



LVE 951/952 & 951-B Electro-Optic Level Switch



M-5173/1112

Shop online at: omega.com e-mail: info@omega.com
For latest product manuals: omegamanual.info



Installation:

- For NPT threaded units:
 - Use Teflon (TFE) thread tape or Permatex #80725 plastic pipe sealant to seal thread. Caution: Pipe sealant must not come in contact with prism surface.
 - Thread sensor into tank wall and tighten by hand. Further tighten an additional one to two threads past hand-tightness. (Avoid over-tightening, as this may damage threads.)
- For M12 straight threaded units:
 - Thread sensor into tank wall by hand until sensor housing contacts tank wall surface. (See below for mating o-ring gland design information.)
 - The sensor shall be torque tightened to 12 to 24 in-lb (1.4 to 2.7 N-m). This range is slightly more than "hand-tight" to insure sealing, and less than that which would cause housing or thread damage.
 - CAUTION:** Under no circumstances shall the sensor be tightened more than 1/6 turn beyond that required to seat the bottom of the sensor housing with the outside wall of the tank.
- Sensor may be installed in horizontal or up to 45° from horizontal plane for best operation. Vertical mounting is possible, may be droplet sensitive, depending on viscosity of media.
- Caution: Do not install sensor close to infrared sources or incandescent light. Reflective surfaces may interfere with proper operation of the optical sensor. (Consult Omega if prism is to be mounted less than 2" from any reflective surface.)
- Connect voltage supply (Vdc + 10%) Between red (+) and black (-) of unit. Caution: Do not connect output (blue wire) to Vdc power without a load. See wiring diagrams for output configuration.

Specifications

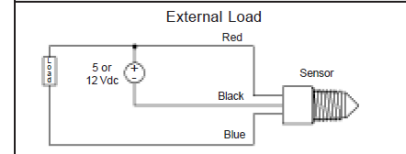
	LVE-951/952	LVE-951B
Materials:		
Housing and Prism	Polysulfone	Nickel plated brass body with glass prism
Operating Pressure	0 to 250 psig, (0 to 17 bar) Max	
Operating Temperature	-40°F to 230°F (-40°C to 110°C)	
Input Voltage	12 VDC ±10%	
Current Consumption	12V ~10mA No Load	
Output Configuration	Open drain may sink 40 mA max.	
Repeatability	±1 mm	
Ambient Light Immunity	See Ambient Light Test	

Note: Not for use in freezing liquids.

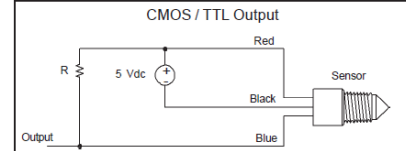
Actuation Condition	1/4" NPT	M12x1-8
Wet	LVE-951	LVE-951-M12
Dry	LVE-952	LVE-952-M12
Wet	LVE-951-B	N/A

Dimensions		
<p>1/4" NPT 11/16" HEX (17.5 mm) 1 7/16" (35.36 mm)</p>	<p>M12 x 1 O-Ring 11/16" HEX (17.5 mm) 1 7/16" (35.36 mm)</p>	<p>1/4" NPT 11/16" HEX (17.5 mm) 1 7/16" (35.36 mm)</p>
LVE-951/952	LVE-951/952-M2	LVE-951-B
Electrical Termination: Lead Wires, 22 AWG, TPE Jacketed, 6" to 8" Extended		

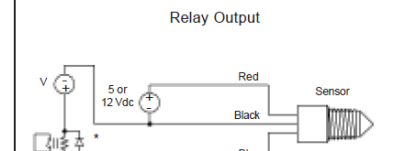
Typical Wiring Diagrams



Note: May sink up to 40mA max. Use diode suppression for inductive loads.



Max. current sink = 40mA
R = Pull-up Resistor (4.7K 1/4W)

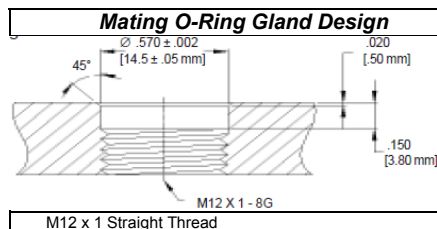


Note: * For inductive loads, use diode suppression

Max Ambient Light	
Black Container	Opaque Container
390 FT-CD	30 FT-CD

Note:
Above testing is based on minimum readings of at least two (2) samples.

The test depicted to the left was performed to determine the sensor immunity level to ambient light. The recorded ambient is the maximum level at which the sensor performs!





OMEGAnet® Online Service
omega.com

Internet e-mail
info@omega.com

Servicing North America:

U.S.A.: Omega Engineering, Inc., One Omega Drive, P.O. Box 4047
ISO 9001 Certified Stamford, CT 06907-0047
 Toll-Free: 1-800-826-6342 Tel: (203) 359-1660
 FAX: (203) 359-7700 e-mail: info@omega.com

Canada: 976 Bergar
 Laval (Quebec), Canada H7L 5A1
 Toll-Free: 1-800-826-6342 TEL: (514) 856-6928
 FAX: (514) 856-6886 e-mail: info@omega.ca

Servicing Europe:

Benelux: Managed by the United Kingdom Office
 Toll-Free: 0800 099 3344 TEL: +31 20 347 21 21
 FAX: +31 20 643 46 43 e-mail: sales@omega.nl

Czech Republic: Frystatska 184
 733 01 Karviná, Czech Republic
 Toll-Free: 0800-1-66342 TEL: +420-59-6311899
 FAX: +420-59-6311114 e-mail: info@omegashop.cz

France: Managed by the United Kingdom Office
 Toll-Free: 0800 466 342 TEL: +33 (0) 161 37 29 00
 FAX: +33 (0) 130 57 54 27 e-mail: sales@omega.fr

Germany/Austria: Daimlerstrasse 26, D-75392 Deckenfronn, Germany
 Toll-Free: 0 800 6397678 TEL: +49 (0) 7059 9398-0
 FAX: +49 (0) 7056 9398-29 e-mail: info@omega.de

United Kingdom: OMEGA Engineering Ltd.
 One Omega Drive, River Bend Technology Centre, Northbank
ISO 9001 Certified Irlam, Manchester M44 5BD England
 Toll-Free: 0800-488-488 TEL: +44 (0)161 777-6611
 FAX: +44 (0)161 777-6622 e-mail: sales@omega.co.uk

For immediate technical or application assistance:

U.S.A. and Canada: Sales Service: 1-800-826-6342/1-800-TC-OMEGA®
 Customer Service: 1-800-622-2378/1-800-622-BEST®
 Engineering Service: 1-800-872-9436/1-800-USA-WHEN®

Mexico: En Español: 001 (203) 359-7803 FAX: (001) 203-359-7807
 info@omega.com.mx e-mail:espanol@omega.com

It is the policy of OMEGA Engineering, Inc. to comply with all worldwide safety and EMC/EMI regulations that apply. OMEGA is constantly pursuing certification of its products to the European New Approach Directives. OMEGA will add the CE mark to every appropriate device upon certification. The information contained in this document is believed to be correct, but OMEGA accepts no liability for any errors it contains, and reserves the right to alter specifications without notice.

WARNING: These products are not designed for use in, and should not be used for, human applications.

WARRANTY/DISCLAIMER

OMEGA ENGINEERING, INC. warrants this unit to be free of defects in materials and workmanship for a period of **13 months** from date of purchase. OMEGA's 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 OMEGA's customers receive maximum coverage on each product.

If the unit malfunctions, it must be returned to the factory for evaluation. OMEGA's 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. OMEGA's WARRANTY does not apply to defects resulting from any action of the purchaser, including but not limited to mishandling, improper interfacing, operation outside of design limits, improper repair, or unauthorized modification. This WARRANTY is VOID if the unit shows evidence of having been tampered with or shows evidence of having been 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 in which wear is not warranted, include but are not limited to contact points, fuses, and triacs.

OMEGA is pleased to offer suggestions on the use of its various products. However, OMEGA neither assumes responsibility for any omissions or errors nor assumes liability for any damages that result from the use of its products in accordance with information provided by OMEGA, either verbal or written. OMEGA warrants only that the parts manufactured by the company will be as specified and free of defects. OMEGA MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND WHATSOEVER, EXPRESSED OR IMPLIED, EXCEPT THAT OF TITLE, AND ALL IMPLIED WARRANTIES INCLUDING ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. LIMITATION OF LIABILITY: The remedies of purchaser set forth herein are exclusive, and the total liability of OMEGA with respect to this order, whether based on contract, warranty, negligence, indemnification, strict liability or otherwise, shall not exceed the purchase price of the component upon which liability is based. In no event shall OMEGA be liable for consequential, incidental or special damages.

CONDITIONS: Equipment sold by OMEGA is not intended to be used, nor shall it be used: (1) as a "Basic Component" under 10 CFR 21 (NRC), used in or with any nuclear installation or activity; or (2) in medical applications or used on humans. Should any Product(s) be used in or with any nuclear installation or activity, medical application, used on humans, or misused in any way, OMEGA assumes no responsibility as set forth in our basic WARRANTY/DISCLAIMER language, and, additionally, purchaser will indemnify OMEGA and hold OMEGA harmless from any liability or damage whatsoever arising out of the use of the Product(s) in such a manner.

RETURN REQUESTS / INQUIRIES

Direct all warranty and repair requests/inquiries to the OMEGA Customer Service Department. BEFORE RETURNING ANY PRODUCT(S) TO OMEGA, PURCHASER MUST OBTAIN AN AUTHORIZED RETURN (AR) NUMBER FROM OMEGA'S 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.

The purchaser is responsible for shipping charges, freight, insurance and proper packaging to prevent breakage in transit.

FOR **WARRANTY** RETURNS, please have the following information available BEFORE contacting OMEGA:

1. Purchase Order number under which the product was PURCHASED,
2. Model and serial number of the product under warranty, and
3. Repair instructions and/or specific problems relative to the product.

FOR **NON-WARRANTY** REPAIRS, consult OMEGA for current repair charges. Have the following information available BEFORE contacting OMEGA:

1. Purchase Order number to cover the COST of the repair,
2. Model and serial number of the product, and
3. Repair instructions and/or specific problems relative to the product.

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

OMEGA is a registered trademark of OMEGA ENGINEERING, INC.

© Copyright 2009 OMEGA ENGINEERING, INC. All rights reserved. This document may not be copied, photocopied, reproduced, translated, or reduced to any electronic medium or machine-readable form, in whole or in part, without the prior written consent of OMEGA ENGINEERING, INC.