

Specifications

- **Spinning Rotor Shows Fluid Flow**
- **Three Models span 0.1 to 20 GPM**
- **Modest Cost Suitable for OEM's**

Proteus Sight Flow Indicators offer an inexpensive way to detect fluid flowing in a line. The fluid spins a rotor as it flows through the indicator. Equipment operators can verify coolant or other fluid flows at a glance before starting equipment. (If automatic interlocking is needed, Proteus Fluid Flow Switches may be used.)

Flow Ranges—

Three models of Sight Flow Indicators span the range from 0.1 to 20 GPM (0.4 to 75 l/min). The Model 10C uses two ranges to cover 0.1 to 6.0 GPM (0.4 to 23 l/min). It has 1/4" NPT female pipe connections.

The Model 15C covers the range of 1.5 to 12 GPM (6-45 l/min). The Model 16C covers 4 to 20 GPM (15 to 75 l/min). Both of these models have 1/2" NPT female pipe connections.

Further information concerning flow ranges is given in the Operating Instructions on the back of this data sheet.

Materials—

All Proteus Sight Flow Indicators have Celcon bodies and rotors. (Celcon is a registered trademark of Celanese Corp. It is similar to DuPont's Delrin.) Celcon is a bearing material, and the rotor thus forms its own bearing as it spins around the shaft.

The clear faceplate is made of Lexan. The seal between the body and the face is formed by a Buna-N O-ring. The shaft around which the rotor spins is made from #316 stainless steel.

Operating Environment—

Temperatures up to 195° F (90° C) and pressures up to 100 psi (690 kN/m²) are compatible with the indicators. Any fluid compatible with the wetted materials listed above and of low or moderate viscosity

may be used. Light and medium weight oils may be used if "Oil Service" is specified when ordering.

Warranty

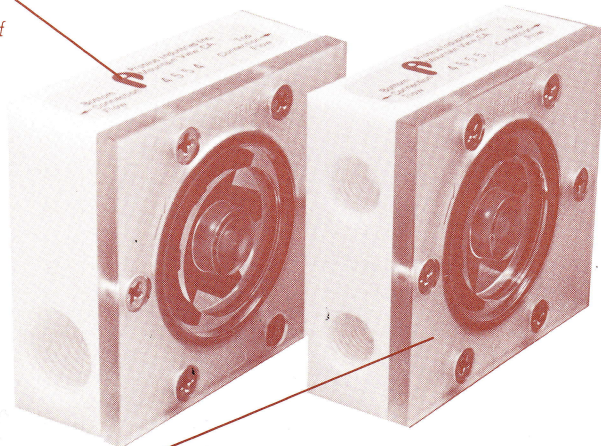
Proteus Industries Inc. warrants its Sight Flow Indicators to be free from defects in materials and workmanship for a period of 12 months from the date of shipment. Seller's obligation is limited to repair or replacement, at seller's option, and is contingent on notification of the defect within 30 days after its discovery.

This warranty is exclusive and in lieu of all other express or implied warranties, except as made in writing by Proteus Industries Inc.

Proteus Industries Inc. shall not be liable for any defects attributable to acts or omissions of others after shipment, nor any consequential, incidental or contingent damage whatsoever.

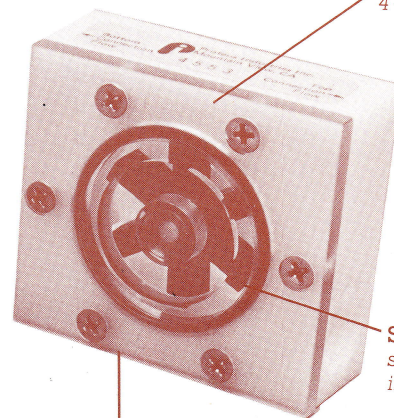
Proteus Sight Flow Indicators

Model 15C
has flow range of
1.5 — 12 GPM



Model 10C
has two ranges spanning
0.1 — 6.0 GPM

Model 16C
has flow range of
4 — 20 GPM



Spinning Rotor
shows flow through
indicator

Easy maintenance
No need to remove
indicator from line if
cleaning is needed.

Operating Instructions

Proteus Sight Flow Indicators use a visible rotor to show whether fluid is flowing in a line. Any fluid which is compatible with the Celcon, Lexan, #316 stainless steel, and Buna-N materials of the indicator may be used.

Flow Ranges—

Three models of the sight flow indicator are offered. These are identical except for the size of the pipe connections and the flow ranges:

The **Model 10C** Indicator has 1/4" female NPT connections and two flow ranges. If the upper set of pipe connections is used, with the inlet on the left, the flow range is 0.1 to 1.0 GPM. If the lower set of connections is used, the flow range is 0.8 to 6.0 GPM. (The indicator is assumed to be oriented with the window facing you and the Proteus name on the top.) The unused connections are closed off using the pipe plugs supplied with the indicator.

If the 10C is being used for flows in the range right around 1.0 GPM, it is possible that neither the high nor the low range will be suitable. In this case, an intermediate range may be used by connecting the inlet to the upper right hand port, and the outlet to either of the

lower ports. This gives a flow range of 0.5 to 2.0 GPM. Because the fluid does not travel straight through the switch, this range is not as wide as the others, and is recommended only if the high and low flow ranges are not suitable.

The **Model 15C** Indicator has 1/2" female NPT connections, and one set of ports. The right hand port should be used as the inlet, and the left hand port as the outlet. The 15C has a range of 1.5 to 12 GPM.

The **Model 16C** Indicator has 1/2" female NPT connections, and one set of ports. Either port may be used as the inlet. The 16C has a range of 4 to 20 GPM.

Mounting—

There are three alternate mounting methods for the Sight Flow Indicators:

- 1) In many cases, mounting the indicators on the pipe being monitored and using no other support will be sufficient.
- 2) For more permanent mounting, four holes tapped for 6-32 machine screws are provided on the back of the indicators.
- 3) The indicators may be mounted be-

hind a panel with a circular cutout by removing the two 8-32 screws which lie on the horizontal plane (ie: at 3 o'clock and 9 o'clock), and using these screw holes for mounting.

While the indicators may be mounted in any orientation, it is best to mount them so that the rotor spins in a vertical plane.

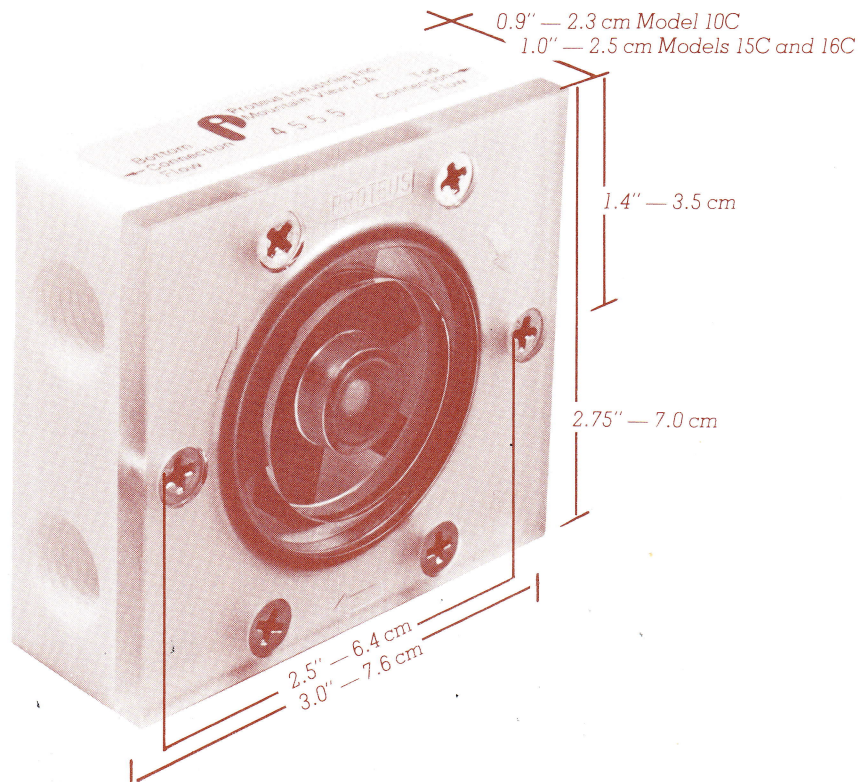
Maintenance—

Little maintenance is normally needed. If particle buildup occurs in the switch, it may be cleaned by removing the six screws in the face plate and wiping out the interior of the switch with a damp rag or mild solvent. If necessary, a new #131 Buna-N O-ring may be installed.

Maximum Specifications—

The sight flow indicators should not be used above 100 psi or 90 degrees Centigrade.

The pressure drop through the indicators will be similar to that through a 3" length of pipe of the same diameter as the indicator inlets. The low flow range on the Model 10C is an exception to this. Due to an internal restriction, the pressure drop on this range rises to a maximum of 6 psi at 1.0 GPM.



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