

3500/6000 PSI High Temperature

Flow Meters For Water-based Fluids

- Direct reading
- Install in any position
- 360° Rotatable Guard/Scale
- Easier to Read Linear Scale
- No Flow Straighteners or Special Piping Required
- Insensitive to Shock and Vibration
- Good Viscosity Stability
- Temperature up to 500°F
- Accuracy $\pm 2\%$ Full Scale
- Repeatability $\pm 1\%$
- Special Scales Available
- Calibrated for 1.0 S.G.



SPECIFICATIONS:

MATERIALS:

2024 - T351 Anodized aluminum body, piston and cone

C360 Brass body, piston and cone

T303 Stainless body, 2024 - T351 Anodized aluminum piston and cone

COMMON PARTS:

Spider Plate: T316 SS

Spring: T302 SS

Fasteners: T303 SS

Seals: Viton®

Scale Support: T316 SS

Scale: Polyimide

Retaining Ring: T316 SS

Retaining Spring: T316 SS

Indicator: Nickel-plated Carbon Steel

Internal Magnet: Teflon Coated Alnico 8

Bumper: 2011 - T3 Anodized Aluminum

Guard: Cylindrical Pyrex™ Glass

End Caps: 2011 - T3 Anodized Aluminum

THREADS: SAE J1926/1, NPTF ANSI B2.2, BSPP ISO1179, and Code 62: SAE J518

TEMPERATURE RANGE: -20 to 400°F (-29 to 205°C) Continuous

400 to 500°F (205 to 260°C) Intermittent

For detailed "Pressure vs. Temperature" correlation information, see page 26.

PRESSURE RATING:

Aluminum / Brass Operating: 3,500 psi/241 bar max. with a 3:1 safety factor.

Fatigue Rating: per NFPA T2.6.1R1-1991, (for details see page 7)

Stainless Steel Operating: 6,000 psi/414 bar max., (5,000 psi/345 bar max.

for 3/4 to 1-1/2" series) with a 3:1 safety factor.

Fatigue Rating: per NFPA T2.6.1R1-1991, (for details see page 7)

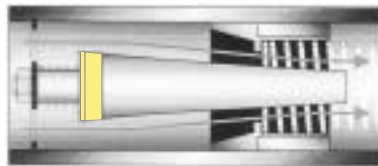
PRESSURE DROP: See Ordering Information Table, page 26. For detailed differential pressure charts, see page 53.

ACCURACY: $\pm 2\%$ of full scale reading

REPEATABILITY: $\pm 1\%$

REVERSE FLOW BY-PASS OPTION:

Features a two-piece cone that responds to flow in the primary flow direction in the same manner as the standard design. Flow in the reverse direction causes the lower cone shuttle to shift, moving it below the sharp-edged piston orifice, which allows the fluid to flow freely in the reverse direction.



Normal Flow Direction



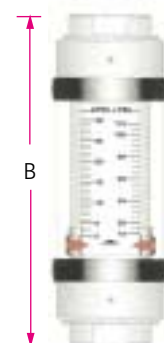
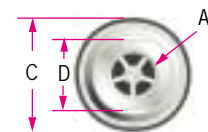
Reverse Flow By-Pass

DIMENSIONS:

| A | B | C | D |
|-------------------|----------------|---------------|---------------|
| NOMINAL PORT SIZE | LENGTH in (mm) | WIDTH in (mm) | FLATS in (mm) |
| 1/4 (SAE 6) | 6.60 (168) | 2.01 (53) | 1.25 (32) |
| 1/2 (SAE10) | 6.60 (168) | 2.01 (53) | 1.25 (32) |
| 3/4 (SAE 12) | 7.20 (183) | 2.48 (63) | 1.50 (38) |
| 1 (SAE 16) | 7.20 (183) | 2.48 (63) | 1.50 (38) |
| 1-1/4 (SAE 20) | 12.20 (310) | 4.20 (105) | 2.75 (70) |
| 1-1/2 (SAE 24) | 12.20 (310) | 4.20 (105) | 2.75 (70) |

NOTE: Dimensions for 1-1/2" Code 62 can be found on page 50.

Weights for all sizes can be found on page 57.

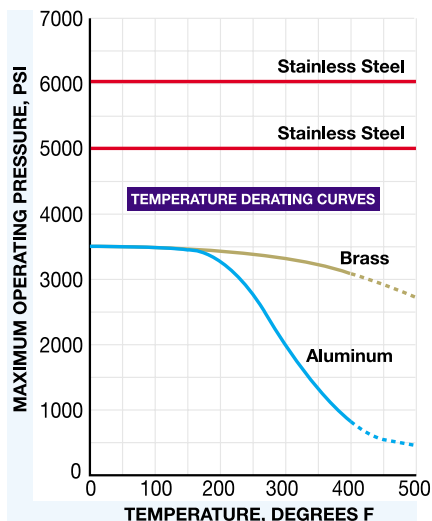


3500/6000 PSI High Temperature Flow Meters For Water-based Fluids

ORDERING INFORMATION:

| NOMINAL PORT SIZE | FLOW RANGE | | PRESSURE DROP | | | MODEL NUMBER <i>(see example below*)</i> | | | MATERIAL | | | OPTIONS |
|-------------------|------------|------------|--------------------|---------------------|-----------------------------|--|-------------------|-----------------|-------------------|----------------|-----------|---------------|
| | GPM | LPM | 50% FLOW PSI (BAR) | 100% FLOW PSI (BAR) | REVERSE 100% FLOW PSI (BAR) | SAE | NPTF | BSPP | ALUMINUM 3500 PSI | BRASS 3500 PSI | STAINLESS | REVERSE FLOW |
| 1/4 SAE 6 | 0.1 - 1.0 | 0.5 - 3.75 | 4.0 (.28) | 9.0 (.62) | | H212 * - 010 - HT | H213 * - 010 - HT | H214 * 010 - HT | A | B | S | Not Available |
| | 0.2 - 2.0 | 1.0 - 7.5 | 6.0 (.41) | 13 (.90) | | H212 * - 020 - HT | H213 * - 020 - HT | H214 * 020 - HT | | | | |
| 1/2 SAE 10 | 0.1 - 1.0 | 0.5 - 3.75 | 2.0 (.14) | 2.75 (.19) | 5.2 (.36) | H612 * - 001 - HT | H613 * - 001 - HT | H614 * 001 - HT | A | B | S | 6000 PSI |
| | 0.2 - 2.0 | 1.0 - 7.5 | 2.0 (.14) | 3.0 (.21) | 9.6 (.66) | H612 * - 002 - HT | H613 * - 002 - HT | H614 * 002 - HT | | | | |
| | 0.5 - 5.0 | 2 - 19 | 3.0 (.21) | 6.0 (.41) | 4.8 (.33) | H612 * - 005 - HT | H613 * - 005 - HT | H614 * 005 - HT | | | | |
| | 1 - 10 | 5 - 38 | 4.0 (.28) | 9.5 (.66) | 23.0 (1.6) | H612 * - 010 - HT | H613 * - 010 - HT | H614 * 010 - HT | | | | |
| | 1 - 15 | 4 - 56 | 6.5 (.45) | 18.5 (1.3) | 55.2 (3.8) | H612 * - 015 - HT | H613 * - 015 - HT | H614 * 015 - HT | | | | |
| | | | | | | H612 * - 015 - HT | H613 * - 015 - HT | H614 * 015 - HT | | | | |
| 3/4 SAE 12 | .25 - 2.0 | 1 - 7.5 | 1.0 (.07) | 2.0 (.14) | 2.9 (.20) | H712 * - 002 - HT | H713 * - 002 - HT | H714 * 002 - HT | A | B | S | 5000 PSI |
| | 0.5 - 5.0 | 2 - 19 | 2.5 (.17) | 3.5 (.24) | 5.3 (.37) | H712 * - 005 - HT | H713 * - 005 - HT | H714 * 005 - HT | | | | |
| | 1 - 10 | 5 - 38 | 3.5 (.24) | 9.0 (.62) | 8.8 (.61) | H712 * - 010 - HT | H713 * - 010 - HT | H714 * 010 - HT | | | | |
| | 2 - 20 | 10 - 76 | 4.0 (.28) | 9.0 (.62) | 18.0 (1.24) | H712 * - 020 - HT | H713 * - 020 - HT | H714 * 020 - HT | | | | |
| | 3 - 30 | 10 - 115 | 7.0 (.48) | 16.5 (1.1) | 45.1 (3.11) | H712 * - 030 - HT | H713 * - 030 - HT | H714 * 030 - HT | | | | |
| | | | | | | H712 * - 030 - HT | H713 * - 030 - HT | H714 * 030 - HT | | | | |
| 1 SAE 16 | .25 - 2.0 | 1 - 7.5 | 1.0 (.07) | 2.0 (.14) | 2.9 (.20) | H782 * - 002 - HT | H783 * - 002 - HT | H784 * 002 - HT | A | B | S | 5000 PSI |
| | 0.5 - 5.0 | 2 - 19 | 2.5 (.17) | 3.5 (.24) | 5.3 (.37) | H782 * - 005 - HT | H783 * - 005 - HT | H784 * 005 - HT | | | | |
| | 1 - 10 | 5 - 38 | 3.5 (.24) | 9.0 (.62) | 8.8 (.61) | H782 * - 010 - HT | H783 * - 010 - HT | H784 * 010 - HT | | | | |
| | 2 - 20 | 10 - 76 | 4.0 (.28) | 9.0 (.62) | 18.0 (1.24) | H782 * - 020 - HT | H783 * - 020 - HT | H784 * 020 - HT | | | | |
| | 3 - 30 | 10 - 115 | 7.0 (.48) | 16.5 (1.1) | 45.1 (3.11) | H782 * - 030 - HT | H783 * - 030 - HT | H784 * 030 - HT | | | | |
| | 4 - 40 | 15 - 150 | 9.0 (.62) | 24 (1.7) | 87.5 (6.04) | H782 * - 040 - HT | H783 * - 040 - HT | H784 * 040 - HT | | | | |
| | 5 - 50 | 20 - 190 | 12.5 (.86) | 34 (2.3) | 150 (10.4) | H782 * - 050 - HT | H783 * - 050 - HT | H784 * 050 - HT | | | | |
| | | | | | | H782 * - 050 - HT | H783 * - 050 - HT | H784 * 050 - HT | | | | |
| 1-1/4 SAE 20 | 3 - 30 | 10 - 110 | 3.0 (.21) | 4.0 (.28) | 4.8 (.33) | H812 * - 030 - HT | H813 * - 030 - HT | H814 * 030 - HT | A | B | S | 5000 PSI |
| | 5 - 50 | 20 - 190 | 3.5 (.24) | 7.0 (.48) | 12.5 (.86) | H812 * - 050 - HT | H813 * - 050 - HT | H814 * 050 - HT | | | | |
| | 10 - 75 | 40 - 280 | 5.0 (.35) | 10.5 (.72) | 31.9 (2.2) | H812 * - 075 - HT | H813 * - 075 - HT | H814 * 075 - HT | | | | |
| | 10 - 100 | 50 - 380 | 6.5 (.45) | 15 (1.0) | 39.0 (2.7) | H812 * - 100 - HT | H813 * - 100 - HT | H814 * 100 - HT | | | | |
| | 10 - 150 | 50 - 560 | 10.5 (.72) | 27.5 (1.9) | 110 (7.6) | H812 * - 150 - HT | H813 * - 150 - HT | H814 * 150 - HT | | | | |
| | | | | | | H812 * - 150 - HT | H813 * - 150 - HT | H814 * 150 - HT | | | | |
| 1-1/2 SAE 24 | 3 - 30 | 10 - 110 | 3.0 (.21) | 4.0 (.28) | 4.8 (.33) | H882 * - 030 - HT | H883 * - 030 - HT | H884 * 030 - HT | A | B | S | 5000 PSI |
| | 5 - 50 | 20 - 190 | 3.5 (.24) | 7.0 (.48) | 12.5 (.86) | H882 * - 050 - HT | H883 * - 050 - HT | H884 * 050 - HT | | | | |
| | 10 - 75 | 40 - 280 | 5.0 (.35) | 10.5 (.72) | 31.9 (2.2) | H882 * - 075 - HT | H883 * - 075 - HT | H884 * 075 - HT | | | | |
| | 10 - 100 | 50 - 380 | 6.5 (.45) | 15.0 (1.0) | 39.0 (2.7) | H882 * - 100 - HT | H883 * - 100 - HT | H884 * 100 - HT | | | | |
| | 10 - 150 | 50 - 560 | 10.5 (.72) | 27.5 (1.9) | 110 (7.6) | H882 * - 150 - HT | H883 * - 150 - HT | H884 * 150 - HT | | | | |
| | | | | | | H882 * - 150 - HT | H883 * - 150 - HT | H884 * 150 - HT | | | | |
| 1-1/2 Code 62 | 3 - 30 | 10 - 110 | 3.0 (.21) | 4.0 (.28) | 4.8 (.33) | H818 * - 030 - HT | | | A | B | S | 5000 PSI |
| | 5 - 50 | 20 - 190 | 3.5 (.24) | 7.0 (.48) | 12.5 (.86) | H818 * - 050 - HT | | | | | | |
| | 10 - 75 | 40 - 280 | 5.0 (.35) | 10.5 (.72) | 31.9 (2.2) | H818 * - 075 - HT | | | | | | |
| | 10 - 100 | 50 - 380 | 6.5 (.45) | 15 (1.0) | 39.0 (2.7) | H818 * - 100 - HT | | | | | | |
| | 10 - 150 | 50 - 560 | 10.5 (.72) | 27.5 (1.9) | 110 (7.6) | H818 * - 150 - HT | | | | | | |
| | | | | | | H818 * - 150 - HT | | | | | | |

(example) H 713 ^{*}A - 030 - HR



NOTE: HT suffix represents standard high temperature configuration. For reverse flow high temperature, replace HT with HR suffix.

⚠ CAUTION: HR option is not available with brass flow meters.