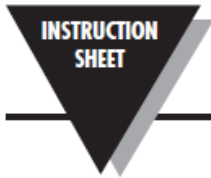




FSW-130 Series Brass Body Flow Switch



M-5169/1112

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Installation:

Units are calibrated in a vertical position, with lead wires up, but can be installed in any orientation. Install unit in piping system, using standard pipe fitting procedures. Hold inlet fitting with wrench at installation to prevent fitting torque accumulation. Be sure to keep thread sealing compound out of unit. Make sure that flow is in proper direction - marked "IN" and "OUT" on housing. See wiring diagrams for electrical connections.

CAUTION: See "Switch Ratings" before connecting power.

NOTE: Flow settings for FSW-130 series switches are normally calibrated using water @ +70°F on increasing flow.

Maintenance:

Accumulation of foreign debris should periodically be removed from these switches. Occasional "wipedown" cleaning when excessive contamination is present is all that is normally required. To clean: Remove unit from system and disassemble as shown below. Clean all parts, reassemble and reinstall unit. Note: 50 micron filtration is recommended.

Important Points:

Product must be maintained and installed in strict accordance with the National Electrical Code and Omega product catalog and instruction bulletin. Failure to observe this warning could result in serious injuries or damages.

An appropriate explosion-proof enclosure or intrinsically safe interface device must be used for hazardous area applications involving such things as (but not limited to) ignitable mixtures, combustible dust and flammable materials.

*** Warning: To prevent ignition of flammable or combustible atmospheres, disconnect power before servicing.

Pressure and temperature limitations shown on individual catalog pages and drawings for the specified flow switches 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 flow switches. Take care in the proper selection of materials of construction; particularly wetted materials.

Life expectancy of switch contacts varies with applications.

Ambient temperature changes do affect switch set points, since the specific gravity of a liquid can vary with temperature.

Flow switches have been designed to resist shock and vibration; however, shock and vibration should be minimized.

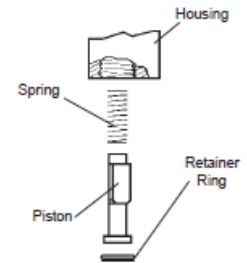
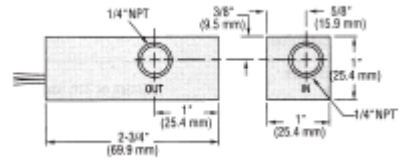
Liquid media containing particulate and/or debris should be filtered to ensure proper operation of OMEGA products.

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

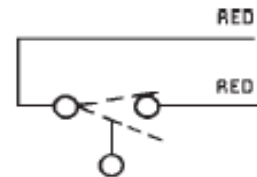
Flow switches must not be field repaired.

Physical damage sustained by the product may render it unserviceable.

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.



Wiring Diagram



Switch Ratings
Max. Resistive Load

VA	Volts	Amps AC	Amps DC
20	0-30	.4	.3
	120	.17	.13
	240	.08	.06

Specifications	FSW-130
Wetted Materials	Brass
Housing	Brass
Piston	N/A
Spring	316 SS
Operating Pressure	1000 psig, Max
Operating Temperature	-20°F to +200°F
Set Point Accuracy	±15%
Set Point Differential	20% Max.
Switch	SPST, 20 VA, N.O.
Inlet/Outlet Ports	1/4" NPT
Electrical Termination	No. 18 AWG, 24" L., PVC Lead Wires

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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.

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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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