

Type F62AA Airflow Control

Application

The F62AA control detects airflow or the absence of airflow 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 airflow during the normal operation of air handling systems may cause overheating, coil icing and other conditions that may be detrimental to the equipment.

Typical applications include:

- Make-up air systems.
- Air cooling or heating processes.
- Exhaust systems.

All Series F62 controls are designed for use *only* as operating controls. Where an operating control failure would result in personal injury and/or loss of property,

it is the responsibility of the installer to add devices (safety, limit controls) that protect against, or systems (alarm, supervisory systems) that warn of, control failure.

Features

- NEMA 1 enclosure.
- Dependable dust protected SPDT snap-acting Pennswitch.
- Convenient wiring terminals.
- Easy to field adjust.

General Description

The control has a NEMA 1 enclosure with an integral mounting plate. A mounting plate gasket is supplied with each control.

The enclosed SPDT Pennswitch has color coded terminals for ease of wiring. The control is factory set at approximately the minimum flow rate. (See the Flow Rate Table.) It must not be any lower than the factory



Fig. 1 -- Airflow Control

setting as this may result in the control failing to return at a "no flow" condition. If a higher flow rate setting is to be maintained, turn the range adjusting screw clockwise.

The F62 can be mounted on the top, side, or bottom of a duct in a horizontal position whenever possible. If vertical duct mounting is required and the flow is downward, the control setting must be readjusted. If the flow is upward, refer to the Flow Rate Table for minimum flow required to actuate the control.

The control is not designed for use where it is exposed to outside weather.

Specifications

Product Number	F62AA-8	Airflow Switch with 2 1/8" (54 mm) Wide x 6 7/8" (175 mm) Long Paddle
	F62AA-9	Airflow Switch with 3 1/8" (79 mm) Wide x 6 7/8" (175 mm) Long Paddle
Ambient Temperature	Minimum	32°F (0°C)
	Maximum	104°F (40°C)
Maximum Air Velocity		2000 FPM (10.16 m/sec)
Switch		SPDT Snap-Acting Contacts in a Dust Protected Enclosure
Material	Paddle	0.006" (0.15 mm) Stainless Spring Steel
	Case	0.062" (1.57 mm) Cold Rolled Steel
	Cover	0.028" (0.7 mm) Cold Rolled Steel
Finish		Gray Baked Enamel
Conduit Opening		7/8" (22 mm) Hole for 1/2" Conduit with 1 3/32" (28 mm) Knockout Ring for 3/4" Conduit
Shipping Weights	Individual Pack	2.0 lb (0.9 kg)
	Overpack 10 Units	21.5 lb (9.75 kg)

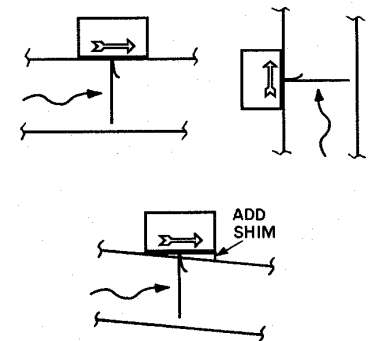


Fig. 2 -- Typical mounting for the F62AA.

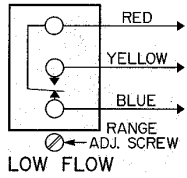
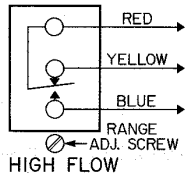


Fig. 3 — Diagram illustrating terminal identification and switch action.

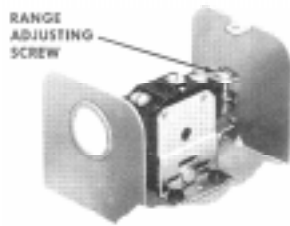


Fig. 4 -- Internal view of the F62AA Airflow control. Note range adjusting screw.

Airflow Velocity

Airflow velocities in FPM required to activate the switch for any given duct size (horizontal or vertical upward flow) are shown in the Flow Rate Table. (Based on Standard air density of 0.075 lb/ft³ [1.2 kg/m³]).

Flow Rate Table

Paddle Width	Switch Actuation on Flow	*Minimum Air Velocity in FPM (m/sec) Required to Actuate Control			
		Horizontal Flow		Vertical Flow (Upward)	
		50 in ² (323 cm ²) or Larger Duct Area	Less Than 50 in ² (323 cm ²) Duct Area	50 in ² (323 cm ²) or Larger Duct Area	Less Than 50 in ² (323 cm ²) Duct Area
2 1/8"	Increase (R to Y Closes)	625 (3.2)	575 (2.9)	950 (4.8)	750 (3.8)
	Decrease (R to B Closes)	325 (1.7)	220 (1.1)	850 (4.3)	575 (2.9)
3 1/8"	Increase (R to Y Closes)	500 (2.5)	350 (1.8)	750 (3.8)	500 (2.5)
	Decrease (R to B Closes)	250 (1.3)	100 (.5)	650 (3.3)	350 (1.8)

*These are approximations only. Actual trip points are affected by air turbulence, humidity, air density, air temperature, etc.

Electrical Ratings

Motor Ratings	120V	208V	240V	277V
Nominal Horsepower	1	1	1	—
AC Full Load Amp	16.0	8.8	8.0	—
AC Locked Rotor Amp	96.0	52.8	48.0	—
Non-Inductive or Resistance Load Amp	22.0*	22.0*	22.0*	22.0*
Pilot Duty — 125 VA, 120/277 VAC				

*SPST normally closed or normally open rating. SPDT is 16.0 Amp.

Repairs and Replacement

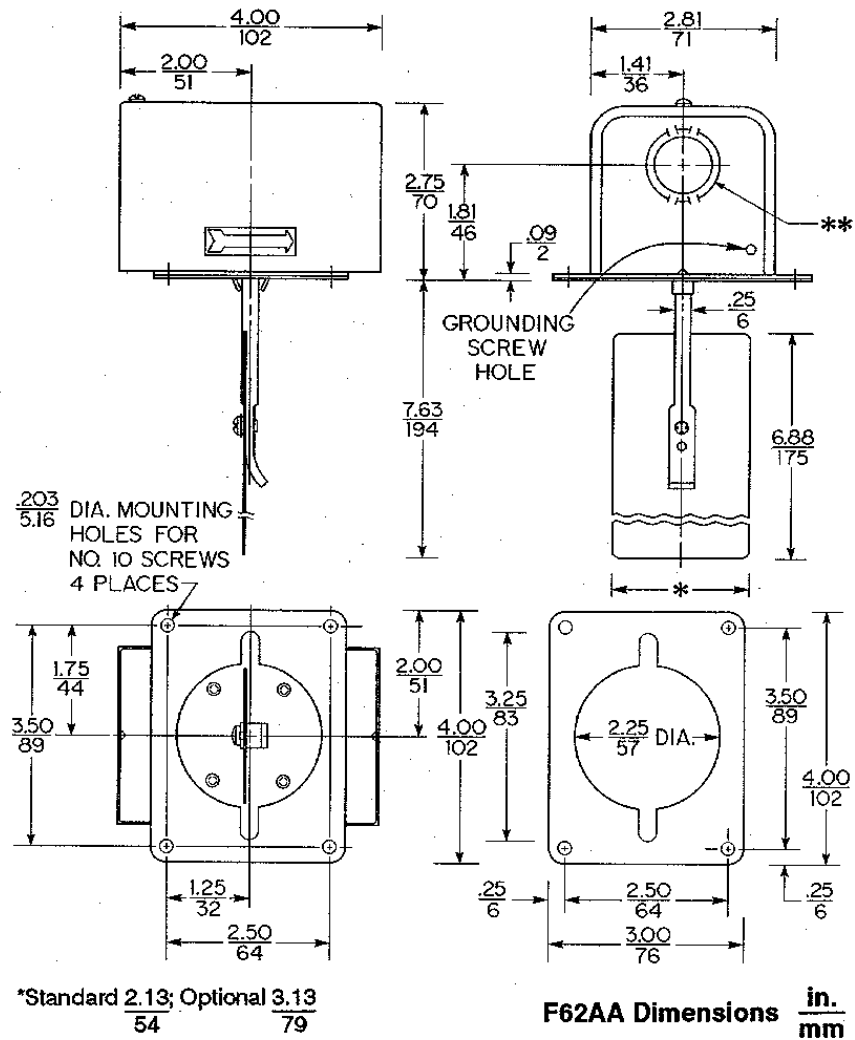
Field repairs must not be made except for replacement of the flow paddle. For a replacement control or paddle kit, contact the nearest Johnson Controls distributor.

Replacement Paddle Kit

Kit Number	Description
PLT112-1R	2 1/8" Wide x 6 7/8" Long
PLT112-2R	3 1/8" Wide x 6 7/8" Long

Ordering Information

To order specify Product Number only.



**.88 diameter hole for $\frac{1}{2}$ " conduit with $\frac{1.09}{28}$ diameter knockout ring for $\frac{3}{4}$ " conduit.

Performance specifications appearing herein are nominal and are subject to accepted manufacturing tolerances and application variables.

UL Guide No. NMFT
 File E5368
 CSA Class No. 1222 01
 File LR948

Notes



Controls Group
507 E. Michigan Street
P.O. Box 423
Milwaukee, WI 53202

Printed in U.S.A.