

Series F62SA Airflow Switch

Introduction

The F62 airflow switch detects air flow or the absence of air flow by responding only to the velocity of air movement within a duct. The control can be wired to open one circuit and close a second circuit (SPDT) for either signaling or interlock purposes. Failure of air flow during normal operation of air handling systems may cause over-heating, coil icing and other conditions that may be detrimental to the equipment.

Typical applications include make-up air systems, air cooling or heating processes and exhaust systems.

Note

These controls are designed for use only as operating controls. Where an operating control failure would result in personal injury or loss of property, it is the responsibility of the installer to add devices or systems that protect against, or warn of, control failure.



F62SA Airflow Switch.

Feature and Benefits

- | | |
|---|--|
| <input type="checkbox"/> Polycarbonate IP43 enclosure | Allows for use in indoor and outdoor applications. |
| <input type="checkbox"/> Large wiring space | Makes wiring convenient and easily accessible. |
| <input type="checkbox"/> Range screw easily accessible | Easy to adjust in the field |

Installation

The F62SA has a polycarbonate IP43 enclosure with an integral mounting plate and can be mounted on indoor as well as outdoor applications. A mounting plate gasket is supplied with each control. The control can be mounted on top or side of a duct in a horizontal position whenever possible. Mounting at the bottom is possible but migration of dust inside the control must be avoided. If vertical duct mounting is required an upward airflow is preferred. The arrow on the cover must point in the flow direction.

Caution

If downward air flow is necessary the control must be readjusted. The adjustment procedure is indicated in the Instruction Sheet packed with each control.

Avoid locations close to elbows, dampers, fans and duct openings or other areas where excessive turbulence occurs. The control should be mounted away from such areas at a distance of at least five times the smallest duct dimension. The small paddle fits into ducts of 75 x 200 mm minimum. The paddle may be trimmed for installing in ducts as small as 75 x 150 mm.

Flow rates

Note : Please note that the given airflow velocities are approximate data obtained in laboratory tests based on a standard airdensity of 1.2 kg/m³ and are not necessarily representative or accurate when compared with various field applications.

Wiring

The SPDT switch has number coded terminals. (See Fig. 2)

Contact function

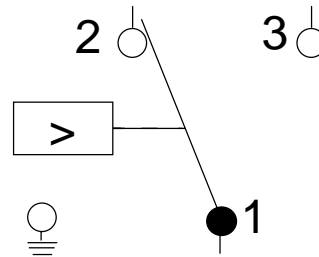


Fig. 1
1-3 closes on flow increase.

Adjustment

The switches are factory set at minimal flow setting. On the application the setting can be adjusted by the range screw under the cover as indicated in fig. 2. For higher flow rates turn the adjusting screw clockwise.

Note

Prevent to adjust the setting below factory setting as this may result in the switch failing to return to “no flow” position.

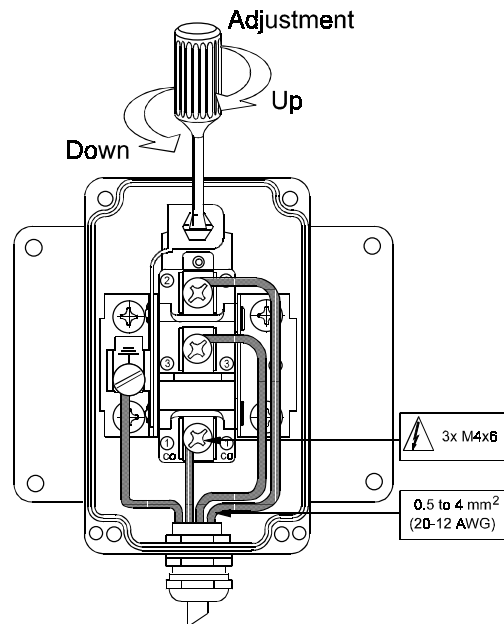


Fig. 2

Flow rate table

Paddle width	Switch actuation on flow	Minimum air velocity in m/s, required to actuate control			
		Horizontal flow		Vertical flow(upward)	
		325 cm ² or larger duct area	Less than 325 cm ² duct area	325 cm ² or larger duct area	Less than 325 cm ² duct area
55 mm	Increase 1 - 3 closes	3.2	2.9	4.8	3.8
	Decrease 1 - 2 closes	1.7	1.1	4.3	2.9
80 mm	Increase 1 - 3 closes	2.5	1.8	3.8	2.5
	Decrease 1 - 2 closes	1.3	0.5	3.3	1.8

Accessories

Replacement paddles

number	dimensions
PLT112-1R	55 x 175 mm
PLT112-2R	80 x 175 mm

Repair and replacement

Repair is not possible. In case of an improperly functioning control, please check with your nearest supplier. When contacting the supplier for a replacement you should state the type/model number of the control. This number can be found on the data plate or cover label.

Dimensions

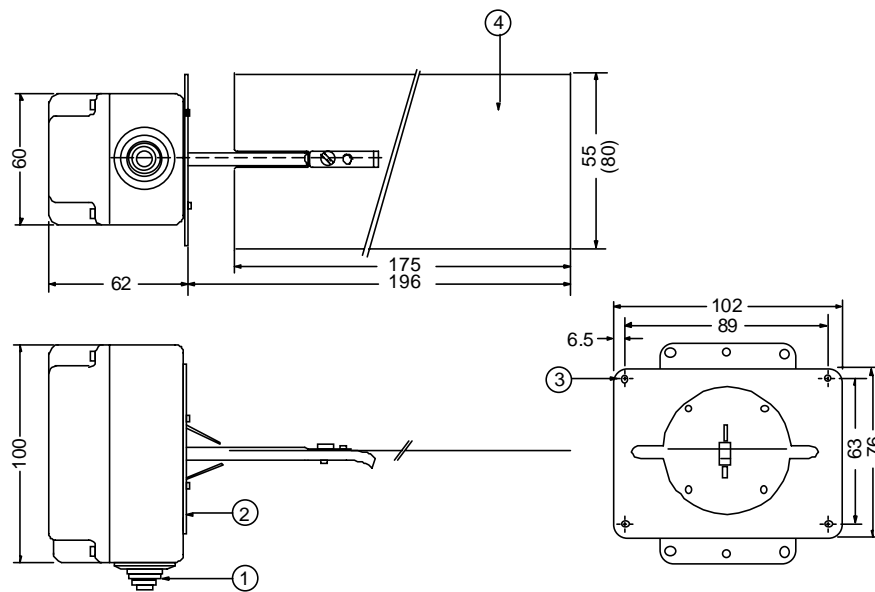


Fig. 3

- 1 Cable inlet hole $\varnothing 22.3$ mm: Grommet is installed
- 2 Mounting plate gasket 0.2 mm thick neoprene cell rubber
- 3 Four mounting holes $\varnothing 5$ mm.
- 4 One paddle 55 mm wide (mounted)
One paddle 80 mm wide (packed with the control)

Specifications

Type number	F62SA-9100
Flow rates	See flow rate table
Max. air velocity	10 m/sec
Max. air temperature*	80 °C
Min. air temperature	4 °C
Max. ambient temp.	55 °C
Min. ambient temp.	0 °C
Ambient humidity	10 to 95% R.H. (non-condensing)
Contact type	SPDT snap-acting switch
Electrical rating	15(8)A 230V ac
Wiring connections	Screw terminals 1 up to 2.5 mm ²
Enclosure	IP43
Materials	
case/cover	Polycarbonate
mounting plate	Steel zinc-plated
paddle	Stainless steel
Shipping weight	
ind. pack	0.9 kg
overbox	9 kg (10 pcs.)
Vibration	Acc. to DIN 89011 Kennlinie 1

* Max. dependent on ambient temperature. Temperature at switch should never be above 55 °C.
The performance specifications are nominal and conform to acceptable industry standards. For applications at conditions beyond these specifications, consult the local Johnson Controls office or representative. Johnson Controls shall not be liable for damages resulting from misapplication or misuse of its products.

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