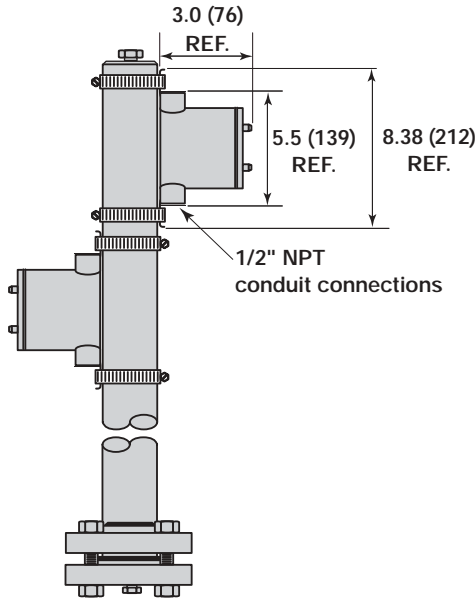




MODEL OES-100
ELECTRO-MAGNETIC SWITCHES



Model
OES-100



DESCRIPTION




The Model OES-100 snap switch is utilized to expand the control capabilities of Orion's extensive line of magnetic level indicators. This cam-operated double pole double throw mechanism is clamp-mounted to the outside of the MLI. This mounting style allows easy addition or repositioning of switches without disruption of the process.

Designed for optimal repeatability and reliability, the OES-100 is actuated by simple magnetic coupling. As the liquid level moves, the MLI float (with its internal magnets and flux rings) follows. When the float moves into the proximity of the snap switch, the switch magnet interacts with the float's magnetic field actuating the switch. The bi-stable design of the switch ensures that it will not reset until the float passes the switch in the opposite direction.

For use in Installation Category II, Pollution Degree 2. If equipment is used in a manner not specified by the manufacturer, protection provided by the equipment may be impaired.

SPECIFICATIONS

Model	OES-100E-001
Type	Bi-stable, cam operated switch
Supply voltage	250 VAC maximum
Contacts	Two SPDT (one DPDT)
Contact rating	10.1 amps
Dead band	±0.75" (20 mm) float travel
Temperature range	-58° to +392° F (-50° to +200° C)
Enclosure rating	NEMA 4X/7/9
Enclosure material	Cast aluminum
Mounting	Clamp mount to MLI

AGENCY	MODEL	APPROVAL CATEGORY
FM & CSA  	OES-100E-001	Class I, Div. 1, Grps B, C, & D Class I, Div. 2, Grps B, C, & D Class I, Div. 2, Grps A, B, C, & D (FM only) Class II, Grps E, F, & G Class III, TYPE 4X
CE 	OES-100E-001	Installation Category II, Pollution Degree 2 Low Voltage Directives, 73/23/EEC & 93/68/EEC per Harmonized Standard EN 61010-1/1993 & Amendment No. 1

MOUNTING TO ATLAS OR GEMINI

CAUTION: If equipment is used in a manner not specified by the manufacturer, protection provided by the equipment may be impaired.

Remove the cover of the enclosure. Position the OES-100 cam-operated snap switch on the MLI body so that the centerline of the switch enclosure is at the desired switch point level. Ensure that the switch is oriented so that the arrow on the switch mechanism is pointing toward the top of the MLI. Install the clamps around the MLI and over the mounting brackets on the top and bottom of the switch housing. Tighten the clamps so that the switch is secured to the MLI. Replace housing cover. If required, place the insulation between the MLI body and the switch before tightening the clamps.

MOUNTING TO AURORA

The Aurora may be ordered with one or more OES-100 clamp-on switches. During assembly Orion can ensure proper function of the switches. Special care must be taken when adding OES-100 switches to an Aurora after initial purchase. For proper function, the switch must be located as close to the internal float magnet as possible. This is achieved by marking the location of the indicator on the Aurora body. The indicator must be rotated on the chamber so that the switch can be positioned closest to the float. Loosen the indicator clamps, rotate the indicator 90 degrees around the chamber and retighten the clamps. Mount the OES-100 switch where the indicator was originally located. Move the float, or move level, to verify proper operation of the switch.

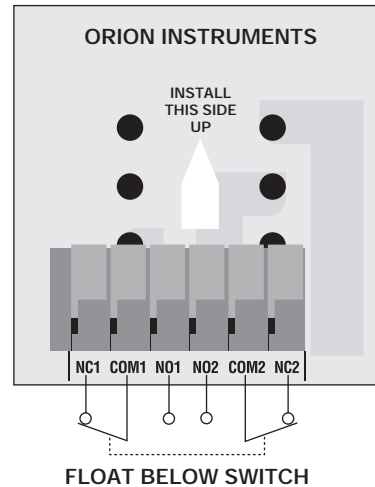
WIRING

The lower conduit opening is protected with a plastic shipping plug. The upper opening is sealed with a steel plug. If it is preferable to wire through the upper conduit entry, the steel plug may be moved to the lower opening.

Note: For supply connections, use wire with a minimum rating of +167° F (+75° C) as required by the process conditions. Use a minimum of 14 AWG wire for power and ground field wires.

Note: Housing must be grounded via protective ground screw in base of housing.

CAUTION: In hazardous areas, do not power the unit until the conduit is sealed and the enclosure is screwed down securely.



The DPDT switch has two sets of contacts. Refer to diagram above or label on mechanism. To wire switch, strip about 1/2" of insulation from end of wire. Using a flat head screwdriver or pliers, push orange tab away from the wire opening on the terminal block. DO NOT pry up on the orange tab as damage to the terminal block may result. Insert wire into opening and release tab. Check that the wire is securely fastened within the terminal block. Repeat for balance of connections.



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