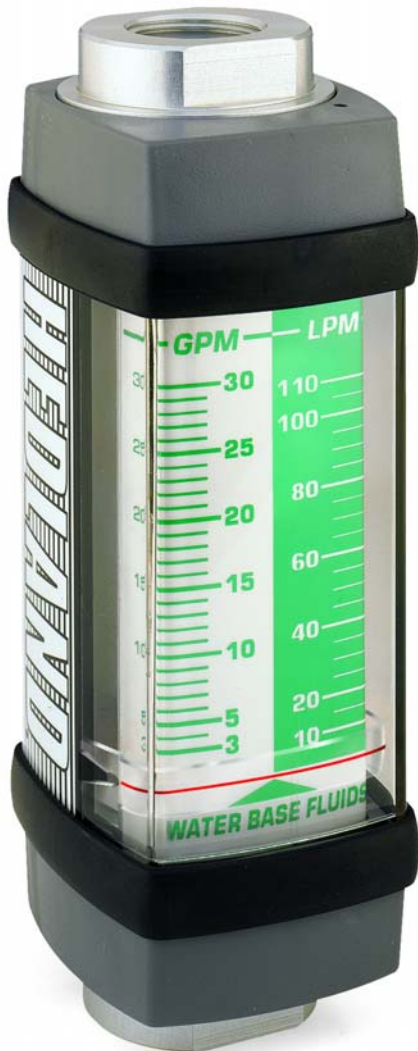


# 3500/6000 PSI Flow Meters

## For Water-based Fluids (Water/Oil Emulsions)

- 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 ±2% full scale
- Repeatability ±1%
- Special scales available
- Calibrated for 1.0 S.G.
- For 80/20 and other water/oil emulsions



### SPECIFICATIONS:

#### MATERIALS:

2024 - T351 Anodized aluminum body, piston and cone

C360 Brass body, piston and cone<sup>①</sup>

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

<b>COMMON PARTS:</b>	<b>Retaining Ring:</b> T316 SS
<b>Spider Plate:</b> T316 SS	<b>Retaining Spring:</b> T316 SS
<b>Spring:</b> T302 SS	<b>Indicator and Internal Magnet:</b> PPS / Ceramic
<b>Fasteners:</b> T303 SS	<b>Guard Seal / Bumper:</b> Buna N
<b>Pressure Seals:</b> Viton®	<b>Scale Support:</b> 6063 - T6 Aluminum
<b>Guard:</b> Polycarbonate	<b>End Caps:</b> 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 25.

#### 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 22.

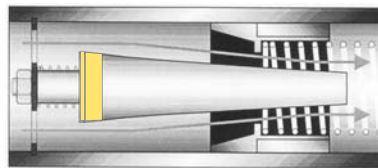
For detailed differential pressure charts, see page 57.

**ACCURACY:** ±2% of full scale

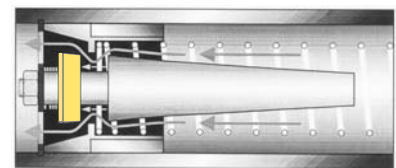
**REPEATABILITY:** ±1%

**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.



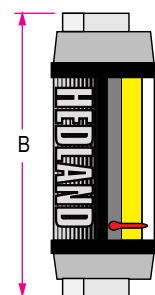
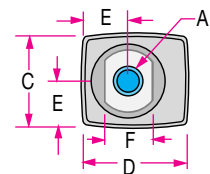
Normal Flow Direction



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)	1.50 (38)
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.

① 3 inch models have Celcon® 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 Water-based Fluids (Water/Oil Emulsions)

### 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 <sup>②</sup>	ALUMINUM 3500 PSI	BRASS 3500 PSI	STAINLESS	REVERSE FLOW
<b>1/4</b> SAE 6	.02 - .20	0.1 - 0.75	3.5 (.24)	4.0 (.28)		H212 * - 002 - †	H213 * - 002 - †	H214 * - 002 - †	A	B	S	6000 PSI Not Available
	.05 - .50	0.2 - 1.9	3.0 (.21)	5.0 (.35)		H212 * - 005 - †	H213 * - 005 - †	H214 * - 005 - †				
	0.1 - 1.0	0.5 - 3.75	4.0 (.28)	9.0 (.62)		H212 * - 010 - †	H213 * - 010 - †	H214 * - 010 - †				
	0.2 - 2.0	1 - 7.5	6.0 (.41)	13 (.90)		H212 * - 020 - †	H213 * - 020 - †	H214 * - 020 - †				
<b>1/2</b> SAE 10	0.1 - 1.0	0.5 - 3.75	2.0 (.14)	2.75 (.19)	5.2 (.36)	H612 * - 001 - †	H613 * - 001 - †	H614 * - 001 - †	A	B	S	6000 PSI RF
	0.2 - 2.0	1 - 7.5	2.0 (.14)	3.0 (.21)	9.6 (.66)	H612 * - 002 - †	H613 * - 002 - †	H614 * - 002 - †				
	0.5 - 5.0	2 - 19	3.0 (.21)	6.0 (.41)	4.8 (.33)	H612 * - 005 - †	H613 * - 005 - †	H614 * - 005 - †				
	1 - 10	5 - 38	4.0 (.28)	9.5 (.66)	23.0 (1.6)	H612 * - 010 - †	H613 * - 010 - †	H614 * - 010 - †				
	1 - 15	4 - 56	6.5 (.45)	18.5 (1.3)	55.2 (3.8)	H612 * - 015 - †	H613 * - 015 - †	H614 * - 015 - †				
<b>3/4</b> SAE 12	0.2 - 2.0	1 - 7.5	1.0 (.07)	2.0 (.14)	2.9 (.20)	H712 * - 002 - †	H713 * - 002 - †	H714 * - 002 - †	A	B	S	5000 PSI RF
	0.5 - 5.0	2 - 19	2.5 (.17)	3.5 (.24)	5.3 (.37)	H712 * - 005 - †	H713 * - 005 - †	H714 * - 005 - †				
	1 - 10	5 - 38	3.5 (.24)	9.0 (.62)	8.8 (.61)	H712 * - 010 - †	H713 * - 010 - †	H714 * - 010 - †				
	2 - 20	10 - 76	4.0 (.28)	9.0 (.62)	18.0 (1.24)	H712 * - 020 - †	H713 * - 020 - †	H714 * - 020 - †				
	3 - 30	10 - 115	7.0 (.48)	16.5 (1.1)	45.1 (3.11)	H712 * - 030 - †	H713 * - 030 - †	H714 * - 030 - †				
<b>1</b> SAE 16	0.2 - 2.0	1 - 7.5	1.0 (.07)	2.0 (.14)	2.9 (.20)	H782 * - 002 - †	H783 * - 002 - †	H784 * - 002 - †	A	B	S	5000 PSI RF
	0.5 - 5.0	2 - 19	2.5 (.17)	3.5 (.24)	5.3 (.37)	H782 * - 005 - †	H783 * - 005 - †	H784 * - 005 - †				
	1 - 10	5 - 38	3.5 (.24)	9.0 (.62)	8.8 (.61)	H782 * - 010 - †	H783 * - 010 - †	H784 * - 010 - †				
	2 - 20	10 - 76	4.0 (.28)	9.0 (.62)	18.0 (1.24)	H782 * - 020 - †	H783 * - 020 - †	H784 * - 020 - †				
	3 - 30	10 - 115	7.0 (.48)	16.5 (1.1)	45.1 (3.11)	H782 * - 030 - †	H783 * - 030 - †	H784 * - 030 - †				
	4 - 40	15 - 150	9.0 (.62)	24 (1.7)	87.5 (6.04)	H782 * - 040 - †	H783 * - 040 - †	H784 * - 040 - †				
	5 - 50	20 - 190	12.5 (.86)	34 (2.3)	150 (10.4)	H782 * - 050 - †	H783 * - 050 - †	H784 * - 050 - †				
<b>1-1/4</b> SAE 20	3 - 30	10 - 110	3.0 (.21)	4.0 (.28)	4.8 (.33)	H812 * - 030 - †	H813 * - 030 - †	H814 * - 030 - †	A	B	S	5000 PSI RF
	5 - 50	20 - 190	3.5 (.24)	7.0 (.48)	12.5 (.86)	H812 * - 050 - †	H813 * - 050 - †	H814 * - 050 - †				
	10 - 75	40 - 280	5.0 (.35)	10.5 (.72)	31.9 (2.2)	H812 * - 075 - †	H813 * - 075 - †	H814 * - 075 - †				
	10 - 100	50 - 380	6.5 (.45)	15 (1.0)	39.0 (2.7)	H812 * - 100 - †	H813 * - 100 - †	H814 * - 100 - †				
	10 - 150	50 - 560	10.5 (.72)	27.5 (1.9)	110 (7.6)	H812 * - 150 - †	H813 * - 150 - †	H814 * - 150 - †				
<b>1-1/2</b> SAE 24	3 - 30	10 - 110	3.0 (.21)	4.0 (.28)	4.8 (.33)	H882 * - 030 - †	H883 * - 030 - †	H884 * - 030 - †	A	B	S	5000 PSI RF
	5 - 50	20 - 190	3.5 (.24)	7.0 (.48)	12.5 (.86)	H882 * - 050 - †	H883 * - 050 - †	H884 * - 050 - †				
	10 - 75	40 - 280	5.0 (.35)	10.5 (.72)	31.9 (2.2)	H882 * - 075 - †	H883 * - 075 - †	H884 * - 075 - †				
	10 - 100	50 - 380	6.5 (.45)	15.0 (1.0)	39.0 (2.7)	H882 * - 100 - †	H883 * - 100 - †	H884 * - 100 - †				
	10 - 150	50 - 560	10.5 (.72)	27.5 (1.9)	110 (7.6)	H882 * - 150 - †	H883 * - 150 - †	H884 * - 150 - †				
<b>1-1/2</b> Code 62	3 - 30	10 - 110	3.0 (.21)	4.0 (.28)	4.8 (.33)	H818 * - 030 - †			A	B	S	5000 PSI RF
	5 - 50	20 - 190	3.5 (.24)	7.0 (.48)	12.5 (.86)	H818 * - 050 - †						
	10 - 75	40 - 280	5.0 (.35)	10.5 (.72)	31.9 (2.2)	H818 * - 075 - †						
	10 - 100	50 - 380	6.5 (.45)	15 (1.0)	39.0 (2.7)	H818 * - 100 - †						
<b>3</b>	20 - 180	50 - 650	11 (.76)	17 (1.1)			H913 * - 180 - †	H914 * - 180 - †	A	B	S	800 PSI Not Available
	20 - 275	100 - 1000	11 (.76)	18 (1.2)			H913 * - 275 - †	H914 * - 275 - †				
<b>3</b> Code 61	20 - 180	50 - 650	11 (.76)	17 (1.1)		H919 * - 180 - †			A	B	S	800 PSI Not Available
	20 - 275	100 - 1000	11 (.76)	18 (1.2)		H919 * - 275 - †						

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

② 3 inch models have BSPT (BS21) threads

⚠ CAUTION: For emulsions with less than 20% oil, factory recommends the Brass body meter.

(example) H 713 A - 030 - RF



#### WATER-BASED TEST KITS

PAGE 23



#### HIGH TEMP. FLOW METERS

PAGE 25



#### FLOW-ALERT FLOW SWITCHES

PAGES 39 and 41



#### FLOW TRANSMITTERS

PAGE 43

