F261 Series Fluid Flow Switches

Description

The F261 Series Flow Switches respond to fluid flow in lines carrying water, ethylene glycol, or other nonhazardous fluids. These models also work in applications with swimming pool water and lubricating oils.

F261 Series Standard Flow Switches use a variety of paddle sizes to respond to fluid flow rates in applications with pipe sizes greater than 1 inch trade size.

Refer to the *F261 Series Fluid Flow Switches Product Bulletin (LIT-12011987)* for important product application information.

Features

- Type 3R (NEMA) or Type 4 (NEMA) enclosure allows use in indoor or outdoor applications.
- Viton® diaphragms allow use in fluid lines carrying chlorinated water, treated water, or other nonhazardous fluids.
- low-flow operation on low-flow models actuates switch with less than 1.0 GPM (3.8 L/min) flow for water applications or 9.0 GPM (34.1 L/min) flow for steam applications.
- maximum fluid pressure of 290 psig (20 bar) permits use in a wide range of pressure flow conditions.

F261 Flow Switch

Repair Information

If the F261 Series Flow Switch fails to operate within its specifications, replace the unit. For a replacement F261 Series Flow Switch, contact the nearest Johnson Controls® representative.

Selection Chart

F261 Series Standard Model Flow Switches

Product Code Number	Description
F261KAH-V01C	Standard model flow switch with Type 3R (NEMA) enclosure; 1 in., 2 in., 3 in., and 6 in. stainless steel paddles, lock-tooth washer, and stainless steel paddle screw supplied uninstalled
F261MAH-V01C	Standard model flow switch with Type 4 (NEMA) enclosure; 1 in., 2 in., 3 in., and 6 in. stainless steel paddles, lock-tooth washer, and stainless steel paddle screw supplied uninstalled
F261MAL-V01C	Standard model flow switch with Type 4 (NEMA) enclosure; 1 in., 2 in., 3 in., and 6 in. stainless steel paddles, lock-tooth washer, and stainless steel paddle supplied uninstalled.

F261 Series Low-Flow Model Flow Switches

Product Code Number	Description
F261KEH-V01C	Low-flow model flow switch with Type 3R (NEMA) enclosure; 1/2 in. x 1/2 in. External NPTF inlet and outlet
F261KFH-V01C	Low-flow model flow switch with Type 3R (NEMA) enclosure; 3/4 in. x 3/4 in. External NPTF inlet and outlet
F261KFH-V02C	Low-flow model flow switch with Type 3R (NEMA) enclosure; 3/4 in. x 3/4 in. External NPTF inlet and outlet
F261MEH-V01C	Low-flow model flow switch with Type 4 (NEMA) enclosure; 1/2 in. x 1/2 in. External NPTF inlet and outlet
F261MFH-V01C	Low-flow model flow switch with Type 4 (NEMA) enclosure; 3/4 in x 3/4 in. External NPTF inlet and outlet

Replacement Paddle Parts

Product Code Number	Description
KIT21A-600	Stainless steel three-piece paddle (3 in., 2 in., and 1 in. segments)
KIT21A-601	Stainless steel 6 in. paddle
PLT52A-600R	Stainless steel three-piece paddle (3 in., 2 in., and 1 in. segments) and Stainless steel 6 in. paddle

Technical Specifications

F261xxH Series Standard Controls Electrical Ratings

Volts, 50/60 Hz	UL60730/UL1059				EN60730	
	24	120	208	240	24	230
Horsepower	–	1	1	1	–	–
Full Load Amperes	–	16	10	10	–	8
Locked Rotor Amperes	–	96	60	60	–	48
Resistive Amperes	16	16	10	10	16	16
Pilot Duty VA	125	720	720	720	77	720

F261 Series Fluid Flow Switches (Continued)

UL Conformity Declaration Information

Information	Description
Purpose of Control	F261 Fluid Flow Switch
Construction of Control	Electronic independently mounted control
Number of Cycles	100,000 cycles
Method of Mounting Control	Mounting to sensed media vessel/orientation
Type 1 or Type 2 Action	Type 1.C (Microinterruption)
External Pollution Situation	Pollution degree 4
Internal Pollution Situation	Pollution degree 2
Rated Impulse Voltage	4,000 VAC
Ball Pressure Temperature	Enclosure: 266°F (130°C) Switch Component: 252°F (122°C)
Control Adjustment Instruction	-
Field Wiring Rating	**Wire/Cord Temperature Ratings:** 140°F (60°C) only permitted when ambient air and media are less than 113°F (45°C) 167°F (75°C) only permitted when ambient air and media are less than 140°F (60°C) 194°F (90°C) only permitted when ambient air is less than 140°F (60°C) and media is less than 167°F (75°C) 302°F (150°C) permitted when ambient air is less than 140°F (60°C) and media is less than 249°F (121°C)
Vessel Pressure	F261 Fluid Flow Switch: 290 psi (20 Bar)

F261 Series Fluid Flow Switches	
Switch	Single-Pole, Double-Throw (SPDT)
Enclosure	UL: Type 3R or Type 4 CE: IP43 (IP23 with drain hole plug removed) or IP67
Wiring Connections	Three color-coded screw terminals and one ground terminal
Conduit Connection	One 7/8 in. (22 mm) hole for 1/2 in. trade size (or PG16) conduit
Pipe Connector	Standard: 1 in. 11-1/2 NPT Threads
Maximum Fluid Pressure	290 psi (20 bar)
Minimum Fluid Temperature[1]	-20°F (-29°C)
Maximum Fluid Temperature[2]	250°F (121°C)
Ambient Conditions	-40 to 140°F (-40 to 60°C)
Compliance CE	**North America:** cULus Listed; UL 60730, File E6688; FCC Compliant to CFR47, Part 15, Subpart B, Class B Industry Canada (IC) Compliant to Canadian ICES-003, Class B limits
	Europe: CE Mark – Johnson Controls, Inc. declares that this product is in compliance with the essential requirements and other relevant provisions of the EMC Directive and the Low Voltage Directive.
	Australia/New Zealand Mark: RCM Compliant

1. Ensure that the low liquid temperature combined with the low ambient temperature does not lead to the freezing the liquid inside the body (or bellows, where appropriate). Please observe the liquid freezing point.
2. At higher ambient temperatures, the maximum allowed liquid temperature becomes lower. The temperature of the electrical switch inside should not exceed 158°F (70°C).