

# FS-930 Series – Oil Flow Switch, Compensates For Viscosity Change In Fluids

**Flow Rate Settings:** 0.1 GPM to 1.0 GPM  
**Port Size:** 1/4" NPT  
**Primary Construction Material:** Brass  
**Setting Type:** Fixed



A unique, patented piston design assures accuracy within 20% over a full range of viscosities—from 40 to 2000 SSU. Ideal for use in applications where liquids of different viscosities are blended; or for use in lubrication systems where oil flow monitoring is critical at start-ups. Switch compensates for viscosity changes automatically. Each unit is factory preset, using 300 SSU oil, for actuation at specified flow rates.



U.L. Recognized —  
File No. E31926

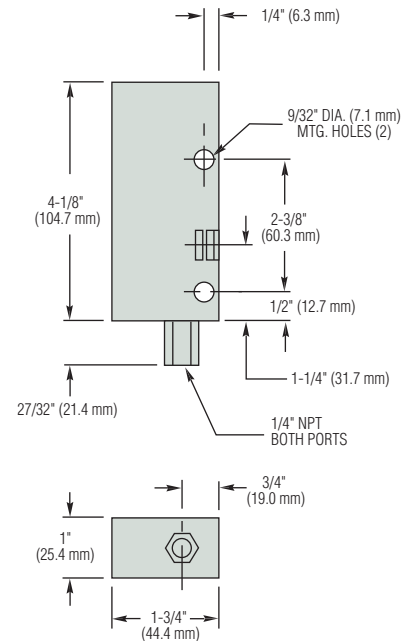
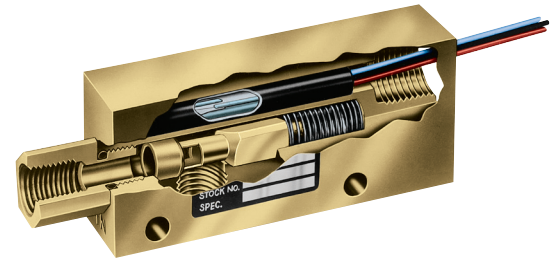
## Specifications

<b>Wetted Materials</b>	
Housing	Brass
Piston	Brass
Spring	316 Stainless Steel
O-Ring	Viton®
Other Wetted Parts	Epoxy
<b>Pressure Rating</b>	
Operating, Maximum	1000 PSIG (69 bar)
Proof	2500 PSIG (172 bar)
Burst	5000 PSIG (345 bar)
Operating Temperature	-20°F to + 300°F (-29°C to +148.9°C)
Repeatability	1% Maximum Deviation**
Set Point Accuracy	±10%
Set Point Differential	15% Maximum
Switch*	SPDT, 20 VA
Inlet/Outlet Ports	1/4" NPT
Electrical Termination	No. 18 AWG, 24" L., Polymeric Lead Wires
Explosion-Proof Approvals	U.L. Approved for Class I, Division 2, Groups A, B, C, D. Also available with FM approved, explosion proof junction box for Class I, Division 1, Group D hazardous locations. U.L. Approved — File No. E183854, RoHS

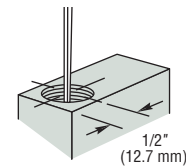
\* See "Electrical Data" on Page X-5 for more information

\*\* Reference at 300 SSU set point.

## Dimensions



## Electrical Connection, 1/2" NPT Conduit



### How To Order – Standard Models

Specify Part Number based on flow setting.

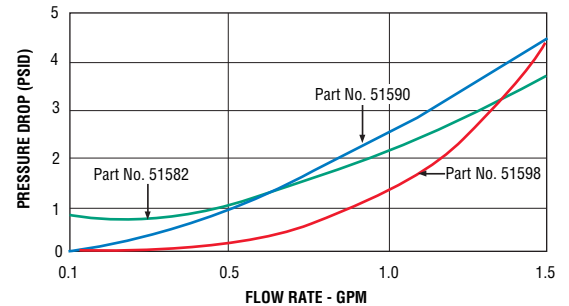
Flow Setting GPM, ±10%	Part Numbers
0.10	51582 ⚡
0.25	51586 ⚡
0.50	51590
0.75	51594
1.00	51598

**Notes:**

1. Flow settings are calibrated in a vertical position (lead wires up) with 300 SSU oil. Set points will be maintained within 20% of settings in a liquid viscosity range of 40 to 2,000 SSU.
2. Use of 50 micron filtration is recommended.

⚡ – Stock Items.

### Pressure Drop – Typical



Tests conducted with units in vertical position (lead wires up) with water at +70°F (21°C).

**FS-930 switches are U.L. Approved for Class I, Division 2, Groups A, B, C, D hazardous locations.**

They are also available with FM-approved, explosion-proof junction box for Class I, Division 1, Group D hazardous locations. Units must be assembled completely at GEMS.

U.L. Approved — File No. E183854

### Standard Wiring Color Code

Wire Color	Terminal
Orange	N.O.
Black	Common
Red	N.C.