

# 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.

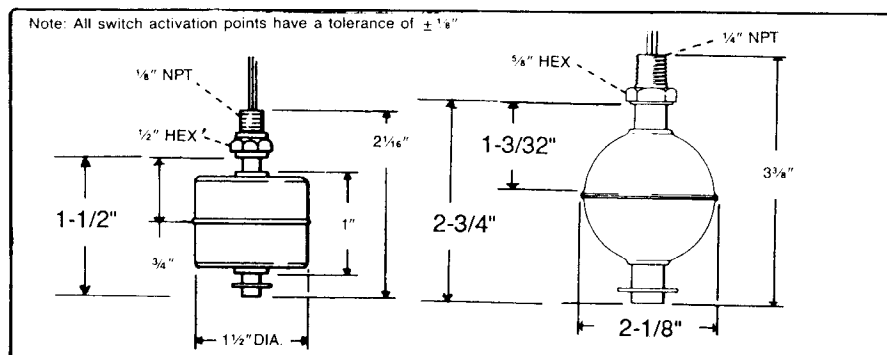
The LV-50 Series Level Switches offer superlative performance and dependability under the most severe operating conditions. The sensor incorporates a larger float displacement and all stainless steel construction for consistent level monitoring in liquids pressurized to a maximum 750 PSI. Ideal for level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

### WARNING

#### Switch Ratings Max. Resistive Load

VA	Volts	Amps ac	Amps dc
10	0-50	.2	.13
	120	.08	.05
	240	.04	.02
20	0-30	.4	.3
	120	.17	.13
	240	.08	.06
100	120	.8	N.A.
	240	.4	N.A.

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 information, please call OMEGA Engineering.



## SPECIFICATIONS

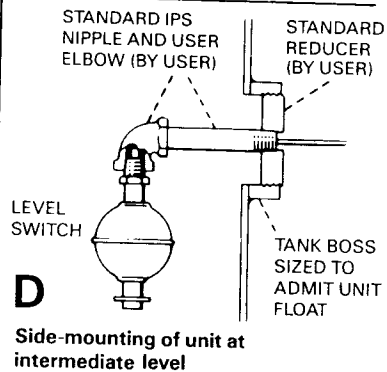
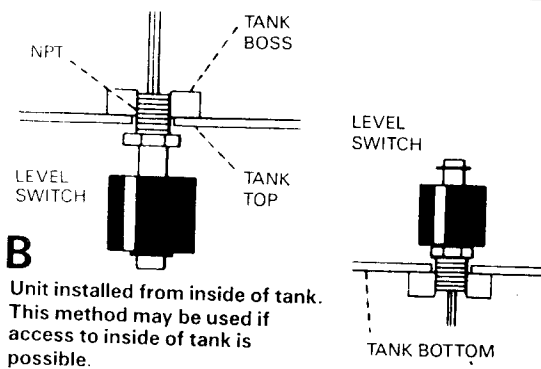
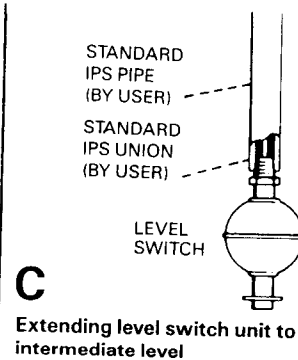
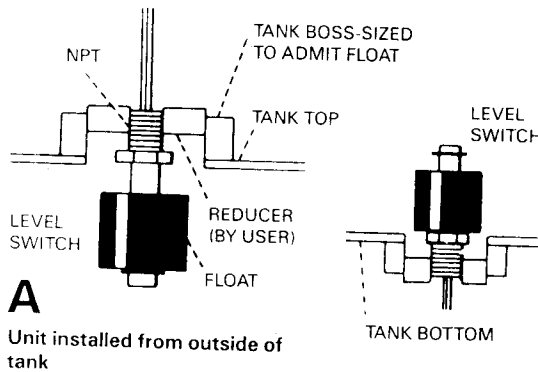
STEM MATERIAL:	316SS
FLOAT MATERIAL:	316SS
OPERATING TEMPERATURE:	-40° to 300°F; -40° to 480°F for LV-52
PRESSURE RATING:	100 PSI for LV-40; 750 PSI for LV-50 Series
MOUNTING:	1/8" NPT for LV-40; 1/4" NPT for LV-50 Series
SWITCH:	SPST
SWITCH ACTUATION:	Approx. 1/2 the distance from end of stem to mounting, 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.

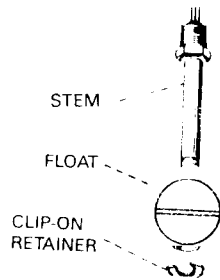
## INSTALLATION

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°.



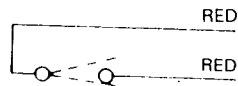
## REVERSING SWITCH OPERATION

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

SPST  
SWITCH  
N.O. OR  
N.C. (DRY)



## 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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**RETURN REQUESTS / INQUIRIES**

Direct all warranty and repair requests/inquiries to the OMEGA ENGINEERING Customer Service Department. Call toll free in the USA and Canada: 1-800-622-2378, FAX: 203-359-7811; International: 203-359-1660, FAX: 203-359-7807.

BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, YOU MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OUR CUSTOMER SERVICE DEPARTMENT (IN ORDER TO AVOID PROCESSING DELAYS). The assigned AR number should then be marked on the outside of the return package and on any correspondence. Please have the following information available BEFORE contacting OMEGA:

1. P.O. number under which the product was PURCHASED,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems you are having with the product.

OMEGA's policy is to make running changes, not model changes, whenever an improvement is possible. That way our customers get the latest in technology and engineering.

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