



FSW-140 Series Plastic Flow Switch



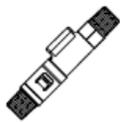
M-5172/1112

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Installation: All NPT threads should be installed using a suitable thread sealant (Teflon tape or Permatex "No more Leaks"). Sealant must be kept out of unit during installation.

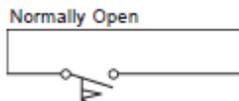
FSW-140 Flow Switches Can be Mounted In Various Positions Flow settings are based on a vertical position (inlet port down), using water at +70°F on increasing flow. Slight variation in set point actuation will occur in other mounting orientations.



Switch Ratings

Contact rating: 10W
Switching Voltage (DC or AC Peak): 200 Max.
Switching Current (DC or AC): 0.4 A Max.
Carry Current (DC or AC): 0.4 A Max.
Break down Voltage: 230 VDC Min.

Wiring Diagram



Important Points: Omega products must be maintained and installed in strict accordance with the National Electrical Code and the applicable Omega product instruction Bulletin that covers installation, operation and proper maintenance. Failure to observe this information may result in serious injury or damages.

For hazardous area applications involving such things as, but not limited to, ignitable mixtures, combustible dust and flammable materials, use an appropriate explosionproof enclosure or intrinsically safe interface device.

Please adhere to the pressure and temperature limitations shown throughout this catalog for our level and flow sensors. These limitations must not be exceeded. These pressures and temperatures take into consideration possible system surge pressures/ temperatures and their frequencies. Selection of materials for compatibility with the media is critical to the life and operation of Omega products. Take care in the proper selection of materials of construction, testing is required.

NSF-approved sensors are made of materials approved for potable water applications according to Standard 61. Stainless steel is generally regarded as safe by NSF and FDA.

Life expectancy of switch contacts varies with application. Ambient temperature changes do affect switch set points, since the gravity of a liquid can vary with temperature. Our sensors have been designed to resist shock and vibration. However, shock and vibration should be minimized.

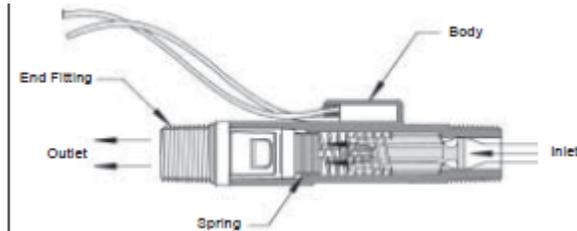
Filter liquid media containing particulate and/or debris to ensure the proper operation of our products.

Electrical entries and mounting points in an enclosed tank may require liquid/vapor sealing.

Our sensors must not be field-repaired.

Physical damage sustained by product may render it unserviceable.

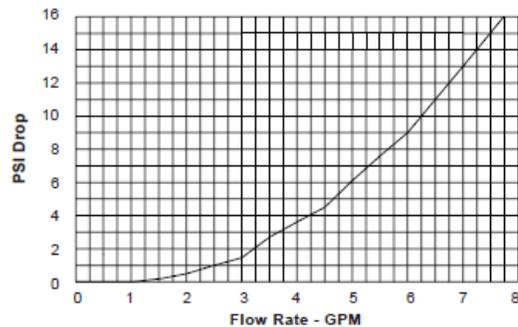
CE This product is suitable for Class I and Class II applications only, per the requirements of standard EN60730 and any additional specific requirements for a particular application or medium being sensed. Class I compliance of metal bodied units requires a ground connection between the metal body and the earthing system of the installation. Class I compliance of plastic bodied units in contact with a conductive medium requires that the medium be effectively earthed so as to provide an earthed barrier between the unit and accessible areas. For Class III compliance, a supply at safety extra-low voltage (SELV) must be provided. Please consult the Factory for compliance information on specific part numbers.



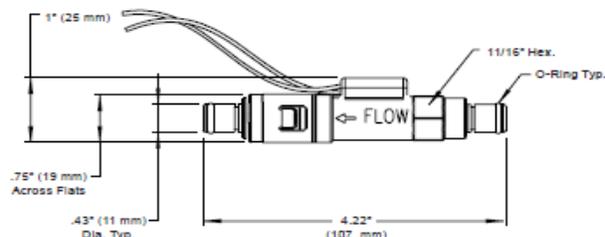
Specifications

Wetted Parts Housing, End Fitting	Hydrolytically Stable Glass Reinforced Polypropylene
Piston	PPS Composite
Spring	316 Stainless Steel
O-ring	Fluorocarbon
Operating Pressure	200 psi at 70° F, 100 PSI at 212° F
Operating Temperature	-20° to +212°F (100°C)
Filter	100 Micron or better
Set Point Accuracy	20%, Maximum
Set Point Differential	20%, Maximum
Switch	SPST, 10 VA (See "Switch Ratings")
Inlet/Outlet	3/8" NPT Male or Quick Connect
Electrical Termination	No. 24 AWG, 24" to 26" Polymeric Leads

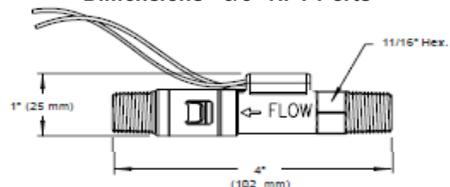
Pressure Drop - Typical



Dimensions - Quick Disconnect Ports



Dimensions - 3/8" NPT Ports



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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.

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