (negative pressure), or across the fan (differential pressure) to detect excessively high positive pressures or low negative pressures and turn off the fan before damage occurs to ducts or dampers.

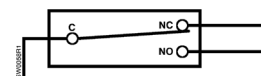
The manual reset switch (141-0575) should be used for applications that require safety lock out (shut down) of the fan. The switch can be used on the fan discharge.

The auto reset switch should be used for applications that require positive proof of airflow (or fan operation) or detect high differential pressures associated with dirty air filters or similar maintenance alarms that do not require safety lock or (shut down) of the fan.

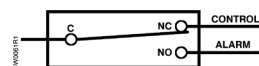
Typical Connections



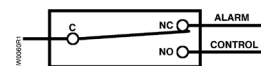
141-0575
Manual Reset Switch.



141-0518 and 141-0574
Auto Reset Switches.



Auto Reset Switches to
Prove Excessive Airflow
or Pressure.



Auto Reset Switches to
Prove Insufficient Airflow
or Pressure.

F-61

Pneumatics

141 Airflow Switches Specifications

MediumAir
Switch Action Manual Reset
 (must be manually rest by operator).....NC; only opens on
 increasing pressure signal
Ambient Temperature Range-40 to +180°F (-40 to +82°C)
Maximum Overpressure0.5 psi (3.4 kPa)
Mounting PositionDiaphragm in any vertical plane
BodyZinc-plated Steel with blue erudite dip
Electrical Ratings
 Non-inductive15 amps @ 120 to 277 Vac
 Pilot Duty.....300 VA @ 120 to 277 Vac

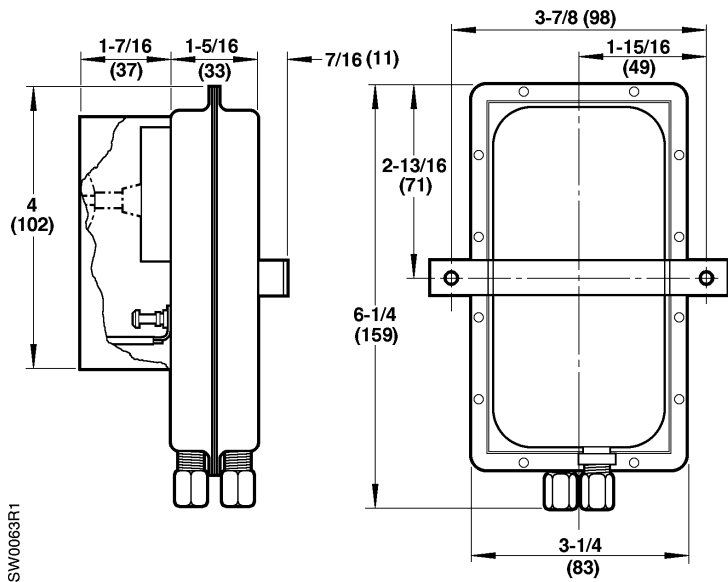
Conduit Opening1/2" (13 mm) conduit size
Sample Line Connectors2 connectors, complete with
 nuts and ferrules, which accept
 1/4" (6 mm) OD copper or
 polyethylene tubing
MaterialAluminized Steel
Agency ApprovalsUL MFHX File MH9888
 CSA 1811M25
Dimensions6.13" H x 3.88" W x 3.19" D
 (156 mm H x 98 mm W x 81 mm D)
Shipping Weight1.0 lb. (0.45 kg)

141 Airflow Switches Product Ordering

Set Point Range (Field Adjustable)	Switching Action/Reset	Factory Set Point Accuracy	Differential	Part No.
1" to 12" W.C. (250 to 3000 kPa)	SPDT/Auto Reset	1" ± 0.1" W.C. (250 kPa ± 25 kPa) to 12" ± 1.2" W.C. (3000 kPa ± 300 kPa)	0.25" W.C. (62.5 kPa) max. at 1" W.C. (25 kPa) set point to 1.2" W.C. (300 kPa) max. at 12" W.C (3000 kPa) set point	141-0518
1" to 12" W.C. (250 to 3000 kPa)	SPST/ Manual Reset	1" ± 0.1" W.C. (250 kPa ± 25 kPa) to 12" ± 1.2" W.C. (3000 kPa ± 300 kPa)	Not Applicable	141-0575
0.05" to 1.0" W.C. (12.5 to 250 kPa)	SPDT/ Auto Reset	0.05" ± 0.02" W.C. (12.5 kPa ± 5 kPa) to 1.0" ± 0.1" W.C. (250 kPa ± 25 kPa)	0.02" W.C. (5 kPa) at min. set point 0.1" W.C. (25 kPa) at max. set point	141-0574

Accessories & Service Kits F-87

Dimensions



Dimensions shown in inches (mm).