



ORION
INSTRUMENTS

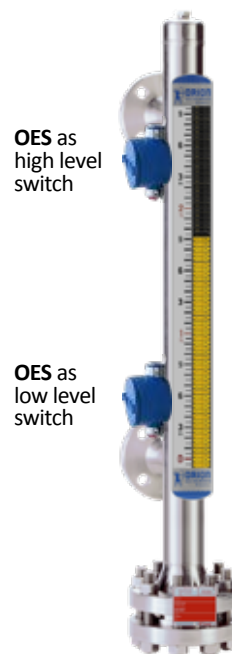
AMETEK
LEVEL MEASUREMENT
SOLUTIONS

Model OES Point Level Switch




The Model OES switch is utilized to expand the control capabilities of the Orion brand's extensive line of magnetic level indicators (MLI). This magnetically coupled DPDT 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-2 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 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.



AGENCY APPROVALS

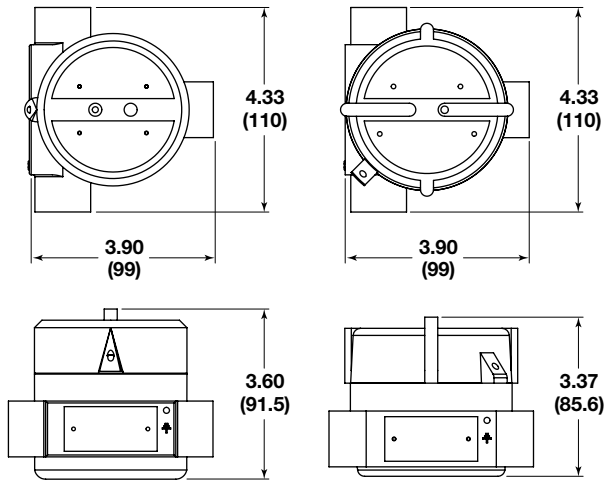
AGENCY	MODEL	PROTECTION METHOD	AREA CLASSIFICATION
FM 	OES-X1XX-XX2	Explosion Proof	US/Canada: FM21US0043X/FM21CA0029X: Class I Div. 1, Groups B, C, D T6 Class II, III, Div. 1 Groups E, F, G T6 -40°C ≤ Ta ≤ +80°C Type 4X, IP66
ATEX/IEC 	OES-X2XX-XX2	Flameproof	ATEX – FM21ATEX0019X: II 2 G Ex db IIC T5 Gb -40C to +80C II 2 G Ex db IIC T6 Gb -40C to +70C IP66 ATEX directive 2014/34/EU IEC- IECEx FMG21.0014X: Ex db IIC T5 Gb -40C to +80C Ex db IIC T6 Gb -40C to +70C IP66
CE 	OES-XXXX-XX2		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

Special Conditions of Use:

1. The flamepaths of the equipment are not intended to be repaired. Consult the manufacturer if repair of the flamepath joints is necessary.
2. Refer to the manufacturer's instructions to reduce the potential of an electrostatic charging hazard on the equipment enclosure.

The OES level switch is completely field adjustable. Simply loosen the included mounting clamps and position at the desired location. Ensure that the switch always remains in close proximity to the internal float.

A switch mount rod is an available alternative method for mounting the OES to an MLI when insulation is present. The rod assembly, which is welded to the MLI chamber, allows the switch to slide along the full length. When the desired position is selected, simply tighten it in place.



Stainless Steel Model

Aluminum Model

MOUNTING TO ATLAS™ OR GEMINI™ MLI

Position the OES 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 internal 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 OES housing. Tighten the clamps until the switch is firmly secured to the MLI. Replace the housing cover. If required, place the insulation between the MLI body and the OES before securing the clamps.

MOUNTING TO AURORA® MLI

Special care must be taken when adding OES switches to an Aurora® after initial purchase. For proper function, the switch must be located as close to the internal float magnet as possible. To achieve this, slight repositioning of the visual indicator may be required.

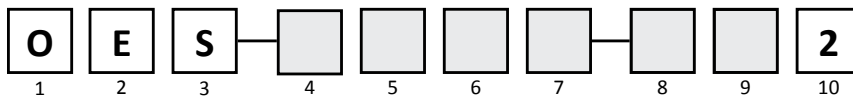


WIRING

The DPDT switch has two sets of contacts. Refer to the following diagrams or the label on the switch mechanism.



MODEL NUMBER: OES 10-Amp DPDT Point Level Switch



4 ENCLOSURE

A	Cast aluminum
S	Stainless steel

5 AGENCY APPROVAL

1	cFMus
2	ATEX/IECEX
N	General Purpose

6 CHAMBER MOUNTING CODE

1	2" Chamber
2	2½" Chamber
3	3" Chamber
4	4" Chamber
5	¾" Chamber
N	No mounting option

7 MOUNTING STYLE

C	Clamp mounted on MLI (standard)
P	Clamp mounted on MLI with insulation pad
R	Attached to switch mount rod ①

① Available only with 6th Digit = N

8 MOUNTING LOCATION

0	Right-hand mount
1	Left-hand mount

9 ADDITIONAL ATTACHMENTS

0	No attachments
1	90° street elbow (for cryo applications) ②

② Available only with 5th Digit = N and 7th Digit = C

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

SPECIFICATIONS

Model	OES-xxxx-xx2
Type	Bi-stable, magnetically coupled switch
Contact Rating @ Supply Voltage	10.1A @ 125-250 VAC 10.1A @ 8-14 VDC 4A @ 30 VDC 400mA @ 125 VDC 200mA @ 250 VDC
Contacts	Two SPDT (one DPDT)
Deadband	±0.75" (20 mm) float travel
Temperature Range	-58 to 392 °F (-50 to 200 °C)
Enclosure Rating	TYPE 4X/7/9
Enclosure Material	Aluminum or stainless steel
Mounting	Clamp mount to MLI or switch mount rod (both are field adjustable)
Conduit/Cable Entry	¾" FNPT (consult factory for alternative options)



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

BULLETIN: OES-100.5
EFFECTIVE: September 2023
SUPERSEDES: February 2022