

# 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<sup>Ⓛ</sup>

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

#### COMMON PARTS:

**Spider Plate:** T316 SS

**Spring:** T302 SS

**Fasteners:** T303 SS

**Pressure Seals:** Viton<sup>®</sup>

**Guard:** Polycarbonate

**Retaining Ring:** SAE 1070/1090 Carbon Steel

**Retaining Spring:** SAE 1070/1090 Carbon Steel

**Indicator and Internal Magnet:** PPS / Ceramic

**Guard Seal / Bumper:** Buna N

**Scale Support:** 6063 - T6 Aluminum

**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 ¾" to 1½" series and 4,000 psi/276 bar max. for code 62 flange) 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.

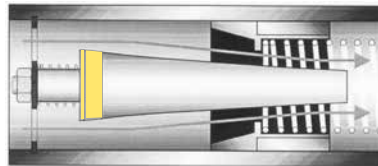
**ACCURACY:**  $\pm 2\%$  of full scale,  $\pm 7\%$  of full scale for ¼" meters **REPEATABILITY:**  $\pm 1\%$

\* SAE ports will accept both light-duty (SAE J1926-3) and heavy-duty (SAE J1926-2) stud ends, except 1/4 (SAE 6) size, which will accept only light-duty (SAE J1926-3) studs ends.

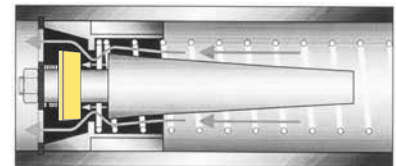
#### REVERSE FLOW BY-PASS OPTION:

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:

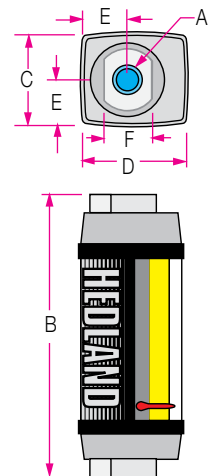
A	B	C	D	E	F
NOMINAL PORT SIZE	LENGTH in (mm)	WIDTH in (mm)	DEPTH in (mm)	OFFSET in (mm)	FLATS in (mm)
¼ (SAE 6)	4.8 (122)	1.68 (43)	1.90 (48)	.84 (21)	.88 (22)
½ (SAE 10)	6.6 (168)	2.07 (53)	2.40 (61)	1.04 (26)	1.25 (32)
¾ (SAE 12)	7.2 (183)	2.48 (63)	2.85 (72)	1.24 (32)	1.50 (38)
1 (SAE 16)	7.2 (183)	2.48 (63)	2.85 (72)	1.24 (32)	1.75 (44)
1¼ (SAE 20)	12.2 (310)	4.12 (105)	4.72 (120)	2.06 (52)	2.75 (70)
1½ (SAE 24)	12.2 (310)	4.12 (105)	4.72 (120)	2.06 (52)	2.75 (70)

**NOTE:** Dimensions for 1½" Code 62, 3" and 3" Code 61 can be found on page 78.

Weights for all sizes can be found on page 79.

Ⓛ 3 inch models have Celcon<sup>®</sup> piston/piston ring

Celcon is a registered trademark of Hoechst Celanese Corp. Viton is a registered trademark of DuPont Dow Elastomers



# 3500/6000 PSI Flow Meters

For Petroleum Fluids

## ORDERING INFORMATION:

NOMINAL PORT SIZE <sup>②</sup>	FLOW RANGE		PRESSURE DROP			MODEL NUMBER (see example below)			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	
¼" SAE 6	.02 - 0.2	0.1 - 0.75	3.5 (.24)	4.0 (.28)		H200 * - 002 - †	H201 * - 002 - †	H202 * - 002 - †	A	B	6000 PSI	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 - †				
½" 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	6000 PSI	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 - †				
						H600 * - 020 - †	H601 * - 020 - †	H602 * - 020 - †				
¾" 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	5000 PSI	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 - †				
						H700 * - 040 - †	H701 * - 040 - †	H702 * - 040 - †				
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	5000 PSI	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 - †				
	4 - 40	15 - 150	9.0 (.62)	24 (1.7)	87.5 (6.04)	H760 * - 040 - †	H761 * - 040 - †	H762 * - 040 - †				
	5 - 50	20 - 190	12.5 (.86)	34 (2.3)	150 (10.4)	H760 * - 050 - †	H761 * - 050 - †	H762 * - 050 - †				
						H760 * - 060 - †	H761 * - 060 - †	H762 * - 060 - †				
1¼" SAE 20	3 - 30	10 - 110	3.0 (.21)	4.0 (.28)	4.8 (.33)	H800 * - 030 - †	H801 * - 030 - †	H802 * - 030 - †	A	B	5000 PSI	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 - †				
						H800 * - 200 - †	H801 * - 200 - †	H802 * - 200 - †				
1½" SAE 24	3 - 30	10 - 110	3.0 (.21)	4.0 (.28)	4.8 (.33)	H860 * - 030 - †	H861 * - 030 - †	H862 * - 030 - †	A	B	5000 PSI	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 - †				
						H860 * - 200 - †	H861 * - 200 - †	H862 * - 200 - †				
1½" Code 62	3 - 30	10 - 110	3.0 (.21)	4.0 (.28)	4.8 (.33)	H808 * - 030 - †			A	B	4000 PSI	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)		Not Available	H901 * - 200	H902 * - 200	800 PS		Not Available	
	20 - 300	100 - 1100	11 (.76)	18 (1.2)			H901 * - 300	H902 * - 300	800 PS			

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

② Fractional sizes apply to NPTF and BSPP.

③ 3 inch models have BSPT (BS21) threads

(example) H 701 A - 030 - RF

