

# PHOSPHATE ESTER FLOW METERS

Phosphate Ester Flow Meter is compatible with aviation lubricants such as Skydrol®, and fire-retardant fluids such as Pydraul®, Fyrquil® and Houghton 900 series. Meters are density corrected to 1.145 sg.



## TECHNICAL SPECIFICATIONS

**Measuring Accuracy**  
±2.0% of full scale

**Repeatability**  
±1% of full scale

**Flow Measuring Range**  
0.1-130 GPM (0.5 - 500 LPM)

**Maximum Operating Pressure**  
Aluminum and brass meters: 3500 PSIG (240 Bar)  
Stainless steel meters: 6000 PSIG (410 Bar)

**Maximum Operating Temperature**  
240°F (116°C)

**Standard Calibration Fluids**  
Tap water @ 70°F (21°C) 1.0 s.g.  
Meters are density corrected to 1.145 sg

**Filtration Requirements**  
74 micron filter or 200 mesh screen minimum

## BENEFITS

### Choice of Materials

Select from aluminum, brass or stainless steel to meet system and liquid requirements.

### Unrestricted Mounting

Allows for horizontal, vertical or inverted installation and does not require straight plumbing on inlet or outlet.

### Multi-Use

Factory calibrated for phosphate esters, these versatile meters can be used to verify hydraulic power unit outputs, as well as test machinery and tools for proper fluid flow rates.

### Rugged and Reliable

These meters are constructed with all metal pressure vessels that allow safe & permanent installation.

### High Pressure Operation

The magnetically coupled follower design allows operation to 6000 PSIG and use with liquids.

### Multiple Ports Available

Standard selection of NPT, SAE and BSPP ports reduces the amount of adapters required for installation.

## MATERIALS OF CONSTRUCTION (NON-WETTED COMPONENTS)

	Aluminum	Brass	Stainless Steel
Window Tube	Pyrex®	Pyrex®	Pyrex®
Window Seals	PTFE	PTFE	PTFE

*Pyrex is a registered trademark of Corning Incorporated.*

## MATERIALS OF CONSTRUCTION (WETTED COMPONENTS)

	Aluminum	Brass	Stainless Steel
Casing & End Ports	Anodized Aluminum	Brass	Stainless Steel
Seals	ERP with PTFE backup FKM or FFKM optional		
Transfer Magnet	PTFE coated Alnico	PTFE coated Alnico	PTFE coated Alnico
All other internal parts	Stainless Steel	Stainless Steel	Stainless Steel

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## PART NUMBER GUIDE

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**PHOSPHATE ESTER**

**PORT SIZE RANGE**

1/4" - 1/2" =

3/4" - 1" =

1-1/4" - 2" =

**MATERIAL**

Aluminum =

Brass =

Stainless Steel =

**MAX. PRESSURE RATING**

3500 psig (liquids, aluminum & brass) =

6000 psig (liquids, stainless steel) =

**FLUID MEDIA**

Phosphate Ester at 1.145 specific gravity =

**PORTING/THREAD TYPE**

(all female)

1/4" NPTF, dry seal	3 only	=	<input type="text" value="S"/>
3/8" NPTF, dry seal	3 only	=	<input type="text" value="A"/>
1/2" NPTF, dry seal	3 only	=	<input type="text" value="B"/>
3/4" NPTF, dry seal	4 only	=	<input type="text" value="C"/>
1" NPTF, dry seal	4 only	=	<input type="text" value="D"/>
#6 SAE, O-ring seal	3 only	=	<input type="text" value="E"/>
#8 SAE, O-ring seal	3 only	=	<input type="text" value="F"/>
#10 SAE, O-ring seal	3 only	=	<input type="text" value="G"/>
#12 SAE, O-ring seal	4 only	=	<input type="text" value="H"/>
#16 SAE, O-ring seal	4 only	=	<input type="text" value="J"/>
1-1/4" NPTF, dry seal	5 only	=	<input type="text" value="K"/>
1-1/2" NPTF, dry seal	5 only	=	<input type="text" value="L"/>
2" NPTF, dry seal	5 only	=	<input type="text" value="M"/>
#20 SAE, O-ring seal	5 only	=	<input type="text" value="N"/>
#24 SAE, O-ring seal	5 only	=	<input type="text" value="P"/>
#32 SAE, O-ring seal	5 only	=	<input type="text" value="Q"/>
1/4" BSPP	3 only	=	<input type="text" value="8"/>
3/8" BSPP	3 only	=	<input type="text" value="R"/>
1/2" BSPP	3 only	=	<input type="text" value="T"/>
3/4" BSPP	4 only	=	<input type="text" value="U"/>
1" BSPP	4 only	=	<input type="text" value="V"/>
1-1/4" BSPP	5 only	=	<input type="text" value="W"/>
1-1/2" BSPP	5 only	=	<input type="text" value="Y"/>
2" BSPP	5 only	=	<input type="text" value="X"/>

**SPECIAL SCALE/CUSTOM PRODUCT**

**OPTIONAL FLOW DIRECTIONS**

Standard Flow, Uni-Directional =

Reverse Flow =

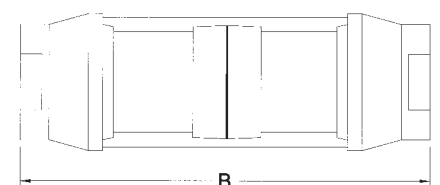
**FLOW RANGES**

Liquid		Size
0.1-.95 GPM	0.5-3.75 LPM	3 only = <input type="text" value="0"/> <input type="text" value="1"/>
0.2-1.8 GPM	1.0-7.0 LPM	3 & 4 = <input type="text" value="0"/> <input type="text" value="2"/>
0.5-4.5 GPM	2.0-17.0 LPM	3 & 4 = <input type="text" value="0"/> <input type="text" value="5"/>
1-9.5 GPM	3.0-35.0 LPM	3 & 4 = <input type="text" value="1"/> <input type="text" value="0"/>
1-14 GPM	4.0-52.0 LPM	3 & 4 = <input type="text" value="1"/> <input type="text" value="5"/>
2-19 GPM	5.0-70.0 LPM	4 only = <input type="text" value="2"/> <input type="text" value="0"/>
2-22 GPM	10.0-85.0 LPM	4 & 5 = <input type="text" value="2"/> <input type="text" value="5"/>
3-28 GPM	10.0-105.0 LPM	4 only = <input type="text" value="3"/> <input type="text" value="0"/>
6-35 GPM	15.0-135.0 LPM	4 only = <input type="text" value="4"/> <input type="text" value="0"/>
6-46 GPM	25.0-175.0 LPM	4 only = <input type="text" value="5"/> <input type="text" value="0"/>
6-69 GPM	20.0-180.0 LPM	5 only = <input type="text" value="7"/> <input type="text" value="5"/>
10-90 GPM	50-350 LPM	5 only = <input type="text" value="8"/> <input type="text" value="8"/>
20-130 GPM	100-500 LPM	5 only = <input type="text" value="9"/> <input type="text" value="9"/>

Note: SAE porting not available in Brass. Consult factory for SAE brass monitor requirements.

## MECHANICAL - SIZE CODE

DIM	Series 3	Series 4	Series 5	Series 5 (2" port only)
A	1-7/8" (48mm)	2-3/8" (60 mm)	3-1/2" (90mm)	3-1/2" (90mm)
B	6-9/16" (167mm)	7-5/32" (182mm)	10-1/8" (258mm)	12-5/8" (322mm)



Products may be subject to change without notice - Contact factory for the most up-to-date product information.