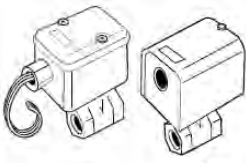


## JOHNSON CONTROLS - LIQUID LEVEL AND FLOW CONTROLS

### F61 SERIES FLOW SWITCH (Low Flow Rate — SPDT)

#### SELECTION CHART



F61MD (Left) and F61KD (Right)  
Sensitive Flow Switches

#### DESCRIPTION

For use on liquid lines using water, ethylene glycol solutions, or other liquids not injurious to the brass and phosphor bronze parts. The SPDT contact switch is activated by a low flow rate however, it has a large flow capacity with a minimum pressure drop.

#### APPLICATIONS

Typical applications include:

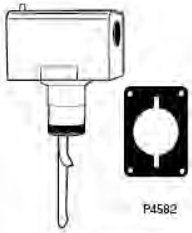
- Water purification and treatment systems
- Booster pumps
- Fast shutdown on high input boilers to guard against circulation failure
- Cooling systems for electronic tubes, bearings and compressors

#### SELECTION CHART

PART NO	INLET AND OUTLET SIZE FEMALE NPT	ENCLOSURE NEMA TYPE	ADJUSTMENT RANGE — GPM (L/Min) R to Y		LIQUID TEMP		
			Closes Flow Increase	Opens Flow Decrease	MAXIMUM	MINIMUM	MAXIMUM LIQUID PRESSURE
F61KD-3C	1/2 x 1/2 in. (13 x 13 mm)	1	Minimum 0.6 (2.27);Maximum 1.1 (4.17)	Minimum 0.3 (1.14);Maximum 0.9 (3.4)	250° F (121° C)	32° F (0° C)	150 psig (1034 kPa)
F61KD-4C	3/4 x 3/4 in. (19 x 19 mm)	1	Minimum 0.6 (2.27);Maximum 1.1 (4.17)	Minimum 0.3 (1.14);Maximum 0.9 (3.4)	250° F (121° C)	32° F (0° C)	150 psig (1034 kPa)
F61KD-8C	3/4 x 3/4 in. (19 x 19 mm)	1	Minimum 8.5 (32.2);Maximum 9.0 (34.1)	Minimum 4.5 (17.1);Maximum 6.3 (23.9)	250° F (121° C)	32° F (0° C)	150 psig (1034 kPa)
F61MD-1C	1/2 x 1/2 in. (13 x 13 mm)	3R	Minimum 0.6 (2.27);Maximum 1.1 (4.17)	Minimum 0.3 (1.14);Maximum 0.9 (3.4)	250° F (121° C)	-20° F (-29° C)	150 psig (1034 kPa)
F61MD-2C	3/4 x 3/4 in. (19 x 19 mm)	3R	Minimum 0.6 (2.27);Maximum 1.1 (4.17)	Minimum 0.3 (1.14);Maximum 0.9 (3.4)	250° F (121° C)	-20° F (-29° C)	150 psig (1034 kPa)

### F62 SERIES AIRFLOW SWITCH (SPDT — Contact Unit)

#### SELECTION CHART



Airflow Control

#### DESCRIPTION

This control detects airflow or the absence of airflow in ducts, responding only to the velocity of air movement. The one-piece stainless steel paddle can be trimmed, if necessary. The control is supplied with mounting plate gasket. The range adjusting screw permits field adjustment of flow rate setting.

#### SELECTION CHART

PART NO	PADDLE SIZE (in)	DIMENSION	MAX AMBIENTTEMP °F (°C)	MAX AIR VELOCITY
F62AA-8C	2-1/8 in. x 6-7/8 in	10-3/8 in. H (including paddle), 4 in. W, 2-13/16 in. D	100 (40)	2000 FPM (10 m/sec.)
F62AA-9C	3-1/8 in. x 6-7/8 in.	10-3/8 in. H (including paddle), 4 in. W, 2-13/16 in. D	100 (40)	2000 FPM (10 m/sec.)

## JOHNSON CONTROLS - LIQUID LEVEL AND FLOW CONTROLS

### F63 SERIES LIQUID LEVEL FLOAT SWITCH

#### SELECTION CHART (For Closed Tanks)



#### DESCRIPTION

The F63 can be wired to close one circuit and open another circuit when liquid level rises above or falls below the required level. The F63AC-1 has a NEMA 1 general purpose enclosure. The F63BF-1 has a NEMA 3R rain tight enclosure. Not for use with hazardous fluids or in hazardous atmosphere.

#### FEATURES

- SPDT snap-acting switch
- Rugged steel enclosure

#### SELECTION CHART (For Closed Tanks)

PART NO	SWITCH ACTION	TYPE OF ENCLOSURE	MAXIMUM LIQUID PRESSURE	MAX AMBIENT TEMP °F (°C)	LIQUID TEMP	
					MAXMUM	MINIMUM
F63AC-1C	SPDT	250 (121)	General Purpose NEMA 1	180 (40)	32 (0)*	100 (690)
F63BF-1C	SPDT	250 (121)	Vaportight/ Raintight NEMA 3R	180 (40)	-20 (-29)**	100 (690)

\*Or Ambient Dew Point.

\*\*Or Liquid Freezing Point.

### F92 SERIES AIR VOLUME CONTROL (For Shallow Wells)

#### SELECTION CHART (For Shallow Wells)



#### DESCRIPTION

Shallow well air volume control prevents water logged or air bound tanks by maintaining proper air volume.

#### FEATURES

- Internal parts are constructed of brass to minimize corrosion
- High impact plastic body is resistant to mechanical damage and corrosion

#### APPLICATIONS

- Air volume control for shallow well tanks

#### SELECTION CHART (For Shallow Wells)

PART NO	GAUGE TAPPING	TANK CONNECTOR	SUPPLY TANK
F92B-1C	1/4 in. Tap for Gauge 0.016 in. Brass Orifice	1-1/4 in. (32 mm) Male NPT	80 lbs (552 kPa) Max Pressure Min Diameter 9 in. (229 mm)
F92B-1C	1/4 in. Tap for Gauge 0.016 in. Brass Orifice	1-1/4 in. (32 mm) Male NPT	80 lbs (552 kPa) Max Pressure Min Diameter 9 in. (229 mm)
F92B-9C	1/4 in. Tap for Gauge	1-1/4 in. (32 mm) Male NPT	80 lbs (552 kPa) Max Pressure Min Diameter 9 in. (229 mm)

## JOHNSON CONTROLS - LIQUID LEVEL AND FLOW CONTROLS

F93 Series

### Air Volume Control (For Deep Wells)

#### Description

This Deep Well Air Volume Control prevents tanks from becoming air bound by maintaining proper air volume. Float operation opens the air valve on water level drop (increase in tank air), and permits air to bleed from the tank to the atmosphere as the tank refills.

#### Features

- internal parts are constructed of brass to minimize corrosion
- high impact plastic body is resistant to mechanical damage and corrosion

#### Applications

The F93 Series controls are designed for air volume control for deep well tanks.



F93B-1

#### Selection Chart (For Deep Wells)

Part Number	Gauge Tapping	Minimum Pressure Release	Tank Connector	Supply Tank
F93B-1C	1/4 in.	—	1 1/4 in.	80 lb Maximum Pressure Minimum Diameter 9 inches
F93H-1C	Tap for Gauge	Set at 25 lb Non adjust.	National Pipe Thread	