

# BASIC INLINE LIQUID VARIABLE AREA FLOW METER

Ideal for monitoring pump performance as well as measuring fluids in hydraulic circuits and cooling systems.



## TECHNICAL SPECIFICATIONS

### Measuring Accuracy

±2.0% of full scale

### Repeatability

±1% of full scale

### Flow Measuring Range

0.1-150 GPM (0.5-550 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) Note: for operation to 600°F (316°C), see our High Temperature Data sheet.

### Standard Calibration Fluids

Oil meters: DTE 25® @ 110°F (43°C), 0.873 sg

Water meters: tap water @ 70°F (21°C), 1.0 sg

### Filtration Requirements

74 micron filter or 200 mesh screen minimum

### Viscosity

Standard viscosities up to 110 cSt. For viscosities between 110 to 430 cSt contact factory.

DTE 25 is a registered trademark of Exxon Mobil.

## 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.

### Superior Exterior Design

Weather-tight for use outdoors and/or on systems where wash downs are required.

### Rugged and Reliable

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

### High Pressure Operation

The magnetically coupled follower design allows operation to 6000 PSIG.

### 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  | Polycarbonate       | Polycarbonate       | Polycarbonate       |
| Window Seals | Buna-N® (STD), PTFE | Buna-N® (STD), PTFE | Buna-N® (STD), PTFE |

## MATERIALS OF CONSTRUCTION (WETTED COMPONENTS)

|                          | Aluminum                        | Brass                           | Stainless Steel                                  |
|--------------------------|---------------------------------|---------------------------------|--|
| Casing & End Ports       | Anodized Aluminum               | Brass                           | Stainless Steel                                  |
| Seals                    | Buna-N® (STD), EPR, FKM or FFKM | Buna-N® (STD), EPR, FKM or FFKM | FKM with PTFE backup (STD), Buna-N®, EPR or FFKM |
| Transfer Magnet          | PTFE coated Alnico              | PTFE coated Alnico              | PTFE coated Alnico                               |
| All other internal parts | Stainless Steel                 | Stainless Steel                 | Stainless Steel                                  |

Buna-N is a registered trademark of Chemische Werke Huls.



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## PART NUMBER GUIDE

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**BASIC**

**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**

Oil @ 0.873 specific gravity =

Water @ 1.0 specific gravity =

*Note: For special scales consult factory.*

**PORTING/THREAD TYPE**

(all female)

|                       | Size   |                                  |
|-----------------------|--------|----------------------------------|
| 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"/> |
| 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"/> |

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

**SPECIAL SCALE/CUSTOM PRODUCT**

**OPTIONAL FLOW DIRECTIONS**

Standard Flow, Uni-Directional =

Reverse Flow =

Bi-Directional Flow (For bi-directional flow refer to bi-directional data sheet. Please consult factory for availability and delivery time.)

**FLOW RANGES**

| Liquid      |             | Size   |   |
|-------------|-------------|--------|---|
| 0.1-1.0 GPM | 0.5-4 LPM   | 3 only | = <input type="text" value="0"/> <input type="text" value="1"/> |
| 0.2-2.0 GPM | 1-8 LPM     | 3 & 4  | = <input type="text" value="0"/> <input type="text" value="2"/> |
| 0.5-5.0 GPM | 2-19 LPM    | 3 & 4  | = <input type="text" value="0"/> <input type="text" value="5"/> |
| 1-10 GPM    | 5-37.5 LPM  | 3 & 4  | = <input type="text" value="1"/> <input type="text" value="0"/> |
| 1-15 GPM    | 5-55 LPM    | 3 & 4  | = <input type="text" value="1"/> <input type="text" value="5"/> |
| 2-20 GPM    | 10-75 LPM   | 4 only | = <input type="text" value="2"/> <input type="text" value="0"/> |
| 2-25 GPM    | 10-95 LPM   | 4 & 5  | = <input type="text" value="2"/> <input type="text" value="5"/> |
| 4-30 GPM    | 15-115 LPM  | 4 only | = <input type="text" value="3"/> <input type="text" value="0"/> |
| 4-40 GPM    | 20-150 LPM  | 4 only | = <input type="text" value="4"/> <input type="text" value="0"/> |
| 6-50 GPM    | 20-190 LPM  | 4 & 5  | = <input type="text" value="5"/> <input type="text" value="0"/> |
| 6-75 GPM    | 30-280 LPM  | 5 only | = <input type="text" value="7"/> <input type="text" value="5"/> |
| 10-100 GPM  | 50-375 LPM  | 5 only | = <input type="text" value="8"/> <input type="text" value="8"/> |
| 25-150 GPM  | 100-550 LPM | 5 only | = <input type="text" value="9"/> <input type="text" value="9"/> |

## 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)         |

