



**MAGNETROL®**

**AMETEK®**

**LEVEL MEASUREMENT SOLUTIONS**

## J52 Refrigerant Level Switches

### DESCRIPTION

The Magnetrol Model J52 refrigerant level switches are float actuated units designed for use on liquids with 0.60 specific gravity and above. They utilize the Magnetrol magnetic principle to assure dependable performance.

### FEATURES

- Temperatures from -50° to +100° F (-46° to +38° C)
- Maximum working pressure to 400 psig (28 bar)
- Housing is completely sealed against entrance of moisture, preventing internal frost formation
- Conduit seal with 24-inch (610 mm) lead wires prevents entrance of moisture laden air into the switch housing
- Float chamber is a welded assembly fabricated from two low carbon steel sections and finished with an epoxy coating
- High and low level switch actuation is easily field adjustable between 0.50 and 1.50 inches (13 and 38 mm), factory set for 1.50
- Vibration resistant switch mechanism has been specifically developed to provide reliable and trouble free operation
- Housing cover seal of Viton® A o-ring is used between housing cover and base to provide an air tight seal
- Housing base can be rotated 360°
- Baffle plate provided with the switch mechanism to prevent electrical wiring interference
- Housing choices of TYPE 4X steel, TYPE 4X/7/9 explosion proof, and TYPE 4 transparent Lexan®
- Used with most commercial refrigerants including ammonia, freon, methyl chloride and sulphur dioxide



### AGENCY APPROVALS

Agency	Model Number	Approval
CSA	J52-41X1-00X	Non-Hazardous TYPE 4X
	J52-41X2-00X	
FM	J52-41XX-00X	Non-Hazardous TYPE 4X Class I, Div. 1, Groups C & D Class II, Div. 1 Groups E, F & G
	J52-41X2-00X	

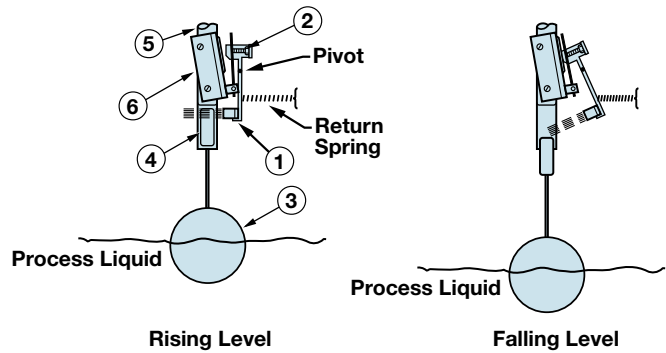
Models available for quick shipment, usually within one week after factory receipt of a complete purchase order, through the Expedite Ship Plan (ESP).

### MODEL SELECTION

Housing	Switch	Connection	
		¾" NPT	¾" Socket Weld
TYPE 4X	Dry Contact	J52-4101-002	J52-4111-002
TYPE 4 Lexan	Dry Contact	J52-4107-004	—
TYPE 4X/7/9w	Dry Contact	J52-4102-002	J52-4112-002

# TECHNOLOGY

A permanent magnet ① is attached to a pivoted switch actuator and adjustment screw ②. As the float ③ rises following the liquid level, it raises the attraction sleeve ④ into the field of the magnet, which then snaps against the non-magnetic enclosing tube ⑤, actuating the switch ⑥. The enclosing tube provides a static pressure boundary between the switch mechanism and the process. On falling level, a spring retracts the magnet, deactivating the switch.



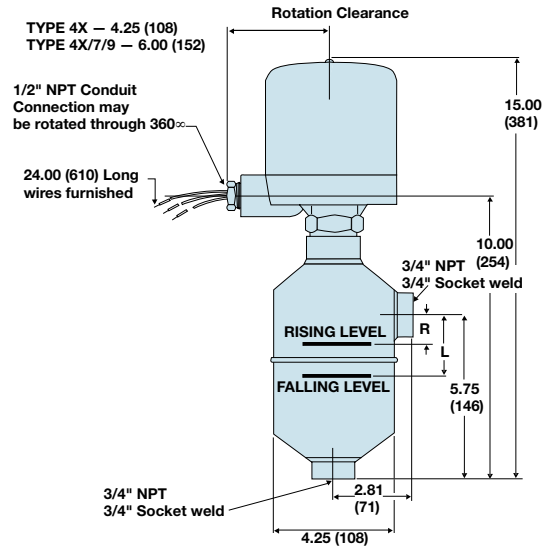
# SPECIFICATIONS

## INCHES (MM)

Voltage	Basic Electrical Ratings	
	Dry Contact Non-inductive Ampere Rating	
120 VAC	15.00	
240 VAC	15.00	
24 VDC	6.00	
120 VDC	0.50	
240 VDC	0.25	

Actuating Levels	Liquid Specific Gravity								
	0.60	0.80	1.00	1.20	1.30	1.40	1.50	1.60	1.70
R	1.00 (25)	1.44 (37)	1.69 (43)	1.88 (48)	1.94 (49)	2.00 (51)	2.06 (52)	2.13 (54)	2.13 (54)
L	2.38 (60)	2.63 (69)	2.81 (71)	2.94 (75)	3.00 (76)	3.06 (78)	3.06 (78)	3.13 (80)	3.13 (80)

NOTE: Actuating levels are factory set for maximum differential between switch actuation. Internal adjustment provided for reduced differential. Levels ±0.25" (6 mm)



# WARRANTY



All AMETEK LMS mechanical level and flow controls are warranted free of defects in materials or workmanship for three full years from the date of original factory shipment.

If returned within the warranty period; and, upon factory inspection of the control, the cause of the claim is determined to be covered under the warranty; then, AMETEK LMS will repair or replace the control at no cost to the purchaser (or owner) other than transportation.

AMETEK LMS shall not be liable for misapplication, labor claims, direct or consequential damage or expense arising from the installation or use of equipment. There are no other warranties expressed or implied, except special written warranties covering some AMETEK LMS products.



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Performance specifications are effective with date of issue and are subject to change without notice.

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