OMEGA LV-40 & LV-50
Liquid Level Switch
User's Manual: M475/0892

GENERAL DESCRIPTION

Constructed entirely of 316SS, the LV-40 Single Station Level Switch is specifically
designed to withstand the effects of a wide range of chemicals. The unit has a
maximum operating temperature of 300°F and can be used to meet many level
control applications, including medical and water purification requirements. Its
small float displacement permits high accuracy and reliability in shallow tanks and
reservoirs.

The LV-50 Series Level Switches offer superlative performance and dependability
under the most severe operating conditions. The sensor incorporates a larger float
displacement and all stainless steel construction for consistent level monitoring
in liquids pressurized to a maximum 750 PSI. Ideal for level sensing in chemical
plants and systems, models are available for temperatures up to 480°F.

WARNING

<table>
<thead>
<tr>
<th>VA</th>
<th>Volts</th>
<th>Amps ac</th>
<th>Amps dc</th>
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<tbody>
<tr>
<td>10</td>
<td>0-50</td>
<td>.2</td>
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<td></td>
<td>120</td>
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<td>240</td>
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<td>20</td>
<td>0-30</td>
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<td></td>
<td>120</td>
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<td>100</td>
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<td>240</td>
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NOTE: When switching higher current
levels, use of an external solid state relay,
such as OMEGA's SSR240AC relays, is
recommended. For pump up/pump down
operation with two level switches, use
OMEGA's SSRL2 or SSRL3 pump
up/pump down relay. For more informa-
tion, please call OMEGA Engineering.

Note: All switch activation points have a tolerance of ± 1/8"
SPECIFICATIONS

STEM MATERIAL: 316SS
FLOAT MATERIAL: 316SS
OPERATING TEMPERATURE: 
-40° to 300°F; -40° to 480°F for LV-52
PRESSURE RATING: 100 PSI for LV-40; 750 PSI for LV-50 Series
MOUNTING: 
SWITCH: SPST
SWITCH ACTUATION: Approx. 1/2 the distance from end of stem to mounting, or at halfway point of float travel.
SWITCH RATING: Models LV-40: 10VA; Models LV-50, LV-52: 20VA; Models LV-51: 100VA
LEAD WIRES: 22 awg 24" polymeric; 18 awg 24" polymeric for LV-50 Series
SPECIFIC GRAVITY OF FLOAT: LV-40 = 0.62, LV-50 = 0.64

NOTE
To determine fluid specific gravity, add 0.1 to float specific gravity in clean liquids and 0.3 to float specific gravity in dirty water or viscous liquids.

INSTALLATION
Install units vertically in tank top or bottom using Methods A, B, C or D (below).
Note: Units will operate normally inclined up to 30°.

A. Unit installed from outside of tank.
B. Unit installed from inside of tank. This method may be used if access to inside of tank is possible.
C. Extending level switch unit to intermediate level.
D. Side mounting of unit at intermediate level.
REVERSING SWITCH OPERATION

The switch is user selectable as normally open (N.O.) or normally closed (N.C.) (dry). Simply remove the retaining clip and invert the position of the float. It is not necessary to disturb the installation.

WIRING DIAGRAM

WARRANTY

OMEGA warrants this unit to be free of defects in materials and workmanship and to give satisfactory service for a period of 13 months from date of purchase. OMEGA Warranty adds an additional one (1) month grace period to the normal one (1) year product warranty to cover handling and shipping time. This ensures that our customers receive maximum coverage on each product. If the unit should malfunction, it must be returned to the factory for evaluation. Our Customer Service Department will issue an Authorized Return (AR) number immediately upon phone or written request. Upon examination by OMEGA, if the unit is found to be defective it will be repaired or replaced at no charge. However, this WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of being damaged as a result of excessive corrosion; or current, heat, moisture or vibration; improper specification; misapplication; misuse or other operating conditions outside of OMEGA’s control. Components which wear or which are damaged by misuse are not warranted. These include contact points, fuses, and triacs.

We are glad to offer suggestions on the use of our various products. Nevertheless OMEGA only warrants that the parts manufactured by it will be as specified and free of defects.

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