FS20 Dual Flow Switch Instructions

General Information

Designed to be used with a variety of SeaMetrics meters, the FS20 signals when flow reaches critical setpoints. Two setpoints are provided, a low and a high setting. When flow falls below the low or rises above the high, SPDT relay contacts close to actuate whatever alarms or controls are connected to them. Setting is by means of DIP switches, and setpoints are in pulses per minute. Output lights give visual indication that flow limit has been reached.

Specifications

Power	115 VAC
Enclosure	NEMA 4x, 5" x 7" polycarbonate
Relays	SPST
Relay Rating	5 A resistive at 115 VAC 5 A at 24 VDC
Setpoint Range	1 - 33,000 pulses/ minute
Setpoint Hysteresis	6%
Sensor Power	25 mA at 12 VDC nominal

Installation

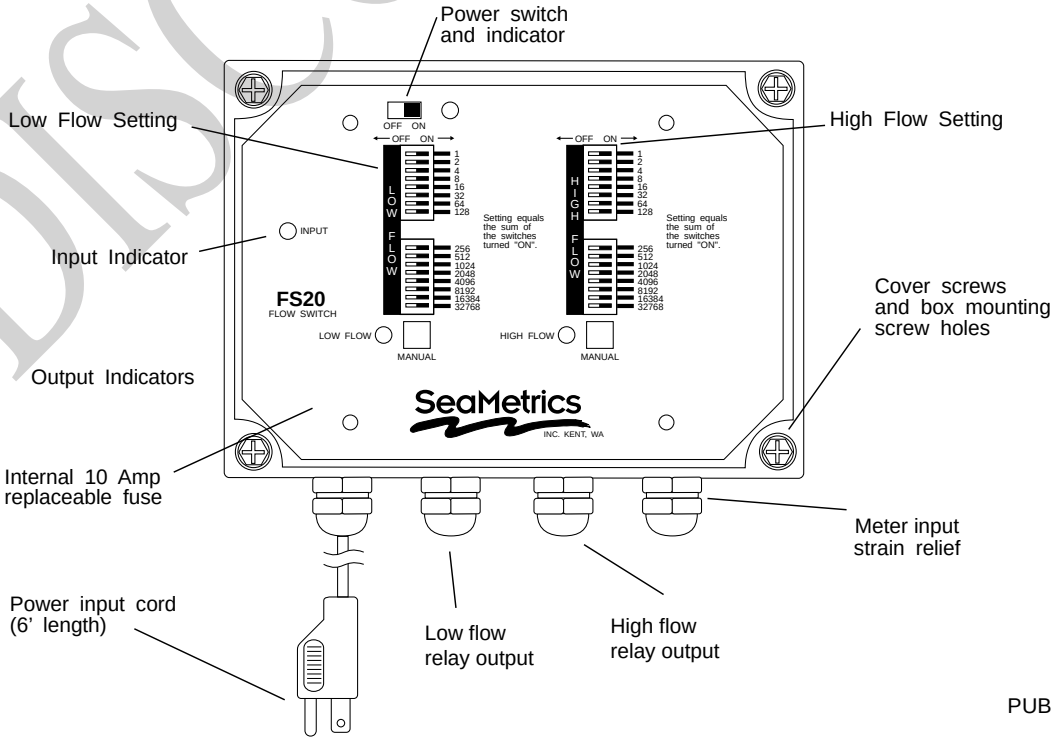
Mounting. To gain access to the mounting screw holes, remove the front clear cover. Mounting screw holes are at the four corners, under the cover screws. Mark the centers of these holes, using the box or the enclosed template, and drill. Finally, insert screws through the corner holes and tighten.

Terminal Access. Terminals are on the back side of the printed circuit board. Remove the front clear cover, then remove the four front plate screws. Turn the printed circuit board over to reach the terminals.

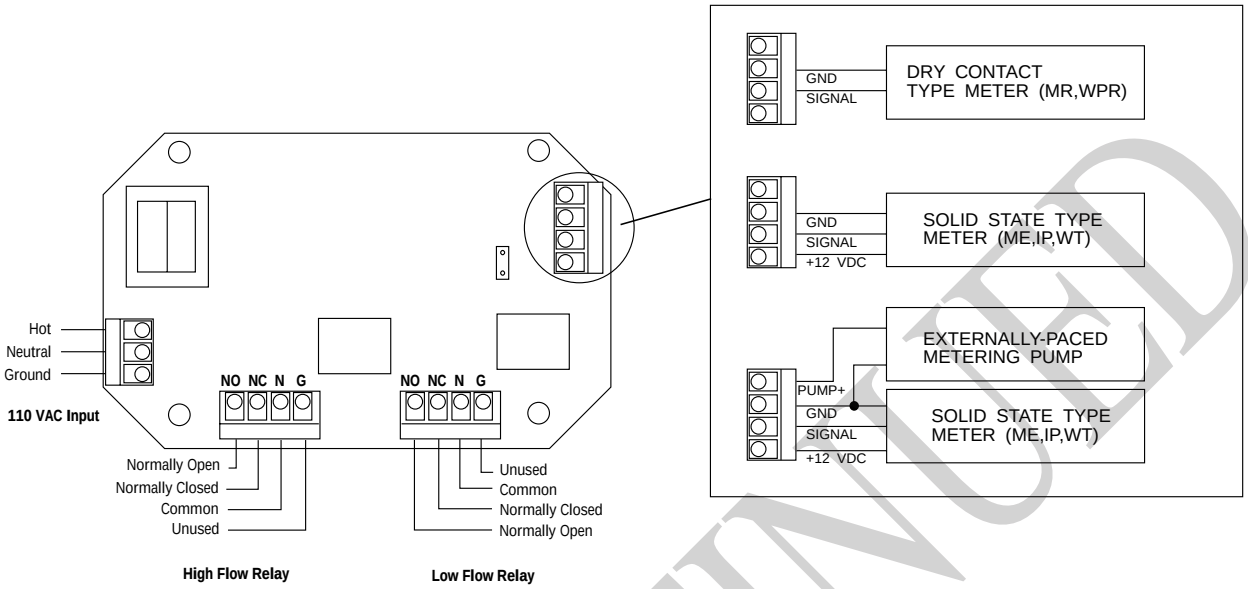
Connect Flow Meter. Bring the flow meter input cable into the unit through the appropraite strain relief, then connect following the Connections diagram. Either two-wire (dry contact) or three-wire (solid state) flow meter sensors can be used.

Connect Alarm Relay(s). Bring alarm output cable(s) into the unit through the appropriate strain reliefs and connect to relay outputs, as shown in the Connections diagram. **Note that depending on setting, relays may energize when the unit is first powered up. If this presents a hazard, disconnect any devices on the other end of the cable(s) until settings have been made and tested.**

Features



FS20 Connections Diagram



Setting

See example diagram for method of setting. Note that Low Flow energizes the relay when flow *drops below* the set point, and High Flow energizes when it *rises above* the set point.

Connect Power. If using the power cord provided, wait to plug it in until after the front panel has been replaced. Terminal connection is only necessary for conduit installations. Remove the power cord provided and connect power, following the Connections diagram. Do not energize the circuit until the front panel has been replaced.

Replace Front Panel. Reverse the removal procedure.

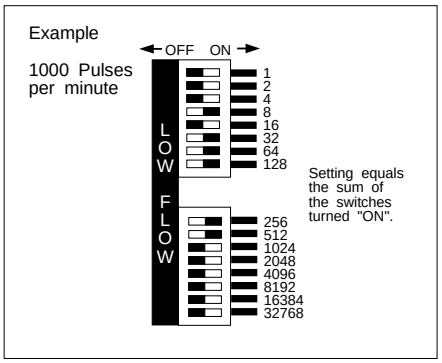
Determine Trip Points. Trip point frequencies are in pulses per minute. To calculate, multiply the pulses per gallon provided by the meter ("K-factor") by the gallons per minute at which the alarm output is desired.

Example: The meter produces 50 pulses per gallon. Low-flow relay output is desired at 20 gallons per minute.

50 pulses/gallon X 20 gallons per minute = 1,000 pulses/minute

Set Low Flow to 1,000.

Set Trip Points. The DIP switches under the front clear cover are used to set trip point frequencies.



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