

# 3500/6000 PSI Flow Meters

## For Petroleum Fluids

- Direct reading
- Install in any position
- 360° rotatable guard/scale
- Easier-to-read linear scale
- No flow straighteners or special piping required
- Relatively insensitive to shock and vibration
- Good viscosity stability
- Temperature up to 240 °F
- Accuracy  $\pm 2\%$  full scale
- Repeatability  $\pm 1\%$
- Special scales available
- Calibrated for .876 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:**  
**Retaining Ring:** SAE 1070/1090 Carbon Steel  
**Spider Plate:** T316 SS **Retaining Spring:** SAE 1070/1090 Carbon Steel  
**Spring:** T302 SS **Indicator and Internal Magnet:** PPS / Ceramic  
**Fasteners:** T303 SS **Guard Seal / Bumper:** Buna N  
**Pressure Seals:** Viton® **Scale Support:** 6063 - T6 Aluminum  
**Guard:** Polycarbonate **End Caps:** Nylon ST

**THREADS:** SAE J1926/1, NPTF ANSI B2.2, BSPP ISO1179, Code 61 and Code 62: SAEJ518

**TEMPERATURE RANGE:** -20 to +240 °F (-29 to +116 °C) for higher temp. meters, see page 13

#### PRESSURE RATING:

**Aluminum / Brass Operating:** 3,500 psi/241 bar max. (800 psi/55 bar max. for 3" series) with a 3:1 safety factor.

**For High Cycle Applications:** 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.

**For High Cycle Applications:** See page 7

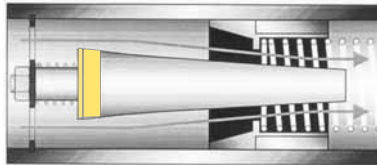
**PRESSURE DROP:** See Ordering Information Table, page 10.

For detailed differential pressure charts, see page 55.

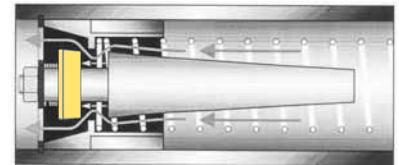
**ACCURACY:**  $\pm 2\%$  of full scale

**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. This shift creates a gap which allows the fluid to flow freely in the reverse direction.



Normal Flow Direction



Reverse Flow By-Pass

### DIMENSIONS:

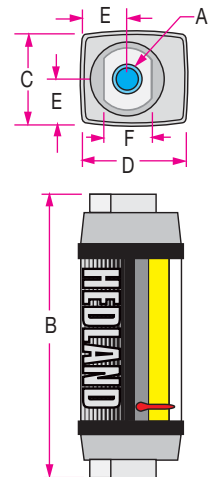
| A                 | B              | C             | D             | E              | F             |
|-------------------|----------------|---------------|---------------|----------------|---------------|
| NOMINAL PORT SIZE | LENGTH in (mm) | WIDTH in (mm) | DEPTH in (mm) | OFFSET in (mm) | FLATS in (mm) |
| 1/4 (SAE 6)       | 4.8 (122)      | 1.68 (43)     | 1.90 (48)     | .84 (21)       | .88 (22)      |
| 1/2 (SAE 10)      | 6.6 (168)      | 2.07 (53)     | 2.40 (61)     | 1.04 (26)      | 1.25 (32)     |
| 3/4 (SAE 12)      | 7.2 (183)      | 2.48 (63)     | 2.85 (72)     | 1.24 (32)      | 1.50 (38)     |
| 1 (SAE 16)        | 7.2 (183)      | 2.48 (63)     | 2.85 (72)     | 1.24 (32)      | 1.75 (44)     |
| 1-1/4 (SAE 20)    | 12.2 (310)     | 4.12 (105)    | 4.72 (120)    | 2.06 (52)      | 2.75 (70)     |
| 1-1/2 (SAE 24)    | 12.2 (310)     | 4.12 (105)    | 4.72 (120)    | 2.06 (52)      | 2.75 (70)     |

**NOTE:** Dimensions for 1-1/2" Code 62, 3" and 3" Code 61 can be found on page 72.

Weights for all sizes can be found on page 73.

⊗3 inch models have Celcon® piston/piston ring

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# 3500/6000 PSI Flow Meters

## For Petroleum Fluids

### ORDERING INFORMATION:

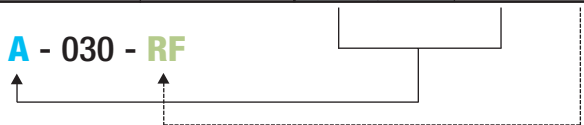
| NOMINAL PORT SIZE <sup>2</sup> | FLOW RANGE |            | PRESSURE DROP      |                     |                             | MODEL NUMBER <i>(see example below)</i> |                  |                   | MATERIAL          |                |               | OPTIONS                   |
|--------------------------------|------------|------------|--------------------|---------------------|-----------------------------|---|------------------|-------------------|-------------------|----------------|---------------|---------------------------|
|                                | GPM        | LPM        | 50% FLOW PSI (BAR) | 100% FLOW PSI (BAR) | REVERSE 100% FLOW PSI (BAR) | SAE                                     | NPTF             | BSPP <sup>3</sup> | ALUMINUM 3500 PSI | BRASS 3500 PSI | STAINLESS     | REVERSE FLOW              |
| 1/4" SAE 6                     | .02 - 0.2  | 0.1 - 0.75 | 3.5 (.24)          | 4.0 (.28)           |                             | H200 * - 002 - †                        | H201 * - 002 - † | H202 * - 002 - †  | A                 | B              | S             | 6000 PSI<br>Not Available |
|                                | .05 - 0.5  | 0.2 - 1.9  | 3.0 (.21)          | 5.0 (.35)           |                             | H200 * - 005 - †                        | H201 * - 005 - † | H202 * - 005 - †  |                   |                |               |                           |
|                                | 0.1 - 1.0  | 0.5 - 3.75 | 4.0 (.28)          | 9.0 (.62)           |                             | H200 * - 010 - †                        | H201 * - 010 - † | H202 * - 010 - †  |                   |                |               |                           |
|                                | 0.2 - 2.0  | 1 - 7.5    | 6.0 (.41)          | 13 (.90)            |                             | H200 * - 020 - †                        | H201 * - 020 - † | H202 * - 020 - †  |                   |                |               |                           |
|                                |            |            |                    |                     |                             |   |                  |                   |                   |                |               |                           |
| 1/2" SAE 10                    | 0.1 - 1.0  | 0.5 - 3.75 | 2.0 (.14)          | 2.75 (.19)          | 5.2 (.36)                   | H600 * - 001 - †                        | H601 * - 001 - † | H602 * - 001 - †  | A                 | B              | S             | 6000 PSI<br>RF            |
|                                | 0.2 - 2.0  | 1 - 7.5    | 2.0 (.14)          | 3.0 (.21)           | 9.6 (.66)                   | H600 * - 002 - †                        | H601 * - 002 - † | H602 * - 002 - †  |                   |                |               |                           |
|                                | 0.5 - 5.0  | 2 - 19     | 3.0 (.21)          | 6.0 (.41)           | 4.8 (.33)                   | H600 * - 005 - †                        | H601 * - 005 - † | H602 * - 005 - †  |                   |                |               |                           |
|                                | 1 - 10     | 5 - 38     | 4.0 (.28)          | 9.5 (.66)           | 23.0 (1.6)                  | H600 * - 010 - †                        | H601 * - 010 - † | H602 * - 010 - †  |                   |                |               |                           |
|                                | 1 - 15     | 4 - 56     | 6.5 (.45)          | 18.5 (1.3)          | 55.2 (3.8)                  | H600 * - 015 - †                        | H601 * - 015 - † | H602 * - 015 - †  |                   |                |               |                           |
| 3/4" SAE 12                    | 0.2 - 2.0  | 1 - 7.5    | 1.0 (.07)          | 2.0 (.14)           | 2.9 (.20)                   | H700 * - 002 - †                        | H701 * - 002 - † | H702 * - 002 - †  | A                 | B              | S             | 5000 PSI<br>RF            |
|                                | 0.5 - 5.0  | 2 - 19     | 2.5 (.17)          | 3.5 (.24)           | 5.3 (.37)                   | H700 * - 005 - †                        | H701 * - 005 - † | H702 * - 005 - †  |                   |                |               |                           |
|                                | 1 - 10     | 5 - 38     | 3.5 (.24)          | 9.0 (.62)           | 8.8 (.61)                   | H700 * - 010 - †                        | H701 * - 010 - † | H702 * - 010 - †  |                   |                |               |                           |
|                                | 2 - 20     | 10 - 76    | 4.0 (.28)          | 9.0 (.62)           | 18.0 (1.24)                 | H700 * - 020 - †                        | H701 * - 020 - † | H702 * - 020 - †  |                   |                |               |                           |
|                                | 3 - 30     | 10 - 115   | 7.0 (.48)          | 16.5 (1.1)          | 45.1 (3.11)                 | H700 * - 030 - †                        | H701 * - 030 - † | H702 * - 030 - †  |                   |                |               |                           |
| 1" SAE 16                      | 0.2 - 2.0  | 1 - 7.5    | 1.0 (.07)          | 2.0 (.14)           | 2.9 (.20)                   | H760 * - 002 - †                        | H761 * - 002 - † | H762 * - 002 - †  | A                 | B              | S             | 5000 PSI<br>RF            |
|                                | 0.5 - 5.0  | 2 - 19     | 2.5 (.17)          | 3.5 (.24)           | 5.3 (.37)                   | H760 * - 005 - †                        | H761 * - 005 - † | H762 * - 005 - †  |                   |                |               |                           |
|                                | 1 - 10     | 5 - 38     | 3.5 (.24)          | 9.0 (.62)           | 8.8 (.61)                   | H760 * - 010 - †                        | H761 * - 010 - † | H762 * - 010 - †  |                   |                |               |                           |
|                                | 2 - 20     | 10 - 76    | 4.0 (.28)          | 9.0 (.62)           | 18.0 (1.24)                 | H760 * - 020 - †                        | H761 * - 020 - † | H762 * - 020 - †  |                   |                |               |                           |
|                                | 3 - 30     | 10 - 115   | 7.0 (.48)          | 16.5 (1.1)          | 45.1 (3.11)                 | H760 * - 030 - †                        | H761 * - 030 - † | H762 * - 030 - †  |                   |                |               |                           |
| 1-1/4" SAE 20                  | 3 - 30     | 10 - 110   | 3.0 (.21)          | 4.0 (.28)           | 4.8 (.33)                   | H800 * - 030 - †                        | H801 * - 030 - † | H802 * - 030 - †  | A                 | B              | S             | 5000 PSI<br>RF            |
|                                | 5 - 50     | 20 - 190   | 3.5 (.24)          | 7.0 (.48)           | 12.5 (.86)                  | H800 * - 050 - †                        | H801 * - 050 - † | H802 * - 050 - †  |                   |                |               |                           |
|                                | 10 - 75    | 40 - 280   | 5.0 (.35)          | 10.5 (.72)          | 31.9 (2.2)                  | H800 * - 075 - †                        | H801 * - 075 - † | H802 * - 075 - †  |                   |                |               |                           |
|                                | 10 - 100   | 50 - 380   | 6.5 (.45)          | 15 (1.0)            | 39.0 (2.7)                  | H800 * - 100 - †                        | H801 * - 100 - † | H802 * - 100 - †  |                   |                |               |                           |
|                                | 10 - 150   | 50 - 560   | 10.5 (.72)         | 27.5 (1.9)          | 110 (7.6)                   | H800 * - 150 - †                        | H801 * - 150 - † | H802 * - 150 - †  |                   |                |               |                           |
| 1-1/2" SAE 24                  | 3 - 30     | 10 - 110   | 3.0 (.21)          | 4.0 (.28)           | 4.8 (.33)                   | H860 * - 030 - †                        | H861 * - 030 - † | H862 * - 030 - †  | A                 | B              | S             | 5000 PSI<br>RF            |
|                                | 5 - 50     | 20 - 190   | 3.5 (.24)          | 7.0 (.48)           | 12.5 (.86)                  | H860 * - 050 - †                        | H861 * - 050 - † | H862 * - 050 - †  |                   |                |               |                           |
|                                | 10 - 75    | 40 - 280   | 5.0 (.35)          | 10.5 (.72)          | 31.9 (2.2)                  | H860 * - 075 - †                        | H861 * - 075 - † | H862 * - 075 - †  |                   |                |               |                           |
|                                | 10 - 100   | 50 - 380   | 6.5 (.45)          | 15.0 (1.0)          | 39.0 (2.7)                  | H860 * - 100 - †                        | H861 * - 100 - † | H862 * - 100 - †  |                   |                |               |                           |
|                                | 10 - 150   | 50 - 560   | 10.5 (.72)         | 27.5 (1.9)          | 110 (7.6)                   | H860 * - 150 - †                        | H861 * - 150 - † | H862 * - 150 - †  |                   |                |               |                           |
| 1-1/2" Code 62                 | 3 - 30     | 10 - 110   | 3.0 (.21)          | 4.0 (.28)           | 4.8 (.33)                   | H808 * - 030 - †                        |                  |                   | A                 | B              | S             | 5000 PSI<br>RF            |
|                                | 5 - 50     | 20 - 190   | 3.5 (.24)          | 7.0 (.48)           | 12.5 (.86)                  | H808 * - 050 - †                        |                  |                   |                   |                |               |                           |
|                                | 10 - 75    | 40 - 280   | 5.0 (.35)          | 10.5 (.72)          | 31.9 (2.2)                  | H808 * - 075 - †                        |                  |                   |                   |                |               |                           |
|                                | 10 - 100   | 50 - 380   | 6.5 (.45)          | 15 (1.0)            | 39.0 (2.7)                  | H808 * - 100 - †                        |                  |                   |                   |                |               |                           |
|                                | 10 - 150   | 50 - 560   | 10.5 (.72)         | 27.5 (1.9)          | 110 (7.6)                   | H808 * - 150 - †                        |                  |                   |                   |                |               |                           |
| 3" Code 61                     | 10 - 200   | 50 - 750   | 11 (.76)           | 17 (1.1)            |                             |   | H901 * - 200 - † | H902 * - 200 - †  | A                 | B              | Not Available | 800 PSI                   |
|                                | 20 - 300   | 100 - 1100 | 11 (.76)           | 18 (1.2)            |                             |   | H901 * - 300 - † | H902 * - 300 - †  |                   |                |               |                           |

NOTE: RF option is not available with standard brass flow meters.

<sup>2</sup>Fractional sizes apply to NPTF and BSPP.

<sup>3</sup>3 inch models have BSPT (BS21) threads

(example) H 701 A - 030 - RF



PETROLEUM TEST KITS  
PAGE 11



HIGH TEMP. FLOW METERS  
PAGE 13



FLOW-ALERT FLOW SWITCHES  
PAGES 39 and 41



FLOW TRANSMITTERS  
PAGE 43

