

## F263 Series Liquid Level Float Switches

### Description

The F263 Series Liquid Level Float Switches are designed to maintain a liquid level in indoor or outdoor closed tanks that hold water or other nonhazardous liquids. When the liquid level in the tank rises above or falls below the required level, the single-pole, double-throw (SPDT) switch closes one circuit and opens a second circuit.

Refer to the *F263 Series Liquid Level Float Switches Product Bulletin (LIT-12011989)* for important product application information.

### Application

Use F263 Series Float Switches in closed tanks where a liquid level is to be maintained. A change in the liquid level opens or closes an electrical circuit.

Use F263MAP switches on indoor or outdoor tanks that hold water or other nonhazardous liquids at temperatures greater than the liquid's freezing point and between -20°F (-29°C) and 212°F (100°C). The maximum allowable liquid pressure is 150 psig (1,035 kPa).

Use F263MAC switches on indoor or outdoor tanks that hold water or other nonhazardous liquids at temperatures greater than the liquid's freezing point and between -20°F (-29°C) and 250°F (121°C). The maximum allowable liquid pressure is 100 psig (690 kPa).

Note: Do not use these float switches with liquids that are lighter than water.

### Features

- **Viton® diaphragm** allows use in fluid lines carrying chlorinated water, treated water, or other nonhazardous liquids.
- **Single-Pole, Double-Throw switch** provides control where liquid levels rise and fall
- **Sturdy Type 4 (NEMA) enclosure** allows for use in indoor or outdoor applications; inhibits the formation of moisture in low temperature applications.
- **Solid polycarbonate float (F263MAP models)** provides greater resistance to corrosion



**F263MAP-V01C**  
Liquid Level Float Switch

### Repair Information

If the F263 Series Liquid Level Float Switch fails to operate within its specifications, replace the unit. For a replacement F263 Switch, contact the nearest Johnson Controls® representative.

### Selection Chart

Product Code Number	Description
<b>F263MAC-V01C</b>	SPDT float switch with Type 4 (NEMA) enclosure and copper float for liquid temperatures -20 to 250°F (-29 to 121°C); maximum liquid pressure 100 psig (690 kPa)
<b>F263MAP-V01C</b>	SPDT float switch with Type 4 (NEMA) enclosure and polycarbonate float for liquid temperatures -20 to 212°F (-29 to 100°C); maximum liquid pressure 150 psig (1,035 kPa)

### Technical Specifications

#### F263 Switch Electrical Ratings


Volts 50/60 Hz	UL60730				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	125	720



## F263 Series Liquid Level Float Switches (Continued)

### UL Conformity Declaration Information

Information	Description
Purpose of Control	F263 Liquid Level Float 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	<b>Enclosure:</b> 266°F (130°C) <b>Switch Component:</b> 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	<b>F263 Liquid Level Float Switch with Copper Float:</b> 100 psi (690 kPa) <b>F263 Liquid Level Float Switch with Polycarbonate Float:</b> 150 psi (1935 kPa)

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Switch	Single-Pole, Double-Throw (SPDT)
Enclosure	<b>UL:</b> Type 4 (NEMA) <b>CE:</b> 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	1 in. 11-1/2 NPT threads
Minimum Tank Diameter	9 in. (229 mm)
Maximum Liquid Pressure	100 psig (690 kPa) for copper float 150 psig (1,035 kPa) for polycarbonate float
Liquid Temperature Range	Minimum: -20°F (-29°C) or liquid freezing point Maximum: 212°F (100°C) polycarbonate, 250°F (121°C) copper
Ambient Conditions	Minimum: -40°F (-40°C) Maximum: 140°F (60°C)
	<b>North America:</b> 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
	<b>Europe:</b> 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.
	<b>Australia/New Zealand Mark:</b> RCM Compliant