

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 116 °C (240 °F)
- Accuracy ±2% full scale
- Repeatability ±1%
- Special scales available
- Calibrated for .876 S.G.



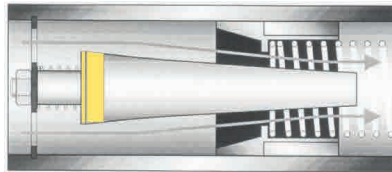
Technical data

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 Guard seal / bumper: Buna N Scale support: 6063 - T6 aluminum End caps: Nylon ST Retaining ring: SAE 1070/1090 carbon steel Retaining spring: SAE 1070/1090 carbon steel Indicator and internal magnet: PPS / ceramic Pressure seals: Viton® Guard: Polycarbonate
Threads	SAE J1926-1*, NPTF ANSI B2.2, BSPP ISO1179, Code 61 and Code 62: SAEJ518
Temperature range	-29 °C to +116 °C (-20 °F to +240 °F) for higher temp. meters, see page 16-17
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 conversion information
Stainless steel operating	6,000 psi/414 bar max. (5,000 psi/345 bar max. for ¾" to 1½" series, 4000 psi for code 62) with a 3:1 safety factor. For high cycle applications, see conversion information
Pressure drop	See ordering information table, see next page. For detailed differential pressure charts, see page 62.
Accuracy	±2% of full scale, ±7% of full scale for ¼" meters
Repeatability	±1%

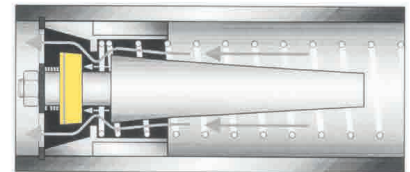
* SAE ports will accept both light-duty (SAE J1926-3) and heavy-duty (SAE J1926-2) stud ends, except 1/4 (SAE 6) size, which will accept only light-duty (SAE J1926-3) studs ends.

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.



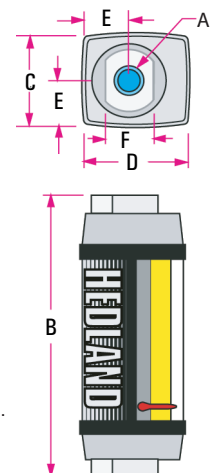
Normal flow direction



Reverse flow by-pass

Dimensions

	A	B	C	D	E	F
Nominal port size ¹	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)	
1½ (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 79.

Weights for all sizes can be found on page 80.

① 3 inch models have Celcon® piston/piston ring

3500/6000 PSI flow meters

For petroleum fluids

Ordering information

Nominal port size ^②	Flow range		Pressure drop			Model number (see example below)			Material ⌘			Options ⬥
	gal/min	l/min	50% flow psi (bar)	100% flow psi (bar)	Reverse 100% flow psi (bar)	SAE	NPTF	BSPP ^③	Aluminium 3500 psi	Brass 3500 psi	Stainless steel	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	6000 psi S	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	6000 psi S	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 - ⬥				
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	5000 psi S	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 - ⬥				
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 S	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 - ⬥				
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	5000 psi S	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 - ⬥				
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	5000 psi S	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 - ⬥				
1 1/2" Code 62	3 - 30	10 - 110	3.0 (.21)	4.0 (.28)	4.8 (.33)	H808 ⌘ - 030 - ⬥			A	B	4000 psi S	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 - ⬥						
3"	10 - 200	50 - 750	11 (.76)	17 (1.1)		Not available	H901 ⌘ - 200 - ⬥	H902 ⌘ - 200 - ⬥	A	B	800 psi	Not available
	20 - 300	100 - 1100	11 (.76)	18 (1.2)			H901 ⌘ - 300 - ⬥	H902 ⌘ - 300 - ⬥				
3" Code 61	10 - 200	50 - 750	11 (.76)	17 (1.1)		H909 ⌘ - 200 - ⬥			A	B	800 psi	Not available
	20 - 300	100 - 1100	11 (.76)	18 (1.2)		H909 ⌘ - 300 - ⬥						

(Example) H 701 A - 030 - RF



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

3500/6000 PSI test kits

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 116°C (240 °F)
- Accuracy ±2% full scale
- Repeatability ±1%
- Special scales available
- Calibrated for .876 S.G.



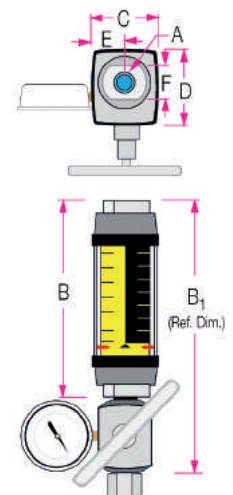
Technical data

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 Guard seal / bumper: Buna N Scale support: 6063 - T6 aluminum End caps: Nylon ST	Retaining ring: SAE 1070/1090 carbon steel Retaining spring: SAE 1070/1090 carbon steel Indicator and internal magnet: PPS / ceramic Pressure seals: Viton® Guard: Polycarbonate
Threads	SAE J1926/1, NPTF ANSI B2.2, BSPP ISO1179
Temperature range	-29 to +116 °C (-20 to +240 °F)
Pressure rating	
Aluminum / brass operating	3,500 psi/241 bar max. with a 3:1 safety factor. For high cycle applications: See page conversion information
Stainless steel operating:	6,000 psi/414 bar max. (5,000 psi/345 bar max. for ¾" to 1½" series) with a 3:1 safety factor. For high cycle applications, see page conversion information
Pressure drop	See ordering information table, next page and differential pressure charts on page 62.
Accuracy	±2% of full scale
Repeatability	±1%
Pressure gauge	Glycerin dampened, 0 - 3,500 psi / 0 - 240 bar pressure range available on aluminum and brass test kits. Glycerin dampened, 0 - 6,000 psi / 0 - 400 bar pressure range available on stainless steel test kits.
Load valve	½", ¾" and 1" series - needle valve; ¼" and 1½" series - ball valve. Produce ΔP up to 3,500 psi/241 bar psiD and 6,000 psi/414 bar psiD.

Dimensions

A	B	B1	C	D	E	F
Nominal port size	Length in (mm)	Length in (mm)	Width in (mm)	Depth in (mm)	Offset in (mm)	Flats in (mm)
½ (SAE 10)	6.6 (168)	10.3 (262)	2.07 (53)	2.40 (61)	1.04 (26)	1.25 (32)
¾ (SAE 12)	7.2 (183)	11.3 (287)	2.48 (63)	2.85 (72)	1.24 (32)	1.50 (38)
1 (SAE 16)	7.2 (183)	11.3 (287)	2.48 (63)	2.85 (72)	1.24 (32)	1.75 (44)

Note: Weights for all sizes can be found on page 80.
SAE and BSPP test kits include inlet adapter.



3500/6000 PSI test kits

For petroleum fluids

Ordering information

Nominal port size ^①	Flow range		Pressure drop			Model number (see example below)			Material ☒			Options
	gal/min	l/min	50% flow psi (bar)	100% flow psi (bar)	Revers 100% flow psi (bar)	SAE	NPTF	BSPP	Aluminium 3500 psi	Brass 3500 psi	Stainless steel	
½" SAE 10	0.1 - 1.0	0.5 - 3.75	3.0 (.21)	4.75 (.33)	7.2 (.50)	H600 ☒ - 001 - TK	H601 ☒ - 001 - TK	H602 ☒ - 001 - TK	A	B	6000 psi S	RT
	0.2 - 2.0	1 - 7.5	5.0 (.34)	9.0 (.62)	15.6 (1.1)	H600 ☒ - 002 - TK	H601 ☒ - 002 - TK	H602 ☒ - 002 - TK				
	0.5 - 5.0	2 - 19	10.0 (.69)	26.0 (1.8)	24.8 (1.7)	H600 ☒ - 005 - TK	H601 ☒ - 005 - TK	H602 ☒ - 005 - TK				
	1 - 10	5 - 38	24.0 (1.7)	71.5 (4.9)	85 (5.9)	H600 ☒ - 010 - TK	H601 ☒ - 010 - TK	H602 ☒ - 010 - TK				
	1 - 15	4 - 56	39.0 (2.7)	155 (10.7)	210 (14.5)	H600 ☒ - 015 - TK	H601 ☒ - 015 - TK	H602 ☒ - 015 - TK				
¾" SAE 12	0.2 - 2.0	1 - 7.5	1.5 (1.0)	3.0 (.21)	3.9 (.27)	H700 ☒ - 002 - TK	H701 ☒ - 002 - TK	H702 ☒ - 002 - TK	A	B	5000 psi S	RT
	0.5 - 5.0	2 - 19	4.0 (.28)	6.5 (.45)	8.3 (.57)	H700 ☒ - 005 - TK	H701 ☒ - 005 - TK	H702 ☒ - 005 - TK				
	1 - 10	5 - 38	6.5 (.45)	16.0 (1.1)	15.8 (1.1)	H700 ☒ - 010 - TK	H701 ☒ - 010 - TK	H702 ☒ - 010 - TK				
	2 - 20	10 - 76	11.0 (.76)	26.0 (1.8)	35.0 (2.4)	H700 ☒ - 020 - TK	H701 ☒ - 020 - TK	H702 ☒ - 020 - TK				
	3 - 30	10 - 115	18.0 (1.2)	47.5 (3.3)	76.1 (5.2)	H700 ☒ - 030 - TK	H701 ☒ - 030 - TK	H702 ☒ - 030 - TK				
1" SAE 16	0.2 - 2.0	1 - 7.5	1.5 (1.0)	3.0 (.21)	3.9 (.27)	H760 ☒ - 002 - TK	H761 ☒ - 002 - TK	H762 ☒ - 002 - TK	A	B	5000 psi S	RT
	0.5 - 5.0	2 - 19	4.0 (.28)	6.5 (.45)	8.3 (.57)	H760 ☒ - 005 - TK	H761 ☒ - 005 - TK	H762 ☒ - 005 - TK				
	1 - 10	5 - 38	6.5 (.45)	16.0 (1.1)	15.8 (1.1)	H760 ☒ - 010 - TK	H761 ☒ - 010 - TK	H762 ☒ - 010 - TK				
	2 - 20	10 - 76	11.0 (.76)	26.0 (1.8)	35.0 (2.4)	H760 ☒ - 020 - TK	H761 ☒ - 020 - TK	H762 ☒ - 020 - TK				
	3 - 30	10 - 115	18.0 (1.2)	47.5 (3.3)	76.1 (5.2)	H760 ☒ - 030 - TK	H761 ☒ - 030 - TK	H762 ☒ - 030 - TK				
	4 - 40	15 - 150	26.0 (1.8)	75.0 (5.2)	139 (9.6)	H760 ☒ - 040 - TK	H761 ☒ - 040 - TK	H762 ☒ - 040 - TK				
5 - 50	20 - 190	63.5 (4.4)	114 (7.9)	230 (15.9)	H760 ☒ - 050 - TK	H761 ☒ - 050 - TK	H762 ☒ - 050 - TK					

① Fractional sizes apply to NPTF and BSPP.

Note: TK suffix represents standard testkit configuration. For reverse flow by-pass test kit, replace TK suffix with RT suffix.

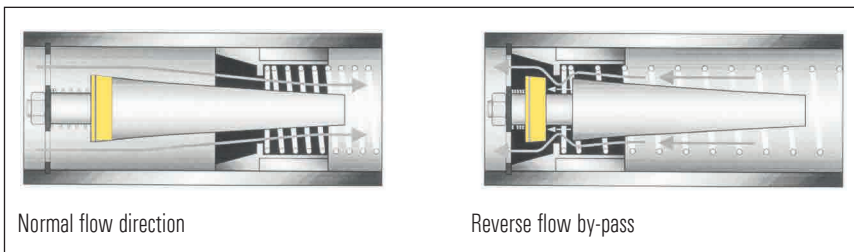
Note: RT option is not available with standard brass flow meters.

Example: H 701 A - 030 - RT



Reverse flow by-pass options

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.



3500/5000 PSI test kits

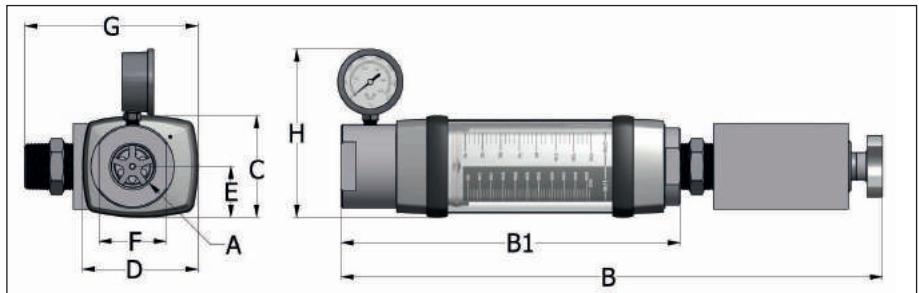
For petroleum fluids (1 1/4" and 1 1/2")

- 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 116°C (240 °F)
- Accuracy ±2% full scale
- Repeatability ±1%
- Special scales available
- Calibrated for .876 S.G.



Technical data

Materials	2024 - T351 anodized aluminum 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 Guard seal / bumper: Buna N Scale support: 6063 - T6 aluminum End caps: Nylon ST	Retaining ring: SAE 1070/1090 carbon steel Retaining spring: SAE 1070/1090 carbon steel Indicator and internal magnet: PPS / ceramic Pressure seals: Viton® Guard: Polycarbonate
Threads	NPT
Temperature range	-29 to +116 °C (-20 to +240 °F)
Pressure rating	
Aluminum / brass operating	3,500 psi/241 bar max. with a 3:1 safety factor. For high cycle applications: See conversion information
Stainless steel operating:	5,000 psi/345 bar max. with a 3:1 safety factor For high cycle applications, see page conversion information
Pressure drop	See ordering information table, next page and differential pressure charts on page 62.
Accuracy	±2% of full scale
Repeatability	±1%
Pressure gauge	Glycerin dampened, 0 - 3,500 psi / 0 - 240 bar pressure range available on aluminum test kits. Glycerin dampened, 0 - 5,000 psi / 0 - 345 bar pressure range available on stainless steel test kits.
Load valve	Produce ΔP up to 3,500 psi/241 bar psiD and 5,000 psi/345 bar psiD.



Dimensions

A	B	B1	C	D	E	F	G	H
Nominal port size	Length in (mm)	Length in (mm)	Width in (mm)	Depth in (mm)	Offset in (mm)	Flats in (mm)	Depth in (mm)	Width in (mm)
1-1/4	22.1 (561)	13.9 (353)	4.15 (105)	4.75 (121)	2.08 (53)	2.75 (70)	7.1 (180)	6.9 (175)
1-1/2	22.1 (561)	13.9 (353)	4.15 (105)	4.75 (121)	2.08 (53)	2.75 (70)	7.1 (180)	6.9 (175)

NOTE: Weights for all sizes can be found on page 80.

Pressures above 7500 psi will pop the rupture disc, allowing fluid flow to continue. This is a fail safe mechanism.

3500/5000 PSI test kits

For petroleum fluids (1 1/4" and 1 1/2")

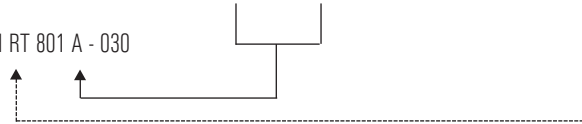
Ordering information

Nominal port size	Flow range		Pressure drop			Model number (see example below)	Material ⌘		Options
	gal/min	l/min	50% Flow psi (bar)	100% Flow psi (bar)	Reverse 100% Flow psi (bar)	NPT	Aluminium 3500 PSI	Stainless 5000 PSI	Reverse flow
1 1/4"	3 - 30	10 - 110	3.4 (.23)	7.8 (.54)	5.6 (.39)	H TK 801 ⌘ - 030	A	S	RT
	5 - 50	20 - 190	4.3 (.30)	8.8 (6.1)	14.3 (.99)	H TK 801 ⌘ - 050			
	10 - 75	40 - 280	6.3 (.43)	14.3 (9.9)	35.7 (2.5)	H TK 801 ⌘ - 075			
	10 - 100	50 - 380	8.3 (.57)	21.3 (1.5)	45.3 (3.1)	H TK 801 ⌘ - 100			
	10 - 150	50 - 560	14.3 (.99)	41.3 (2.8)	124 (8.6)	H TK 801 ⌘ - 150			
1 1/2"	3 - 30	10 - 110	3.4 (.23)	7.8 (.54)	5.6 (.39)	H TK 861 ⌘ - 030	A	S	RT
	5 - 50	20 - 190	4.3 (.30)	8.8 (6.1)	14.3 (.99)	H TK 861 ⌘ - 050			
	10 - 75	40 - 280	6.3 (.43)	14.3 (9.9)	35.7 (2.5)	H TK 861 ⌘ - 075			
	10 - 100	50 - 380	8.3 (.57)	21.3 (1.5)	45.3 (3.1)	H TK 861 ⌘ - 100			
	10 - 150	50 - 560	14.3 (.99)	41.3 (2.8)	124 (8.6)	H TK 861 ⌘ - 150			

NOTE: TK suffix represents standard test kit configuration.

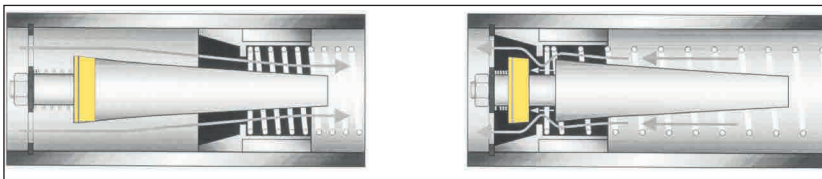
For reverse flow by-pass test kit, replace TK suffix with RT suffix.

(Example) H RT 801 A - 030



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