



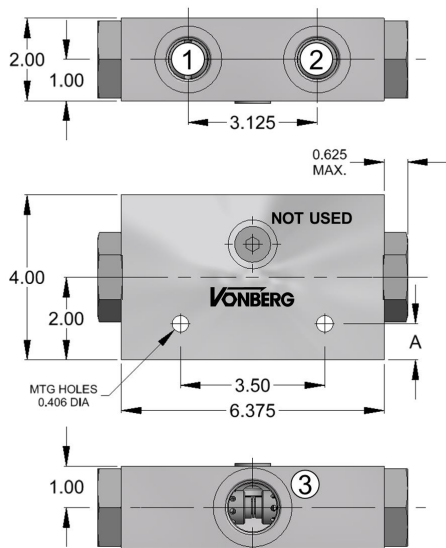
PRODUCT CATALOG



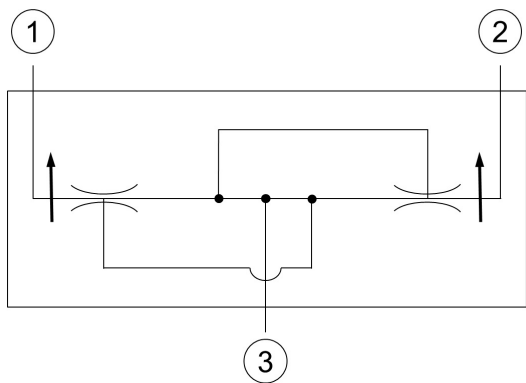
FLOW REGULATING VALVES



PRODUCT



SCHEMATIC



DESCRIPTION

AN IN-LINE SPOOL TYPE FLOW DIVIDER, INTENDED FOR SUPPLYING FLOWS TO MULTIPLE CIRCUITS WITH A COMMON SUPPLY, OR FOR COMBINING FLOWS FROM MULTIPLE CIRCUITS INTO A COMMON LINE.

OPERATION

- FLOWS FROM (1) AND (2) ARE COMBINED INTO (3) WITHIN THE FLOW TOLERANCE.
- FLOW FROM (3) IS DIVIDED EQUALLY BETWEEN (1) AND (2) WITHIN THE FLOW TOLERANCE.

FEATURES

- TAMPER RESISTANT
- BUNA-N 90 DURO O-RINGS
- ALUMINUM BODY, STEEL SPOOLS
- PRESSURE COMPENSATED
- HYDRAULIC FLUIDS - GENERAL.
- ALTERNATE DIVIDE RATIOS AVAILABLE UPON REQUEST.

SPECIFICATIONS

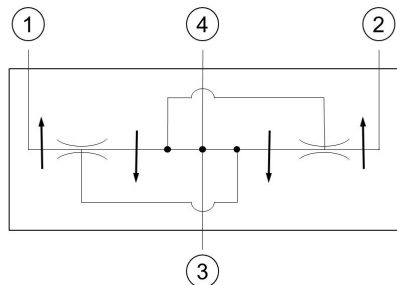
DIVIDE / COMBINE RATIO	50:50
FLOW ADJUSTMENT RANGE	100 PSI
MAX. PRESSURE DIFFERENTIAL "1" TO "2"	+/- 10%
PRESSURE RANGE	250 PSI TO 4500 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

270	X	1	-	2	XX
SERIES NUMBER _____ MAX FLOW INDICATOR _____ 5..... 25 – 50 GPM 6..... 30 – 60 GPM SAE PORT "3" SIZE _____					

MODEL	PORTS 1 & 2	PORT 3	FLOW RANGE	A
27051-216	-12 SAE - 1 1/16-12	-16 SAE - 1 5/16-12	25.0 TO 50.0 GPM	0.875
27051-220	-16 SAE - 1 5/16-12	-20 SAE - 1 5/8-12	30.0 TO 60.0 GPM	0.375
27061-220	-16 SAE - 1 5/16-12	-20 SAE - 1 5/8-12	30.0 TO 60.0 GPM	0.375

SCHEMATIC



DESCRIPTION

AN IN-LINE SPOOL TYPE FLOW DIVIDER, INTENDED FOR SUPPLYING FLOWS TO MULTIPLE CIRCUITS WITH A COMMON SUPPLY, OR FOR COMBINING FLOWS FROM MULTIPLE CIRCUITS INTO A COMMON LINE.

OPERATION

- -08 SAE GAGE PORT AT (4)
- FLOW FROM (3) IS DIVIDED EQUALLY BETWEEN (1) AND (2) WITHIN THE FLOW TOLERANCE.
- FLOWS FROM (1) AND (2) ARE COMBINED INTO (3) WITHIN THE FLOW TOLERANCE.

FEATURES

- ALTERNATE DIVIDE RATIOS AVAILABLE UPON REQUEST.
- TAMPER RESISTANT
- BUNA-N 90 DURO O-RINGS
- PRESSURE COMPENSATED
- HYDRAULIC FLUIDS - GENERAL.
- ALUMINUM BODY, STEEL INTERNALS

SPECIFICATIONS

DIVIDE / COMBINE RATIO	50:50
FLOW TOLERANCE	+/- 10%
MAX. PRESSURE DIFFERENTIAL "1" TO "2"	100 PSI
PRESSURE RANGE	250 PSI TO 4500 PSI
TEMPERATURE RANGE	250°F TO -40°F

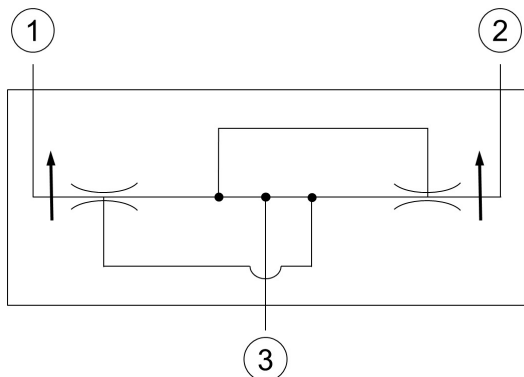
ORDERING INFORMATION

27903

SERIES NUMBER _____

Model	PORTS 1 & 2	PORT 3	PORT 4	FLOW RANGE	A
27903	-12 SAE - 1 1/16-12	-16 SAE - 1 5/16-12	-08 SAE - 3/4-16	10.0 TO 30.0 GPM	0.975

SCHEMATIC



DESCRIPTION

AN IN-LINE SPOOL TYPE FLOW DIVIDER, INTENDED FOR SUPPLYING FLOWS TO MULTIPLE CIRCUITS WITH A COMMON SUPPLY, OR FOR COMBINING FLOWS FROM MULTIPLE CIRCUITS INTO A COMMON LINE.

OPERATION

- FLOWS FROM (1) AND (2) ARE COMBINED INTO (3) WITHIN THE FLOW TOLERANCE.
- FLOW FROM (3) IS DIVIDED EQUALLY BETWEEN (1) AND (2) WITHIN THE FLOW TOLERANCE.

FEATURES

- TAMPER RESISTANT
- ALTERNATE DIVIDE RATIOS AND PORT SIZES AVAILABLE UPON REQUEST.
- BUNA-N 90 DURO O-RINGS
- HYDRAULIC FLUIDS - GENERAL.
- PRESSURE COMPENSATED
- ALUMINUM BODY, STEEL SPOOLS

SPECIFICATIONS

DIVIDE / COMBINE RATIO	50:50
FLOW TOLERANCE	+/- 10%
MAX. PRESSURE DIFFERENTIAL "1" TO "2"	150 PSI
PRESSURE RANGE	250 PSI TO 3500 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

27 X X 0 - 2 XX

SERIES NUMBER _____

BLOCK SIZE INDICATOR _____

	FLOW INDICATOR				
	2	3	4	5	6
0 - SMALL					
1 - MEDIUM					
2 - LARGE					

FLOW RANGE INDICATOR _____

2..... 1 - 5 GPM 5.....31 - 45 GPM
 3..... 6 - 15 GPM 6.....46 - 60 GPM
 4.....16 - 30 GPM

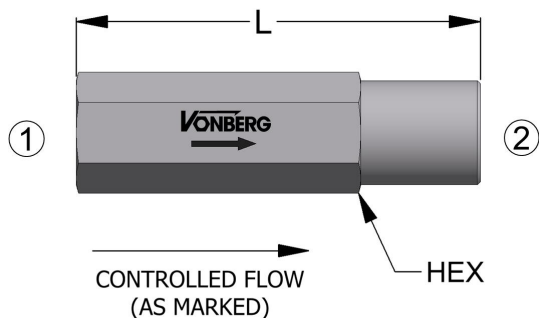
SAE PORT "3" SIZE _____

Model	PORTS 1 & 2	PORT 3	TOTAL FLOW RANGE	A	B	C	D	E	F	G	H	I	J
270X0-208	-06 SAE - 9/16-18	-08 SAE - 3/4-16	2.0 TO 15.0 GPM	1.50	1.25	2.00	2.50	0.34	3.81	4.50	0.28	.038	2.25
270X0-210	-08 SAE - 3/4-16	-10 SAE - 7/8-14	2.0 TO 20.0 GPM	1.50	1.25	2.00	2.50	0.34	3.81	4.50	0.28	0.38	2.25
271X0-212	-10 SAE - 7/8-14	-12 SAE - 1 1/16-12	5.0 TO 30.0 GPM	1.50	1.25	2.00	3.00	0.34	3.81	4.50	0.28	0.38	2.25
272X0-216	-12 SAE - 1 1/16-12	-16 SAE - 1 5/16-12	30.0 TO 50.0 GPM	2.00	1.62	2.12	4.00	1.44	3.50	6.38	0.41	0.38	3.14
272X0-220	-16 SAE - 1 5/16-12	-20 SAE - 1 5/8-12	30.0 TO 60.0 GPM	2.00	1.62	2.12	4.00	1.44	3.50	6.38	0.41	0.38	3.14

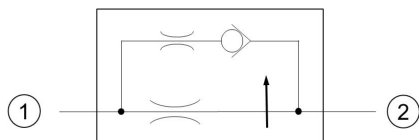
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9/26/18, 3:18 PM

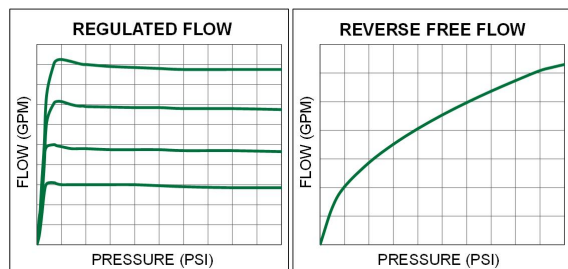
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE, PRESSURE-COMPENSATED, NONADJUSTABLE FLOW REGULATOR WITH FEMALE NPTF PORTS, INTENDED FOR FIXED DISPLACEMENT HYDRAULIC CIRCUIT APPLICATIONS.

OPERATION

- IN THE CONTROLLED DIRECTION THIS REGULATOR WILL MAINTAIN A CONSTANT FLOW RATE THROUGHOUT A SPECIFIED PRESSURE RANGE.
- REVERSE FLOW PASSES THROUGH THE CONTROLLING ORIFICE AND IS UNCONTROLLED PRODUCING A PRESSURE DIFFERENTIAL OF 120 PSI MAX. AT 150% OF CONTROLLED FLOW.

FEATURES

- NO INTERNAL PACKINGS.
- HYDRAULIC FLUIDS - GENERAL.
- ALUMINUM BODY, STEEL INTERNALS.
- SURGES INTERNALLY DAMPENED FEATURE IS OPTIONAL FOR LOAD LOWERING APPLICATIONS.

SPECIFICATIONS

FLOW TOLERANCE	+/- 10% (+/- 15% UNDER 1.5 GPM)
PRESSURE RANGE	50 PSI TO 3500 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

13
XX
- X -
XX

SERIES NUMBER _____

THREAD SIZE _____

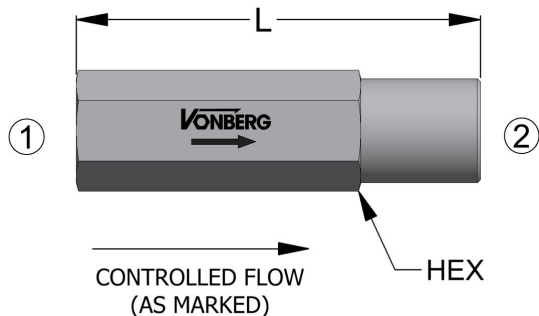
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DAMPENED (S.I.D.) - 1 _____

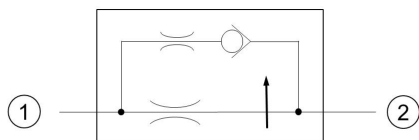
REGULATED FLOW RATE (GPM) _____

Model	INLET/OUTLET	FLOW RANGE	L	HEX
1302	1/4-18 NPTF	0.25 TO 6.0 GPM	3.50	0.938
1303	3/8-18 NPTF	0.5 TO 8.0 GPM	3.38	0.875
1304	1/2-14 NPTF	0.5 TO 15.0 GPM	4.00	1.125
1306	3/4-14 NPTF	1.0 TO 30.0 GPM	4.75	1.375
1308	1-11 1/2 NPTF	2.0 TO 50.0 GPM	5.50	1.625
1312	1 1/2-11 1/2 NPTF	5.0 TO 75.0 GPM	6.29	2.250

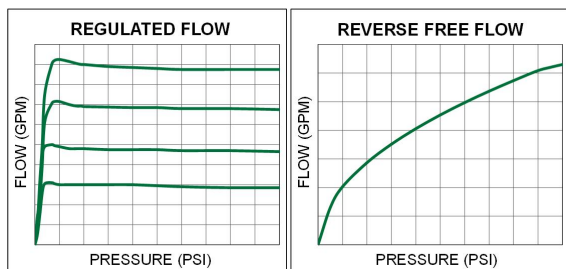
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE, PRESSURE-COMPENSATED, NONADJUSTABLE FLOW REGULATOR WITH FEMALE NPTF PORTS, INTENDED FOR FIXED DISPLACEMENT HYDRAULIC CIRCUIT APPLICATIONS.

OPERATION

- REVERSE FLOW PASSES THROUGH THE CONTROLLING ORIFICE AND IS UNCONTROLLED PRODUCING A PRESSURE DIFFERENTIAL OF 60 PSI MAX. AT 150% OF CONTROLLED FLOW.
- IN THE CONTROLLED DIRECTION THIS REGULATOR WILL MAINTAIN A CONSTANT FLOW RATE THROUGHOUT A SPECIFIED PRESSURE RANGE.

FEATURES

- NO INTERNAL PACKINGS.
- HYDRAULIC FLUIDS - GENERAL.
- ALUMINUM BODY, STEEL INTERNALS.
- SURGES INTERNALLY DAMPENED FEATURE IS OPTIONAL FOR LOAD LOWERING APPLICATIONS.

SPECIFICATIONS

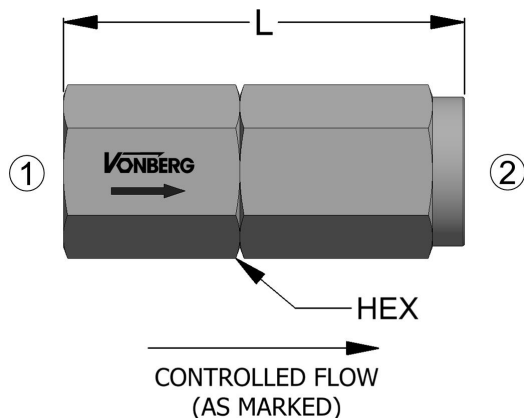
FLOW TOLERANCE	+/- 10% (+/- 15% UNDER 1.5 GPM)
PRESSURE RANGE	25 PSI TO 3000 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

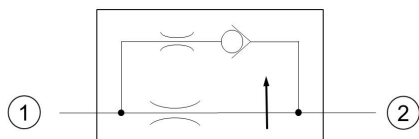
13	XX	L	-	X	-	XX
SERIES NUMBER	THREAD SIZE	LOW PRESSURE	UNDAMPENED - BLANK	DAMPENED (S.I.D.) - 1	REGULATED FLOW RATE (GPM)	

Model	INLET/OUTLET	FLOW RANGE	L	HEX
1302L	1/4-18 NPTF	0.2 TO 2.0 GPM	3.50	0.938
1303L	3/8-18 NPTF	0.2 TO 3.0 GPM	3.38	0.875
1304L	1/2-14 NPTF	0.5 TO 6.0 GPM	4.00	1.125
1306L	3/4-14 NPTF	1.0 TO 10.0 GPM	4.75	1.375
1308L	1-11 1/2 NPTF	2.0 TO 20.0 GPM	5.50	1.625
1312L	1 1/2-11 1/2 NPTF	2.0 TO 40.0 GPM	6.29	2.250

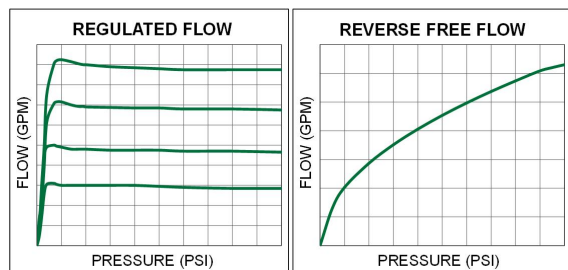
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE, PRESSURE-COMPENSATED, NONADJUSTABLE FLOW REGULATOR WITH FEMALE NPTF PORTS, INTENDED FOR FIXED DISPLACEMENT HYDRAULIC CIRCUIT APPLICATIONS.

OPERATION

- REVERSE FLOW PASSES THROUGH THE CONTROLLING ORIFICE AND IS UNCONTROLLED PRODUCING A PRESSURE DIFFERENTIAL OF 120 PSI MAX. AT 150% OF CONTROLLED FLOW.
- IN THE CONTROLLED DIRECTION THIS REGULATOR WILL MAINTAIN A CONSTANT FLOW RATE THROUGHOUT A SPECIFIED PRESSURE RANGE.

FEATURES

- NO INTERNAL PACKINGS.
- HYDRAULIC FLUIDS - GENERAL.
- STEEL BODY, STEEL INTERNALS.
- SURGES INTERNALLY DAMPENED FEATURE IS OPTIONAL FOR LOAD LOWERING APPLICATIONS.

SPECIFICATIONS

FLOW TOLERANCE	+/- 10% (+/- 15% UNDER 1.5 GPM)
PRESSURE RANGE	50 PSI TO 3500 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

135 X - X - XX

SERIES NUMBER _____

THREAD SIZE _____

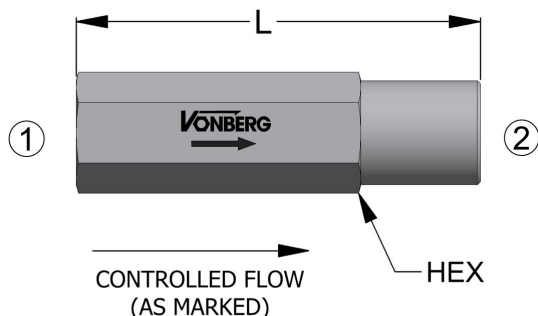
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DAMPENED (S.I.D.) - 1 _____

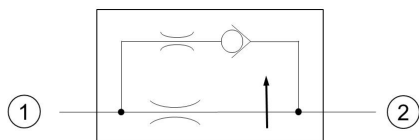
REGULATED FLOW RATE (GPM) _____

Model	INLET/OUTLET	FLOW RANGE	L	HEX
1352	1/4-18 NPTF	0.25 TO 4.0 GPM	2.50	0.938
1353	3/8-18 NPTF	0.25 TO 5.0 GPM	2.50	0.938
1354	1/2-14 NPTF	0.5 TO 10.0 GPM	2.88	1.062

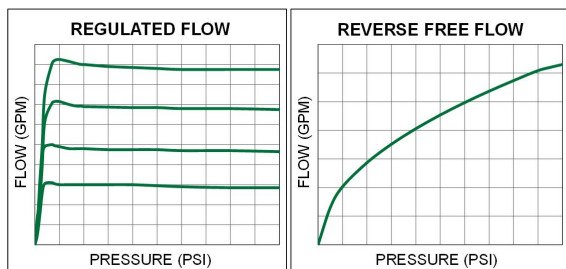
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE, PRESSURE-COMPENSATED, NONADJUSTABLE FLOW REGULATOR WITH FEMALE SAE PORTS, INTENDED FOR FIXED DISPLACEMENT HYDRAULIC CIRCUIT APPLICATIONS.

OPERATION

- REVERSE FLOW PASSES THROUGH THE CONTROLLING ORIFICE AND IS UNCONTROLLED PRODUCING A PRESSURE DIFFERENTIAL OF 120 PSI MAX. AT 150% OF CONTROLLED FLOW.
- IN THE CONTROLLED DIRECTION THIS REGULATOR WILL MAINTAIN A CONSTANT FLOW RATE THROUGHOUT A SPECIFIED PRESSURE RANGE.

FEATURES

- NO INTERNAL PACKINGS.
- HYDRAULIC FLUIDS - GENERAL.
- ALUMINUM BODY, STEEL INTERNALS.
- SURGES INTERNALLY DAMPENED FEATURE IS OPTIONAL FOR LOAD LOWERING APPLICATIONS.

SPECIFICATIONS

FLOW TOLERANCE	+/- 10% (+/- 15% UNDER 1.5 GPM)
PRESSURE RANGE	50 PSI TO 3500 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

14
XX
- X -
XX

SERIES NUMBER _____

THREAD SIZE _____

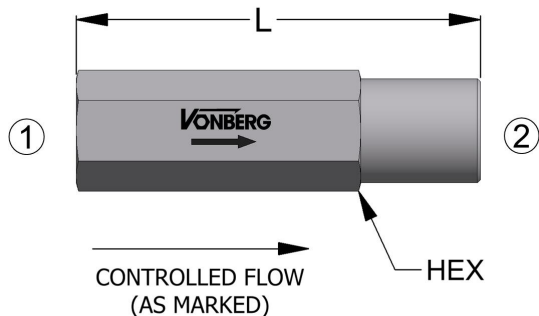
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DAMPENED (S.I.D.) - 1 _____

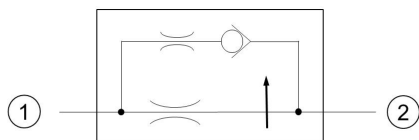
REGULATED FLOW RATE (GPM) _____

Model	INLET/OUTLET	THREAD	FLOW RANGE	L	HEX
1406	-06 SAE	9/16-18	0.25 TO 8.0 GPM	3.00	0.750
1408	-08 SAE	3/4-16	0.5 TO 15.0 GPM	4.00	1.000
1410	-10 SAE	7/8-14	0.5 TO 15.0 GPM	4.00	1.125
1412	-12 SAE	1 1/16-12	1.0 TO 30.0 GPM	4.75	1.375
1416	-16 SAE	1 5/16-12	2.0 TO 50.0 GPM	5.50	1.625
1424	-24 SAE	1 7/8-12	5.0 TO 75.0 GPM	5.50	2.250

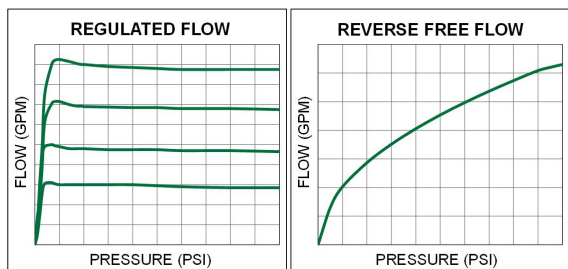
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE, PRESSURE-COMPENSATED, NONADJUSTABLE FLOW REGULATOR WITH FEMALE SAE PORTS, INTENDED FOR FIXED DISPLACEMENT HYDRAULIC CIRCUIT APPLICATIONS.

OPERATION

- REVERSE FLOW PASSES THROUGH THE CONTROLLING ORIFICE AND IS UNCONTROLLED PRODUCING A PRESSURE DIFFERENTIAL OF 60 PSI MAX. AT 150% OF CONTROLLED FLOW.
- IN THE CONTROLLED DIRECTION THIS REGULATOR WILL MAINTAIN A CONSTANT FLOW RATE THROUGHOUT A SPECIFIED PRESSURE RANGE.

FEATURES

- NO INTERNAL PACKINGS.
- HYDRAULIC FLUIDS - GENERAL.
- ALUMINUM BODY, STEEL INTERNALS.
- SURGES INTERNALLY DAMPENED FEATURE IS OPTIONAL FOR LOAD LOWERING APPLICATIONS.

SPECIFICATIONS

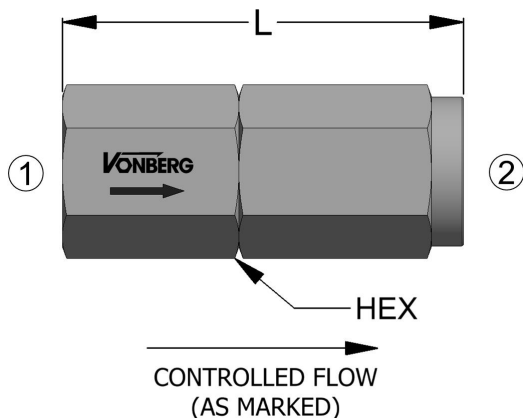
FLOW TOLERANCE	+/- 10% (+/- 15% UNDER 1.5 GPM)
PRESSURE RANGE	25 PSI TO 3000 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

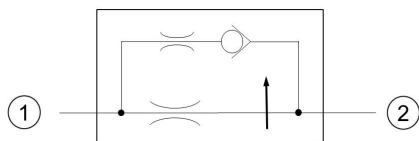
14	XX	L	-	X	-	XX
SERIES NUMBER	THREAD SIZE	LOW PRESSURE	UNDAMPENED - BLANK	DAMPENED (S.I.D.) - 1	REGULATED FLOW RATE (GPM)	

Model	INLET/OUTLET	THREAD	FLOW RANGE	L	HEX
1406L	-06 SAE	9/16-18	0.2 TO 2.0 GPM	3.00	0.750
1408L	-08 SAE	3/4-16	0.2 TO 3.0 GPM	4.00	1.000
1410L	-10 SAE	7/8-14	0.5 TO 6.0 GPM	4.00	1.125
1412L	-12 SAE	1 1/16-12	1.0 TO 10.0 GPM	4.75	1.375
1416L	-16 SAE	1 5/16-12	2.0 TO 20.0 GPM	5.50	1.625
1424L	-24 SAE	1 7/8-12	2.0 TO 40.0 GPM	5.50	2.250

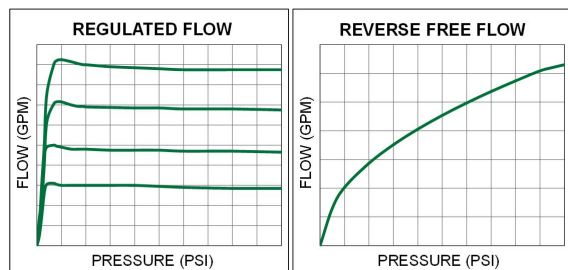
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE, PRESSURE-COMPENSATED, NONADJUSTABLE FLOW REGULATOR WITH FEMALE SAE PORTS, INTENDED FOR FIXED DISPLACEMENT HYDRAULIC CIRCUIT APPLICATIONS.

OPERATION

- REVERSE FLOW PASSES THROUGH THE CONTROLLING ORIFICE AND IS UNCONTROLLED PRODUCING A PRESSURE DIFFERENTIAL OF 120 PSI MAX. AT 150% OF CONTROLLED FLOW.
- IN THE CONTROLLED DIRECTION THIS REGULATOR WILL MAINTAIN A CONSTANT FLOW RATE THROUGHOUT A SPECIFIED PRESSURE RANGE.

FEATURES

- NO INTERNAL PACKINGS.
- HYDRAULIC FLUIDS - GENERAL.
- STEEL BODY, STEEL INTERNALS.
- SURGES INTERNALLY DAMPENED FEATURE IS OPTIONAL FOR LOAD LOWERING APPLICATIONS.

SPECIFICATIONS

FLOW TOLERANCE	+/- 10% (+/- 15% UNDER 1.5 GPM)
PRESSURE RANGE	50 PSI TO 3500 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

145 X - X - XX

SERIES NUMBER _____

THREAD SIZE _____

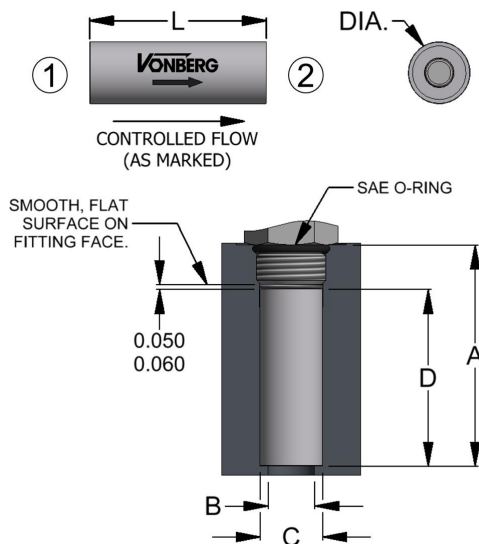
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DAMPENED (S.I.D.) - 1 _____

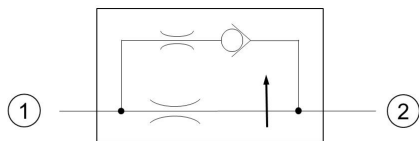
REGULATED FLOW RATE (GPM) _____

Model	INLET/OUTLET	FLOW RANGE	L	HEX
1454	-04 SAE - 7/16-20	0.25 TO 4.0 GPM	2.25	0.750
1456	-06 SAE - 9/16-18	0.25 TO 5.0 GPM	2.50	0.938
1458	-08 SAE - 3/4-16	0.5 TO 10.0 GPM	2.88	1.062

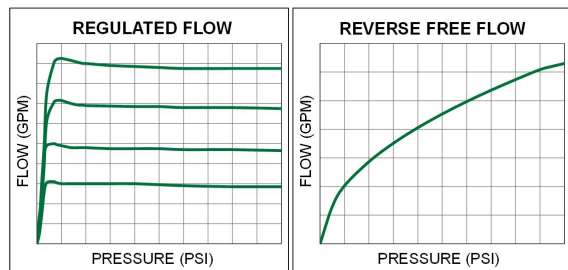
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE, SLIP-IN CARTRIDGE, PRESSURE-COMPENSATED, NONADJUSTABLE FLOW REGULATOR INTENDED FOR FIXED DISPLACEMENT HYDRAULIC CIRCUIT APPLICATIONS.

OPERATION

- REVERSE FLOW PASSES THROUGH THE CONTROLLING ORIFICE AND IS UNCONTROLLED PRODUCING A PRESSURE DIFFERENTIAL OF 120 PSI MAX. AT 150% OF CONTROLLED FLOW.
- CARTRIDGE BODY SEATS ON SMOOTH, FLAT SURFACE OF FITTING IN THE REGULATED FLOW DIRECTION.
- BORE DEPTHS ASSUME THE USE OF A STD. O-RING BOSS CONNECTOR WITH THREAD LENGTHS BASED ON SAE J514.
- IN THE CONTROLLED DIRECTION THIS REGULATOR WILL MAINTAIN A CONSTANT FLOW RATE THROUGHOUT A SPECIFIED PRESSURE RANGE.

FEATURES

- HYDRAULIC FLUIDS - GENERAL.
- NO INTERNAL PACKINGS.
- SURGES INTERNALLY DAMPENED FEATURE IS OPTIONAL FOR LOAD LOWERING APPLICATIONS.
- ALUMINUM BODY, STEEL INTERNALS.

SPECIFICATIONS

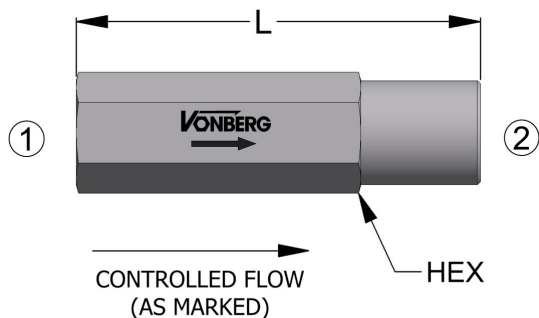
FLOW TOLERANCE	+/- 10% (+/- 15% UNDER 1.5 GPM)
PRESSURE RANGE	50 PSI TO 3500 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

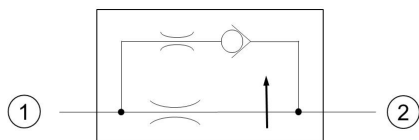
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 PORT SIZE XX
 UNDAMPENED - BLANK -
 DAMPENED (S.I.D.) - 1 -
 REGULATED FLOW RATE (GPM) X
XX

Model	VALVE DIA.	FLOW RANGE	L	A	B (MAX.)	C	D
1508	0.670	0.25 TO 8.0 GPM	1.90	2.40 / 2.41	0.500	0.672 / 0.677	1.96 / 1.97
1510	0.795	0.5 TO 15.0 GPM	2.03	2.59 / 2.60	0.625	0.797 / 0.802	2.09 / 2.10
1512	0.970	1.0 TO 30.0 GPM	2.78	3.43 / 3.44	0.812	0.972 / 0.977	2.84 / 2.85
1514	1.095	1.0 TO 30.0 GPM	3.00	3.65 / 3.66	0.812	1.097 / 1.102	3.06 / 3.07
1516	1.220	2.0 TO 50.0 GPM	3.19	3.84 / 3.85	0.937	1.222 / 1.227	3.24 / 3.25
1524	1.783	5.0 TO 75.0 GPM	3.25	3.90 / 3.91	1.437	1.787 / 1.792	3.31 / 3.32

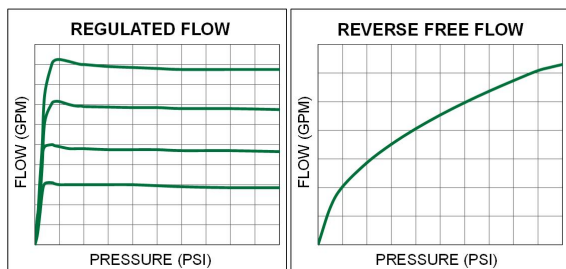
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE, PRESSURE-COMPENSATED, NONADJUSTABLE FLOW REGULATOR WITH FEMALE NPTF PORTS, INTENDED FOR FIXED DISPLACEMENT HYDRAULIC CIRCUIT APPLICATIONS.

OPERATION

- IN THE CONTROLLED DIRECTION THIS REGULATOR WILL MAINTAIN A CONSTANT FLOW RATE THROUGHOUT A SPECIFIED PRESSURE RANGE.
- REVERSE FLOW PASSES THROUGH THE CONTROLLING ORIFICE AND IS UNCONTROLLED PRODUCING A PRESSURE DIFFERENTIAL OF 120 PSI MAX. AT 150% OF CONTROLLED FLOW.

FEATURES

- NO INTERNAL PACKINGS.
- HYDRAULIC FLUIDS - GENERAL.
- STEEL BODY, STEEL INTERNALS.
- SURGES INTERNALLY DAMPENED FEATURE IS OPTIONAL FOR LOAD LOWERING APPLICATIONS.

SPECIFICATIONS

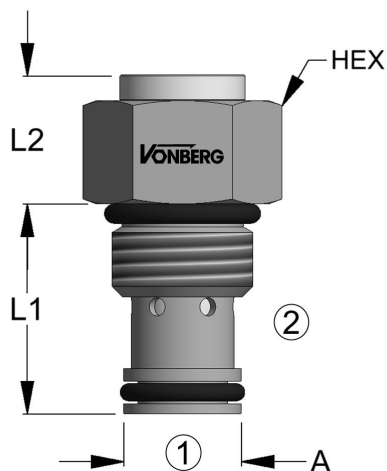
FLOW TOLERANCE	+/- 10% (+/- 15% UNDER 1.5 GPM)
PRESSURE RANGE	50 PSI TO 5000 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

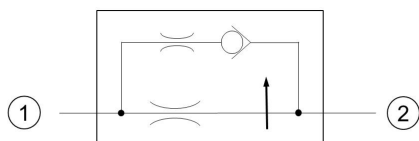
23	X	XX	X	-	XX
SERIES NUMBER	UNDAMPENED - 0	DAMPENED (S.I.D.) - 1	PORT SIZE	STEEL BODY (STANDARD) - BLANK	STAINLESS STEEL BODY (OPTIONAL) - S
REGULATED FLOW RATE (GPM)					

Model	INLET/OUTLET	FLOW RANGE	L	HEX
23002	1/4-18 NPTF	0.25 TO 6.0 GPM	3.50	0.938
23003	3/8-18 NPTF	0.5 TO 8.0 GPM	3.38	0.875
23004	1/2-14 NPTF	0.5 TO 15.0 GPM	4.00	1.125
23006	3/4-14 NPTF	1.0 TO 30.0 GPM	4.75	1.375
23008	1-11 1/2 NPTF	2.0 TO 50.0 GPM	5.50	1.625
23012	1 1/2-11 1/2 NPTF	5.0 TO 75.0 GPM	6.29	2.250

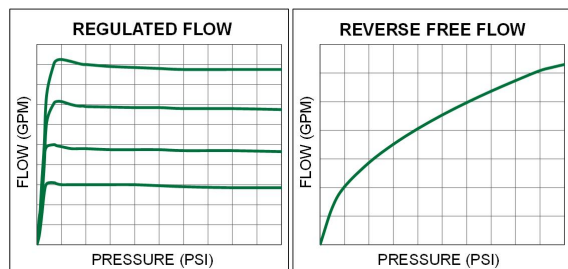
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

A NON-ADJUSTABLE, CARTRIDGE STYLE, PRESSURE-COMPENSATED, FLOW REGULATOR INTENDED FOR FIXED DISPLACEMENT HYDRAULIC CIRCUIT APPLICATIONS.

OPERATION

- REVERSE FLOW PASSES THROUGH THE CONTROLLING ORIFICE AND IS UNCONTROLLED PRODUCING A PRESSURE DIFFERENTIAL OF 120 PSI MAX. AT 150% OF CONTROLLED FLOW.
- THIS REGULATOR WILL MAINTAIN A CONSTANT FLOW RATE FROM (1) TO (2) THROUGHOUT A SPECIFIED PRESSURE RANGE.

FEATURES

- INDUSTRY COMMON CAVITY.
- HYDRAULIC FLUIDS - GENERAL.
- STEEL BODY, STEEL INTERNALS.
- SURGES INTERNALLY DAMPENED FEATURE IS OPTIONAL FOR LOAD LOWERING APPLICATIONS.

SPECIFICATIONS

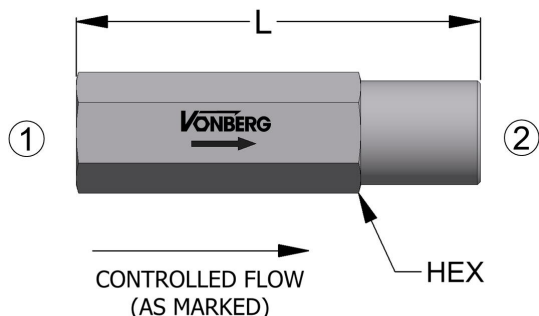
FLOW TOLERANCE	+/- 10% (+/- 15% UNDER 1.5 GPM)
PRESSURE RANGE	50 PSI TO 3500 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

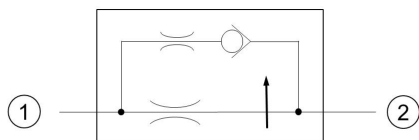
24 XX - X - XX - XX				
SERIES NUMBER	24	XX	- X -	XX - XX
CAVITY SIZE				
UNDAMPENED - BLANK				
DAMPENED (S.I.D.) - 1				
REGULATED FLOW RATE (GPM)				
BODY PORT SIZE CODE				
BLANK.....	CARTRIDGE ONLY			
SERIES CODE....	SEE "CARTRIDGE BODIES", X-2 SERIES			

Model	THREAD	FLOW RANGE	CAVITY	L1	L2	HEX	A	TORQUE
2404	7/16 - 20	0.4 TO 2.0 GPM	VC04-2	0.94	0.55	0.56	0.277 / 0.278	10 ft-lbs
2406	9/16 - 18	0.4 TO 4.0 GPM	FC06-2	0.84	0.53	0.69	0.467 / 0.468	15 ft-lbs
2408	3/4 - 16	0.4 TO 8.0 GPM	VC08-2	1.10	0.85	0.88	0.495 / 0.497	20 ft-lbs
2410	7/8 - 14	0.5 TO 10.0 GPM	VC10-2	1.25	0.80	1.00	0.621 / 0.623	25 ft-lbs
2412	1 1/16 - 12	2.0 TO 20.0 GPM	VC12-2	1.81	1.35	1.25	0.870 / 0.873	40 ft-lbs
2416	1 5/16 - 12	2.0 TO 30.0 GPM	VC16-2	1.75	1.35	1.50	1.121 / 1.123	60 ft-lbs

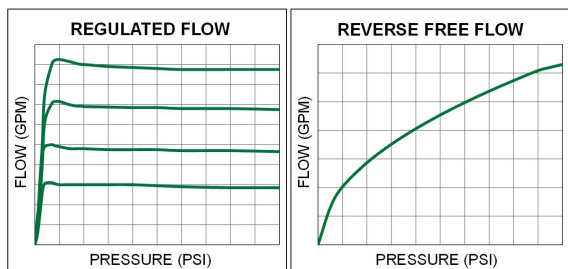
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE, PRESSURE-COMPENSATED, NONADJUSTABLE FLOW REGULATOR WITH FEMALE SAE PORTS, INTENDED FOR FIXED DISPLACEMENT HYDRAULIC CIRCUIT APPLICATIONS.

OPERATION

- REVERSE FLOW PASSES THROUGH THE CONTROLLING ORIFICE AND IS UNCONTROLLED PRODUCING A PRESSURE DIFFERENTIAL OF 120 PSI MAX. AT 150% OF CONTROLLED FLOW.
- IN THE CONTROLLED DIRECTION THIS REGULATOR WILL MAINTAIN A CONSTANT FLOW RATE THROUGHOUT A SPECIFIED PRESSURE RANGE.

FEATURES

- NO INTERNAL PACKINGS.
- HYDRAULIC FLUIDS - GENERAL.
- STEEL BODY, STEEL INTERNALS.
- SURGES INTERNALLY DAMPENED FEATURE IS OPTIONAL FOR LOAD LOWERING APPLICATIONS.

SPECIFICATIONS

FLOW TOLERANCE	+/- 10% (+/- 15% UNDER 1.5 GPM)
PRESSURE RANGE	50 PSI TO 5000 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

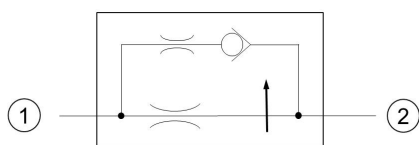
24	X	XX	X	-	XX
SERIES NUMBER	UNDAMPENED - 0	DAMPENED (S.I.D.) - 1	PORT SIZE	STEEL BODY (STANDARD) - BLANK	STAINLESS STEEL BODY (OPTIONAL) - S
REGULATED FLOW RATE (GPM)					

Model	INLET/OUTLET	THREAD	FLOW RANGE	L	HEX
24006	-06 SAE	9/16-18	0.25 TO 8.0 GPM	3.00	0.750
24008	-08 SAE	3/4-16	0.5 TO 15.0 GPM	4.00	1.000
24010	-10 SAE	7/8-14	0.5 TO 15.0 GPM	4.00	1.125
24012	-12 SAE	1 1/16-12	1.0 TO 30.0 GPM	4.75	1.375
24016	-16 SAE	1 5/16-12	2.0 TO 50.0 GPM	5.50	1.625
24024	-24 SAE	1 7/8-12	5.0 TO 75.0 GPM	5.50	2.250

PRODUCT



SCHEMATIC



DESCRIPTION

A NON-ADJUSTABLE, CARTRIDGE STYLE, PRESSURE-COMPENSATED, FLOW REGULATOR INTENDED FOR FIXED DISPLACEMENT HYDRAULIC CIRCUIT APPLICATIONS.

OPERATION

- THIS REGULATOR WILL MAINTAIN A CONSTANT FLOW RATE FROM (1) TO (2) THROUGHOUT A SPECIFIED PRESSURE RANGE.
- REVERSE FLOW PASSES THROUGH THE CONTROLLING ORIFICE AND IS UNCONTROLLED PRODUCING A PRESSURE DIFFERENTIAL OF 120 PSI MAX. AT 150% OF CONTROLLED FLOW.

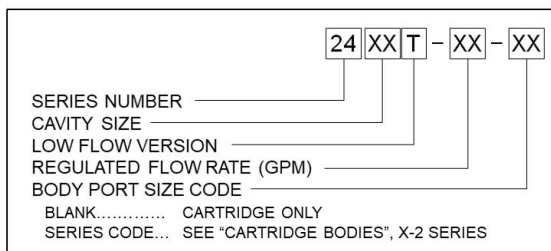
FEATURES

- SURGES INTERNALLY DAMPENED FEATURE IS OPTIONAL FOR LOAD LOWERING APPLICATIONS.
- STEEL BODY, STEEL INTERNALS.
- HYDRAULIC FLUIDS - GENERAL.
- INDUSTRY COMMON CAVITY.

SPECIFICATIONS

FLOW TOLERANCE	+/- 20% to +/- 10%
PRESSURE RANGE	50 PSI TO 3500 PSI

ORDERING INFORMATION

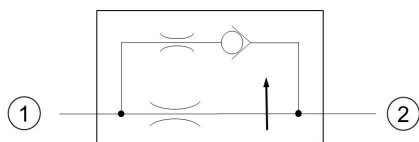


MODEL	THREAD	FLOW RANGE	CAVITY	L1	L2	HEX	A	TORQUE
2408T	3/4 - 16	0.1 TO 0.5 GPM	VC08-2	1.120	0.40	0.875	0.495 / 0.497	20 ft-lbs

PRODUCT



SCHEMATIC



DESCRIPTION

A NON-ADJUSTABLE, CARTRIDGE STYLE, PRESSURE-COMPENSATED, FLOW REGULATOR INTENDED FOR FIXED DISPLACEMENT HYDRAULIC CIRCUIT APPLICATIONS.

OPERATION

- REVERSE FLOW PASSES THROUGH THE CONTROLLING ORIFICE AND IS UNCONTROLLED PRODUCING A PRESSURE DIFFERENTIAL OF 120 PSI MAX. AT 150% OF CONTROLLED FLOW.
- THIS REGULATOR WILL MAINTAIN A CONSTANT FLOW RATE FROM (1) TO (2) THROUGHOUT A SPECIFIED PRESSURE RANGE.

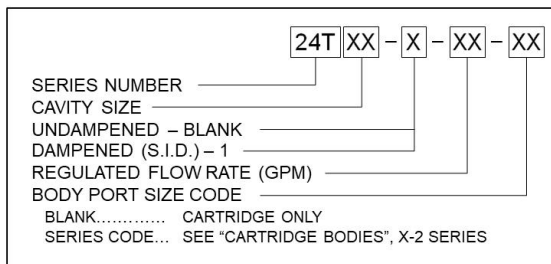
FEATURES

- T-SERIES CAVITY.
- HYDRAULIC FLUIDS - GENERAL.
- STEEL BODY, STEEL INTERNALS.
- SURGES INTERNALLY DAMPENED FEATURE IS OPTIONAL FOR LOAD LOWERING APPLICATIONS.

SPECIFICATIONS

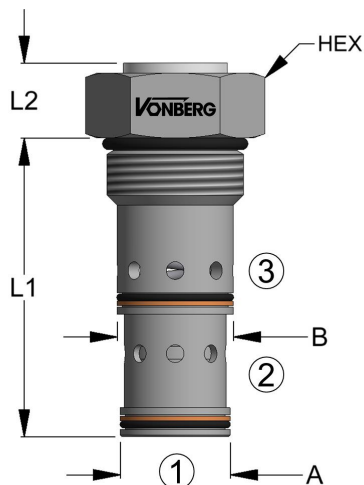
FLOW TOLERANCE	+/- 10% (+/- 15% UNDER 1.5 GPM)
PRESSURE RANGE	50 PSI TO 5000 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

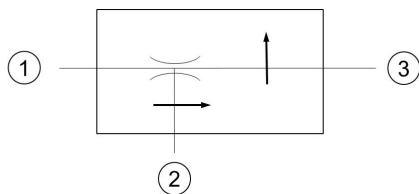


Model	THREAD	FLOW RANGE	CAVITY	L1	L2	HEX	A	B	SD	TORQUE
24T162	M16 X 1.5	0.4 TO 8.0 GPM	T-162A	1.12	0.79	0.75	0.512 / 0.513	0.653 / 0.654	0.290	15 FT-LBS
24T13	M20 X 1.5	0.5 TO 10.0 GPM	T-13A	1.38	0.88	0.88	0.683 / 0.685	0.807 / 0.809	0.225	25 FT-LBS
24T5	1" X 14 UNS	2.0 TO 20.0 GPM	T-5A	1.63	1.13	1.125	0.871 / 0.873	1.027 / 1.029	0.280	35 FT-LBS
24T16	M36 X 2.0	2.0 TO 30.0 GPM	T-16A	1.81	1.34	1.63	1.246 / 1.247	1.433 / 1.435	0.220	45 FT-LBS

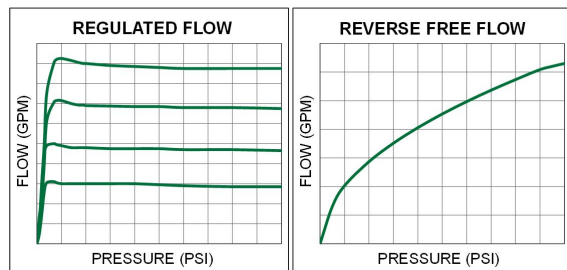
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

A NONADJUSTABLE, CARTRIDGE STYLE, PRESSURE-COMPENSATED, PRIORITY FLOW REGULATOR INTENDED FOR FIXED DISPLACEMENT HYDRAULIC CIRCUIT APPLICATIONS.

OPERATION

- WHEN INLET FLOW EXCEEDS THE PRIORITY SETTING, THE SURPLUS FLOW IS DIVERTED TO (2), THE BYPASS.
- THIS REGULATOR WILL MAINTAIN A CONSTANT FLOW RATE FROM (1) TO (3) THROUGHOUT A SPECIFIED PRESSURE RANGE.

FEATURES

- INDUSTRY COMMON CAVITY.
- STEEL BODY, STEEL INTERNALS.
- SURGES INTERNALLY DAMPENED FEATURE IS OPTIONAL FOR LOAD LOWERING APPLICATIONS.
- HYDRAULIC FLUIDS - GENERAL.

SPECIFICATIONS

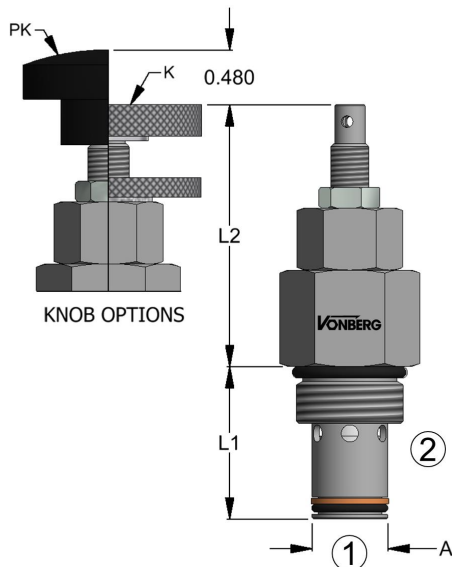
FLOW TOLERANCE	+/- 10% (+/- 15% UNDER 1.5 GPM)
PRESSURE RANGE	50 PSI TO 3500 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

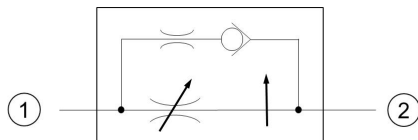
SERIES NUMBER	25	XX	-	X	-	XX	-	XX
CAVITY SIZE								
UNDAMPENED - BLANK								
DAMPENED (S.I.D.) - 1								
REGULATED FLOW RATE (GPM)								
BODY PORT SIZE CODE								
BLANK.....	CARTRIDGE ONLY							
SERIES CODE....	SEE "CARTRIDGE BODIES", X-3 SERIES							

MODEL	THREAD	FLOW RANGE	CAVITY	L1	L2	HEX"	A	B	TORQUE
2508	3/4 - 16	0.4 TO 5.0 GPM	VC08-3	1.60	0.65	0.88	0.558 / 0.560	0.621 / 0.623	20 ft-lbs
2510	7/8 - 14	0.5 TO 8.0 GPM	VC10-3	1.79	0.42	1.00	0.621 / 0.623	0.683 / 0.685	25 ft-lbs
2512	1 1/16 - 12	1.0 TO 15.0 GPM	VC12-3	2.63	1.00	1.25	0.870 / 0.873	0.933 / 0.935	40 ft-lbs
2516	1 5/16 - 12	2.0 TO 25.0 GPM	VC16-3	2.88	0.75	1.50	1.058 / 1.060	1.121 / 1.123	60 ft-lbs

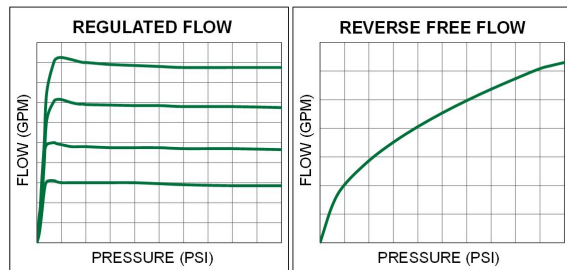
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

A FULLY ADJUSTABLE, CARTRIDGE STYLE, PRESSURE-COMPENSATED, FLOW REGULATOR INTENDED FOR FIXED DISPLACEMENT HYDRAULIC CIRCUIT APPLICATIONS.

OPERATION

- THIS REGULATOR WILL MAINTAIN A CONSTANT FLOW RATE FROM (1) TO (2) THROUGHOUT A SPECIFIED PRESSURE RANGE.
- REVERSE FLOW PASSES THROUGH THE CONTROLLING ORIFICE AND IS UNCONTROLLED, PRODUCING A PRESSURE DIFFERENTIAL OF 120 PSI MAX. AND 150% OF CONTROLLED FLOW.
- COUNTERCLOCKWISE ADJUSTMENT TO INCREASE FLOW.

FEATURES

- FULLY ADJUSTABLE
- INDUSTRY COMMON CAVITY.
- STEEL BODY, STEEL INTERNALS.
- SURGES INTERNALLY DAMPENED FEATURE IS OPTIONAL FOR LOAD LOWERING APPLICATIONS.
- HYDRAULIC FLUIDS - GENERAL.

SPECIFICATIONS

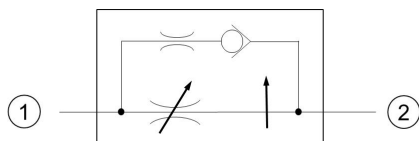
FLOW TOLERANCE	+/- 10% (+/- 15% UNDER 1.5 GPM)
PRESSURE RANGE	120 PSI TO 3500 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

26	XX	X	-	X	-	XX	-	XX
SERIES NUMBER CAVITY SIZE ADJUSTING SCREW BLANK..... 1/8" SOCKET HEX** WITH LOCK NUT K..... 1.50" DIA. ADJ. KNOB WITH LOCKING KNOB** PK..... 1.375" DIA. PLASTIC ADJ. KNOB WITH LOCK NUT UNDAMPENED - BLANK DAMPENED (S.I.D.) - 1 PRESET FLOW RATE (OPTIONAL) (GPM) BODY PORT SIZE CODE BLANK..... CARTRIDGE ONLY SERIES CODE... SEE "CARTRIDGE BODIES", X-2 SERIES ** 5/64 HEX, 0.88 DIA. KNOB FOR MODEL 2606								

Model	THREAD	FLOW RANGE	CAVITY	L1	L2 (MAX.)	HEX	A	TORQUE
2606	9/16 - 18	0.4 TO 4.0 GPM	FC06-2	0.84	1.08	0.69	0.467 / 0.468	15 ft-lbs
2608	3/4 - 16	0.4 TO 8.0 GPM	VC08-2	1.10	2.20	0.88	0.495 / 0.497	20 ft-lbs
2610	7/8 - 14	0.5 TO 10.0 GPM	VC10-2	1.25	2.25	1.00	0.621 / 0.623	25 ft-lbs
2612	1 1/16 - 12	2.0 TO 20.0 GPM	VC12-2	1.81	2.75	1.25	0.870 / 0.873	40 ft-lbs
2616	1 5/16 - 12	2.0 TO 30.0 GPM	VC16-2	1.75	2.75	1.50	1.121 / 1.123	60 ft-lbs

SCHEMATIC



DESCRIPTION

A FULLY ADJUSTABLE, CARTRIDGE STYLE, PRESSURE-COMPENSATED, FLOW REGULATOR INTENDED FOR FIXED DISPLACEMENT HYDRAULIC CIRCUIT APPLICATIONS.

OPERATION

- THIS REGULATOR WILL MAINTAIN A CONSTANT FLOW RATE FROM (1) TO (2) THROUGHOUT A SPECIFIED PRESSURE RANGE.
- REVERSE FLOW PASSES THROUGH THE CONTROLLING ORIFICE AND IS UNCONTROLLED, PRODUCING A PRESSURE DIFFERENTIAL OF 120 PSI MAX. AND 150% OF CONTROLLED FLOW.
- COUNTERCLOCKWISE ADJUSTMENT TO INCREASE FLOW.

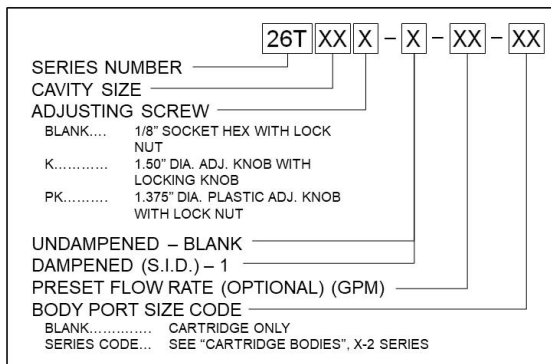
FEATURES

- FULLY ADJUSTABLE
- T-SERIES CAVITY.
- STEEL BODY, STEEL INTERNALS.
- SURGES INTERNALLY DAMPENED FEATURE IS OPTIONAL FOR LOAD LOWERING APPLICATIONS.
- HYDRAULIC FLUIDS - GENERAL.

SPECIFICATIONS

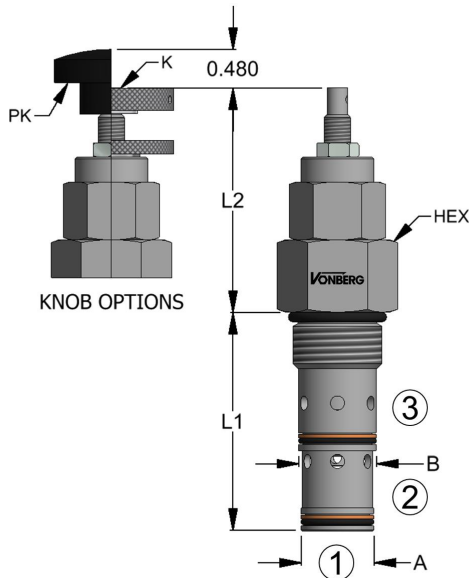
FLOW TOLERANCE	+/- 10% (+/- 15% UNDER 1.5 GPM)
PRESSURE RANGE	120 PSI TO 5000 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

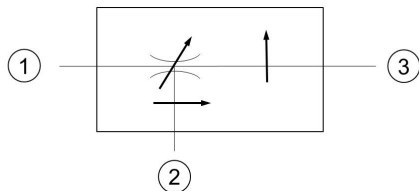


Model	THREAD	FLOW RANGE	CAVITY	L1	L2 (MAX.)	HEX	A	B	SD	TORQUE
26T162	M16 X 1.5	0.4 TO 8.0 GPM	T-162A	1.21	2.05	0.75	0.512 / 0.513	0.653 / 0.654	0.290	15 FT-LBS
26T13	M20 X 1.5	0.5 TO 10.0 GPM	T-13A	1.38	2.14	0.88	0.683 / 0.685	0.807 / 0.809	0.225	25 FT-LBS
26T5	1" X 14 UNS	2.0 TO 20.0 GPM	T-5A	1.63	2.85	1.13	0.871 / 0.873	1.027 / 1.029	0.280	35 FT-LBS
26T16	M36 X 2.0	2.0 TO 30.0 GPM	T-16A	1.81	3.01	1.63	1.246 / 1.247	1.433 / 1.435	0.220	45 FT-LBS

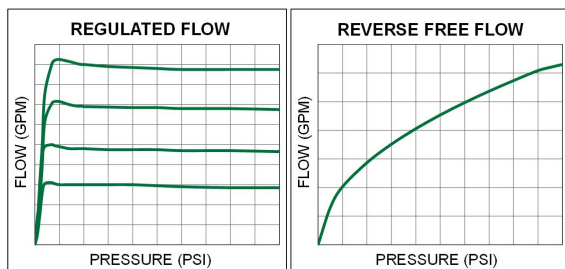
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

A FULLY ADJUSTABLE, CARTRIDGE STYLE, PRESSURE-COMPENSATED, PRIORITY FLOW REGULATOR INTENDED FOR FIXED DISPLACEMENT HYDRAULIC CIRCUIT APPLICATIONS.

OPERATION

- COUNTERCLOCKWISE ADJUSTMENT TO INCREASE FLOW.
- THIS REGULATOR WILL MAINTAIN A CONSTANT FLOW RATE FROM (1) TO (3) THROUGHOUT A SPECIFIED PRESSURE RANGE.
- WHEN INLET FLOW EXCEEDS THE PRIORITY SETTING, THE SURPLUS FLOW IS DIVERTED TO (2), THE BYPASS.

FEATURES

- FULLY ADJUSTABLE
- INDUSTRY COMMON CAVITY.
- HYDRAULIC FLUIDS - GENERAL.
- STEEL BODY, STEEL INTERNALS.
- SURGES INTERNALLY DAMPENED FEATURE IS OPTIONAL FOR LOAD LOWERING APPLICATIONS.

SPECIFICATIONS

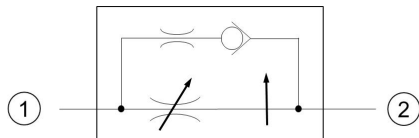
FLOW TOLERANCE	+/- 10% (+/- 15% UNDER 1.5 GPM)
PRESSURE RANGE	50 PSI TO 3500 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

SERIES NUMBER 27
 CAVITY SIZE XX
 ADJUSTING SCREW X
 BLANK..... 1/8" SOCKET HEX** WITH LOCK NUT
 K..... 1.50" DIA. ADJ. KNOB WITH LOCKING KNOB**
 PK..... 1.375" DIA. PLASTIC ADJ. KNOB WITH LOCK NUT
 UNDAMPENED - BLANK
 DAMPENED (S.I.D.) - 1
 PRESET FLOW RATE (OPTIONAL) (GPM) XX
 BODY PORT SIZE CODE XX
 BLANK..... CARTRIDGE ONLY
 SERIES CODE... SEE "CARTRIDGE BODIES", X-3 SERIES
 ** 5/64 HEX, 0.88 DIA. KNOB FOR MODEL 2706

MODEL	THREAD	FLOW RANGE	CAVITY	L1	L2 (MAX.)	HEX	A	B	TORQUE
2708	3/4 - 16	0.4 TO 5.0 GPM	VC08-3	1.60	1.95	0.88	0.558 / 0.560	0.621 / 0.623	20 ft-lbs
2710	7/8 - 14	0.5 TO 8.0 GPM	VC10-3	1.79	1.72	1.00	0.621 / 0.623	0.683 / 0.685	25 ft-lbs
2712	1 1/16 - 12	1.0 TO 15.0 GPM	VC12-3	2.63	2.30	1.25	0.870 / 0.873	0.933 / 0.935	40 ft-lbs
2716	1 5/16 - 12	2.0 TO 25.0 GPM	VC16-3	2.88	2.05	1.50	1.058 / 1.060	1.121 / 1.123	60 ft-lbs

SCHEMATIC



DESCRIPTION

A PARTIALLY ADJUSTABLE, CARTRIDGE STYLE, PRESSURE-COMPENSATED, FLOW REGULATOR INTENDED FOR FIXED DISPLACEMENT HYDRAULIC CIRCUIT APPLICATIONS.

OPERATION

- COUNTERCLOCKWISE ADJUSTMENT TO INCREASE FLOW.
- THIS REGULATOR WILL MAINTAIN A CONSTANT FLOW RATE FROM (1) TO (2) THROUGHOUT A SPECIFIED PRESSURE RANGE.
- REVERSE FLOW PASSES THROUGH THE CONTROLLING ORIFICE AND IS UNCONTROLLED, PRODUCING A PRESSURE DIFFERENTIAL OF 120 PSI MAX. AT 150% OF CONTROLLED FLOW.

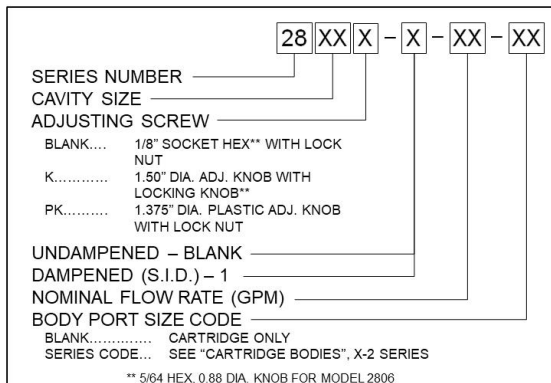
FEATURES

- PARTIALLY ADJUSTABLE
- INDUSTRY COMMON CAVITY.
- STEEL BODY, STEEL INTERNALS.
- HYDRAULIC FLUIDS - GENERAL.
- SURGES INTERNALLY DAMPENED FEATURE IS OPTIONAL FOR LOAD LOWERING APPLICATIONS.

SPECIFICATIONS

FLOW ADJUSTMENT RANGE	+/- 25% OF NOMINAL FLOW
FLOW TOLERANCE	+/- 10% (+/- 15% UNDER 1.5 GPM)
PRESSURE RANGE	120 PSI TO 3500 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

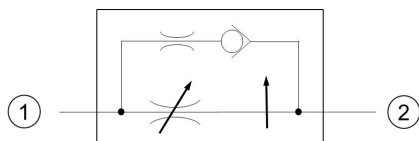


Model	THREAD	FLOW RANGE	CAVITY	L1	L2 (MAX.)	HEX	A	TORQUE
2806	9/16 - 18	0.4 TO 4.0 GPM	FC06-2	0.84	1.08	0.69	0.467 / 0.468	15 ft-lbs
2808	3/4 - 16	0.4 TO 6.0 GPM	VC08-2	1.10	2.20	0.88	0.495 / 0.497	20 ft-lbs
2810	7/8 - 14	0.5 TO 8.0 GPM	VC10-2	1.25	2.25	1.00	0.621 / 0.623	25 ft-lbs
2812	1 1/16 - 12	2.0 TO 15.0 GPM	VC12-2	1.81	2.75	1.25	0.870 / 0.873	40 ft-lbs
2816	1 5/16 - 12	2.0 TO 25.0 GPM	VC16-2	1.75	2.75	1.50	1.121 / 1.123	60 ft-lbs

This document, as well as all catalogs, price lists and information provided by Vonberg Valve, Inc., is intended to provide product information for further consideration by users having substantial technical expertise due to the variety of operating conditions and applications for these valves, the user, through its own analysis, testing and evaluation, is solely responsible for making the final selection of the products and ensuring that all safety, warning and performance requirements of the application or use are met. The valves described herein, including without limitation, all component features, specifications, designs, pricing and availability, are subject to change at any time at the sole discretion of Vonberg Valve, Inc. without prior notification.

1/15/19, 5:53 PM

SCHEMATIC



DESCRIPTION

A PARTIALLY ADJUSTABLE, CARTRIDGE STYLE, PRESSURE-COMPENSATED, FLOW REGULATOR INTENDED FOR FIXED DISPLACEMENT HYDRAULIC CIRCUIT APPLICATIONS.

OPERATION

- COUNTERCLOCKWISE ADJUSTMENT TO INCREASE FLOW.
- THIS REGULATOR WILL MAINTAIN A CONSTANT FLOW RATE FROM (1) TO (2) THROUGHOUT A SPECIFIED PRESSURE RANGE.
- REVERSE FLOW PASSES THROUGH THE CONTROLLING ORIFICE AND IS UNCONTROLLED, PRODUCING A PRESSURE DIFFERENTIAL OF 120 PSI MAX. AT 150% OF CONTROLLED FLOW.

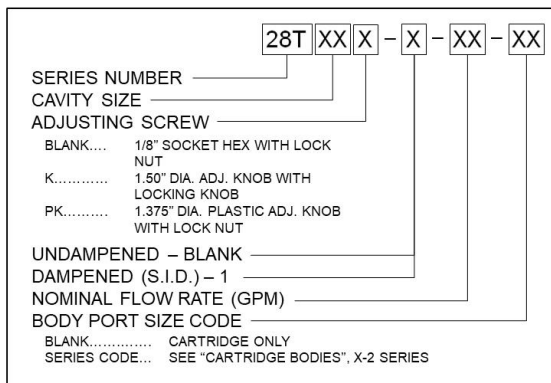
FEATURES

- PARTIALLY ADJUSTABLE
- T-SERIES CAVITY.
- STEEL BODY, STEEL INTERNALS.
- HYDRAULIC FLUIDS - GENERAL.
- SURGES INTERNALLY DAMPENED FEATURE IS OPTIONAL FOR LOAD LOWERING APPLICATIONS.

SPECIFICATIONS

FLOW ADJUSTMENT RANGE	+/- 25% OF NOMINAL FLOW
FLOW TOLERANCE	+/- 10% (+/- 15% UNDER 1.5 GPM)
PRESSURE RANGE	120 PSI TO 5000 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

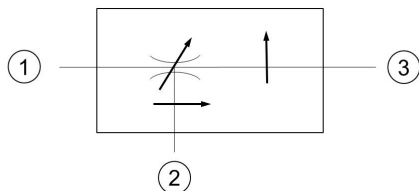


Model	THREAD	FLOW RANGE	CAVITY	L1	L2 (MAX.)	HEX	A	B	SD	TORQUE
28T162	M16 X 1.5	0.4 TO 6.0 GPM	T-162A	1.21	2.05	0.75	0.512 / 0.513	0.653 / 0.654	0.290	15 FT-LBS
28T13	M20 X 1.5	0.5 TO 8.0 GPM	T-13A	1.38	2.14	0.88	0.683 / 0.685	0.807 / 0.809	0.225	25 FT-LBS
28T5	1" - 14 UNS	2.0 TO 15.0 GPM	T-5A	1.63	2.85	1.13	0.871 / 0.873	1.027 / 1.029	0.280	35 FT-LBS
28T16	M36 X 2.0	2.0 TO 25.0 GPM	T-16A	1.81	3.01	1.63	1.246 / 1.247	1.433 / 1.435	0.220	45 FT-LBS

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8/5/19, 9:23 PM

SCHEMATIC



DESCRIPTION

A FULLY ADJUSTABLE, CARTRIDGE STYLE, PRESSURE-COMPENSATED, PRIORITY FLOW REGULATOR INTENDED FOR FIXED DISPLACEMENT HYDRAULIC CIRCUIT APPLICATIONS.

OPERATION

- THIS REGULATOR WILL MAINTAIN A CONSTANT FLOW RATE FROM (1) TO (3) THROUGHOUT A SPECIFIED PRESSURE RANGE.
- COUNTERCLOCKWISE ADJUSTMENT TO INCREASE FLOW.
- WHEN INLET FLOW EXCEEDS THE PRIORITY SETTING, THE SURPLUS FLOW IS DIVERTED TO (2), THE BYPASS.

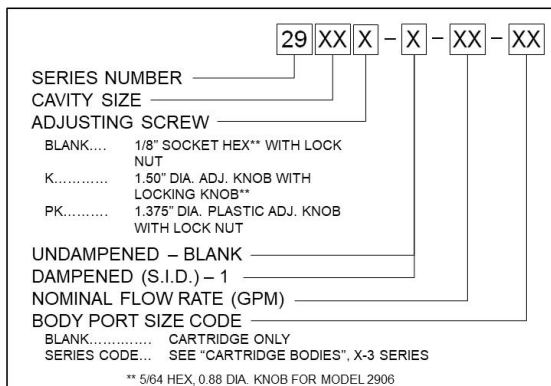
FEATURES

- PARTIALLY ADJUSTABLE.
- SURGES INTERNALLY DAMPENED FEATURE IS OPTIONAL FOR LOAD LOWERING APPLICATIONS.
- STEEL BODY, STEEL INTERNALS.
- HYDRAULIC FLUIDS - GENERAL.
- INDUSTRY COMMON CAVITY.

SPECIFICATIONS

FLOW ADJUSTMENT RANGE	+/- 25% OF NOMINAL FLOW SETTING
FLOW TOLERANCE	+/- 10% (+/- 15% UNDER 1.5 GPM)
PRESSURE RANGE	50 PSI TO 3500 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

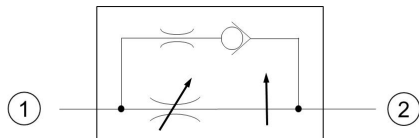


MODEL	THREAD	FLOW RANGE	CAVITY	L1	L2 (MAX.)	HEX	A	B	TORQUE
2908	3/4 - 16	0.4 TO 5.0 GPM	VC08-3	1.60	1.95	0.88	0.558 / 0.560	0.621 / 0.623	20 ft-lbs
2910	7/8 - 14	0.5 TO 8.0 GPM	VC10-3	1.79	1.72	1.00	0.621 / 0.623	0.683 / 0.685	25 ft-lbs
2912	1 1/16 - 12	1.0 TO 15.0 GPM	VC12-3	2.63	2.30	1.25	0.870 / 0.873	0.933 / 0.935	40 ft-lbs
2916	1 5/16 - 12	2.0 TO 25.0 GPM	VC16-3	2.88	2.05	1.50	1.058 / 1.060	1.121 / 1.123	60 ft-lbs

This document, as well as all catalogs, price lists and information provided by Vonberg Valve, Inc., is intended to provide product information for further consideration by users having substantial technical expertise due to the variety of operating conditions and applications for these valves, the user, through its own analysis, testing and evaluation, is solely responsible for making the final selection of the products and ensuring that all safety, warning and performance requirements of the application or use are met. The valves described herein, including without limitation, all component features, specifications, designs, pricing and availability, are subject to change at any time at the sole discretion of Vonberg Valve, Inc. without prior notification.

12/6/18, 3:54 AM

SCHEMATIC



DESCRIPTION

A FULLY ADJUSTABLE, INLINE STYLE, PRESSURE-COMPENSATED, FLOW REGULATOR INTENDED FOR FIXED DISPLACEMENT HYDRAULIC CIRCUIT APPLICATIONS.

OPERATION

- COUNTERCLOCKWISE ADJUSTMENT TO INCREASE FLOW.
- THIS REGULATOR WILL MAINTAIN A CONSTANT FLOW RATE FROM (1) TO (2) THROUGHOUT A SPECIFIED PRESSURE RANGE.
- REVERSE FLOW PASSES THROUGH THE CONTROLLING ORIFICE AND IS UNCONTROLLED PRODUCING A PRESSURE DIFFERENTIAL OF 120 PSI MAX. AT 150% OF CONTROLLED FLOW.

FEATURES

- HYDRAULIC FLUIDS - GENERAL.
- ALUMINUM AND STEEL BODY, STEEL INTERNALS.
- UNIQUE AXIAL ROTATION FOR FULL ADJUSTABILITY.
- SURGES INTERNALLY DAMPENED FEATURE IS OPTIONAL FOR LOAD LOWERING APPLICATIONS.

SPECIFICATIONS

FLOW TOLERANCE	+/- 10% (+/- 15% UNDER 1.5 GPM)
PRESSURE RANGE	50 PSI TO 3500 PSI
TEMPERATURE RANGE	250°F TO -40°F

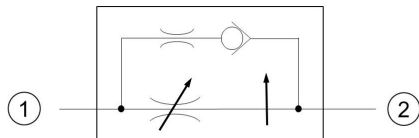
ORDERING INFORMATION

3100
X
-
X

SERIES NUMBER _____
 PORT SIZE _____
 UNDAMPENED – BLANK _____
 DAMPENED (S.I.D.) – 1 _____

Model	INLET/OUTLET	FLOW RANGE	L	HEX
31002	1/4-18 NPTF PORT	0.2 TO 6.0 GPM	4.66	1.125

SCHEMATIC



DESCRIPTION

A FULLY ADJUSTABLE, INLINE STYLE, PRESSURE-COMPENSATED, FLOW REGULATOR INTENDED FOR FIXED DISPLACEMENT HYDRAULIC CIRCUIT APPLICATIONS.

OPERATION

- THIS REGULATOR WILL MAINTAIN A CONSTANT FLOW RATE FROM (1) TO (2) THROUGHOUT A SPECIFIED PRESSURE RANGE.
- COUNTERCLOCKWISE ADJUSTMENT TO INCREASE FLOW.
- REVERSE FLOW PASSES THROUGH THE CONTROLLING ORIFICE AND IS UNCONTROLLED PRODUCING A PRESSURE DIFFERENTIAL OF 120 PSI MAX. AT 150% OF CONTROLLED FLOW.

FEATURES

- HYDRAULIC FLUIDS - GENERAL.
- ALUMINUM AND STEEL BODY, STEEL INTERNALS.
- SURGES INTERNALLY DAMPENED FEATURE IS OPTIONAL FOR LOAD LOWERING APPLICATIONS.
- UNIQUE AXIAL ROTATION FOR FULL ADJUSTABILITY.

SPECIFICATIONS

FLOW TOLERANCE	+/- 10% (+/- 15% UNDER 1.5 GPM)
PRESSURE RANGE	50 PSI TO 3500 PSI
TEMPERATURE RANGE	250°F TO -40°F

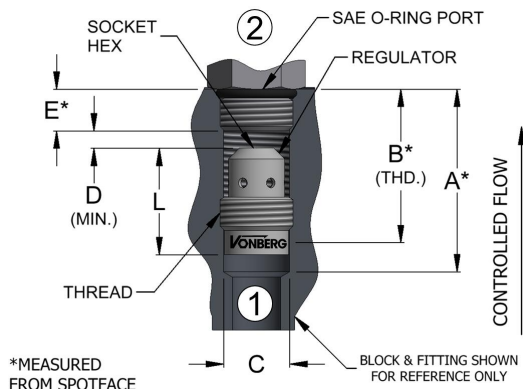
ORDERING INFORMATION

3200 **X** - **X**

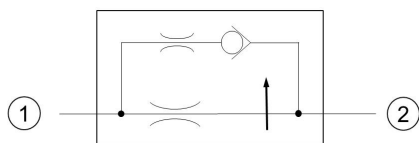
SERIES NUMBER _____
 PORT SIZE _____
 UNDAMPENED – BLANK _____
 DAMPENED (S.I.D.) – 1 _____

Model	INLET/OUTLET	FLOW RANGE	L	HEX
32004	-04 SAE PORT	0.2 TO 5.0 GPM	4.75	1.125
32006	-06 SAE PORT	0.5 TO 6.0 GPM	3.85	1.000
32008	-08 SAE PORT	1.0 TO 8.0 GPM	4.50	1.250

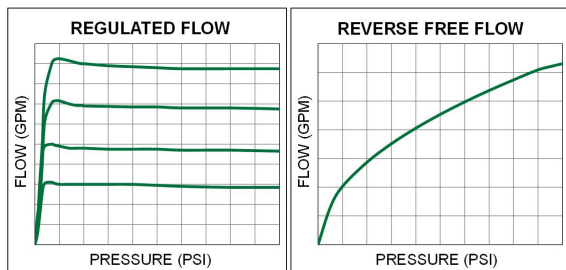
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

A NON-ADJUSTABLE, THREADED INSERTABLE IN-LINE, PRESSURE-COMPENSATED, FLOW REGULATOR INTENDED FOR FIXED DISPLACEMENT HYDRAULIC CIRCUIT APPLICATIONS.

OPERATION

- REVERSE FLOW PASSES THROUGH THE CONTROLLING ORIFICE AND IS UNCONTROLLED PRODUCING A PRESSURE DIFFERENTIAL OF 120 PSI MAX. AT 150% OF CONTROLLED FLOW.
- THIS REGULATOR WILL MAINTAIN A CONSTANT FLOW RATE FROM (1) TO (2) THROUGHOUT A SPECIFIED PRESSURE RANGE.

FEATURES

- NO INTERNAL PACKINGS
- HYDRAULIC FLUIDS - GENERAL.
- STEEL BODY, STEEL INTERNALS.
- SURGES INTERNALLY DAMPENED FEATURE IS OPTIONAL FOR LOAD LOWERING APPLICATIONS.

SPECIFICATIONS

FLOW TOLERANCE	+/- 10% (+/- 15% UNDER 1.5 GPM)
PRESSURE RANGE	50 PSI TO 3500 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

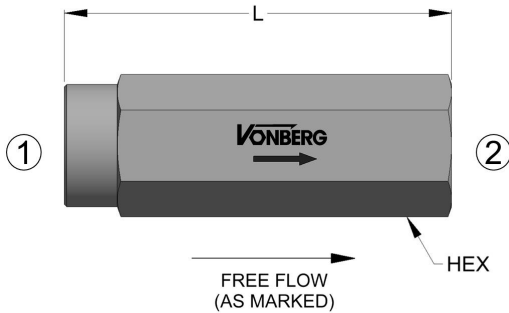
SERIES NUMBER 65
 PORT SIZE XX
 UNDAMPENED - BLANK X
 DAMPENED (S.I.D.) - 1 XX
 REGULATED FLOW RATE (GPM) _____

Model	THREAD	FLOW RANGE	L	A	B	C	D	E	HEX	TORQUE
6506	9/16 - 18	0.25 TO 2.5 GPM	0.875	1.50	1.22	0.502 - 0.515	0.10	0.391	0.187	5 ft-lbs
6508	3/4 - 16	0.5 TO 5.0 GPM	1.100	1.90	1.46	0.682 - 0.696	0.18	0.438	0.250	8 ft-lbs
6510	7/8 - 14	0.5 TO 15.0 GPM	1.100	2.12	1.58	0.798 - 0.814	0.25	0.500	0.250	12 ft-lbs
6512	1 1/16 - 12	1.0 TO 20.0 GPM	1.780	3.00	2.24	0.972 - 0.990	0.31	0.594	0.312	18 ft-lbs
6516	1 5/16 - 12	1.0 TO 25.0 GPM	1.875	3.25	2.42	1.222 - 1.240	0.38	0.594	0.375	30 ft-lbs

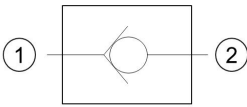
DIRECTIONAL VALVES



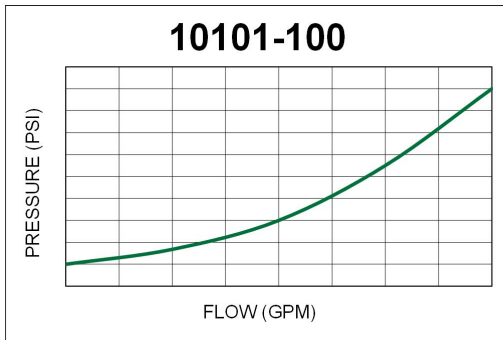
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, BALL TYPE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

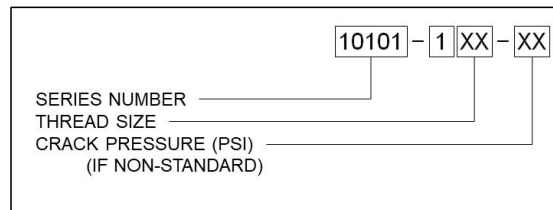
FEATURES

- NO INTERNAL PACKINGS.
- STEEL BODY AND CHROME BALL.
- LOW INTERNAL LEAKAGE, 5 DPM.

SPECIFICATIONS

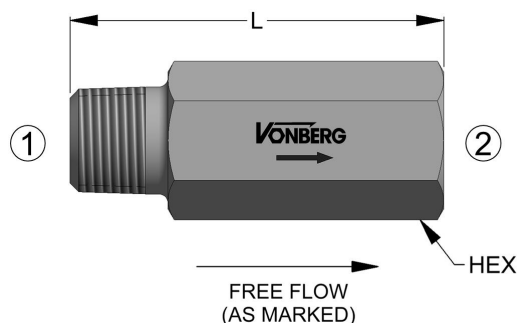
OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

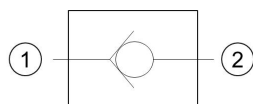


MODEL	INLET / OUTLET	FLOW CAPACITY	L	HEX
10101-102	1/4-18 NPTF	3.0 GPM	2.40	0.75
10101-103	3/8-18 NPTF	6.0 GPM	2.75	0.88
10101-104	1/2-14 NPTF	10.0 GPM	3.50	1.13

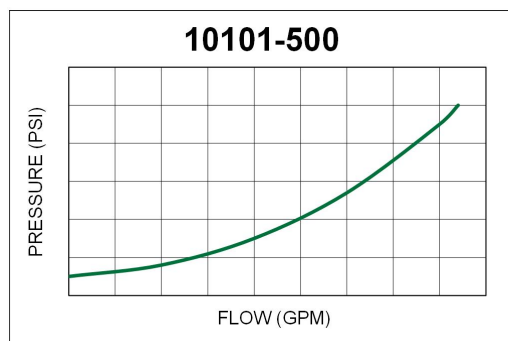
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, BALL TYPE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

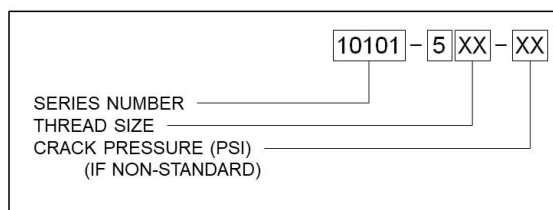
FEATURES

- NO INTERNAL PACKINGS.
- LOW INTERNAL LEAKAGE, 5 DPM.
- STEEL BODY AND CHROME BALL.

SPECIFICATIONS

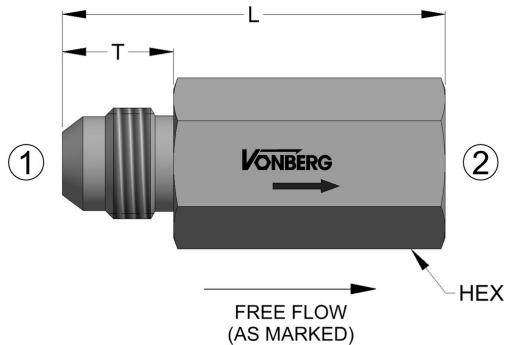
OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

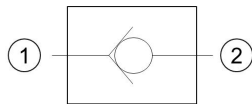


MODEL	INLET 1	OUTLET 2	FLOW CAPACITY	L	HEX
10101-502	1/4-18 NPTF BOSS	1/4-18 NPTF PORT	3.0 GPM	1.94	0.75
10101-503	3/8-18 NPTF BOSS	3/8-18 NPTF PORT	6.0 GPM	2.38	0.88
10101-504	1/2-14 NPTF BOSS	1/2-14 NPTF PORT	10.0 GPM	3.00	1.13

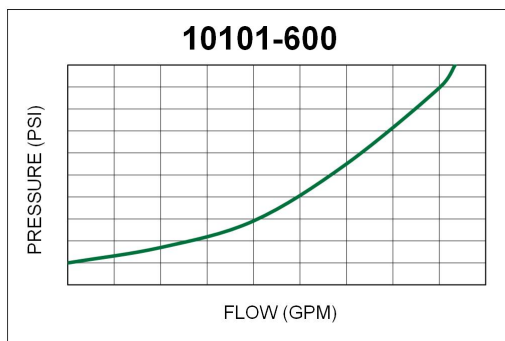
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, BALL TYPE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

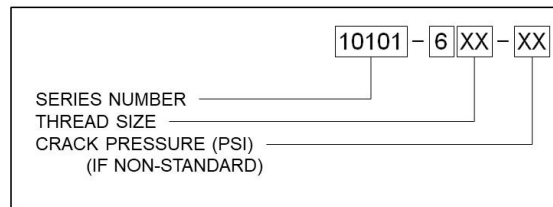
FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- NO INTERNAL PACKINGS.
- LOW INTERNAL LEAKAGE, 5 DPM.
- STEEL BODY AND CHROME BALL.

SPECIFICATIONS

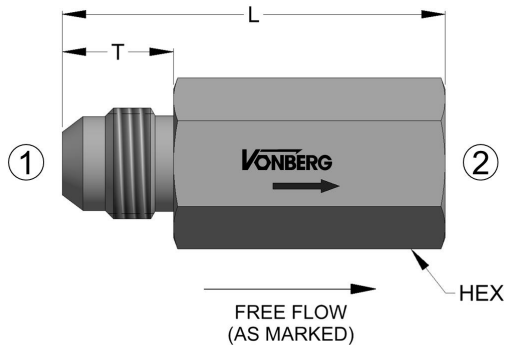
OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

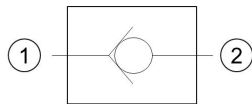


MODEL	INLET 1	OUTLET 2	FLOW CAPACITY	L	T	HEX
10101-606	-06 JIC - 9/16-18	1/4-18 NPTF PORT	3.0 GPM	1.94	0.562	0.75
10101-608	- 08 JIC - 3/4-16	3/8-18 NPTF PORT	6.0 GPM	2.38	0.656	0.88

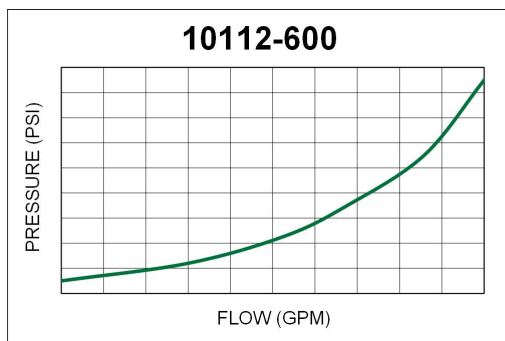
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, BALL TYPE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

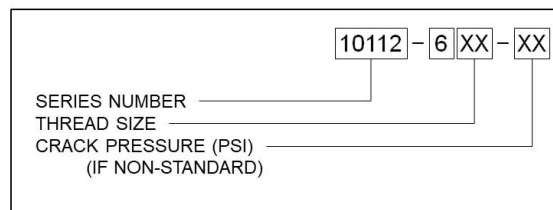
FEATURES

- NO INTERNAL PACKINGS.
- LOW INTERNAL LEAKAGE, 5 DPM.
- STEEL BODY AND CHROME BALL.

SPECIFICATIONS

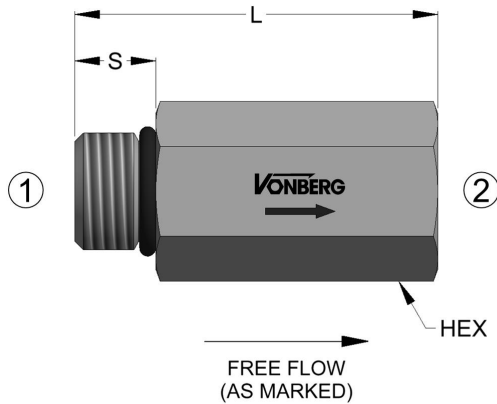
OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

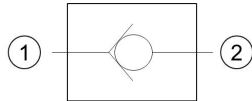


MODEL	INLET 1	OUTLET 2	THREAD	FLOW CAPACITY	L	HEX
10112-604	-04 JIC	-04 SAE PORT	7/16-20	2.0 GPM	1.93	0.625
10112-606	-06 JIC	-06 SAE PORT	9/16-18	4.0 GPM	1.94	0.750
10112-608	-08 JIC	-08 SAE PORT	3/4-16	6.0 GPM	2.56	0.938
10112-610	-10 JIC	-10 SAE PORT	7/8-14	10.0 GPM	2.82	1.000

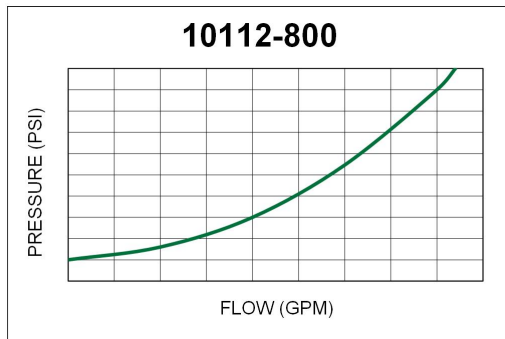
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, BALL TYPE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.
- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.

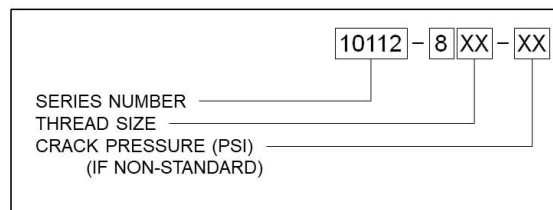
FEATURES

- NO INTERNAL PACKINGS.
- LOW INTERNAL LEAKAGE, 5 DPM.
- STEEL BODY AND CHROME BALL.

SPECIFICATIONS

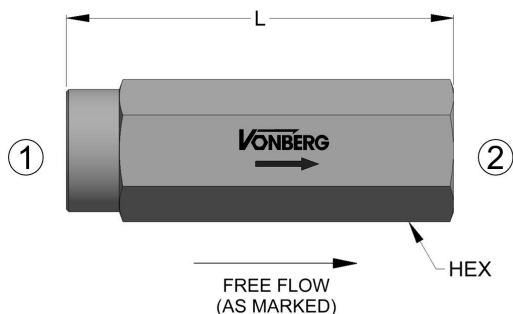
OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

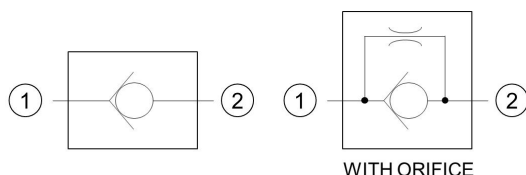


MODEL	INLET 1	OUTLET 2	THREAD	FLOW CAPACITY	L	HEX
10112-804	-04 SAE	-04 SAE PORT	7/16-20	2.0 GPM	1.72	0.625
10112-806	-06 SAE	-06 SAE PORT	9/16-18	4.0 GPM	1.75	0.750
10112-808	-08 SAE	-08 SAE PORT	3/4-16	6.0 GPM	2.31	0.938
10112-810	-10 SAE	-10 SAE PORT	7/8-14	10.0 GPM	2.56	1.000

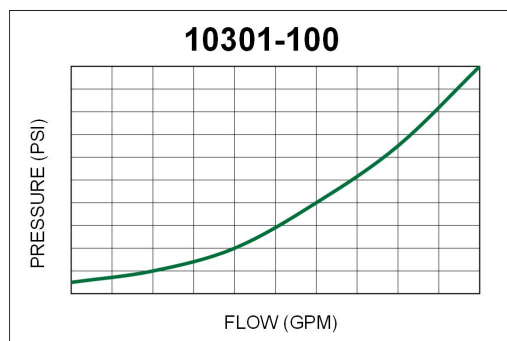
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, POPPET TYPE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

FEATURES

- LOW PRESSURE DROP.
- NO INTERNAL PACKINGS.
- ALUMINUM BODY AND STEEL POPPET.
- LOW INTERNAL LEAKAGE, 5 DPM.
- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.

SPECIFICATIONS

OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

10301 - 1 XX - XX

SERIES NUMBER _____

THREAD SIZE _____

CRACK PRESSURE (PSI) _____

(IF NON-STANDARD)

ORIFICE DIAMETER (0.001") _____

(OPTIONAL)

MODEL	INLET / OUTLET	FLOW CAPACITY	L	HEX
10301-101	1/8-27 NPTF	2.0 GPM	1.80	0.562
10301-102	1/4-18 NPTF	5.0 GPM	2.40	0.750
10301-103	3/8-18 NPTF	10.0 GPM	2.75	0.875
10301-104	1/2-14 NPTF	20.0 GPM	3.50	1.125
10301-106	3/4-14 NPTF	40.0 GPM	4.00	1.375
10301-108	1 - 11 1/2 NPTF	50.0 GPM	4.78	1.625
10301-110	1 1/4 - 11 1/2 NPTF	60.0 GPM	4.90	2.000
10301-112	1 1/2 - 11 1/2 NPTF	80.0 GPM	7.00	2.250

This document, as well as all catalogs, price lists and information provided by Vonberg Valve, Inc., is intended to provide product information for further consideration by users having substantial technical expertise due to the variety of operating conditions and applications for these valves, the user, through its own analysis, testing and evaluation, is solely responsible for making the final selection of the products and ensuring that all safety, warning and performance requirements of the application or use are met. The valves described herein, including without limitation, all component features, specifications, designs, pricing and availability, are subject to change at any time at the sole discretion of Vonberg Valve, Inc. without prior notification.

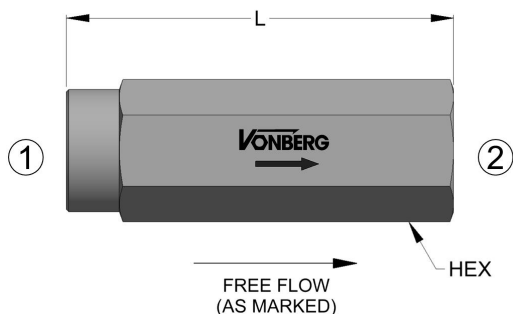
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Vonberg Valve, inc.
Hydraulic Valve Specialists

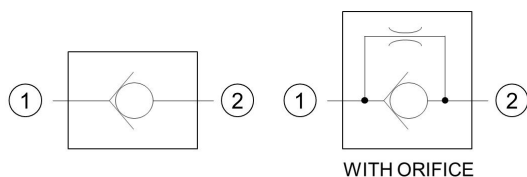
3800 Industrial Avenue • Rolling Meadows, IL 60008-1085 USA © 2015
phone: 847-259-3800 • fax: 847-259-3997 • email: info@vonberg.com

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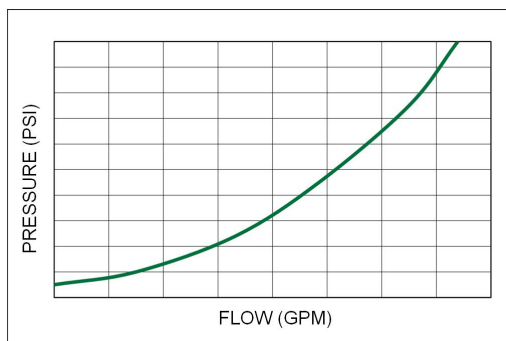
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, POPPET TYPE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

FEATURES

- ALUMINUM BODY AND STEEL POPPET.
- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- NO INTERNAL PACKINGS.
- LOW PRESSURE DROP.
- LOW INTERNAL LEAKAGE, 5 DPM.

SPECIFICATIONS

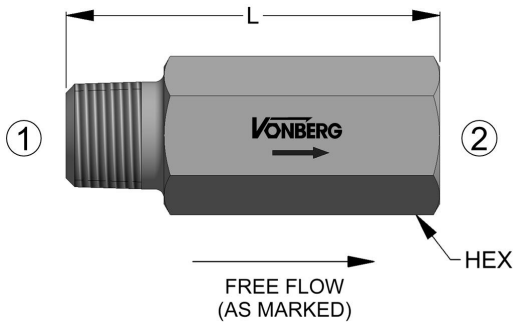
OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

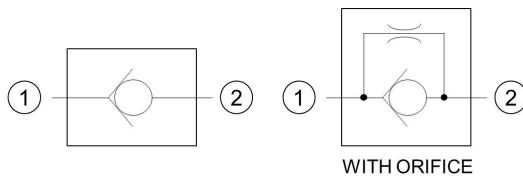
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SERIES NUMBER							
THREAD SIZE							
CRACK PRESSURE (PSI)							
(IF NON-STANDARD)							
ORIFICE DIAMETER (0.001")							
(OPTIONAL)							

MODEL	INLET / OUTLET	FLOW CAPACITY	L	HEX
10301-101G	G 1/8-28	4.0 GPM	1.50	0.500
10301-102G	G 1/4-19	10.0 GPM	2.15	0.750
10301-103G	G 3/8-19	15.0 GPM	2.50	0.875
10301-104G	G 1/2-14	30.0 GPM	3.00	1.062
10301-106G	G 3/4-14	40.0 GPM	3.60	1.375

PRODUCT



SCHEMATIC



DESCRIPTION

AN IN-LINE STYLE, POPPET TYPE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- NO INTERNAL PACKINGS.
- LOW PRESSURE DROP
- LOW INTERNAL LEAKAGE, 5 DPM.
- STEEL BODY AND POPPET.

SPECIFICATIONS

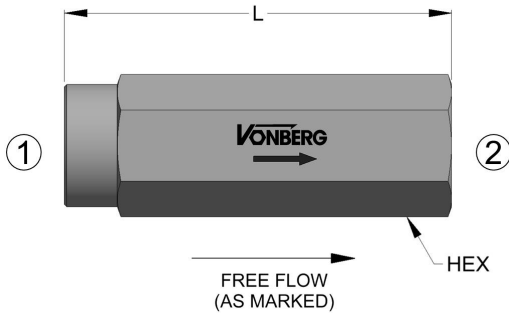
OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

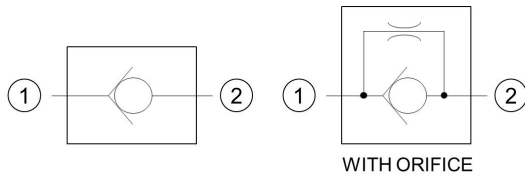
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SERIES NUMBER						
THREAD SIZE						
CRACK PRESSURE (PSI)						
(IF NON-STANDARD)						
ORIFICE DIAMETER (0.001")						
(OPTIONAL)						

MODEL	INLET 1	OUTLET 2	FLOW CAPACITY	L	HEX
10301-502	1/4-18 NPTF BOSS	1/4-18 NPTF PORT	5.0 GPM	1.94	0.75
10301-503	3/8-18 NPTF BOSS	3/8-18 NPTF PORT	10.0 GPM	2.38	0.88
10301-504	1/2-14 NPTF BOSS	1/2-14 NPTF PORT	20.0 GPM	3.00	1.13
10301-506	3/4-14 NPTF BOSS	3/4-14 NPTF PORT	40.0 GPM	3.65	1.38
10301-508	1-11 1/2 NPTF BOSS	1-11 1/2 NPTF PORT	50.0 GPM	4.40	1.63

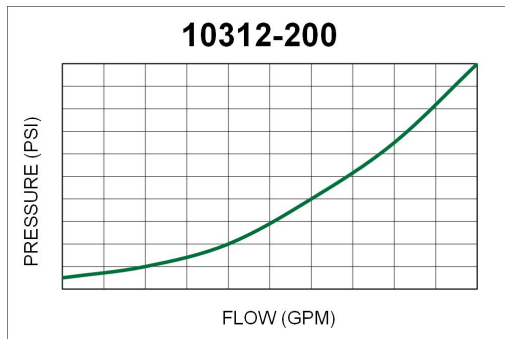
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, POPPET TYPE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

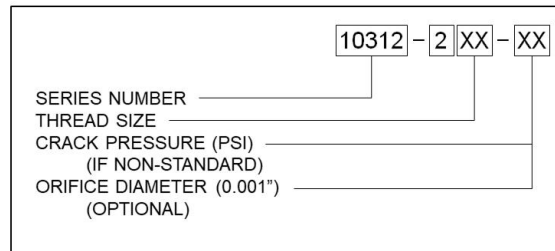
FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- LOW PRESSURE DROP.
- NO INTERNAL PACKINGS.
- LOW INTERNAL LEAKAGE, 5 DPM.
- ALUMINUM BODY AND STEEL POPPET.

SPECIFICATIONS

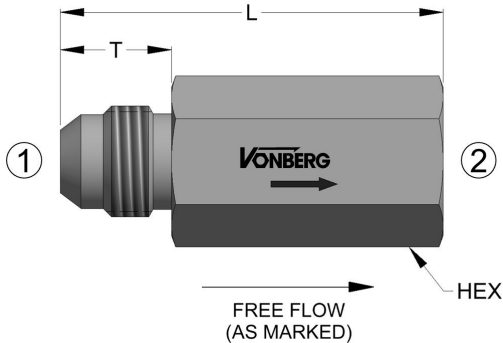
OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

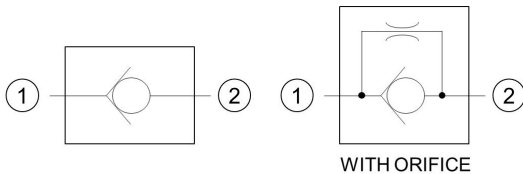


MODEL	INLET / OUTLET	THREAD	FLOW CAPACITY	L	HEX
10312-204	-04 SAE	7/16-20	5.0 GPM	2.05	0.625
10312-206	-06 SAE	9/16-18	10.0 GPM	2.15	0.750
10312-208	-08 SAE	3/4-16	20.0 GPM	2.90	0.937
10312-210	-10 SAE	7/8-14	30.0 GPM	3.40	1.125
10312-212	-12 SAE	1 1/16-12	40.0 GPM	3.90	1.375
10312-216	-16 SAE	1 5/16-12	50.0 GPM	4.78	1.625
10312-220	-20 SAE	1 5/8-12	60.0 GPM	4.78	2.000

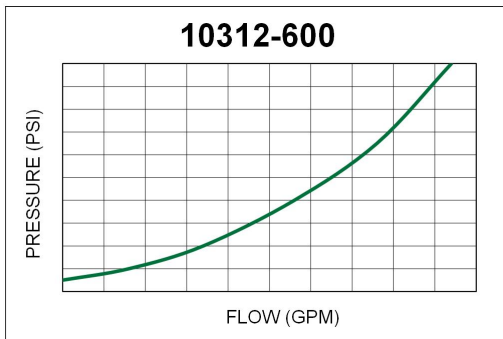
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, POPPET TYPE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

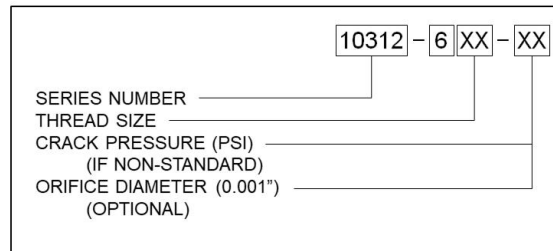
FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- LOW PRESSURE DROP.
- NO INTERNAL PACKINGS.
- LOW INTERNAL LEAKAGE, 5 DPM.
- ALUMINUM BODY AND STEEL POPPET.

SPECIFICATIONS

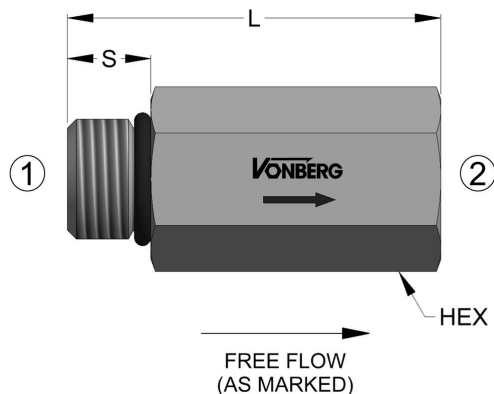
OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

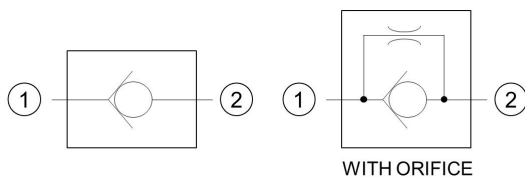


MODEL	INLET 1	OUTLET 2	THREAD	FLOW CAPACITY	L	HEX
10312-604	-04 JIC	-04 SAE PORT	7/16-20	3.0 GPM	1.93	0.625
10312-606	-06 JIC	-06 SAE PORT	9/16-18	5.0 GPM	1.94	0.750
10312-608	-08 JIC	-08 SAE PORT	3/4-16	20.0 GPM	2.72	0.938
10312-610	-10 JIC	-10 SAE PORT	7/8-14	30.0 GPM	3.25	1.125
10312-612	-12 JIC	-12 SAE PORT	1 1/16-12	40.0 GPM	3.75	1.250
10312-616	-16 JIC	-16 SAE PORT	1 5/16-12	50.0 GPM	4.50	1.625

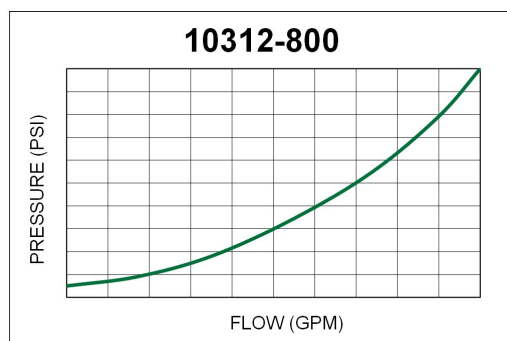
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, POPPET TYPE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

FEATURES

- NO INTERNAL PACKINGS.
- LOW PRESSURE DROP.
- ALUMINUM BODY AND STEEL POPPET.
- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- LOW INTERNAL LEAKAGE, 5 DPM.

SPECIFICATIONS

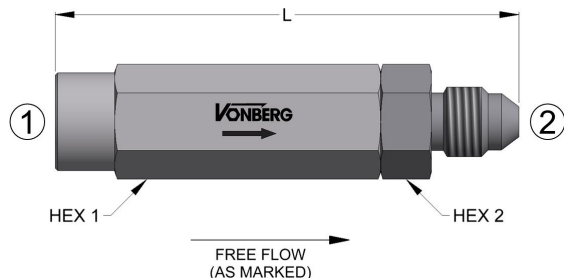
OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

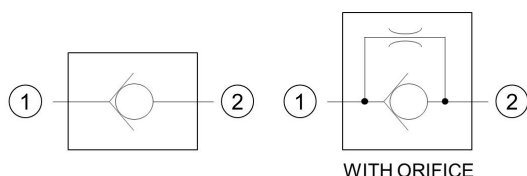
10312 - 8 XX - XX			
SERIES NUMBER	10312	8	XX
THREAD SIZE			
CRACK PRESSURE (PSI)			
(IF NON-STANDARD)			
ORIFICE DIAMETER (0.001")			
(OPTIONAL)			

MODEL	INLET 1	OUTLET 2	THREAD	FLOW CAPACITY	L	HEX
10312-804	-04 SAE	-04 SAE PORT	7/16-20	3.0 GPM	1.74	0.625
10312-806	-06 SAE	-06 SAE PORT	9/16-18	10.0 GPM	1.78	0.750
10312-808	-08 SAE	-08 SAE PORT	3/4-16	20.0 GPM	2.50	0.938
10312-810	-10 SAE	-10 SAE PORT	7/8-14	30.0 GPM	3.00	1.125
10312-812	-12 SAE	-12 SAE PORT	1 1/16-12	40.0 GPM	3.48	1.250
10312-816	-16 SAE	-16 SAE PORT	1 5/16-12	50.0 GPM	4.18	1.625

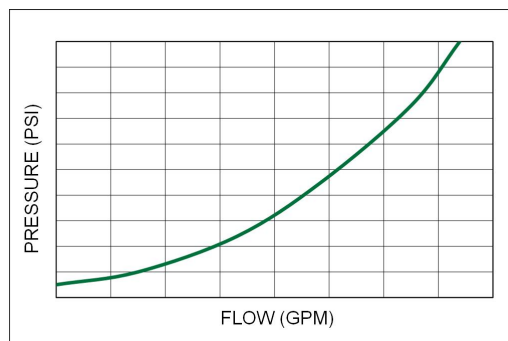
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, POPPET TYPE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- LOW PRESSURE DROP.
- NO INTERNAL PACKINGS.
- LOW INTERNAL LEAKAGE, 5 DPM.
- ALUMINUM / STEEL BODY AND STEEL POPPET.

SPECIFICATIONS

OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

10412 - 2 XX - XX

SERIES NUMBER _____

THREAD SIZE _____

CRACK PRESSURE (PSI) _____

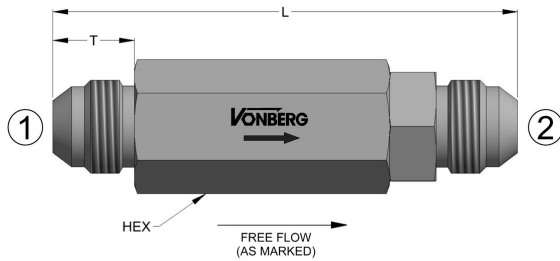
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ORIFICE DIAMETER (0.001") _____

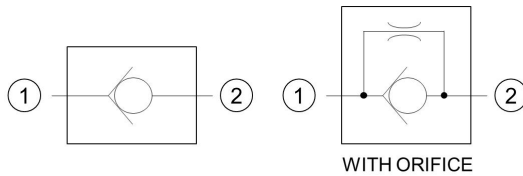
(OPTIONAL)

MODEL	INLET 1	OUTLET 2	THREAD	FLOW CAPACITY	L	HEX 1	HEX 2
10412-204	-04 SAE	-04 JIC	7/16-20	5.0 GPM	2.90	0.63	0.56
10412-206	-06 SAE	-06 JIC	9/16-18	10.0 GPM	3.06	0.75	0.69
10412-208	-08 SAE	-08 JIC	3/4-16	20.0 GPM	3.94	0.94	0.88
10412-210	-10 SAE	-10 JIC	7/8-14	30.0 GPM	4.61	1.13	1.00
10412-212	-12 SAE	-12 JIC	1 1/16-12	40.0 GPM	5.28	1.38	1.25
10412-216	-16 SAE	-16 JIC	1 5/16-12	50.0 GPM	6.23	1.63	1.50

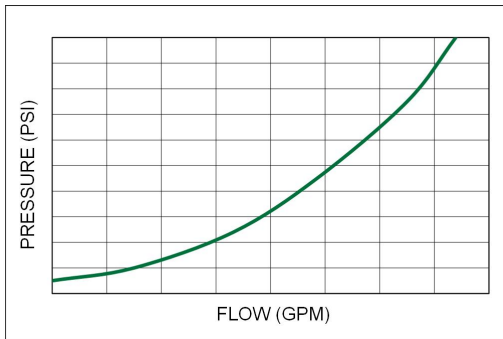
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, POPPET TYPE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- LOW PRESSURE DROP.
- NO INTERNAL PACKINGS.
- LOW INTERNAL LEAKAGE, 5 DPM.
- ALUMINUM BODY AND STEEL POPPET.

SPECIFICATIONS

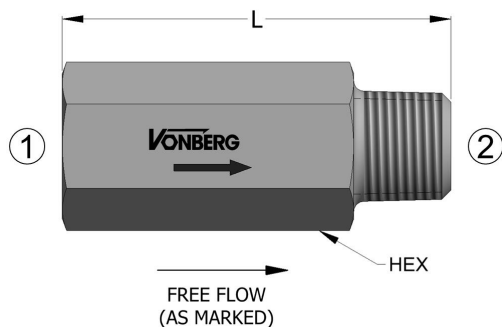
OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

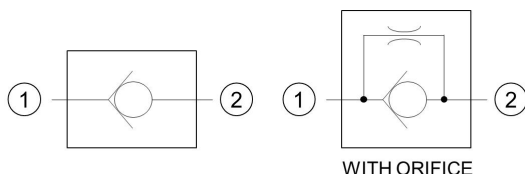
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SERIES NUMBER						
THREAD SIZE						
CRACK PRESSURE (PSI)						
(IF NON-STANDARD)						
ORIFICE DIAMETER (0.001")						
(OPTIONAL)						

MODEL	INLET / OUTLET	THREAD	FLOW CAPACITY	L	HEX
10412-604	-04 JIC	7/16-20	5.0 GPM	2.72	0.625
10412-606	-06 JIC	9/16-18	5.0 GPM	2.85	0.750
10412-608	-08 JIC	3/4-16	20.0 GPM	3.75	0.937
10412-610	-10 JIC	7/8-14	30.0 GPM	4.45	1.125
10412-612	-12 JIC	1 1/16-12	40.0 GPM	5.13	1.375
10412-616	-16 JIC	1 5/16-12	50.0 GPM	5.95	1.625
10412-620	-20 JIC	1 5/8-12	60.0 GPM	6.35	2.000

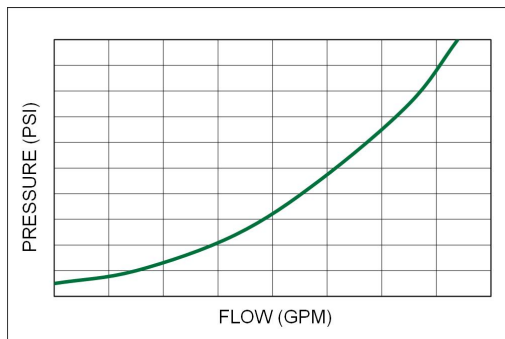
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, POPPET TYPE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- NO INTERNAL PACKINGS.
- LOW PRESSURE DROP
- LOW INTERNAL LEAKAGE, 5 DPM.
- STEEL BODY AND POPPET.

SPECIFICATIONS

OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

10901 - 1 XX - XX

SERIES NUMBER _____

THREAD SIZE _____

CRACK PRESSURE (PSI) _____

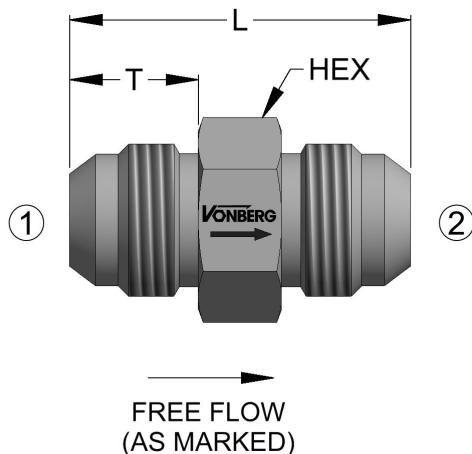
(IF NON-STANDARD)

ORIFICE DIAMETER (0.001") _____

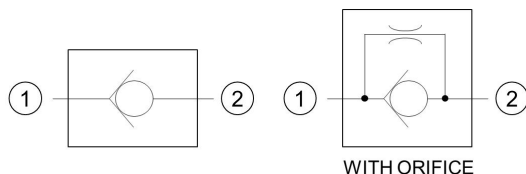
(OPTIONAL)

MODEL	INLET 1	OUTLET 2	FLOW CAPACITY	L	HEX
10901-102	1/4-18 NPTF PORT	1/4-18 NPTF BOSS	4.0 GPM	1.75	0.75
10901-103	3/8-18 NPTF PORT	3/8-18 NPTF BOSS	5.0 GPM	1.88	0.88
10901-104	1/2-14 NPTF PORT	1/2-14 NPTF BOSS	10.0 GPM	2.60	1.13
10901-106	3/4-14 NPTF PORT	3/4-14 NPTF BOSS	15.0 GPM	3.40	1.38
10901-108	1-11 1/2 NPTF PORT	1-11 1/2 NPTF BOSS	30.0 GPM	4.00	1.63

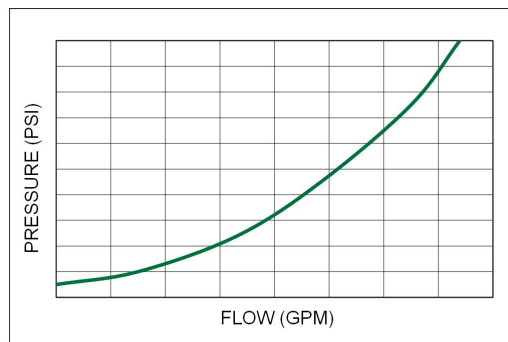
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.
- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.

FEATURES

- HIGH FLOW CAPACITY.
- LOW INTERNAL LEAKAGE, 5 DPM.
- NO SNAP-RING.
- STEEL BODY AND POPPET.
- FULLY ENCAPSULATED SPRING.
- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.

SPECIFICATIONS

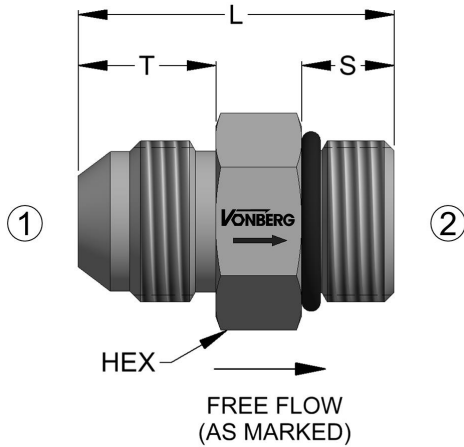
OPERATING PRESSURE	5000 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

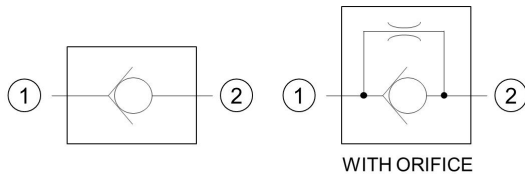
11	XX	-	XX
SERIES NUMBER _____ THREAD SIZE _____ CRACK PRESSURE (PSI) _____ (IF NON-STANDARD) ORIFICE DIAMETER (0.001") _____ (OPTIONAL)			

MODEL	INLET/OUTLET	THREAD	L	T	HEX
1104	-04 JIC	7/16-20	1.45	0.550	0.562
1106	-06 JIC	9/16-18	1.45	0.555	0.750
1108	-08 JIC	3/4-16	1.82	0.655	0.875
1110	-10 JIC	7/8-14	2.00	0.760	1.000
1112	-12 JIC	1 1/16-12	2.45	0.860	1.250
1116	-16 JIC	1 5/16-12	2.60	0.910	1.500
1120	-20 JIC	1 5/8-12	2.75	0.960	1.875

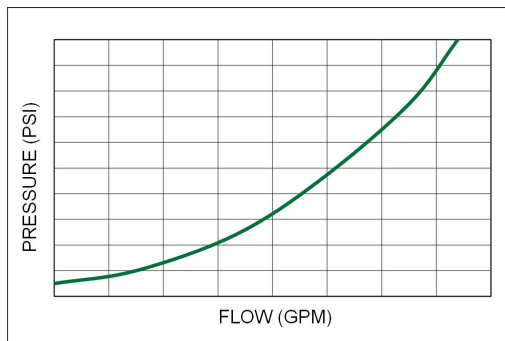
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.
- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.

FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- LOW INTERNAL LEAKAGE, 5 DPM.
- HIGH FLOW CAPACITY.
- NO SNAP-RING.
- FULLY ENCAPSULATED SPRING.
- STEEL BODY AND POPPET.

SPECIFICATIONS

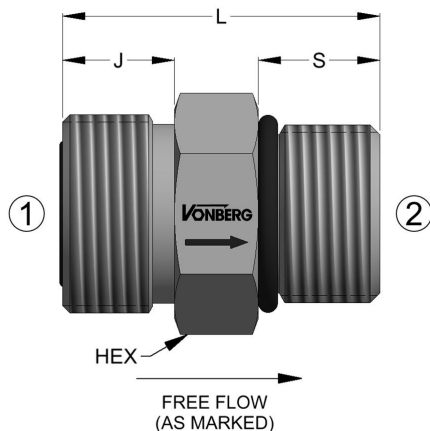
OPERATING PRESSURE	5000 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

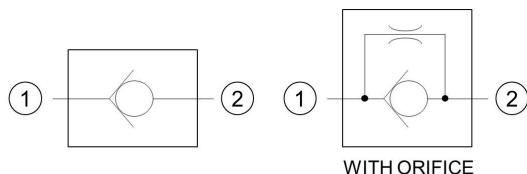
11	XX	F	-	XX
SERIES NUMBER _____ THREAD SIZE _____ CRACK PRESSURE (PSI) _____ (IF NON-STANDARD) ORIFICE DIAMETER (0.001") _____ (OPTIONAL)				

MODEL	INLET 1	OUTLET 2	THREAD	L	T	S	HEX
1104F	-04 JIC	-04 SAE	7/16-20	1.23	0.550	0.360	0.562
1106F	-06 JIC	-06 SAE	9/16-18	1.28	0.555	0.390	0.750
1108F	-08 JIC	-08 SAE	3/4-16	1.60	0.655	0.440	0.875
1110F	-10 JIC	-10 SAE	7/8-14	1.93	0.760	0.500	1.000
1112F	-12 JIC	-12 SAE	1 1/16-12	2.18	0.860	0.594	1.250
1116F	-16 JIC	-16 SAE	1 5/16-12	2.50	0.910	0.594	1.500
1120F	-20 JIC	-20 SAE	1 5/8-12	2.57	0.960	0.594	1.875

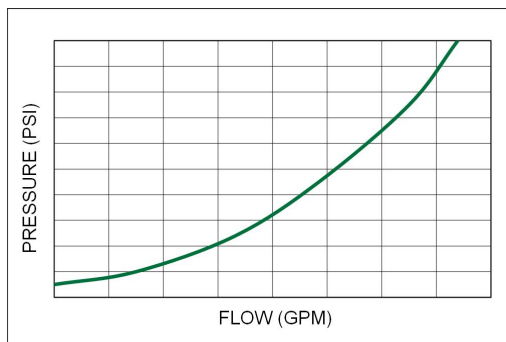
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- HIGH FLOW CAPACITY.
- LOW INTERNAL LEAKAGE, 5 DPM.
- NO SNAP-RING.
- FULLY ENCAPSULATED SPRING.
- STEEL BODY AND POPPET.

SPECIFICATIONS

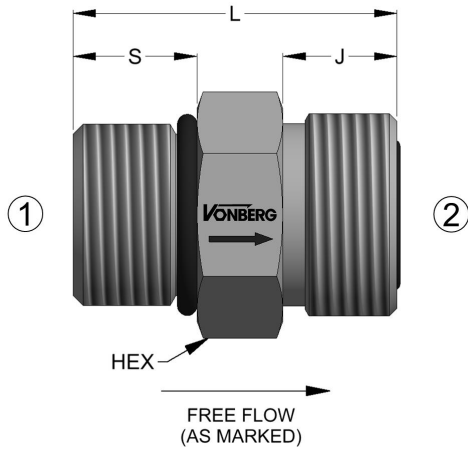
OPERATING PRESSURE	5000 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

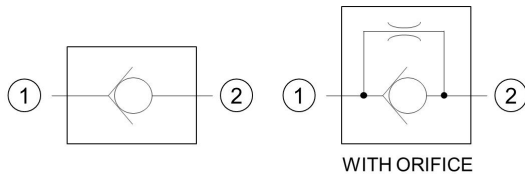
11	XX	J	-	XX
SERIES NUMBER _____ THREAD SIZE _____ CRACK PRESSURE (PSI) _____ (IF NON-STANDARD) ORIFICE DIAMETER (0.001") _____ (OPTIONAL)				

MODEL	INLET 1	OUTLET 2	L	J	S	HEX
1104J	-04 ORS - 9/16-18	-04 SAE - 7/16-20	1.07	0.38	0.43	0.625
1106J	-06 ORS - 11/16-16	-06 SAE - 9/16-18	1.16	0.44	0.47	0.750
1108J	-08 ORS - 13/16-16	-08 SAE - 3/4-16	1.40	0.50	0.55	0.875
1110J	-10 ORS - 1-14	-10 SAE - 7/8-14	1.65	0.61	0.63	1.125
1112J	-12 ORS - 1 3/16-12	-12 SAE - 1 1/16-12	1.90	0.67	0.73	1.250
1116J	-16 ORS - 1 7/16-12	-16 SAE - 1 5/16-12	2.00	0.69	0.73	1.50
1120J	-20 ORS - 1 11/16-12	-20 SAE - 1 5/8-20	2.45	0.69	0.73	1.875
1124J	-24 ORS - 2-12	-24 SAE - 1 7/8-12	2.80	0.69	0.73	2.13

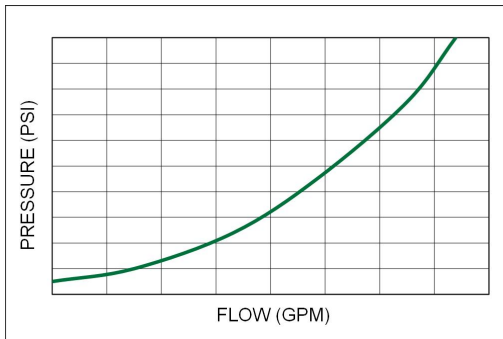
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- HIGH FLOW CAPACITY.
- LOW INTERNAL LEAKAGE, 5 DPM.
- STEEL BODY AND POPPET.
- NO SNAP-RING.
- FULLY ENCAPSULATED SPRING.

SPECIFICATIONS

OPERATING PRESSURE	5000 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

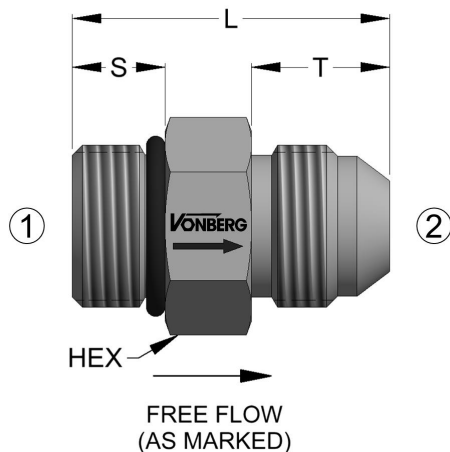
11	XX	K	-	XX
SERIES NUMBER _____ THREAD SIZE _____ CRACK PRESSURE (PSI) _____ (IF NON-STANDARD) ORIFICE DIAMETER (0.001") _____ (OPTIONAL)				

MODEL	INLET 1	OUTLET 2	L	J	S	HEX
1104K	-04 SAE - 7/16-20	-04 ORS - 9/16-18	1.07	0.38	0.43	0.625
1106K	-06 SAE - 9/16-18	-06 ORS - 11/16-16	1.16	0.44	0.47	0.750
1108K	-08 SAE - 3/4-16	-08 ORS - 13/16-16	1.40	0.50	0.55	0.875
1110K	-10 SAE - 7/8-14	-10 ORS - 1-14	1.65	0.61	0.63	1.125
1112K	-12 SAE - 1 1/16-12	-12 ORS - 1 3/16-12	1.90	0.67	0.73	1.250
1116K	-16 SAE - 1 5/16-12	-16 ORS - 1 7/16-12	2.00	0.69	0.73	1.500
1120K	-20 SAE - 1 5/8-12	-20 ORS - 1 11/16-12	2.45	0.69	0.73	1.875
1186K	-08 SAE - 3/4-16	-06 ORS - 11/16-16	1.30	0.44	0.55	0.875

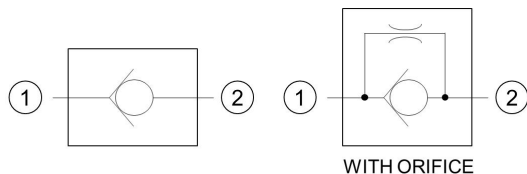
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10/5/18, 3:40 PM

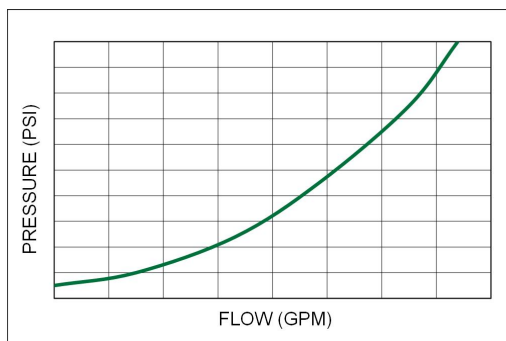
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- FULLY ENCAPSULATED SPRING.
- HIGH FLOW CAPACITY.
- NO SNAP-RING.
- STEEL BODY AND POPPET.
- LOW INTERNAL LEAKAGE, 5 DPM.

SPECIFICATIONS

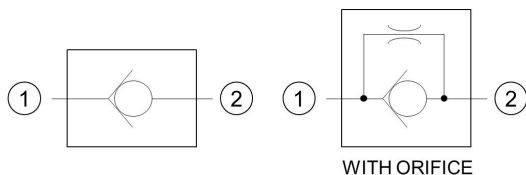
OPERATING PRESSURE	5000 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

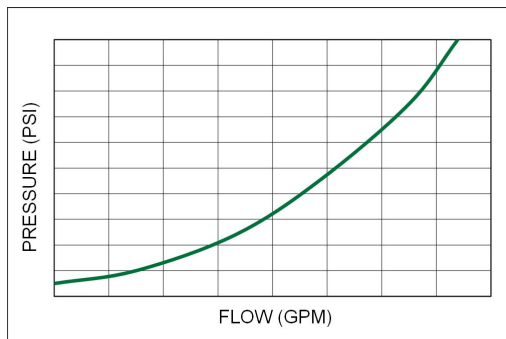
11	XX	R	-	XX
SERIES NUMBER _____ THREAD SIZE _____ CRACK PRESSURE (PSI) _____ (IF NON-STANDARD) ORIFICE DIAMETER (0.001") _____ (OPTIONAL)				

MODEL	INLET 1	OUTLET 2	THREAD	L	T	S	HEX
1104R	-04 SAE	-04 JIC	7/16-20 UNF	1.26	0.550	0.360	0.562
1106R	-06 SAE	-06 JIC	9/16-18 UNF	1.28	0.555	0.390	0.750
1108R	-08 SAE	-08 JIC	3/4-16 UNF	1.60	0.655	0.440	0.875
1110R	-10 SAE	-10 JIC	7/8-14 UNF	1.86	0.760	0.500	1.000
1112R	-12 SAE	-12 JIC	1 1/16-12 UN	2.18	0.860	0.594	1.250
1116R	-16 SAE	-16 JIC	1 5/16-12 UN	2.50	0.910	0.594	1.500
1120R	-20 SAE	-20 JIC	1 5/8-12 UN	2.57	0.960	0.594	1.875

SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE THREADED INSERTABLE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- HIGH FLOW CAPACITY.
- LOW INTERNAL LEAKAGE, 5 DPM.
- NO SNAP-RING.
- FULLY ENCAPSULATED SPRING.
- STEEL BODY AND POPPET.

SPECIFICATIONS

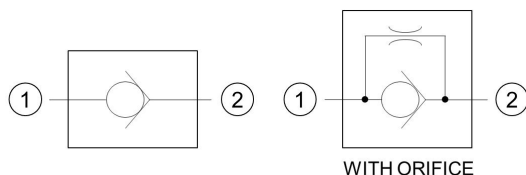
OPERATING PRESSURE	5000 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

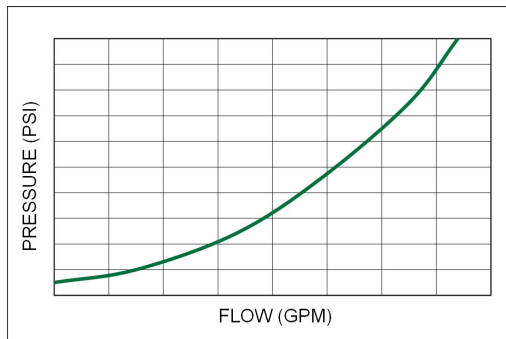
12	XX	J	-	XX
SERIES NUMBER _____ THREAD SIZE _____ CRACK PRESSURE (PSI) _____ (IF NON-STANDARD) ORIFICE DIAMETER (0.001") _____ (OPTIONAL)				

MODEL	THREAD	L	A	B	C	D	E	HEX	TORQUE
1204J	7/16-20	0.58	0.97	0.87	0.383 - 0.392	0.141	0.36	0.125	30 in-lbs
1206J	9/16-18	0.87	1.30	1.15	0.502 - 0.515	0.250	0.39	0.187	5 ft-lbs
1208J	3/4-16	1.15	1.63	1.45	0.682 - 0.696	0.359	0.44	0.250	8 ft-lbs
1210J	7/8-14	1.40	1.95	1.60	0.798 - 0.814	0.406	0.50	0.312	12 ft-lbs

SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE THREADED INSERTABLE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (1) TO (2) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (2) TO (1) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- HIGH FLOW CAPACITY.
- LOW INTERNAL LEAKAGE, 5 DPM.
- NO SNAP-RING.
- FULLY ENCAPSULATED SPRING.
- STEEL BODY AND POPPET.

SPECIFICATIONS

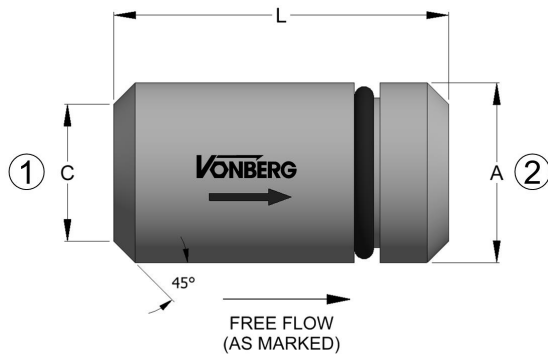
OPERATING PRESSURE	5000 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

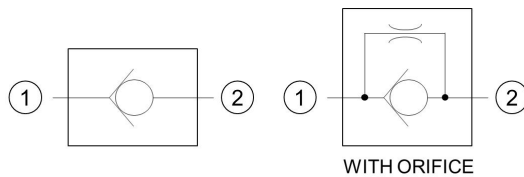
12	XX	K	-	XX
SERIES NUMBER _____ THREAD SIZE _____ CRACK PRESSURE (PSI) _____ (IF NON-STANDARD) ORIFICE DIAMETER (0.001") _____ (OPTIONAL)				

MODEL	THREAD	L	A	B	C	D	E	HEX	TORQUE
1204K	7/16-20	0.58	0.97	0.87	0.383 - 0.392	0.141	0.36	0.125	30 in-lbs
1206K	9/16-18	0.87	1.30	1.15	0.502 - 0.515	0.250	0.39	0.187	5 ft-lbs
1208K	3/4-16	1.15	1.63	1.45	0.682 - 0.696	0.359	0.44	0.250	8 ft-lbs
1210K	7/8-14	1.40	1.95	1.60	0.798 - 0.814	0.406	0.50	0.312	12 ft-lbs

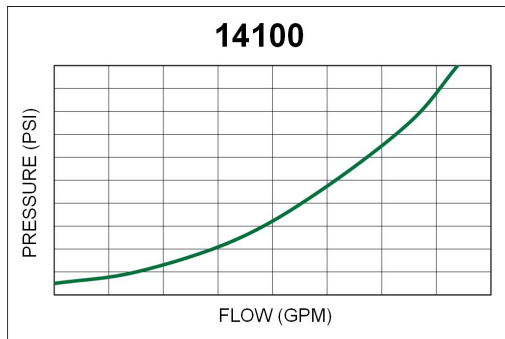
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, POPPET TYPE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.
- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.

FEATURES

- EXTERNAL O-RING INCLUDED (EXCEPT MODEL 14101).
- *MODEL 14101 REQUIRES EXTERNAL SEAL #008 AT INLET CHAMFER.
- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- LOW PRESSURE DROP.
- STEEL BODY AND HARDENED POPPET.
- METAL TO METAL SEAT

SPECIFICATIONS

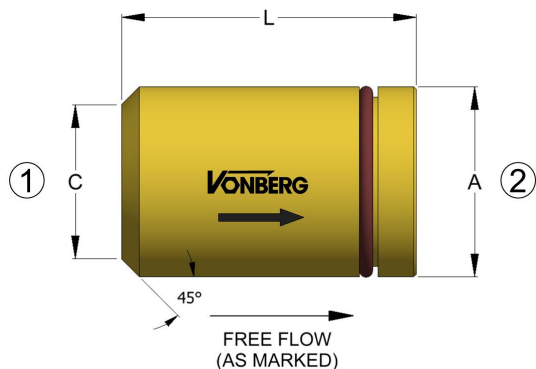
OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

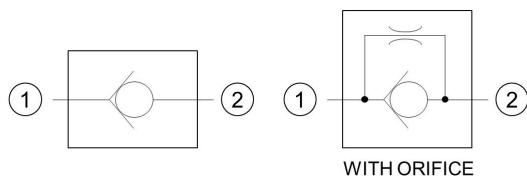
141 XX - XX			
SERIES NUMBER	141	XX	XX
PORT SIZE			
CRACK PRESSURE (PSI) (IF NON-STANDARD)			
ORIFICE DIAMETER (0.001") (OPTIONAL)			

MODEL	FLOW RANGE	A	C	L	REC. BORE DIA.	ASSEMBLED GAP
14101*	0.1 TO 1.0 GPM	0.306 / 0.311	0.172	0.620 / 0.630	0.3125 / 0.3145	0.015 / 0.025
14103	1.0 TO 5.0 GPM	0.494 / 0.499	0.420	0.835 / 0.845	0.5000 / 0.5020	0.015 / 0.025
14106	2.0 TO 10.0 GPM	0.650 / 0.655	0.500	1.215 / 1.225	0.6562 / 0.6582	0.015 / 0.025
14108	5.0 TO 20.0 GPM	0.806 / 0.811	0.640	1.490 / 1.500	0.8125 / 0.8145	0.015 / 0.025

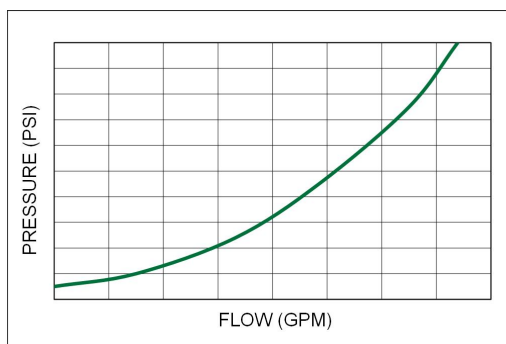
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, POPPET TYPE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

FEATURES

- *MODEL 14203 REQUIRES AND EXTERNAL SEAL #012 AT INLET CHAMFER.
- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- EXTERNAL O-RING INCLUDED (EXCEPT MODEL 14203).
- LOW PRESSURE DROP.
- SOFT SEAT.
- BRASS BODY.

SPECIFICATIONS

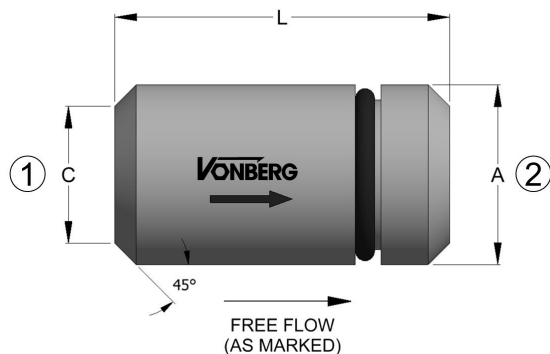
OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

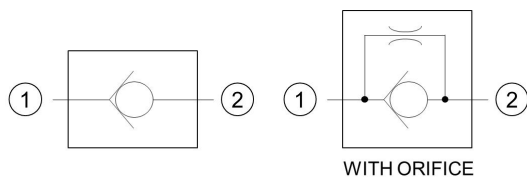
142 XX - XX			
SERIES NUMBER			
PORT SIZE			
CRACK PRESSURE (PSI)			
(IF NON-STANDARD)			
ORIFICE DIAMETER (0.001")			
(OPTIONAL)			

MODEL	FLOW RANGE	A	C	L	REC. BORE DIA.	ASSEMBLED GAP
14203*	0.5 TO 3.0 GPM	0.494 / 0.499	0.312	0.835 / 0.845	0.5000 / 0.5020	0.015 / 0.025
14206	1.0 TO 5.0 GPM	0.650 / 0.655	0.469	1.215 / 1.225	0.6562 / 0.6582	0.015 / 0.025
14208	2.0 TO 10.0 GPM	0.806 / 0.811	0.625	1.490 / 1.500	0.8125 / 0.8145	0.015 / 0.025
14210	5.0 TO 20.0 GPM	0.994 / 0.999	0.812	1.545 / 1.555	1.0000 / 1.0020	0.015 / 0.025
14212	5.0 TO 30.0 GPM	1.212 / 1.217	1.031	1.930 / 1.940	1.2188 / 1.2208	0.015 / 0.025
14216	5.0 TO 50.0 GPM	1.681 / 1.686	1.406	2.615 / 2.625	1.6875 / 1.6895	0.015 / 0.025

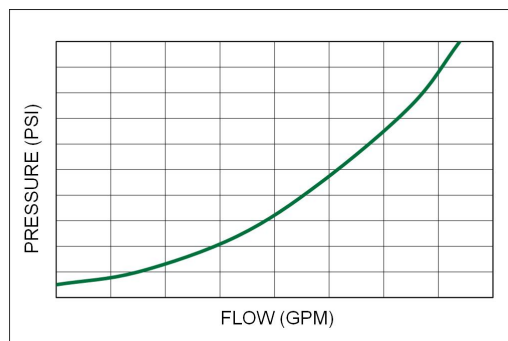
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, POPPET TYPE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.
- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.

FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- URETHANE O-RING INCLUDED.
- LOW PRESSURE DROP.
- METAL TO METAL SEAT
- STEEL BODY AND HARDENED POPPET.

SPECIFICATIONS

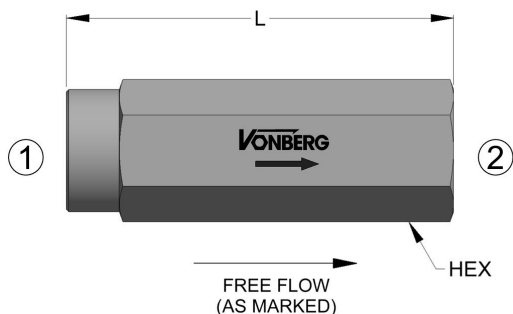
OPERATING PRESSURE	5000 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

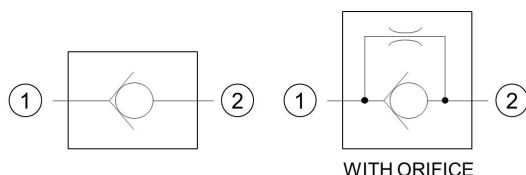
151 XX - XX			
SERIES NUMBER	151	XX	XX
PORT SIZE			
CRACK PRESSURE (PSI) (IF NON-STANDARD)			
ORIFICE DIAMETER (0.001") (OPTIONAL)			

MODEL	FLOW RANGE	A	C	L	REC. BORE DIA.	ASSEMBLED GAP
15103	1.0 TO 5.0 GPM	0.494 / 0.499	0.420	0.835 / 0.845	0.5000 / 0.5020	0.015 / 0.025
15106	2.0 TO 10.0 GPM	0.650 / 0.655	0.500	1.215 / 1.225	0.6562 / 0.6582	0.015 / 0.025
15108	5.0 TO 20.0 GPM	0.806 / 0.811	0.640	1.490 / 1.500	0.8125 / 0.8145	0.015 / 0.025

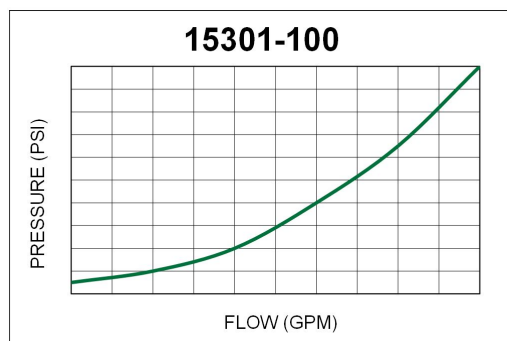
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, POPPET TYPE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- LOW PRESSURE DROP.
- NO INTERNAL PACKINGS.
- LOW INTERNAL LEAKAGE, 5 DPM.
- HARDENED STEEL POPPET
- STEEL BODY

SPECIFICATIONS

OPERATING PRESSURE	5000 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

15301 - 1 XX - XX

SERIES NUMBER _____

THREAD SIZE _____

CRACK PRESSURE (PSI) _____

(IF NON-STANDARD)

ORIFICE DIAMETER (0.001") _____

(OPTIONAL)

MODEL	INLET / OUTLET	FLOW CAPACITY	L	HEX
15301-101	1/8-27 NPTF	2.0 GPM	1.80	0.562
15301-102	1/4-18 NPTF	5.0 GPM	2.40	0.750
15301-103	3/8-18 NPTF	10.0 GPM	2.75	0.875
15301-104	1/2-14 NPTF	20.0 GPM	3.50	1.125
15301-106	3/4-14 NPTF	40.0 GPM	4.00	1.375
15301-108	1 - 11 1/2 NPTF	50.0 GPM	4.78	1.625
15301-110	1 1/4 - 11 1/2 NPTF	60.0 GPM	4.90	2.000
15301-112	1 1/2 - 11 1/2 NPTF	80.0 GPM	7.00	2.250

This document, as well as all catalogs, price lists and information provided by Vonberg Valve, Inc., is intended to provide product information for further consideration by users having substantial technical expertise due to the variety of operating conditions and applications for these valves, the user, through its own analysis, testing and evaluation, is solely responsible for making the final selection of the products and ensuring that all safety, warning and performance requirements of the application or use are met. The valves described herein, including without limitation, all component features, specifications, designs, pricing and availability, are subject to change at any time at the sole discretion of Vonberg Valve, Inc. without prior notification.

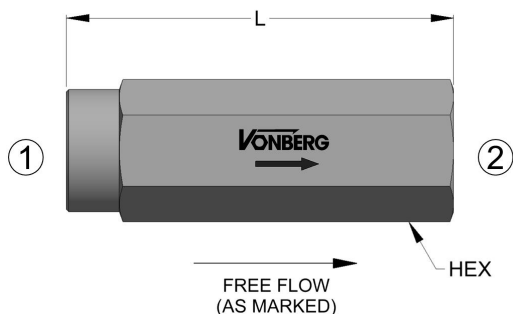
9/26/18, 4:58 PM

Vonberg Valve, inc.
Hydraulic Valve Specialists

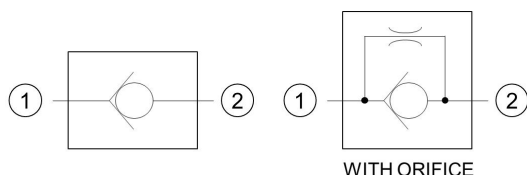
3800 Industrial Avenue • Rolling Meadows, IL 60008-1085 USA © 2015
phone: 847-259-3800 • fax: 847-259-3997 • email: info@vonberg.com

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PRODUCT



SCHEMATIC



DESCRIPTION

AN IN-LINE STYLE, POPPET TYPE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- LOW INTERNAL LEAKAGE, 5 DPM.
- LOW PRESSURE DROP.
- NO INTERNAL PACKINGS.
- STEEL BODY AND HARDENED STEEL POPPET.

SPECIFICATIONS

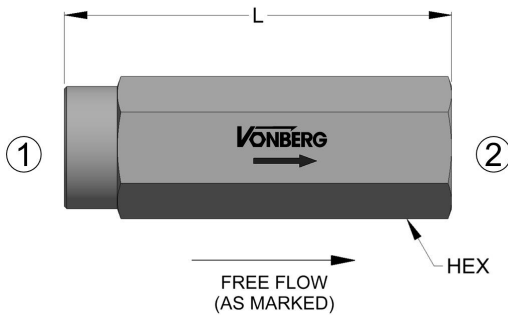
OPERATING PRESSURE	5000 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

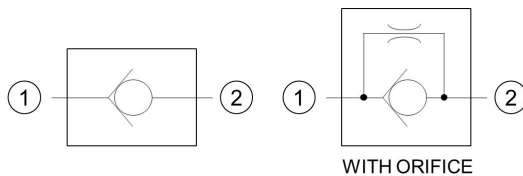
	15301	-	1	XX	G	-	XX
SERIES NUMBER							
THREAD SIZE							
CRACK PRESSURE (PSI)							
(IF NON-STANDARD)							
ORIFICE DIAMETER (0.001")							
(OPTIONAL)							

MODEL	INLET / OUTLET	FLOW CAPACITY	L	HEX
15301-101G	G 1/8-28	4.0 GPM	1.50	0.500
15301-102G	G 1/4-19	10.0 GPM	2.15	0.750
15301-103G	G 3/8-19	15.0 GPM	2.50	0.875
15301-104G	G 1/2-14	30.0 GPM	3.00	1.062
15301-106G	G 3/4-14	40.0 GPM	3.60	1.375

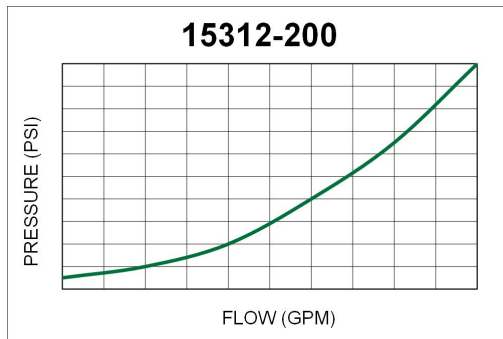
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, POPPET TYPE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

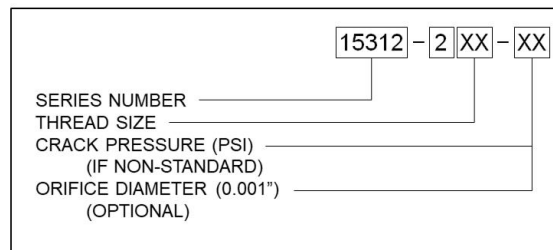
FEATURES

- LOW PRESSURE DROP.
- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- NO INTERNAL PACKINGS.
- LOW INTERNAL LEAKAGE, 5 DPM.
- HARDENED STEEL POPPET.
- STEEL BODY.

SPECIFICATIONS

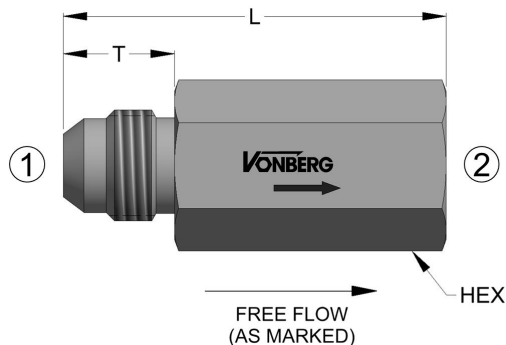
OPERATING PRESSURE	5000 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

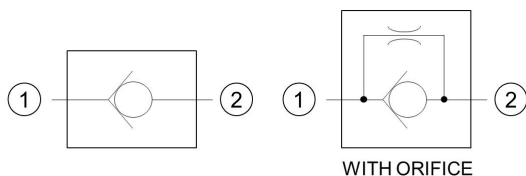


MODEL	INLET / OUTLET	THREAD	FLOW CAPACITY	L	HEX
15312-204	-04 SAE	7/16-20	5.0 GPM	2.05	0.625
15312-206	-06 SAE	9/16-18	10.0 GPM	2.15	0.750
15312-208	-08 SAE	3/4-16	20.0 GPM	2.90	0.937
15312-210	-10 SAE	7/8-14	30.0 GPM	3.40	1.125
15312-212	-12 SAE	1 1/16-12	40.0 GPM	3.90	1.375
15312-216	-16 SAE	1 5/16-12	50.0 GPM	4.78	1.625
15312-220	-20 SAE	1 5/8-12	60.0 GPM	4.78	2.000

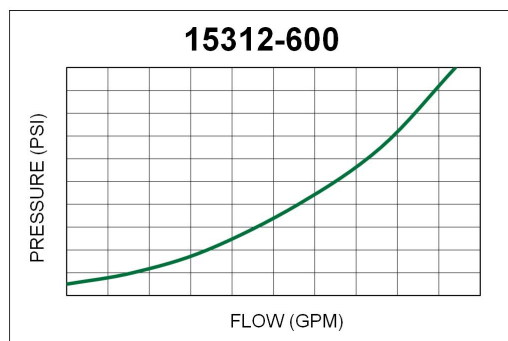
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, POPPET TYPE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

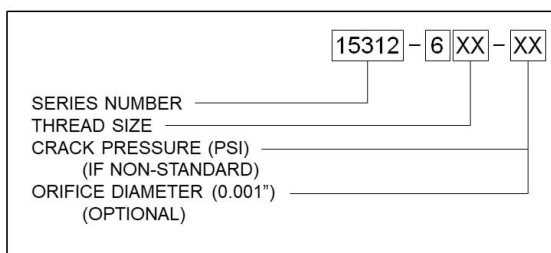
FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- LOW PRESSURE DROP.
- NO INTERNAL PACKINGS.
- LOW INTERNAL LEAKAGE, 5 DPM.
- HARDENED STEEL POPPET.
- STEEL BODY.

SPECIFICATIONS

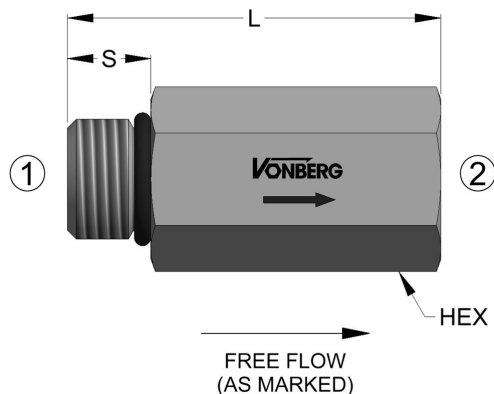
OPERATING PRESSURE	5000 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

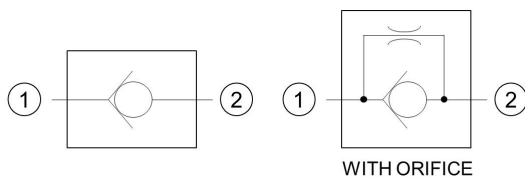


MODEL	INLET 1	OUTLET 2	THREAD	FLOW CAPACITY	L	HEX
15312-604	-04 JIC	-04 SAE PORT	7/16-20	3.0 GPM	1.93	0.625
15312-606	-06 JIC	-06 SAE PORT	9/16-18	10.0 GPM	1.94	0.750
15312-608	-08 JIC	-08 SAE PORT	3/4-16	20.0 GPM	2.72	0.938
15312-610	-10 JIC	-10 SAE PORT	7/8-14	30.0 GPM	3.25	1.125
15312-612	-12 JIC	-12 SAE PORT	1 1/16-12	40.0 GPM	3.75	1.250
15312-616	-16 JIC	-16 SAE PORT	1 5/16-12	50.0 GPM	4.50	1.625

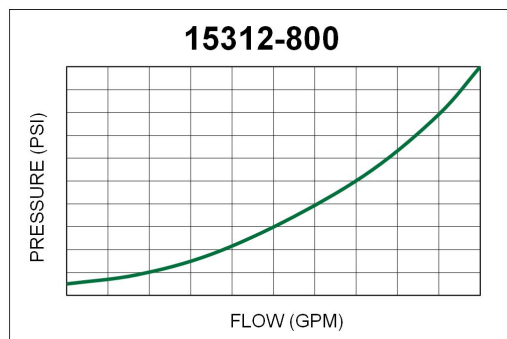
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, POPPET TYPE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

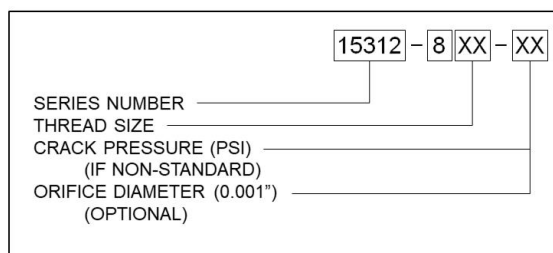
FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- LOW PRESSURE DROP.
- NO INTERNAL PACKINGS.
- LOW INTERNAL LEAKAGE, 5 DPM.
- HARDENED STEEL POPPET.
- STEEL BODY.

SPECIFICATIONS

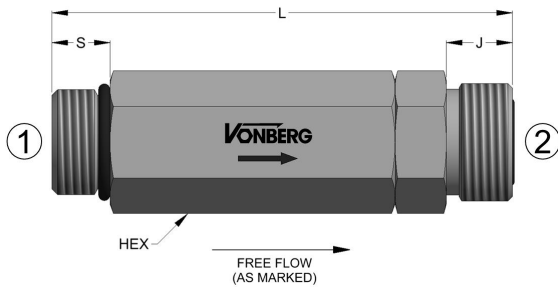
OPERATING PRESSURE	5000 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

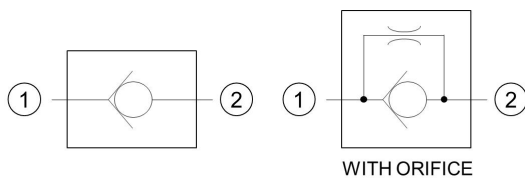


MODEL	INLET 1	OUTLET 2	THREAD	FLOW CAPACITY	L	HEX
15312-804	-04 SAE	-04 SAE PORT	7/16-20	3.0 GPM	1.74	0.625
15312-806	-06 SAE	-06 SAE PORT	9/16-18	10.0 GPM	1.78	0.750
15312-808	-08 SAE	-08 SAE PORT	3/4-16	20.0 GPM	2.50	0.938
15312-810	-10 SAE	-10 SAE PORT	7/8-14	30.0 GPM	3.00	1.125
15312-812	-12 SAE	-12 SAE PORT	1 1/16-12	40.0 GPM	3.48	1.250
15312-816	-16 SAE	-16 SAE PORT	1 5/16-12	50.0 GPM	4.18	1.625

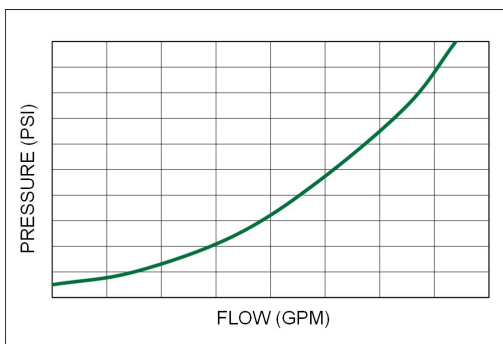
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, POPPET TYPE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

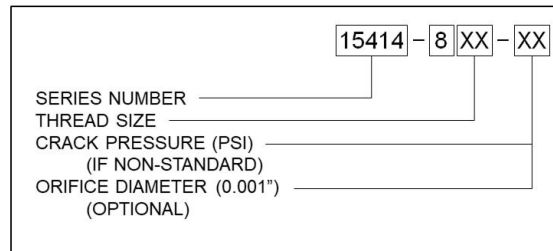
FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- LOW PRESSURE DROP.
- LOW INTERNAL LEAKAGE, 5 DPM
- HARDENED STEEL POPPET.
- STEEL BODY.

SPECIFICATIONS

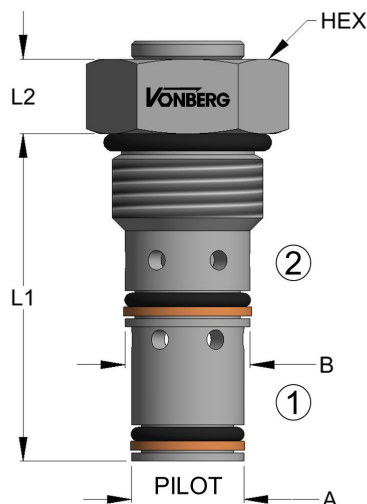
OPERATING PRESSURE	5000 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

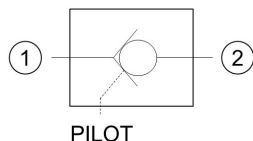


MODEL	INLET 1	OUTLET 2	FLOW CAPACITY	L	J	S	HEX
15414-804	-04 SAE - 7/16-20	-04 ORS - 9/16-18	3.0 GPM	2.44	0.38	0.43	0.63
15414-806	-06 SAE - 9/16-18	-06 ORS - 11/16-16	6.0 GPM	2.56	0.44	0.47	0.75
15414-808	-08 SAE - 3/4-16	-08 ORS - 13/16-16	20.0 GPM	3.39	0.50	0.55	0.88
15414-810	-10 SAE - 7/8-14	-10 ORS - 1-14	30.0 GPM	4.07	0.61	0.63	1.13
15414-812	-12 SAE - 1 1/16-12	-12 ORS - 1 3/16-12	40.0 GPM	4.67	0.67	0.73	1.25
15414-816	-16 SAE - 1 5/16-12	-16 ORS - 1 7/16-12	50.0 GPM	5.43	0.69	0.73	1.63

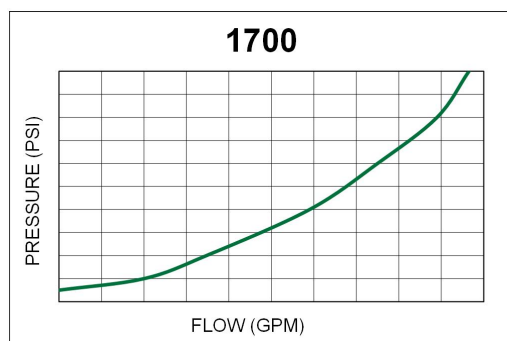
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

A CARTRIDGE STYLE, POPPET TYPE PILOT TO OPEN CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- THE CARTRIDGE HAS A STANDARD 4:1 PILOT RATIO TO ALLOW FLOW FROM (2) TO (1).
- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 30 PSI.

FEATURES

- SPECIAL PILOT RATIOS AVAILABLE UPON REQUEST.
- LOW INTERNAL LEAKAGE, 5 DPM MAX.
- INDUSTRY COMMON CAVITY.
- STEEL BODY AND POPPET.

SPECIFICATIONS

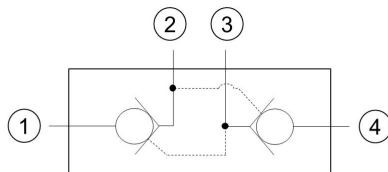
OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	30 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

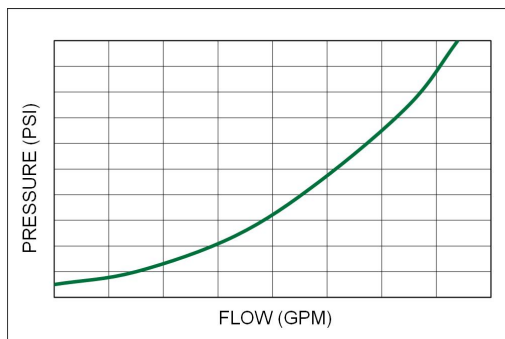
17	XX	X	-	XX
SERIES NUMBER _____ CAVITY SIZE _____ PILOT PISTON TYPE _____ BLANK..... UNSEALED P..... O-RING SEALED BODY PORT SIZE CODE _____ BLANK..... CARTRIDGE ONLY SERIES CODE.... SEE "CARTRIDGE BODIES", X-3 SERIES				

MODEL	THREAD	RATED FLOW	CAVITY	L1	L2	HEX	A	B	TORQUE
1706	9/16 - 18	3.0 GPM	FC06-3	1.23	0.27	0.69	0.438 / 0.439	0.467 / 0.468	15 ft-lbs
1708	3/4 - 16	6.0 GPM	VC08-3	1.63	0.37	0.88	0.558 / 0.560	0.621 / 0.623	20 ft-lbs
1710	7/8 - 14	10.0 GPM	VC10-3	1.82	0.43	1.00	0.621 / 0.623	0.683 / 0.685	25 ft-lbs
1712	1 1/16 - 12	20.0 GPM	VC12-3	2.63	0.52	1.25	0.870 / 0.873	0.933 / 0.935	40 ft-lbs
1716	1 5/16 - 12	30.0 GPM	VC16-3	2.88	0.63	1.50	1.058 / 1.060	1.121 / 1.123	60 ft-lbs

SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

A CARTRIDGE STYLE, DUAL PILOT TO OPEN CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW

OPERATION

- FLOW FROM (2) TO (1) OR (3) TO (4) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.
- FLOW FROM (1) TO (2) OR (4) TO (3) IS NORMALLY BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- THE CARTRIDGE HAS A 4:1 PILOT RATIO TO ALLOW FLOW FROM (1) TO (2) OR (4) TO (3).

FEATURES

- INDUSTRY COMMON CAVITY.
- LOW INTERNAL LEAKAGE, 5 DPM.
- STANDARD PILOT RATIO: 4:1 WITH SPECIAL PILOT RATIOS AVAILABLE UPON REQUEST.
- STEEL COMPONENTS.

SPECIFICATIONS

INTERNAL LEAKAGE 5 DROPS / MIN. @ 3000 PSI MAX.

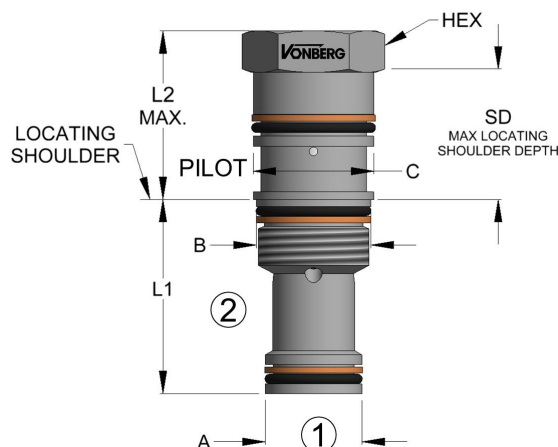
PRESSURE RANGE 50 PSI TO 3500 PSI

ORDERING INFORMATION

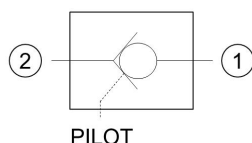
17	XX	D	X	-	XX
SERIES NUMBER					
CAVITY SIZE					
PILOT PISTON TYPE					
BLANK..... UNSEALED					
P..... O-RING SEALED					
BODY PORT SIZE CODE					
BLANK..... CARTRIDGE ONLY					
SERIES CODE... SEE "CARTRIDGE BODIES", X-4 SERIES					

MODEL	THREAD	CAVITY	RATED FLOW	L1	L2	A	B	C	HEX
1708D	3/4-16	VC08-4	2.0 GPM	2.15	0.38	0.497/0.495	0.559/0.557	0.622/0.620	0.88

PRODUCT



SCHEMATIC



DESCRIPTION

A CARTRIDGE STYLE, POPPET TYPE PILOT TO OPEN CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- THE CARTRIDGE HAS A STANDARD 3:1 PILOT RATIO TO ALLOW FLOW FROM (2) TO (1).
- FLOW FROM (1) TO (2) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (2) TO (1) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 30 PSI.

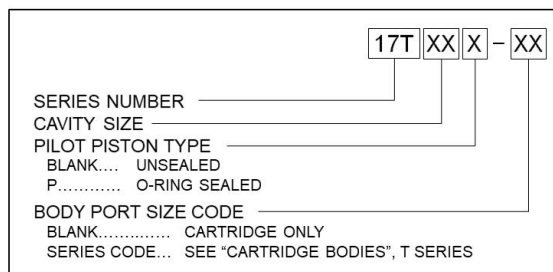
FEATURES

- SPECIAL PILOT RATIOS AVAILABLE UPON REQUEST.
- LOW INTERNAL LEAKAGE, 5 DPM MAX.
- STEEL BODY AND POPPET.

SPECIFICATIONS

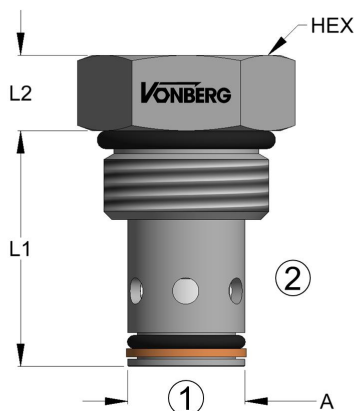
OPERATING PRESSURE	5000 PSI
STANDARD CRACK PRESSURE	30 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

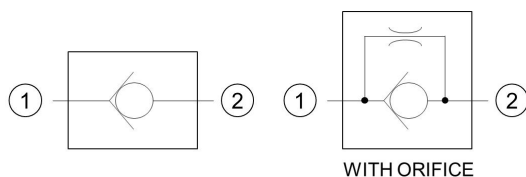


MODEL	THREAD	RATED FLOW	CAVITY	L1	L2	HEX	A	B	C	SD(MAX)	TORQUE
17T163	M16 X 1.5	7.0 GPM	T-163A	1.21	0.98	0.750	0.513	0.654	0.701	0.68	20 ft-lbs
17T11	M20 X 1.5	15.0 GPM	T-11A	1.38	1.20	0.875	0.685	0.809	0.857	0.90	30 ft-lbs
17T2	1-14	20.0 GPM	T-2A	1.38	1.37	1.125	0.871	1.027	1.074	0.90	45 ft-lbs

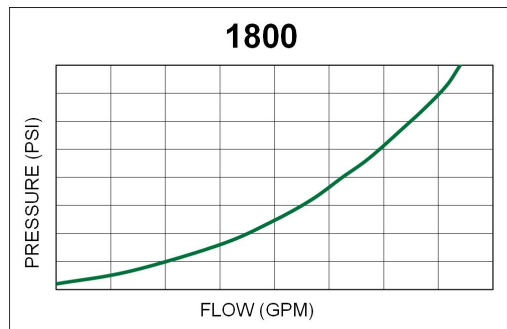
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

A CARTRIDGE STYLE, POPPET TYPE, STANDARD FLOW CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- INDUSTRY COMMON CAVITY
- LOW INTERNAL LEAKAGE, 5 DPM.
- STEEL BODY AND POPPET.

SPECIFICATIONS

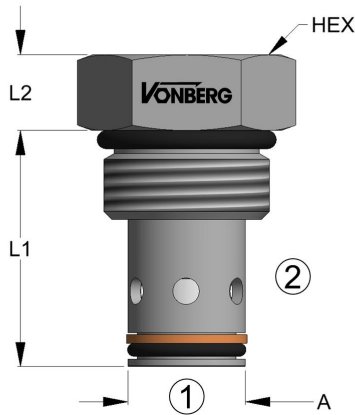
OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

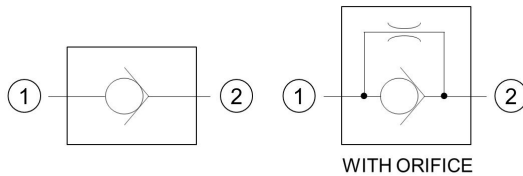
SERIES NUMBER	18	XX	-	XX	-	XX
CAVITY SIZE						
CRACK PRESSURE (PSI) (IF NON-STANDARD)						
ORIFICE DIAMETER (0.001") (OPTIONAL)						
BODY PORT SIZE CODE						
BLANK.....	CARTRIDGE ONLY					
SERIES CODE...	SEE "CARTRIDGE BODIES", X-2 SERIES					

MODEL	THREAD	RATED FLOW	CAVITY	L1	L2	HEX	A	TORQUE
1804	7/16 - 20	2.0 GPM	VC04-2	0.94	0.44	0.56	0.277 / 0.278	10 ft-lbs
1806	9/16 - 18	4.0 GPM	FC06-2	0.84	0.26	0.69	0.467 / 0.468	15 ft-lbs
1808	3/4 - 16	6.0 GPM	VC08-2	1.10	0.36	0.88	0.495 / 0.497	20 ft-lbs
1810	7/8 - 14	10.0 GPM	VC10-2	1.25	0.40	1.00	0.621 / 0.623	25 ft-lbs
1812	1 1/16 - 12	20.0 GPM	VC12-2	1.81	0.49	1.25	0.870 / 0.873	40 ft-lbs
1816	1 5/16 - 12	30.0 GPM	VC16-2	1.75	0.55	1.50	1.121 / 1.123	60 ft-lbs

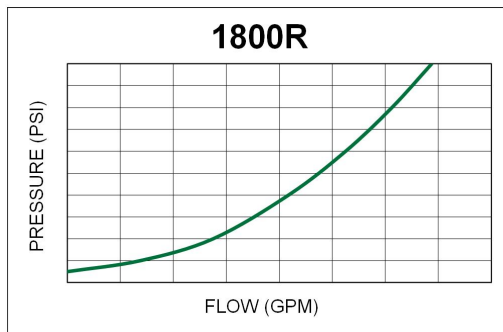
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

A CARTRIDGE STYLE, POPPET TYPE, REVERSE FLOW CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (1) TO (2) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (2) TO (1) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 25 PSI.

FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- LOW INTERNAL LEAKAGE, 5 DPM.
- INDUSTRY COMMON CAVITY.
- STEEL BODY AND POPPET.

SPECIFICATIONS

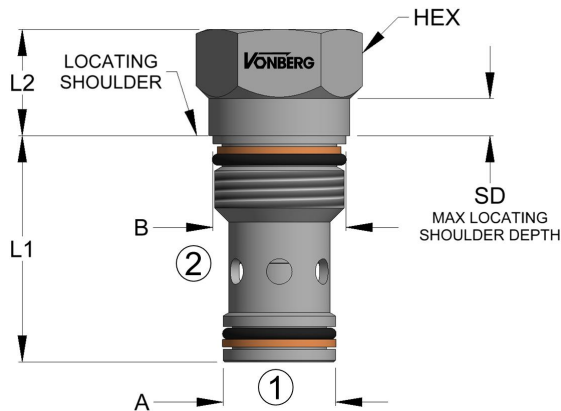
OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	25 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

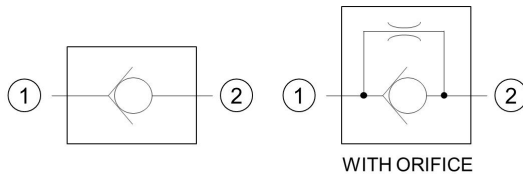
	18	XX	R	-	XX	-	XX
SERIES NUMBER							
CAVITY SIZE							
CRACK PRESSURE (PSI)							
(IF NON-STANDARD)							
ORIFICE DIAMETER (0.001")							
(OPTIONAL)							
BODY PORT SIZE CODE							
BLANK.....	CARTRIDGE ONLY						
SERIES CODE...	SEE "CARTRIDGE BODIES", X-2 SERIES						

MODEL	THREAD	RATED FLOW	CAVITY	L1	L2	HEX	A	TORQUE
1804R	7/16 - 20	2.0 GPM	VC04-2	0.94	0.52	0.56	0.277 / 0.278	10 ft-lbs
1806R	9/16 - 18	4.0 GPM	FC06-2	0.84	0.52	0.69	0.467 / 0.468	15 ft-lbs
1808R	3/4 - 16	6.0 GPM	VC08-2	1.10	0.36	0.88	0.495 / 0.497	20 ft-lbs
1810R	7/8 - 14	10.0 GPM	VC10-2	1.25	0.40	1.00	0.621 / 0.623	25 ft-lbs
1812R	1 1/16 - 12	20.0 GPM	VC12-2	1.81	0.49	1.25	0.870 / 0.873	40 ft-lbs
1816R	1 5/16 - 12	30.0 GPM	VC16-2	1.75	0.55	1.50	1.121 / 1.123	60 ft-lbs

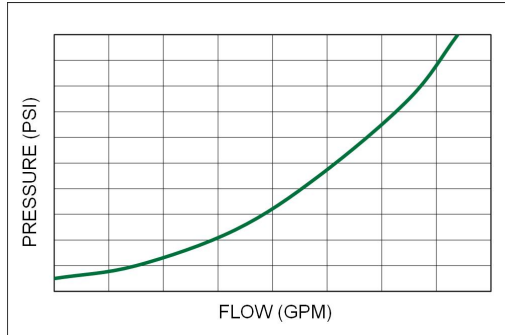
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

A CARTRIDGE STYLE, POPPET TYPE, STANDARD FLOW CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- LOW INTERNAL LEAKAGE, 5 DPM.
- STEEL BODY AND POPPET.
- ZINC-NICKEL PLATING AS STANDARD

SPECIFICATIONS

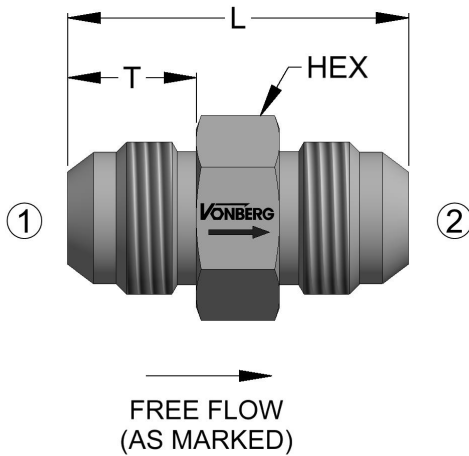
OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

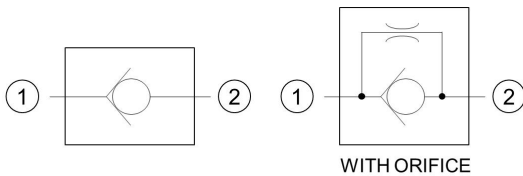
18T	XX	-XX	-XX
SERIES NUMBER	CAVITY SIZE	CRACK PRESSURE (PSI) (IF NON-STANDARD)	ORIFICE DIAMETER (0.001") (OPTIONAL)
BODY PORT SIZE CODE			
BLANK..... CARTRIDGE ONLY			
SERIES CODE... SEE "CARTRIDGE BODIES", X-2 SERIES			

MODEL	THREAD	RATED FLOW	CAVITY	A	B	HEX	SD	L1	L2	TORQUE
18T162	M16 X 1.5	10.0 GPM	T-162A	0.512 / 0.513	0.653 / 0.654	0.75	0.290	1.21	0.810	15 ft-lbs
18T13	M20 X 1.5	20.0 GPM	T-13A	0.683 / 0.685	0.807 / 0.809	0.875	0.225	1.38	0.845	25 ft-lbs
18T5	1" - 14 UNS	40.0 GPM	T-5A	0.871 / 0.873	1.027 / 1.029	1.00	0.280	1.62	.0760	35 ft-lbs
18T16	M36 X 2.0	80.0 GPM	T-16A	1.246 / 1.247	1.433 / 1.435	1.50	0.220	2.43	.0957	45 ft-lbs

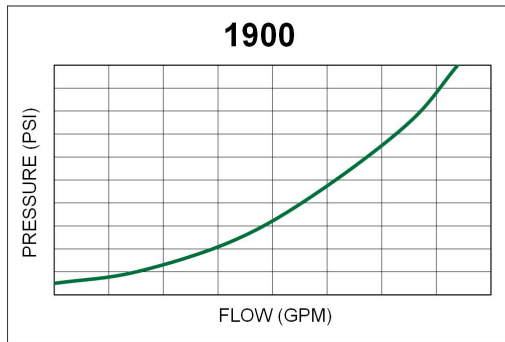
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, POPPET TYPE CHECK VALVE WITH MALE JIC CONNECTIONS INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- LOW INTERNAL LEAKAGE, 5 DPM.
- NO INTERNAL PACKINGS
- STEEL BODY AND POPPET.

SPECIFICATIONS

OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

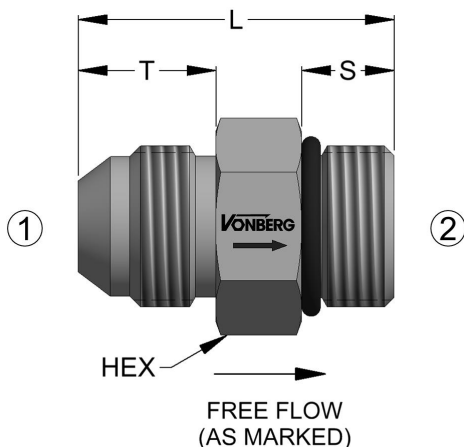
19	XX	-	XX
SERIES NUMBER			
THREAD SIZE			
CRACK PRESSURE (PSI)			
(IF NON-STANDARD)			
ORIFICE DIAMETER (0.001")			
(OPTIONAL)			

MODEL	INLET / OUTLET	THREAD	CAPACITY	L	T	HEX
1904	-04 JIC	7/16-20	2 GPM	1.42	0.540	0.562
1906	-06 JIC	9/16-18	4 GPM	1.60	0.540	0.750
1908	-08 JIC	3/4-16	8 GPM	1.68	0.655	0.875
1910	-10 JIC	7/8-14	12 GPM	1.88	0.760	1.000
1912	-12 JIC	1 1/16-12	15 GPM	2.12	0.860	1.250
1916	-16 JIC	1 5/16-12	40 GPM	2.55	0.880	1.500
1920	-20 JIC	1 5/8-12	50 GPM	3.15	0.950	1.875
1924	-24 JIC	1 7/8-12	80 GPM	3.50	0.950	2.125

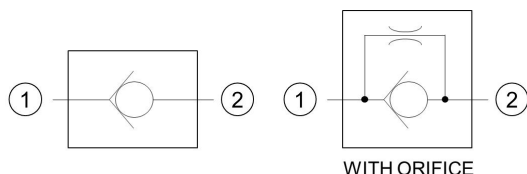
This document, as well as all catalogs, price lists and information provided by Vonberg Valve, Inc., is intended to provide product information for further consideration by users having substantial technical expertise due to the variety of operating conditions and applications for these valves, the user, through its own analysis, testing and evaluation, is solely responsible for making the final selection of the products and ensuring that all safety, warning and performance requirements of the application or use are met. The valves described herein, including without limitation, all component features, specifications, designs, pricing and availability, are subject to change at any time at the sole discretion of Vonberg Valve, Inc. without prior notification.

12/6/18, 4:40 AM

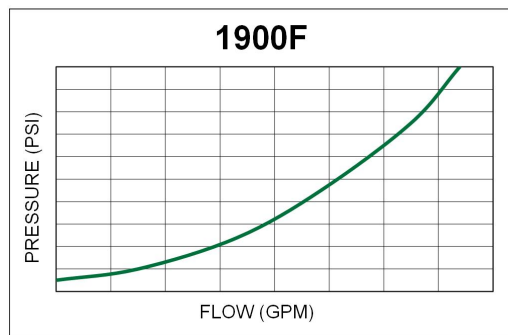
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- STEEL BODY AND POPPET.
- LOW INTERNAL LEAKAGE, 5 DPM.

SPECIFICATIONS

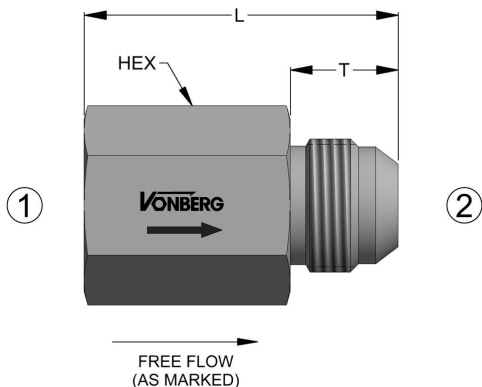
OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

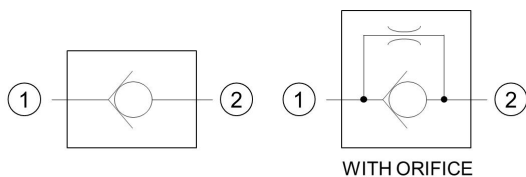
19	XX	F	-	XX
SERIES NUMBER _____ THREAD SIZE _____ CRACK PRESSURE (PSI) _____ (IF NON-STANDARD) ORIFICE DIAMETER (0.001") _____ (OPTIONAL)				

MODEL	INLET 1	OUTLET 2	THREAD	CAPACITY	L	T	S	HEX
1904F	-04 JIC	-04 SAE	7/16-20	2 GPM	1.23	0.540	0.360	0.562
1906F	-06 JIC	-06 SAE	9/16-18	4 GPM	1.45	0.540	0.390	0.750
1908F	-08 JIC	-08 SAE	3/4-16	8 GPM	1.47	0.655	0.440	0.875
1910F	-10 JIC	-10 SAE	7/8-14	12 GPM	1.62	0.760	0.500	1.000
1912F	-12 JIC	-12 SAE	1 1/16-12	30 GPM	2.00	0.860	0.594	1.250
1916F	-16 JIC	-16 SAE	1 5/16-12	40 GPM	2.27	0.910	0.594	1.500
1920F	-20 JIC	-20 SAE	1 5/8-12	50 GPM	2.75	0.960	0.594	1.875
1924F	-24 JIC	-24 SAE	1 7/8-12	80 GPM	3.50	1.080	0.594	2.125

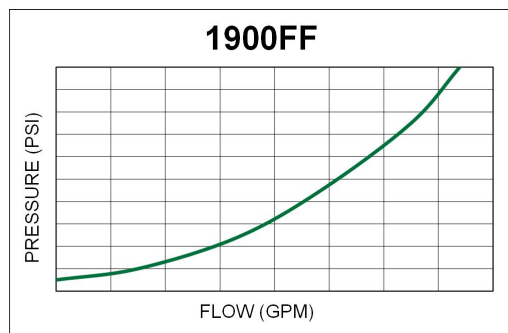
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

FEATURES

- STEEL BODY AND POPPET.
- LOW INTERNAL LEAKAGE, 5 DPM.
- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.

SPECIFICATIONS

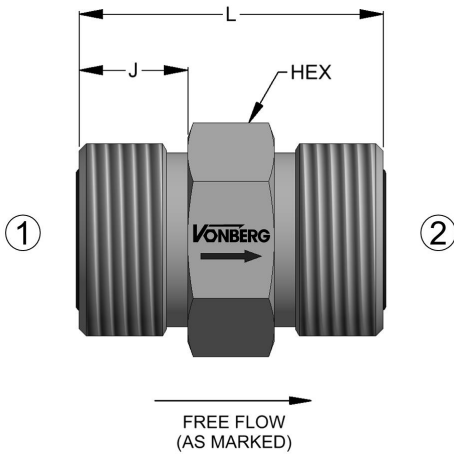
OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

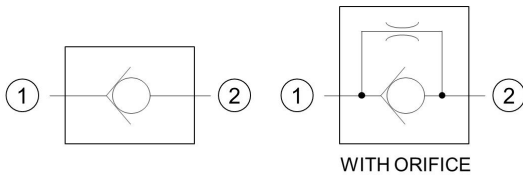
19	XX	FF	-	XX
SERIES NUMBER _____ THREAD SIZE _____ CRACK PRESSURE (PSI) _____ (IF NON-STANDARD) ORIFICE DIAMETER (0.001") _____ (OPTIONAL)				

MODEL	INLET 1	OUTLET 2	THREAD	CAPACITY	L	T	HEX
1904FF	-04 JIC PORT	-04 JIC	7/16-20	2 GPM	1.72	0.530	0.625
1906FF	-06 JIC PORT	-06 JIC	9/16-18	4 GPM	1.94	0.545	0.750
1908FF	-08 JIC PORT	-08 JIC	3/4-16	8 GPM	1.88	0.635	0.938
1910FF	-10 JIC PORT	-10 JIC	7/8-14	12 GPM	2.38	0.760	1.125
1912FF	-12 JIC PORT	-12 JIC	1 1/16-12	20 GPM	2.50	0.860	1.375
1916FF	-16 JIC PORT	-16 JIC	1 5/16-12	40 GPM	3.19	0.880	1.625
1920FF	-20 JIC PORT	-20 JIC	1 5/8-12	50 GPM	4.00	0.950	2.000

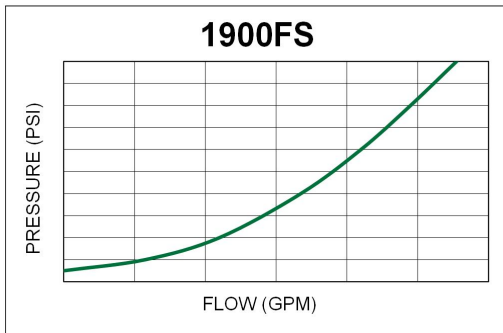
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, POPPET TYPE CHECK VALVE WITH MALE ORS CONNECTIONS INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.
- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.

FEATURES

- NO INTERNAL PACKINGS
- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- LOW INTERNAL LEAKAGE, 5 DPM.
- STEEL BODY AND POPPET.

SPECIFICATIONS

OPERATING PRESSURE	5000 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

19
XX
FS
-XX

SERIES NUMBER _____

THREAD SIZE _____

CRACK PRESSURE (PSI) _____

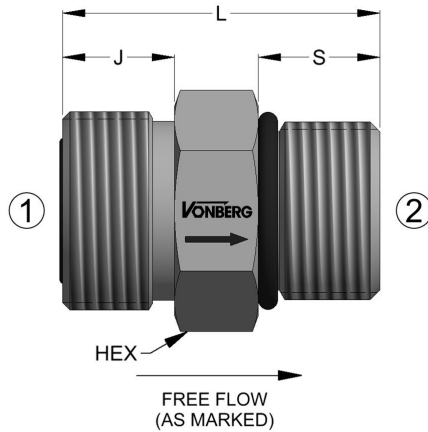
(IF NON-STANDARD)

ORIFICE DIAMETER (0.001") _____

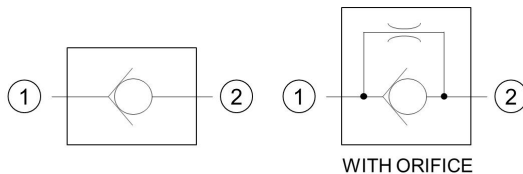
(OPTIONAL)

MODEL	INLET / OUTLET	THREAD	CAPACITY	L	J	HEX
1904FS	-04 ORS	9/16-18	2 GPM	1.070	0.385	0.625
1906FS	-06 ORS	11/16-16	4 GPM	1.250	0.440	0.750
1908FS	-08 ORS	13/16-16	8 GPM	1.375	0.500	0.875
1910FS	-10 ORS	1-14	12 GPM	1.700	0.610	1.062
1912FS	-12 ORS	1 3/16-12	15 GPM	1.875	0.670	1.250
1916FS	-16 ORS	1 7/16-12	40 GPM	2.125	0.690	1.500
1920FS	-20 ORS	1 11/16-12	50 GPM	2.450	0.690	1.750

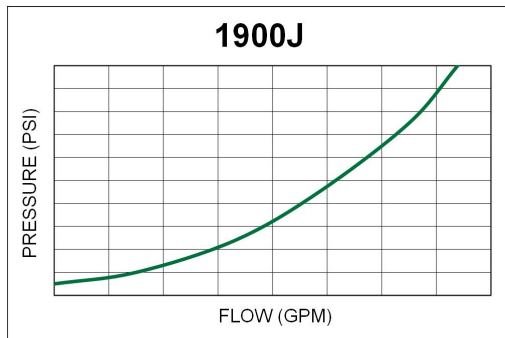
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

FEATURES

- LOW INTERNAL LEAKAGE, 5 DPM.
- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- STEEL BODY AND POPPET.

SPECIFICATIONS

OPERATING PRESSURE	5000 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

19XXJ-XX

SERIES NUMBER

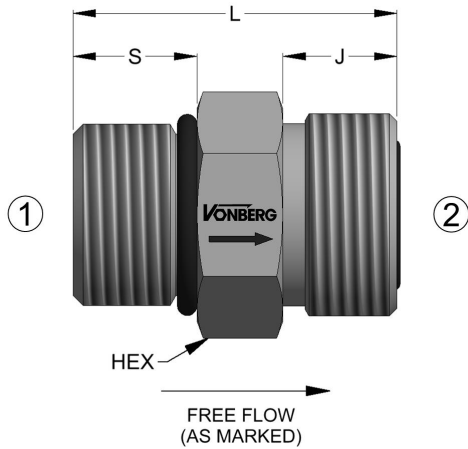
THREAD SIZE

CRACK PRESSURE (PSI)
(IF NON-STANDARD)

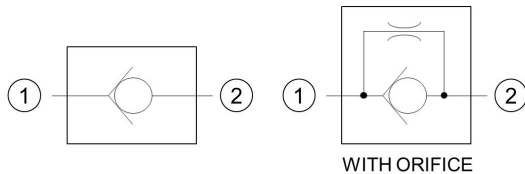
ORIFICE DIAMETER (0.001")
(OPTIONAL)

MODEL	INLET 1	OUTLET 2	CAPACITY	L	J	S	HEX
1904J	-04 ORS - 9/16-18	-04 SAE - 7/16-20	2 GPM	1.06	0.38	0.43	0.625
1906J	-06 ORS - 11/16-16	-06 SAE - 9/16-18	4 GPM	1.42	0.44	0.47	0.750
1908J	-08 ORS - 13/16-16	-08 SAE - 3/4-16	8 GPM	1.42	0.50	0.55	0.875
1910J	-10 ORS - 1-14	-10 SAE - 7/8-14	12 GPM	1.62	0.61	0.63	1.125
1912J	-12 ORS - 1 3/16-12	-12 SAE - 1 1/16-12	30 GPM	2.00	0.67	0.73	1.250
1916J	-16 ORS - 1 7/16-12	-16 SAE - 1 5/16-12	40 GPM	2.27	0.69	0.73	1.500
1920J	-20 ORS - 1 11/16-12	-20 SAE - 1 5/8-12	50 GPM	2.40	0.69	0.73	1.875

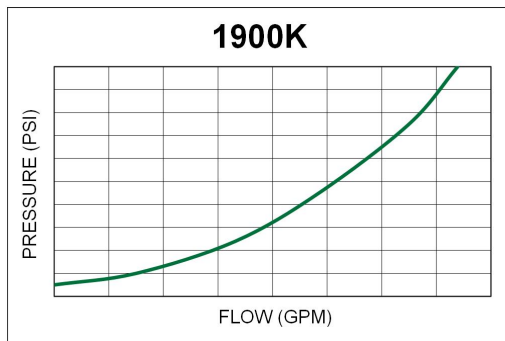
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.
- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.

FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- LOW INTERNAL LEAKAGE, 5 DPM.
- STEEL BODY AND POPPET.

SPECIFICATIONS

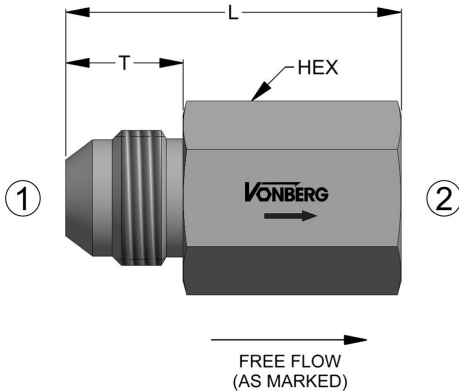
OPERATING PRESSURE	5000 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

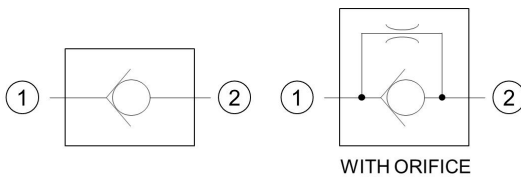
19	XX	K	-	XX
SERIES NUMBER _____ THREAD SIZE _____ CRACK PRESSURE (PSI) _____ (IF NON-STANDARD) ORIFICE DIAMETER (0.001") _____ (OPTIONAL)				

MODEL	INLET 1	OUTLET 2	CAPACITY	L	J	S	HEX
1904K	-04 SAE - 7/16-20	-04 ORS - 9/16-18	2 GPM	1.07	0.38	0.43	0.625
1906K	-06 SAE - 9/16-18	-06 ORS - 11/16-16	4 GPM	1.42	0.44	0.47	0.750
1908K	-08 SAE - 3/4-16	-08 ORS - 13/16-16	8 GPM	1.42	0.50	0.55	0.875
1910K	-10 SAE - 7/8-14	-10 ORS - 1-14	12 GPM	1.62	0.61	0.63	1.125
1912K	-12 SAE - 1 1/16-12	-12 ORS - 1 3/16-12	30 GPM	1.92	0.67	0.73	1.250
1916K	-16 SAE - 1 5/16-12	-16 ORS - 1 7/16-12	40 GPM	2.27	0.69	0.73	1.500
1920K	-20 SAE - 1 5/8-12	-20 ORS - 1 11/16-12	50 GPM	2.45	0.69	0.73	1.875

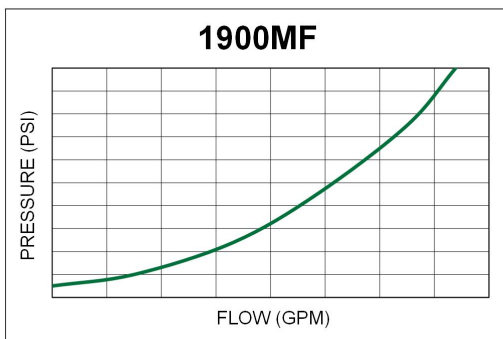
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- LOW INTERNAL LEAKAGE, 5 DPM.
- STEEL BODY AND POPPET.

SPECIFICATIONS

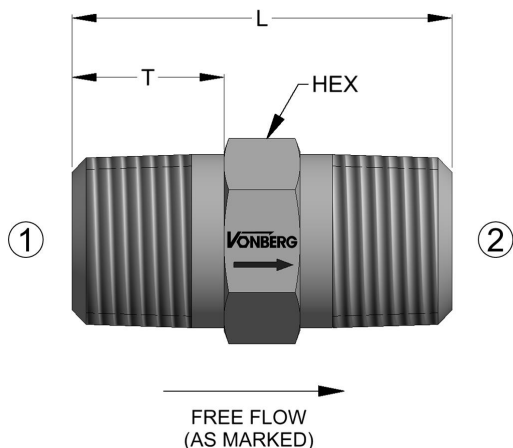
OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

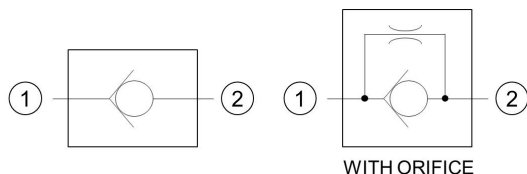
19	XX	MF	-	XX
SERIES NUMBER _____ THREAD SIZE _____ CRACK PRESSURE (PSI) _____ (IF NON-STANDARD) ORIFICE DIAMETER (0.001") _____ (OPTIONAL)				

MODEL	INLET 1	OUTLET 2	THREAD	CAPACITY	L	T	HEX
1904MF	-04 JIC	-04 JIC PORT	7/16-20	2 GPM	1.72	0.530	0.625
1906MF	-06 JIC	-06 JIC PORT	9/16-18	4 GPM	1.94	0.545	0.750
1908MF	-08 JIC	-08 JIC PORT	3/4-16	8 GPM	1.88	0.635	0.938
1910MF	-10 JIC	-10 JIC PORT	7/8-14	12 GPM	2.38	0.760	1.125
1912MF	-12 JIC	-12 JIC PORT	1 1/16-12	25 GPM	2.50	0.860	1.375
1916MF	-16 JIC	-16 JIC PORT	1 5/16-12	40 GPM	3.19	0.880	1.625
1920MF	-20 JIC	-20 JIC PORT	1 5/8-12	50 GPM	4.00	0.950	2.000

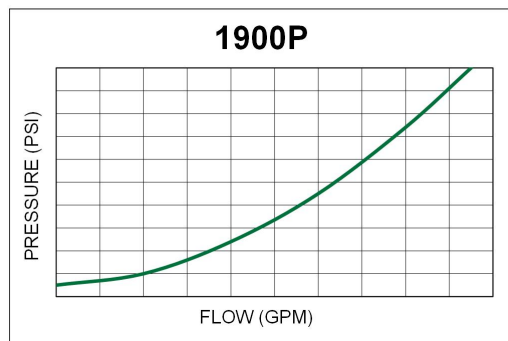
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, POPPET TYPE CHECK VALVE WITH MALE NPTF CONNECTIONS INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- LOW INTERNAL LEAKAGE, 5 DPM.
- NO INTERNAL PACKINGS
- STEEL BODY AND POPPET.

SPECIFICATIONS

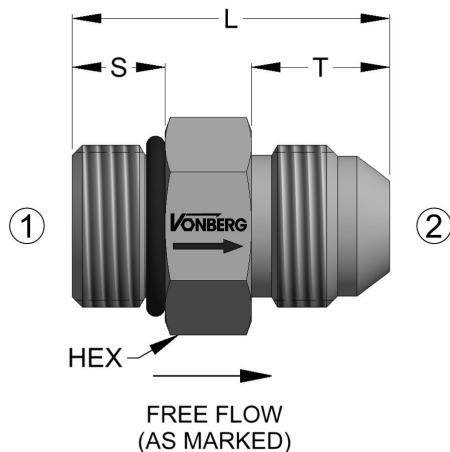
OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

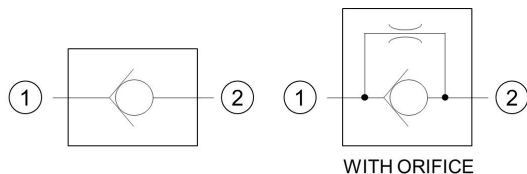
19	XX	P	-	XX
SERIES NUMBER _____ THREAD SIZE _____ CRACK PRESSURE (PSI) _____ (IF NON-STANDARD) ORIFICE DIAMETER (0.001") _____ (OPTIONAL)				

MODEL	INLET / OUTLET	FLOW CAPACITY	L	T	HEX
1901P	1/8-27 NPTF	2 GPM	1.00	0.38	0.50
1902P	1/4-18 NPTF	4 GPM	1.38	0.56	0.63
1903P	3/8-18 NPTF	8 GPM	1.45	0.56	0.75
1904P	1/2-14 NPTF	12 GPM	1.88	0.75	0.88
1906P	3/4-14 NPTF	15 GPM	1.96	0.75	1.13
1908P	1-11 1/2 NPTF	30 GPM	2.34	0.94	1.38

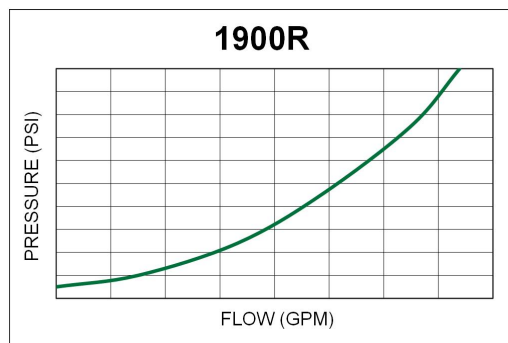
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- LOW INTERNAL LEAKAGE, 5 DPM.
- STEEL BODY AND POPPET.

SPECIFICATIONS

OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

19

XX

R

-XX

SERIES NUMBER _____

THREAD SIZE _____

CRACK PRESSURE (PSI) _____

(IF NON-STANDARD)

ORIFICE DIAMETER (0.001") _____

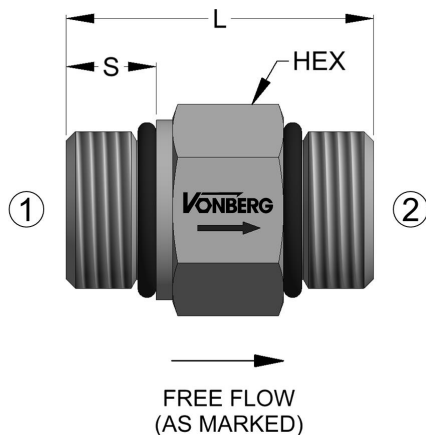
(OPTIONAL)

MODEL	INLET 1	OUTLET 2	THREAD	CAPACITY	L	T	S	HEX
1904R	-04 SAE	-04 JIC	7/16-20	2 GPM	1.23	0.540	0.360	0.562
1906R	-06 SAE	-06 JIC	9/16-18	4 GPM	1.45	0.540	0.390	0.750
1908R	-08 SAE	-08 JIC	3/4-16	8 GPM	1.47	0.655	0.440	0.875
1910R	-10 SAE	-10 JIC	7/8-14	12 GPM	1.62	0.760	0.500	1.000
1912R	-12 SAE	-12 JIC	1 1/16-12	30 GPM	2.00	0.860	0.594	1.250
1916R	-16 SAE	-16 JIC	1 5/16-12	40 GPM	2.27	0.910	0.594	1.500
1920R	-20 SAE	-20 JIC	1 5/8-12	50 GPM	2.75	0.960	0.594	1.875
1924R	-24 SAE	-24 JIC	1 7/8-12	80 GPM	3.50	1.080	0.594	2.125

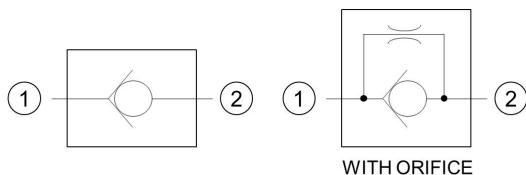
This document, as well as all catalogs, price lists and information provided by Vonberg Valve, Inc., is intended to provide product information for further consideration by users having substantial technical expertise due to the variety of operating conditions and applications for these valves, the user, through its own analysis, testing and evaluation, is solely responsible for making the final selection of the products and ensuring that all safety, warning and performance requirements of the application or use are met. The valves described herein, including without limitation, all component features, specifications, designs, pricing and availability, are subject to change at any time at the sole discretion of Vonberg Valve, Inc. without prior notification.

9/26/18, 4:58 PM

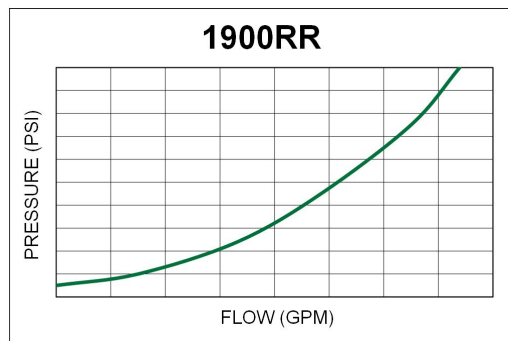
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, POPPET TYPE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.
- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.

FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- NO INTERNAL PACKINGS
- LOW INTERNAL LEAKAGE, 5 DPM.
- STEEL BODY AND POPPET.

SPECIFICATIONS

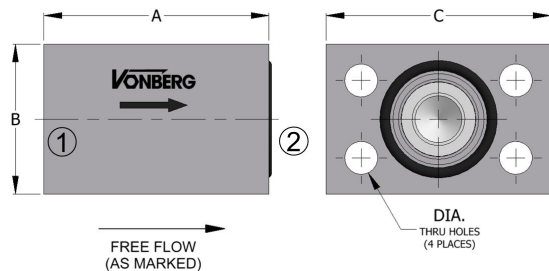
OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

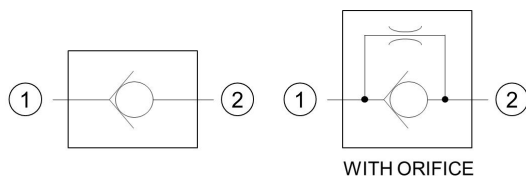
SERIES NUMBER	19	XX	RR	-XX
THREAD SIZE				
CRACK PRESSURE (PSI)				
(IF NON-STANDARD)				
ORIFICE DIAMETER (0.001")				
(OPTIONAL)				

MODEL	INLET / OUTLET	THREAD	CAPACITY	L	S	HEX
1904RR	-04 SAE	7/16-20	2 GPM	1.14	0.360	0.562
1906RR	-06 SAE	9/16-18	4 GPM	1.45	0.390	0.750
1908RR	-08 SAE	3/4-16	8 GPM	1.47	0.440	0.875
1910RR	-10 SAE	7/8-14	12 GPM	1.62	0.500	1.000
1912RR	-12 SAE	1 1/16-12	15 GPM	2.00	0.595	1.250
1916RR	-16 SAE	1 5/16-12	40 GPM	2.27	0.595	1.500
1920RR	-20 SAE	1 5/8-12	50 GPM	2.75	0.595	1.875

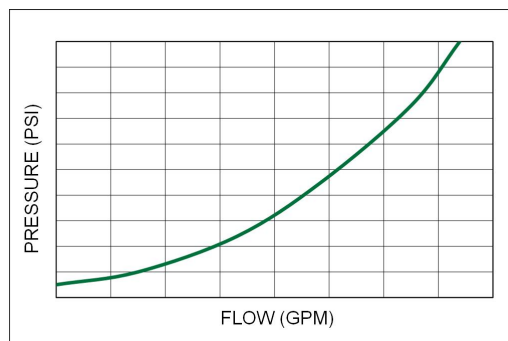
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, POPPET TYPE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

FEATURES

- INCLUDES O-RING.
- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- HYDRAULIC OILS - GENERAL.
- BOLT PATTERN FOR SAE STANDARD PRESSURE (CODE 61).
- LOW PRESSURE DROP.
- NO INTERNAL PACKINGS.
- LOW INTERNAL LEAKAGE, 5 DPM.
- ALUMINUM BODY AND STEEL POPPET.

SPECIFICATIONS

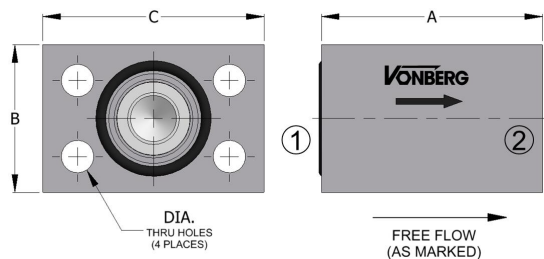
OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

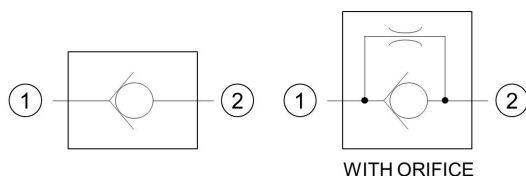
	90175	-	XXX	-	XX
SERIES NUMBER					
FLANGE SIZE					
CRACK PRESSURE (PSI)					
(IF NON-STANDARD)					
ORIFICE DIAMETER (0.001")					
(OPTIONAL)					

MODEL	SAE FLANGE SIZE	FLOW CAPACITY	A	B	C	DIA.
90175-100	1.00	35 GPM	3.00	2.00	3.00	0.44
90175-125	1.25	60 GPM	3.00	2.50	3.25	0.47
90175-150	1.50	95 GPM	4.00	2.50	4.00	0.56
90175-200	2.00	130 GPM	4.00	3.00	4.00	0.56

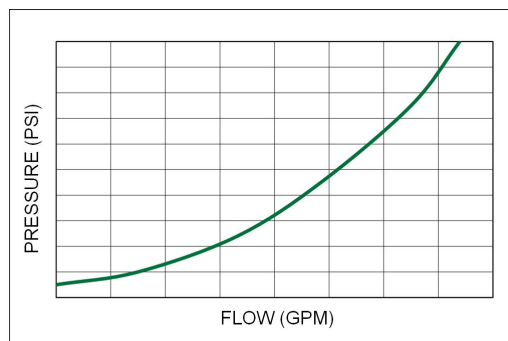
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, POPPET TYPE CHECK VALVE INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLOW FROM (2) TO (1) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (1) TO (2) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 3-5 PSI.

FEATURES

- INCLUDES O-RING.
- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- BOLT PATTERN FOR SAE STANDARD PRESSURE (CODE 61).
- HYDRAULIC OILS - GENERAL.
- LOW PRESSURE DROP.
- NO INTERNAL PACKINGS.
- LOW INTERNAL LEAKAGE, 5 DPM.
- ALUMINUM BODY AND STEEL POPPET.

SPECIFICATIONS

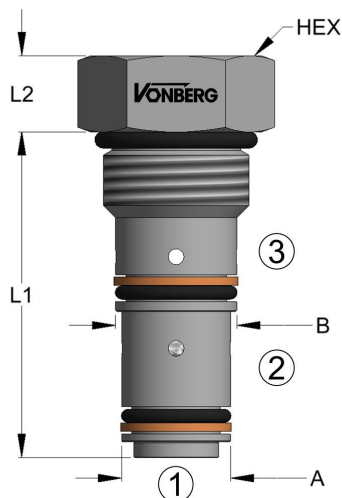
OPERATING PRESSURE	3500 PSI
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

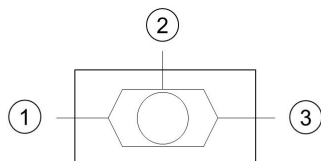
90200 - XXX - XX	
SERIES NUMBER	90200
FLANGE SIZE	XXX
CRACK PRESSURE (PSI) (IF NON-STANDARD)	XX
ORIFICE DIAMETER (0.001") (OPTIONAL)	

MODEL	SAE FLANGE SIZE	FLOW CAPACITY	A	B	C	DIA.
90200-100	1.00	35 GPM	3.00	2.00	3.00	0.44
90200-125	1.25	60 GPM	3.00	2.50	3.25	0.47
90200-150	1.50	95 GPM	4.00	2.50	4.00	0.56
90200-200	2.00	130 GPM	4.00	3.00	4.00	0.56

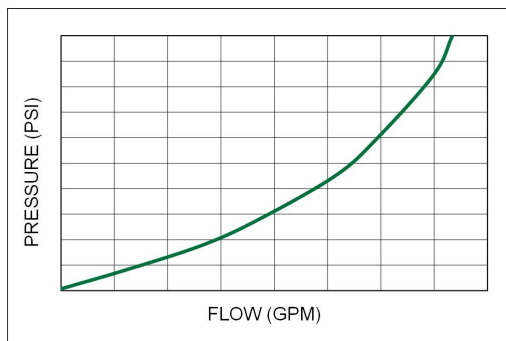
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

A CARTRIDGE STYLE, BALL TYPE SHUTTLE VALVE FOR USE IN CIRCUITS WHERE THE PRIORITY OF FLOW DIRECTION IS GRANTED TO THE GREATER OF TWO INLETS.

OPERATION

- FLOW FROM (1) TO (3) AND (3) TO (1) IS BLOCKED.
- FLOW FROM (1) OR (3) TO (2) IS ALLOWED.

FEATURES

- NO INTERNAL PACKINGS.
- INDUSTRY COMMON CAVITY.
- HARDENED STEEL SEATS.
- STEEL BODY AND CHROME BALL.

SPECIFICATIONS

INTERNAL LEAKAGE	5 DPM @ 3500 PSI MAX.
OPERATING PRESSURE	3500 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

32XX-XX

SERIES NUMBER

CAVITY SIZE

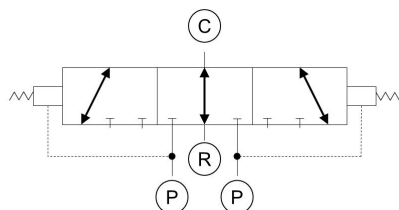
BODY PORT SIZE CODE

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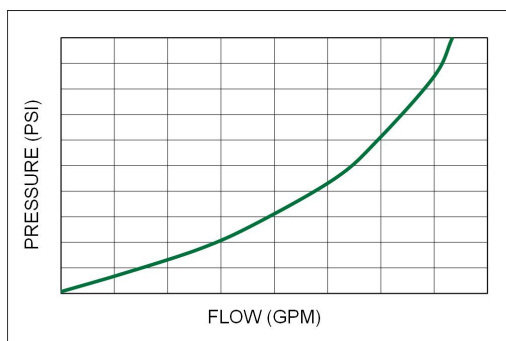
SERIES CODE... SEE "CARTRIDGE BODIES", X-3 SERIES

MODEL	THREAD	RATED FLOW	CAVITY	L1	L2	HEX	A	B
3204	7/16-20	1.5 GPM	C04-3	1.24	0.30	0.56	0.308 / 0.310	0.340 / 0.342
3208	3/4 - 16	5.0 GPM	VC08-3	1.67	0.31	0.88	0.558 / 0.560	0.621 / 0.623
3210	7/8-14	8.0 GPM	VC10-3	1.85	0.31	1.00	0.621 / 0.623	0.683 / 0.685

SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, SPOOL TYPE SHUTTLE VALVE FOR USE IN SPRING APPLIED BRAKE CIRCUITS.

OPERATION

- IN THE SHUTTLED POSITION, FLOW FROM (P) TO (C) IS ALLOWED.
- SHIFT PRESSURE IS REQUIRED, EACH DIRECTION (SEE TABLE)
- IN THE NORMALLY CENTERED POSITION, FLOW FROM (C) TO (R) IS ALLOWED.

FEATURES

- HYDRAULIC OILS - GENERAL.
- HIGHER SHIFT PRESSURE AVAILABLE UPON REQUEST.
- SPRING BIAS NORMALLY CENTERED.
- ALUMINUM BODY AND SPOOL.
- NO INTERNAL PACKINGS.

SPECIFICATIONS

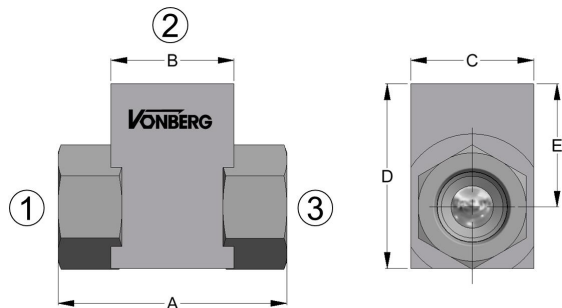
OPERATING PRESSURE	3500 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

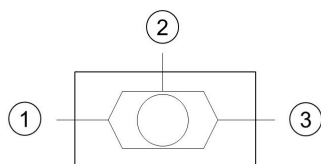
601	XX	X
SERIES NUMBER	SHIFT PRESSURE ID	BODY MATERIAL
BLANK....	ALUMINUM	S.....
	STEEL	

MODEL	PORT SIZE (C)	PORT SIZE (P, R)	CRACK (P-C)	HOLD (P-C)
60101	-08 SAE - 3/4-16	-06 SAE - 9/16-18	12 PSI (MIN.)	22.5 PSI (MIN.)
60112	-08 SAE - 3/4-16	-06 SAE - 9/16-18	50 PSI (MIN.)	80 PSI (MIN.)

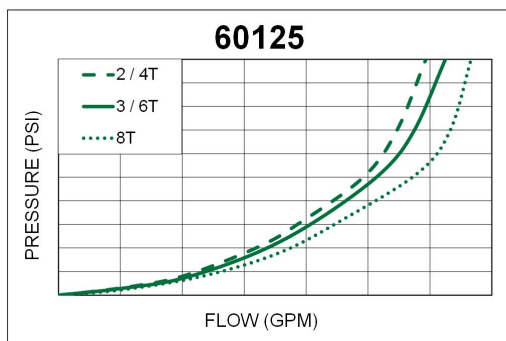
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, BALL TYPE SHUTTLE VALVE FOR USE IN CIRCUITS WHERE THE PRIORITY OF FLOW DIRECTION IS GRANTED TO THE GREATER OF TWO INLETS.

OPERATION

- FLOW FROM (1) OR (3) TO (2) IS ALLOWED.
- FLOW FROM (1) TO (3) AND (3) TO (1) IS BLOCKED.

FEATURES

- NO INTERNAL PACKINGS.
- HARDENED STEEL SEATS
- ALUMINUM BODY AND CHROME BALL.

SPECIFICATIONS

INTERNAL LEAKAGE	5 DPM @ 3500 PSI MAX.
OPERATING PRESSURE	3500 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

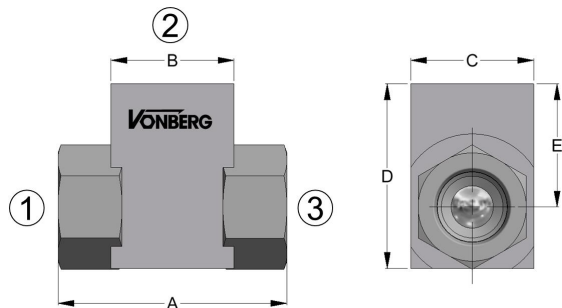
60125 - **XX** - **XX**

SERIES NUMBER _____
 INLET PORTS ID _____
 OUTLET PORT ID** _____

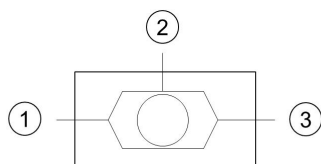
** WHEN INLET AND OUTLET PORTS MATCH, ONLY ONE SUFFIX IS NECESSARY

MODEL	PORT SIZE	A	B	C	D	E
60125-2	1/4-18 NPTF	2.22	1.00	1.00	1.50	1.00
60125-3	3/8-18 NPTF	2.22	1.00	1.00	1.50	1.00
60125-4T	-04 SAE - 7/16-20	1.86	1.00	1.00	1.50	1.00
60125-6T	-06 SAE - 9/16-18	1.86	1.00	1.00	1.50	1.00
60125-8T	-08 SAE - 3/4-16	2.82	1.00	1.00	1.50	1.00

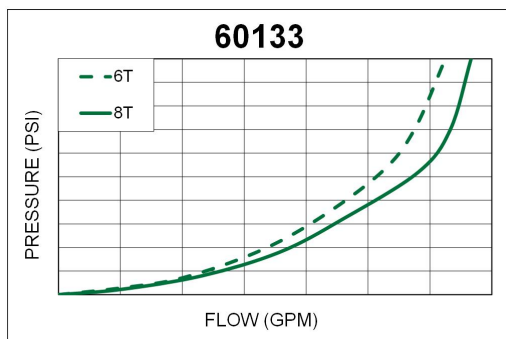
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, BALL TYPE SHUTTLE VALVE FOR USE IN CIRCUITS WHERE THE PRIORITY OF FLOW DIRECTION IS GRANTED TO THE GREATER OF TWO INLETS.

OPERATION

- FLOW FROM (1) OR (3) TO (2) IS ALLOWED.
- FLOW FROM (1) TO (3) AND (3) TO (1) IS BLOCKED.

FEATURES

- NO INTERNAL PACKINGS.
- ALUMINUM BODY AND CHROME BALL.
- LOW PRESSURE DROP.
- HARDENED STEEL SEATS

SPECIFICATIONS

INTERNAL LEAKAGE	5 DPM @ 3500 PSI MAX.
OPERATING PRESSURE	3500 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

60133-XX-XX

SERIES NUMBER

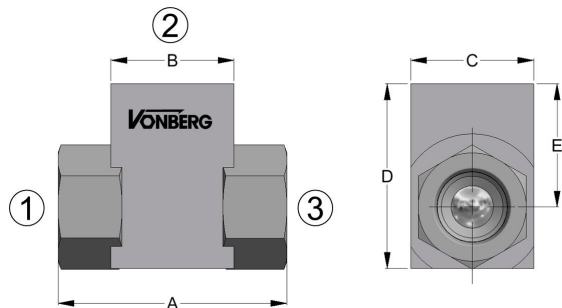
INLET PORTS ID

OUTLET PORT ID**

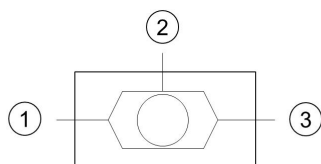
** WHEN INLET AND OUTLET PORTS MATCH, ONLY ONE SUFFIX IS NECESSARY

MODEL	PORT SIZE	A	B	C	D	E
60133-6T	-06 SAE - 9/16-18	1.94	1.00	1.00	1.50	1.00
60133-8T	-08 SAE - 3/4-16	2.70	1.00	1.00	1.75	1.25

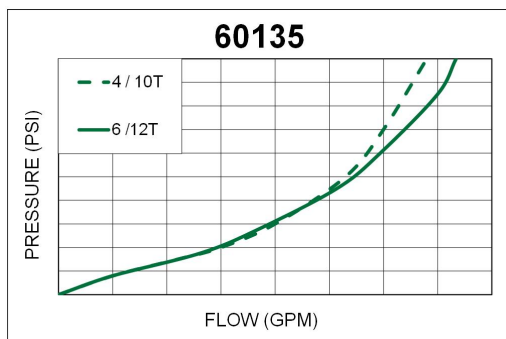
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, BALL TYPE SHUTTLE VALVE FOR USE IN CIRCUITS WHERE THE PRIORITY OF FLOW DIRECTION IS GRANTED TO THE GREATER OF TWO INLETS.

OPERATION

- FLOW FROM (1) OR (3) TO (2) IS ALLOWED.
- FLOW FROM (1) TO (3) AND (3) TO (1) IS BLOCKED.

FEATURES

- NO INTERNAL PACKINGS.
- HARDENED STEEL SEATS
- ALUMINUM BODY AND CHROME BALL.

SPECIFICATIONS

INTERNAL LEAKAGE	5 DPM @ 3500 PSI MAX.
OPERATING PRESSURE	3500 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

60135

-XX-

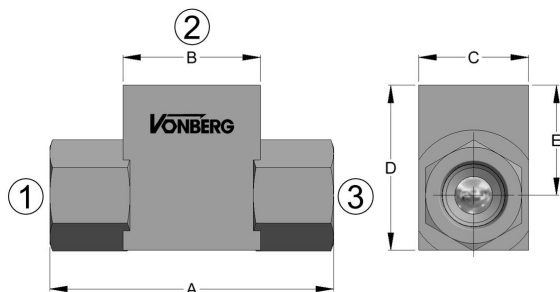
XX

SERIES NUMBER _____
 INLET PORTS ID _____
 OUTLET PORT ID** _____

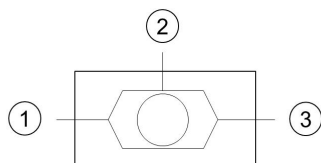
** WHEN INLET AND OUTLET PORTS MATCH, ONLY ONE SUFFIX IS NECESSARY

PORT ID.	PORT SIZE	A	B	C	D	E
60135-4	1/2-14 NPTF	4.00	1.75	1.75	2.50	1.60
60135-6	3/4-14 NPTF	4.00	1.75	1.75	2.50	1.60
60135-10T	-10 SAE - 7/8-14	4.00	1.75	1.75	2.50	1.60
60135-12T	-12 SAE - 1 1/16-12	4.00	1.75	1.75	2.50	1.60

PRODUCT



SCHEMATIC



DESCRIPTION

AN IN-LINE STYLE, BALL TYPE SHUTTLE VALVE FOR USE IN CIRCUITS WHERE THE PRIORITY OF FLOW DIRECTION IS GRANTED TO THE GREATER OF TWO INLETS.

OPERATION

- FLOW FROM (1) OR (3) TO (2) IS ALLOWED.
- FLOW FROM (1) TO (3) AND (3) TO (1) IS BLOCKED.

FEATURES

- NO INTERNAL PACKINGS.
- HARDENED STEEL SEATS
- STEEL BODY AND CHROME BALL.

SPECIFICATIONS

INTERNAL LEAKAGE	5 DPM @ 3500 PSI MAX.
OPERATING PRESSURE	5000 PSI
TEMPERATURE RANGE	250° F TO -40° F

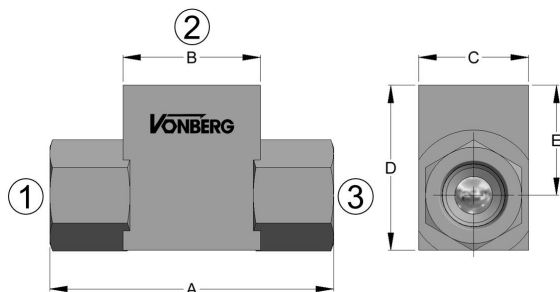
ORDERING INFORMATION

65125 - XX - XX		
SERIES NUMBER	_____	_____
INLET PORTS ID	_____	_____
OUTLET PORT ID**	_____	_____

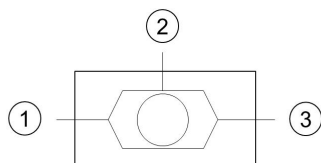
** WHEN INLET AND OUTLET PORTS MATCH, ONLY ONE SUFFIX IS NECESSARY

PORT ID.	PORT SIZE	A	B	C	D	E
65125-2	1/4-18 NPTF	2.58	1.25	1.00	1.50	1.00
65125-3	3/8-18 NPTF	2.78	1.25	1.00	1.50	1.00
65125-4T	-04 SAE - 7/16-20	2.58	1.25	1.00	1.50	1.00
65125-6T	-06 SAE - 9/16-18	2.58	1.25	1.00	1.50	1.00
65125-8T	-08 SAE - 3/4-16	2.82	1.25	1.00	1.50	1.00

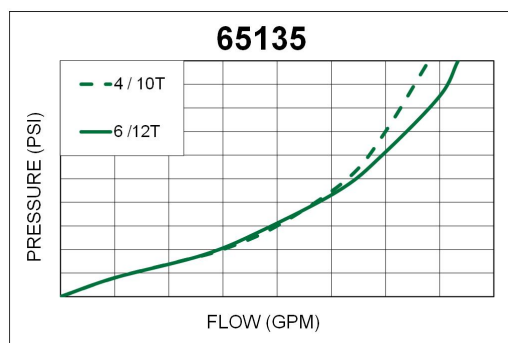
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE STYLE, BALL TYPE SHUTTLE VALVE FOR USE IN CIRCUITS WHERE THE PRIORITY OF FLOW DIRECTION IS GRANTED TO THE GREATER OF TWO INLETS.

OPERATION

- FLOW FROM (1) OR (3) TO (2) IS ALLOWED.
- FLOW FROM (1) TO (3) AND (3) TO (1) IS BLOCKED.

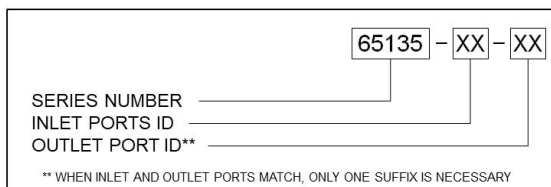
FEATURES

- NO INTERNAL PACKINGS.
- STEEL BODY AND CHROME BALL.
- HARDENED STEEL SEATS

SPECIFICATIONS

INTERNAL LEAKAGE	5 DPM @ 3500 PSI MAX.
OPERATING PRESSURE	5000 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

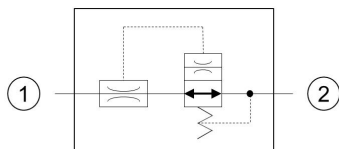


PORT ID.	PORT SIZE	A	B	C	D	E
65135-4	1/2-14 NPTF	4.24	1.88	2.00	2.50	1.60
65135-6	3/4-14 NPTF	4.24	1.88	2.00	2.50	1.60
65135-10T	-10 SAE - 7/8-14	4.24	1.88	2.00	2.50	1.60
65135-12T	-12 SAE - 1 1/16-12	4.24	1.88	2.00	2.50	1.60

SAFETY VALVES



SCHEMATIC



DESCRIPTION

AN IN-LINE, SLIP-IN CARTRIDGE STYLE FLOW LIMITER THAT PREVENTS FREE FALL IN THE EVENT OF A LINE FAILURE, BUT ALLOWS A METERED FLOW AFTER CLOSING.

OPERATION

- BORE DEPTHS ASSUME THE USE OF A STANDARD O-RING BOSS CONNECTOR WITH THREAD LENGTHS BASED ON SAE J514.
- VALVE BODY IS LEFT WITH APPROX. 0.060" OF SLACK IN THE CAVITY TO PREVENT DAMAGING VALVE.
- VALVE BODY SEATS ON SMOOTH, FLAT SURFACE OF FITTING IN THE CLOSING FLOW DIRECTION.
- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS LIMITED.
- BLEED RATE AFTER CLOSING IS 2.0 - 3.0 GPM AT 3500 PSI.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).

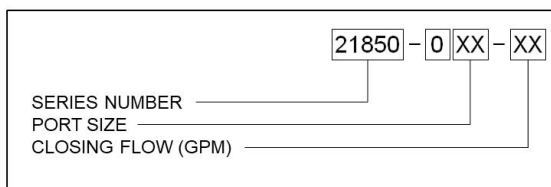
FEATURES

- STEEL COMPONENTS.
- NON-STANDARD BLEED FLOW RATES ARE AVAILABLE UPON REQUEST.
- RAPID RESPONSE.
- FAIL SAFE DESIGN.

SPECIFICATIONS

CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

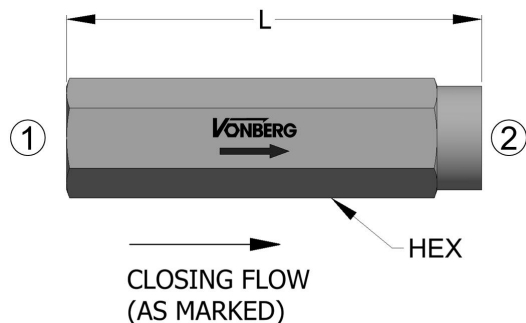


Model	DIA.	L	FLOW RANGE	A	B (MAX.)	C	D
21850-006	0.506	1.70	0.5 TO 10.0 GPM	2.15 / 2.16	0.375	0.510 / 0.515	1.76 / 1.77
21850-008	0.670	1.88	0.5 TO 25.0 GPM	2.38 / 2.39	0.500	0.672 / 0.677	1.94 / 1.95
21850-010	0.795	1.90	2.0 TO 40.0 GPM	2.46 / 2.47	0.625	0.797 / 0.802	1.96 / 1.97
21850-012	0.970	1.90	2.0 TO 40.0 GPM	2.56 / 2.57	0.812	0.972 / 0.977	1.96 / 1.97
21850-014	1.095	2.14	2.0 TO 50.0 GPM	2.80 / 2.81	0.812	1.097 / 1.102	2.20 / 2.21
21850-016	1.220	2.14	2.0 TO 50.0 GPM	2.80 / 2.81	0.937	1.222 / 1.227	2.20 / 2.21
21850-024	1.783	3.25	5.0 TO 80.0 GPM	3.91 / 3.92	1.437	1.787 / 1.792	3.31 / 3.32

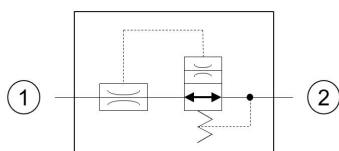
This document, as well as all catalogs, price lists and information provided by Vonberg Valve, Inc., is intended to provide product information for further consideration by users having substantial technical expertise due to the variety of operating conditions and applications for these valves, the user, through its own analysis, testing and evaluation, is solely responsible for making the final selection of the products and ensuring that all safety, warning and performance requirements of the application or use are met. The valves described herein, including without limitation, all component features, specifications, designs, pricing and availability, are subject to change at any time at the sole discretion of Vonberg Valve, Inc. without prior notification.

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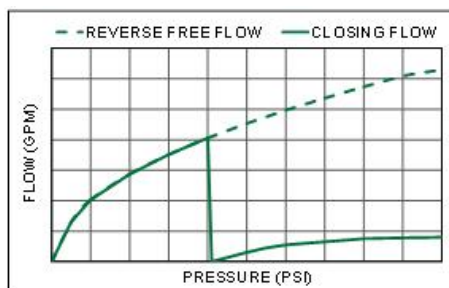
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE FLOW LIMITER WITH FEMALE NPTF PORTS THAT PREVENTS FREE FALL IN THE EVENT OF A LINE FAILURE, BUT ALLOWS A METERED FLOW AFTER CLOSING.

OPERATION

- BLEED RATE AFTER CLOSING IS 2.0 - 3.0 GPM AT 3000 PSI
- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS LIMITED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).

FEATURES

- RAPID RESPONSE.
- FAIL SAFE DESIGN.
- STEEL COMPONENTS.
- NON-STANDARD BLEED FLOW RATES ARE AVAILABLE UPON REQUEST.

SPECIFICATIONS

CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

28050-1XX-XX

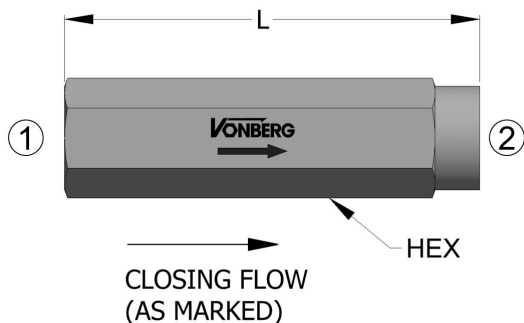
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PORT SIZE

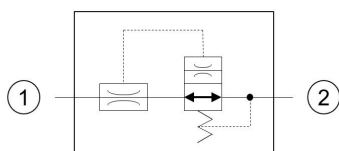
CLOSING FLOW (GPM)

Model	INLET / OUTLET	FLOW RANGE	L	HEX
28050-102	1/4-18 NPTF	0.5 TO 10.0 GPM	3.18	0.750
28050-103	3/8-18 NPTF	0.5 TO 25.0 GPM	3.50	0.875
28050-104	1/2-14 NPTF	2.0 TO 40.0 GPM	3.85	1.125
28050-106	3/4-14 NPTF	2.0 TO 50.0 GPM	4.20	1.375

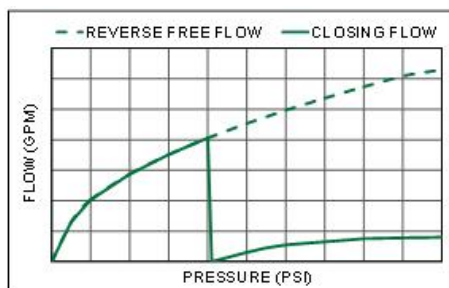
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE FLOW LIMITER WITH FEMALE SAE PORTS THAT PREVENTS FREE FALL IN THE EVENT OF A LINE FAILURE, BUT ALLOWS A METERED FLOW AFTER CLOSING.

OPERATION

- BLEED RATE AFTER CLOSING IS 2.0 - 3.0 GPM AT 3000 PSI
- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS LIMITED.

FEATURES

- STEEL COMPONENTS.
- NON-STANDARD BLEED FLOW RATES ARE AVAILABLE UPON REQUEST.
- RAPID RESPONSE.
- FAIL SAFE DESIGN.

SPECIFICATIONS

CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

28050-2XX-XX

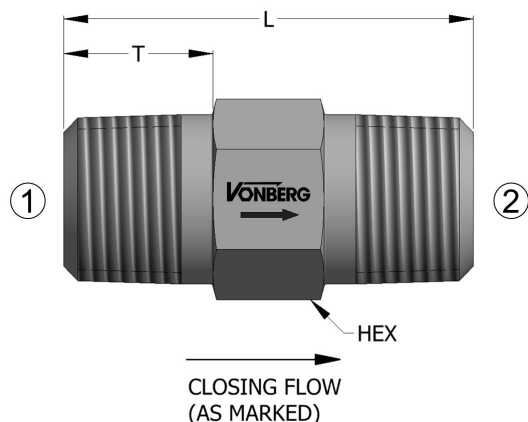
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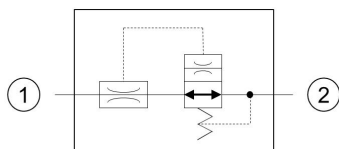
CLOSING FLOW (GPM)

Model	INLET / OUTLET	FLOW RANGE	L	HEX
28050-204	-04 SAE	0.1 TO 4.0 GPM	2.75	0.625
28050-206	-06 SAE	0.5 TO 10.0 GPM	3.00	0.750
28050-208	-08 SAE	0.5 TO 25.0 GPM	3.38	0.938
28050-210	-10 SAE	2.0 TO 40.0 GPM	3.75	1.125
28050-212	-12 SAE	2.0 TO 50.0 GPM	4.25	1.375

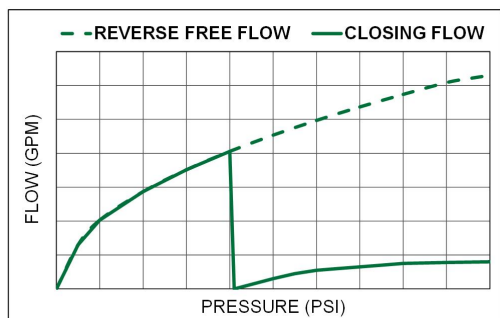
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE FLOW LIMITER WITH MALE NPTF CONNECTIONS THAT PREVENTS FREE FALL IN THE EVENT OF A LINE FAILURE, BUT ALLOWS A METERED FLOW AFTER CLOSING.

OPERATION

- BLEED RATE AFTER CLOSING IS 2.0 - 3.0 GPM AT 3500 PSI.
- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS LIMITED.

FEATURES

- NON-STANDARD BLEED FLOW RATES ARE AVAILABLE UPON REQUEST.
- FAIL SAFE DESIGN.
- STEEL COMPONENTS.
- RAPID RESPONSE.

SPECIFICATIONS

CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

28050-5XX-XX

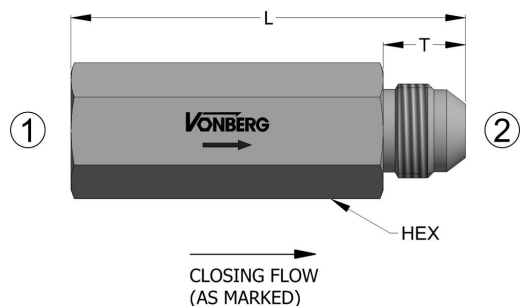
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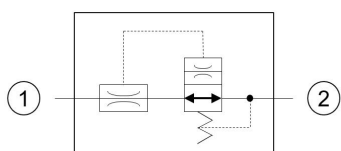
CLOSING FLOW (GPM)

Model	INLET / OUTLET	FLOW RANGE	L	T	HEX
28050-502	1/4-18 NPTF	0.1 TO 4.0 GPM	2.05	0.56	0.63
28050-503	3/8-18 NPTF	0.5 TO 10.0 GPM	1.75	0.60	0.75
28050-504	1/2-14 NPTF	0.5 TO 25.0 GPM	2.06	0.75	0.88
28050-506	3/4-14 NPTF	2.0 TO 40.0 GPM	2.00	0.75	1.13
28050-508	1-11 1/2 NPTF	2.0 TO 50.0 GPM	2.34	0.92	1.38
28050-512	1 1/2-11 1/2 NPTF	2.0 TO 80.0 GPM	4.75	1.00	2.00

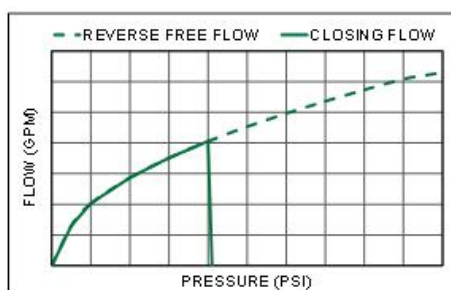
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE FLOW LIMITER WITH A FEMALE NPTF PORT INLET AND A MALE JIC OUTLET THAT PREVENTS FREE FALL IN THE EVENT OF A LINE FAILURE, BUT ALLOWS A METERED FLOW AFTER CLOSING.

OPERATION

- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS LIMITED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).
- BLEED RATE AFTER CLOSING IS 2.0 - 3.0 GPM AT 3500 PSI.

FEATURES

- RAPID RESPONSE.
- FAIL SAFE DESIGN.
- STEEL COMPONENTS.
- NON-STANDARD BLEED FLOW RATES ARE AVAILABLE UPON REQUEST.

SPECIFICATIONS

CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

28051 - 1 XX - XX

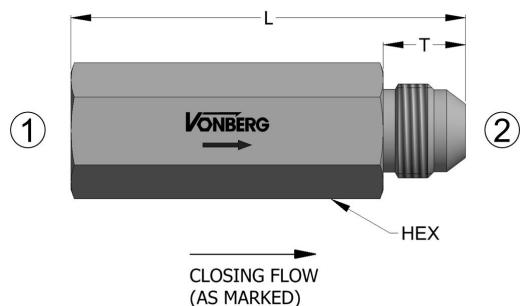
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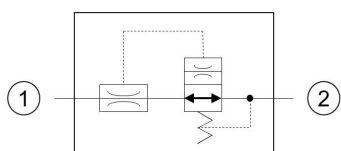
CLOSING FLOW (GPM) _____

Model	INLET 1	OUTLET 2	FLOW RANGE	L	HEX
28051-102	1/4-18 NPTF	-04 JIC - 7/16-20	0.1 TO 4.0 GPM	2.78	0.750
28051-103	3/8-18 NPTF	-06 JIC - 9/16-18	1.0 TO 25.0 GPM	3.10	0.875
28051-104	1/2-14 NPTF	-08 JIC - 3/4-16	2.0 TO 40.0 GPM	3.30	1.125

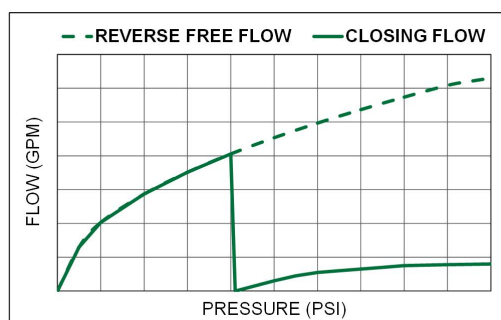
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE FLOW LIMITER WITH A FEMALE SAE O-RING PORT INLET AND A MALE JIC OUTLET THAT PREVENTS FREE FALL IN THE EVENT OF A LINE FAILURE, BUT ALLOWS A METERED FLOW AFTER CLOSING.

OPERATION

- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- BLEED RATE AFTER CLOSING IS 2.0 - 3.0 GPM AT 3500 PSI.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS LIMITED.

FEATURES

- STEEL COMPONENTS.
- FAIL SAFE DESIGN.
- RAPID RESPONSE.
- NON-STANDARD BLEED FLOW RATES ARE AVAILABLE UPON REQUEST.

SPECIFICATIONS

CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

28051-2XX-XX

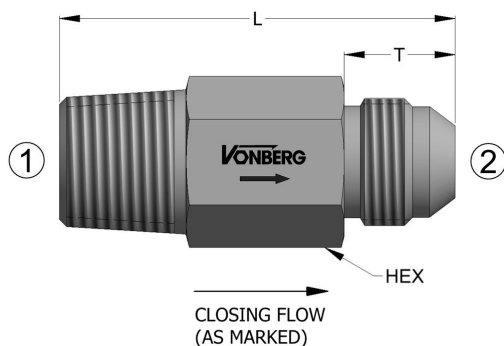
SERIES NUMBER

PORT SIZE

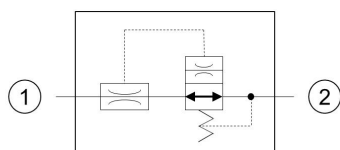
CLOSING FLOW (GPM)

Model	INLET 1	OUTLET 2	FLOW RANGE	L	HEX
28051-204	-04 SAE - 7/16-20	-04 JIC - 7/16-20	0.1 TO 4.0 GPM	2.40	0.63
28051-206	-06 SAE - 9/16-18	-06 JIC - 9/16-18	0.5 TO 10.0 GPM	2.90	0.75
28051-208	-08 SAE - 3/4-16	-08 JIC - 3/4-16	1.0 TO 25.0 GPM	3.15	0.94
28051-210	-10 SAE - 7/8-14	-10 JIC - 7/8-14	2.0 TO 40.0 GPM	3.40	1.13
28051-212	-12 SAE - 1 1/16-12	-12 JIC - 1 1/6-12	2.0 TO 50.0 GPM	3.95	1.38

PRODUCT



SCHEMATIC



DESCRIPTION

AN IN-LINE FLOW LIMITER WITH A MALE NPTF INLET AND A MALE JIC OUTLET WITH THAT PREVENTS FREE FALL IN THE EVENT OF A LINE FAILURE, BUT ALLOWS A METERED FLOW AFTER CLOSING.

OPERATION

- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS LIMITED.

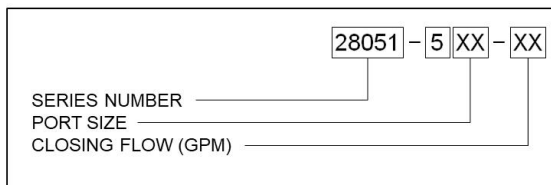
FEATURES

- RAPID RESPONSE.
- FAIL SAFE DESIGN.
- STEEL COMPONENTS.
- NON-STANDARD BLEED FLOW RATES ARE AVAILABLE UPON REQUEST.

SPECIFICATIONS

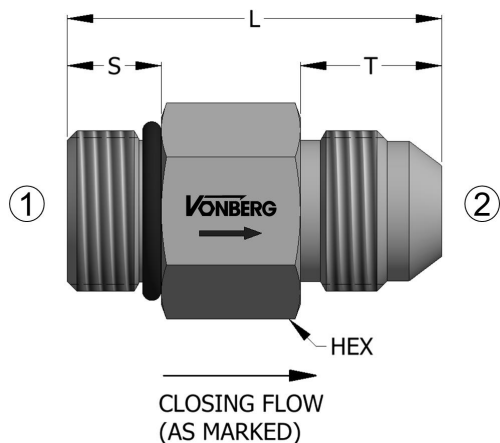
CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

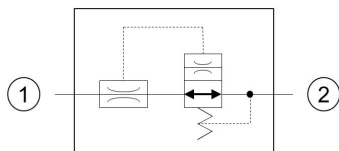


Model	INLET 1	OUTLET 2	FLOW RANGE	L	HEX
28051-502	1/4-18 NPTF	-04 JIC - 7/16-20	0.1 TO 4.0 GPM	2.30	0.625
28051-503	3/8-18 NPTF	-06 JIC - 9/16-18	0.5 TO 10.0 GPM	2.30	0.750
28051-504	1/2-14 NPTF	-08 JIC - 3/4-16	1.0 TO 25.0 GPM	2.34	0.875
28051-506	3/4-14 NPTF	-12 JIC - 1 1/6-12	2.0 TO 40.0 GPM	2.75	1.250
28051-508	1-11 1/2 NPTF	-16 JIC - 1 5/6-12	2.0 TO 50.0 GPM	3.25	1.375
28051-512	1 1/2-11 1/2 NPTF	-24 JIC - 1 7/8-12	5.0 TO 80.0 GPM	4.85	2.000

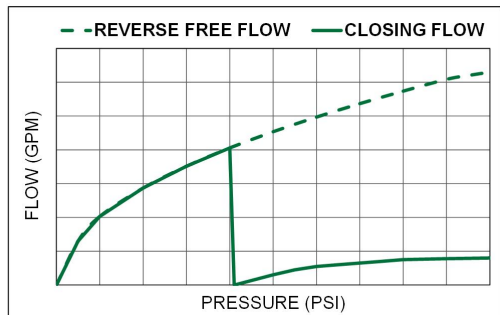
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE FLOW LIMITER WITH A MALE SAE O-RING INLET AND A MALE JIC OUTLET THAT PREVENTS FREE FALL IN THE EVENT OF A LINE FAILURE, BUT ALLOWS A METERED FLOW AFTER CLOSING.

OPERATION

- BLEED RATE AFTER CLOSING IS 2.0 - 3.0 GPM AT 3500 PSI.
- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS LIMITED.

FEATURES

- NON-STANDARD BLEED FLOW RATES ARE AVAILABLE UPON REQUEST.
- RAPID RESPONSE.
- FAIL SAFE DESIGN.
- STEEL COMPONENTS.

SPECIFICATIONS

CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

28051-8XX-XX

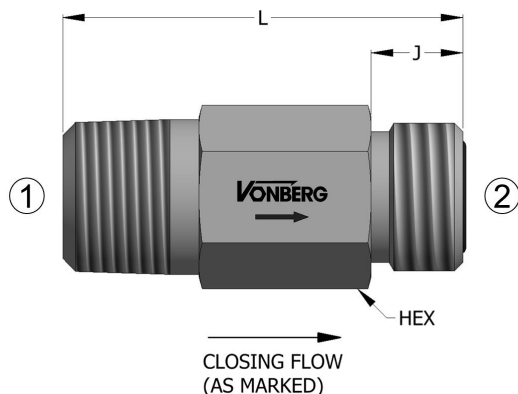
SERIES NUMBER

PORT SIZE

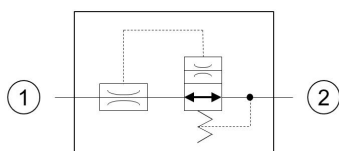
CLOSING FLOW (GPM)

Model	INLET 1	OUTLET 2	FLOW RANGE	L	HEX
28051-804	-04 SAE - 7/16-20	-04 JIC - 7/16-20	0.1 TO 4.0 GPM	3.06	0.625
28051-806	-06 SAE - 9/16-18	-06 JIC - 9/16-18	0.1 TO 4.0 GPM	1.61	0.750
28051-808	-08 SAE - 3/4-16	-08 JIC - 3/4-16	0.5 TO 10.0 GPM	1.75	0.875
28051-810	-10 SAE - 7/8-14	-10 JIC - 7/8-14	1.0 TO 25.0 GPM	2.06	1.000
28051-812	-12 SAE - 1 1/16-12	-12 JIC - 1 1/6-12	2.0 TO 40.0 GPM	1.97	1.250
28051-816	-16 SAE - 1 5/16-12	-16 JIC - 1 5/16-12	2.0 TO 50.0 GPM	2.50	1.500
28051-824	-24 SAE - 1 7/8-12	-24 JIC - 1 7/8-12	2.0 TO 80.0 GPM	4.47	2.125

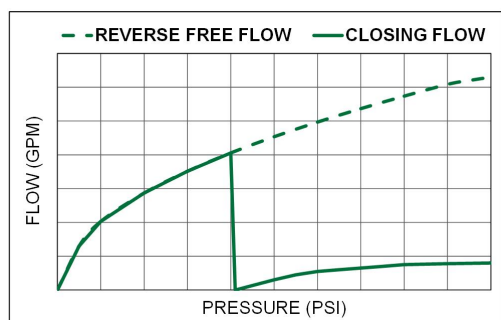
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE FLOW LIMITER WITH A MALE NPTF INLET AND A MALE ORS OUTLET THAT PREVENTS FREE FALL IN THE EVENT OF A LINE FAILURE, BUT ALLOWS A METERED FLOW AFTER CLOSING.

OPERATION

- BLEED RATE AFTER CLOSING IS 2.0 - 3.0 GPM AT 3000 PSI.
- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS LIMITED.

FEATURES

- NON-STANDARD BLEED FLOW RATES ARE AVAILABLE UPON REQUEST.
- FAIL SAFE DESIGN.
- STEEL COMPONENTS.
- RAPID RESPONSE.

SPECIFICATIONS

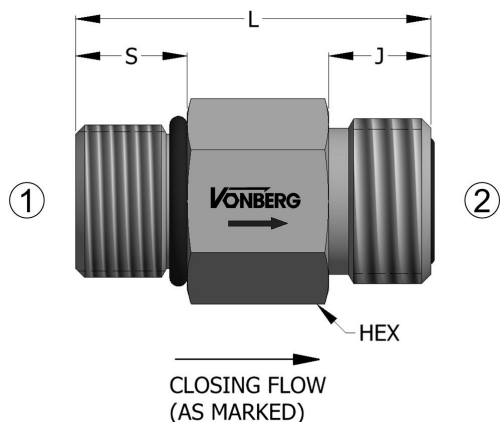
CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

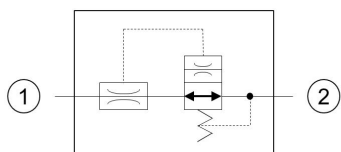
28059-5XX-XX			
SERIES NUMBER			
PORT SIZE			
CLOSING FLOW (GPM)			

Model	INLET 1	OUTLET 2	FLOW RANGE	L	HEX	J
28059-502	1/4-18 NPTF	-04 ORS - 9/16-18	0.1 TO 4.0 GPM	2.30	0.625	0.389
28059-503	3/8-18 NPTF	-06 ORS - 11/16-16	0.5 TO 10.0 GPM	2.10	0.750	0.441
28059-504	1/2-14 NPTF	-08 ORS - 13/16-16	1.0 TO 25.0 GPM	2.34	0.875	0.504
28059-506	3/4-14 NPTF	-12 ORS - 1 3/16-12	2.0 TO 40.0 GPM	2.75	1.250	0.670
28059-508	1-11 1/2 NPTF	-16 ORS - 1 7/16-12	2.0 TO 50.0 GPM	3.25	1.375	0.689
28059-512	1 1/2-11 1/2 NPTF	-24 ORS - 2-12	5.0 TO 80.0 GPM	4.85	2.125	0.689

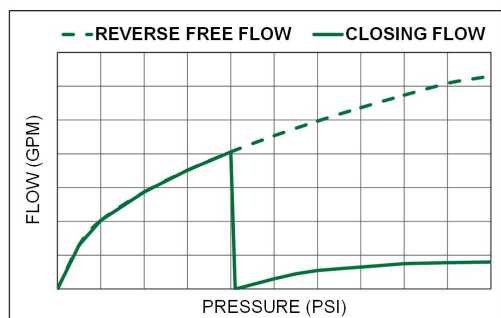
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE FLOW LIMITER WITH A MALE SAE INLET AND A MALE ORS OUTLET THAT PREVENTS FREE FALL IN THE EVENT OF A LINE FAILURE, BUT ALLOWS A METERED FLOW AFTER CLOSING.

OPERATION

- BLEED RATE AFTER CLOSING IS 2.0 - 3.0 GPM AT 3000 PSI.
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS LIMITED.
- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).

FEATURES

- NON-STANDARD BLEED FLOW RATES ARE AVAILABLE UPON REQUEST.
- RAPID RESPONSE.
- FAIL SAFE DESIGN.
- STEEL COMPONENTS.

SPECIFICATIONS

CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	5000 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

28059-8XX-XX

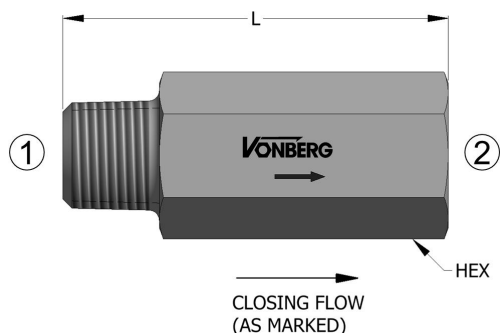
SERIES NUMBER

PORT SIZE

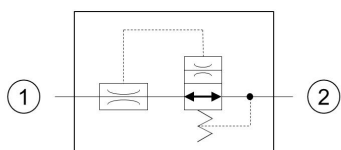
CLOSING FLOW (GPM)

Model	INLET 1	OUTLET 2	FLOW RANGE	L	HEX	S	J
28059-806	-06 SAE - 9/16-18	-06 ORS - 11/16-16	0.1 TO 4.0 GPM	1.60	0.750	0.472	0.441
28059-808	-08 SAE - 3/4-16	-08 ORS - 13/16-16	0.5 TO 10.0 GPM	1.75	0.875	0.551	0.504
28059-810	-10 SAE - 7/8-14	-10 ORS - 1-14	1.0 TO 25.0 GPM	1.90	1.125	0.630	0.610
28059-812	-12 SAE - 1 1/16-12	-12 ORS - 1 3/16-12	2.0 TO 40.0 GPM	2.00	1.250	0.728	0.670
28059-816	-16 SAE - 1 5/16-12	-16 ORS - 1 7/16-12	2.0 TO 50.0 GPM	2.40	1.500	0.728	0.689
28059-824	-24 SAE - 1 7/8-12	-24 ORS - 2-12	5.0 TO 80.0 GPM	3.25	2.125	0.728	0.689

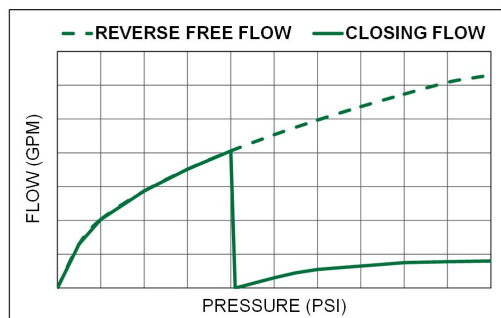
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE FLOW LIMITER WITH A MALE NPTF INLET AND A FEMALE NPTF OUTLET THAT PREVENTS FREE FALL IN THE EVENT OF A LINE FAILURE, BUT ALLOWS A METERED FLOW AFTER CLOSING.

OPERATION

- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- BLEED RATE AFTER CLOSING IS 2.0 - 3.0 GPM AT 3000 PSI.
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS LIMITED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).

FEATURES

- NON-STANDARD BLEED FLOW RATES ARE AVAILABLE UPON REQUEST.
- RAPID RESPONSE.
- FAIL SAFE DESIGN.
- STEEL COMPONENTS.

SPECIFICATIONS

CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

28950-5XX-XX

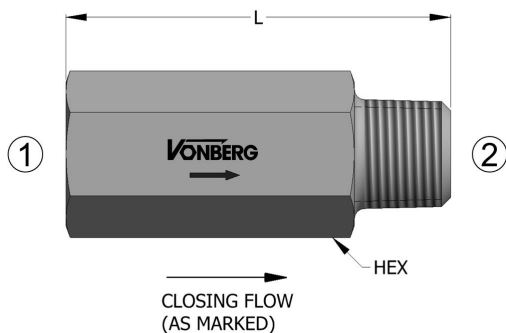
SERIES NUMBER

PORT SIZE

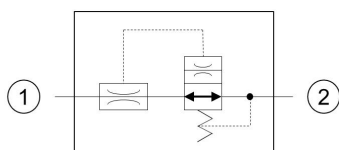
CLOSING FLOW (GPM)

Model	INLET 1	OUTLET 2	FLOW RANGE	L	HEX
28950-502	1/4-18 NPTF	1/4-18 NPTF PORT	0.1 TO 4.0 GPM	2.70	0.750
28950-503	3/8-18 NPTF	3/8-18 NPTF PORT	0.5 TO 10.0 GPM	2.70	0.875
28950-504	1/2-14 NPTF	1/2-14 NPTF PORT	1.0 TO 25.0 GPM	3.00	1.125
28950-506	3/4-14 NPTF	3/4-14 NPTF PORT	2.0 TO 40.0 GPM	3.20	1.375
28950-508	1-11 1/2 NPTF	1-11 1/2 NPTF PORT	2.0 TO 50.0 GPM	3.80	1.625

PRODUCT



SCHEMATIC



DESCRIPTION

AN IN-LINE FLOW LIMITER WITH A FEMALE NPTF INLET AND A MALE NPTF OUTLET THAT PREVENTS FREE FALL IN THE EVENT OF A LINE FAILURE, BUT ALLOWS A METERED FLOW AFTER CLOSING.

OPERATION

- BLEED RATE AFTER CLOSING IS 2.0 - 3.0 GPM AT 3000 PSI.
- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS LIMITED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).

FEATURES

- NON-STANDARD BLEED FLOW RATES ARE AVAILABLE UPON REQUEST.
- RAPID RESPONSE.
- FAIL SAFE DESIGN.
- STEEL COMPONENTS.

SPECIFICATIONS

CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

28951-1XX-XX

SERIES NUMBER

PORT SIZE

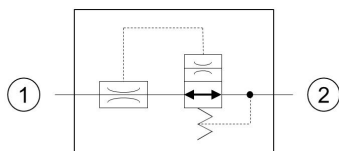
CLOSING FLOW (GPM)

Model	INLET 1	OUTLET 2	FLOW RANGE	L	HEX
28951-102	1/4-18 NPTF PORT	1/4-18 NPTF	0.5 TO 10.0 GPM	2.85	0.750
28951-103	3/8-18 NPTF PORT	3/8-18 NPTF	1.0 TO 25.0 GPM	3.25	0.875
28951-104	1/2-14 NPTF PORT	1/2-14 NPTF	2.0 TO 40.0 GPM	3.30	1.125
28951-106	3/4-14 NPTF PORT	3/4-14 NPTF	2.0 TO 50.0 GPM	3.65	1.375

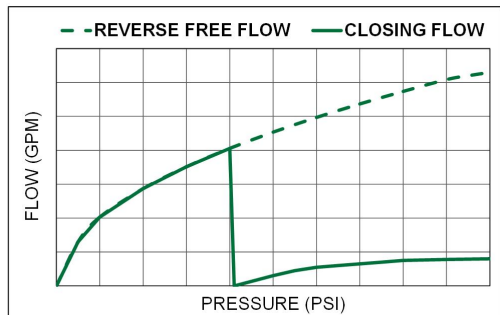
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

A CARTRIDGE STYLE FLOW LIMITER THAT PREVENTS FREE FALL IN THE EVENT OF A LINE FAILURE, BUT ALLOWS A METERED FLOW AFTER CLOSING.

OPERATION

- BLEED RATE AFTER CLOSING IS 2.0 - 3.0 GPM AT 3000 PSI.
- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS LIMITED.

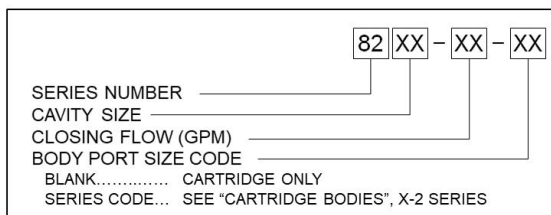
FEATURES

- NON-STANDARD BLEED FLOW RATES ARE AVAILABLE UPON REQUEST.
- POSITIVE CLOSE.
- RAPID RESPONSE.
- INDUSTRY COMMON CAVITY.
- STEEL COMPONENTS.

SPECIFICATIONS

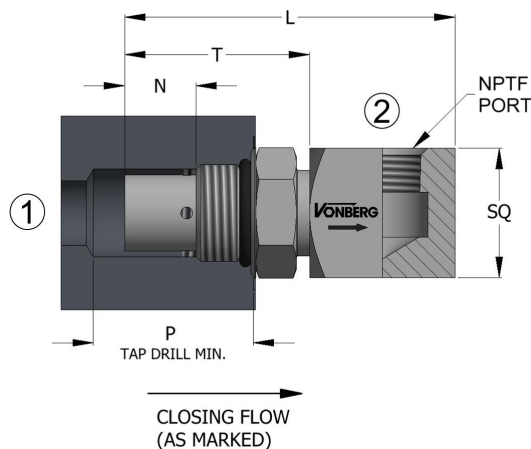
CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

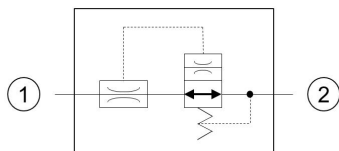


MODEL	THREAD	FLOW RANGE	CAVITY	L1	L2	HEX	A	TORQUE
8204	7/16 - 20	0.2 TO 2.0 GPM	VC04-2	0.94	0.55	0.56	0.277 / 0.278	10 ft-lbs
8206	9/16 - 18	0.5 TO 3.0 GPM	FC06-2	0.84	0.53	0.69	0.467 / 0.468	15 ft-lbs
8208	3/4 - 16	0.2 TO 5.0 GPM	VC08-2	1.10	0.50	0.88	0.495 / 0.497	20 ft-lbs
8210	7/8 - 14	0.5 TO 8.0 GPM	VC10-2	1.25	0.75	1.00	0.621 / 0.623	25 ft-lbs
8212	1 1/16 - 12	1.0 TO 15.0 GPM	VC12-2	1.81	0.75	1.25	0.870 / 0.873	40 ft-lbs
8216	1 5/16 - 12	2.0 TO 25.0 GPM	VC16-2	1.75	0.75	1.50	1.121 / 1.123	60 ft-lbs

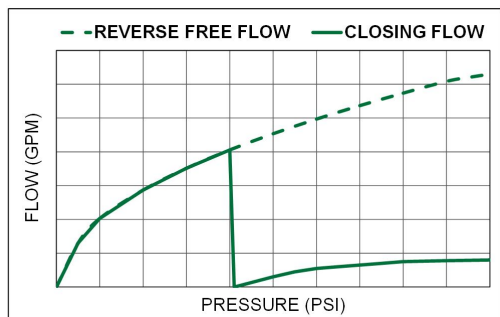
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE, 90° SWIVEL ELBOW FLOW LIMITER WITH AN NPTF OUTLET PORT THAT PROVIDES PARTIAL-LINE SHUT-OFF IN THE EVENT OF A LINE FAILURE. ALLOWS RESTRICTED FLOW AFTER CLOSING.

OPERATION

- BLEED RATE AFTER CLOSING IS 2.0 - 3.0 GPM AT 3000 PSI.
- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS LIMITED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).

FEATURES

- RAPID RESPONSE.
- POSITIVE CLOSE
- SWIVEL DESIGN FOR EASY ALIGNMENT.
- 90° ELBOW FOR LOW PROFILE APPLICATIONS.
- NON-STANDARD BLEED FLOW RATES ARE AVAILABLE UPON REQUEST.
- STEEL COMPONENTS.
- FAIL SAFE DESIGN.

SPECIFICATIONS

CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

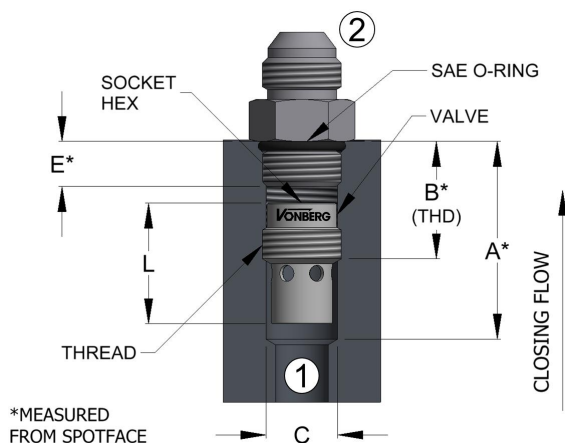
ORDERING INFORMATION

84
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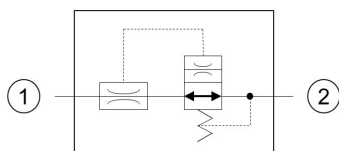
SERIES NUMBER _____
 OUTLET PORT SIZE _____
 CLOSING FLOW (GPM) _____

Model	PORT 1	PORT 2	FLOW RANGE	L	T	N	P (MIN)	SQ
8402	-06 SAE - 9/16-18	1/4-18 NPTF	0.2 TO 8.0 GPM	2.125	1.160	0.390	1.000	0.875
8403	-08 SAE - 3/4-16	3/8-18 NPTF	0.5 TO 15.0 GPM	2.555	1.430	0.550	1.250	1.000
8404	-10 SAE - 7/8-14	1/2-14 NPTF	1.0 TO 25.0 GPM	3.230	1.870	0.850	1.688	1.125
8406	-12 SAE - 1 1/16-12	3/4-14 NPTF	2.0 TO 40.0 GPM	3.625	2.065	0.905	1.980	1.375

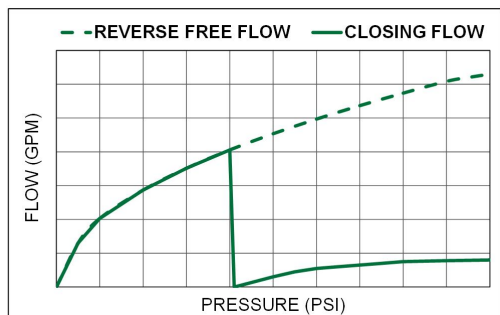
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

A IN-LINE, THREADED INSERTABLE FLOW LIMITER THAT PREVENTS FREE FALL IN THE EVENT OF A LINE FAILURE, BUT ALLOWS A METERED FLOW AFTER CLOSING.

OPERATION

- BLEED RATE AFTER CLOSING IS 2.0 - 3.0 GPM AT 3000 PSI.
- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS LIMITED.

FEATURES

- NON-STANDARD BLEED FLOW RATES ARE AVAILABLE UPON REQUEST.
- POSITIVE CLOSE.
- RAPID RESPONSE.
- STEEL COMPONENTS.

SPECIFICATIONS

CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

86XX-XX

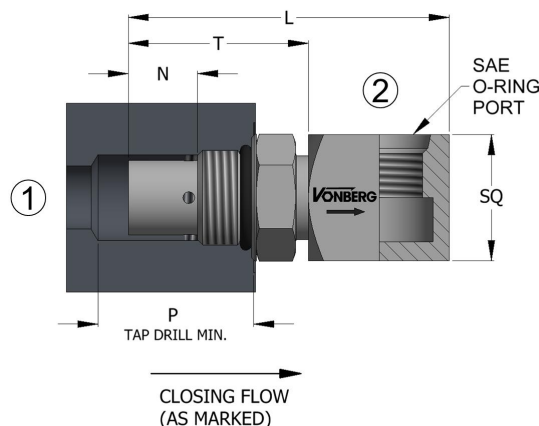
SERIES NUMBER

THREAD SIZE

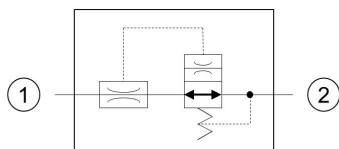
CLOSING FLOW (GPM)

MODEL	THREAD	FLOW RANGE	L	A	B	C	E	HEX	TORQUE
8604	7/16 - 20	0.2 TO 4.0 GPM	0.66	1.30	0.80	0.390 - 0.395	0.360	0.125	25 in-lbs
8606	9/16 - 18	0.2 TO 8.0 GPM	0.72	1.41	0.87	0.502 - 0.515	0.391	0.187	5 ft-lbs
8608	3/4 - 16	0.5 TO 15.0 GPM	1.15	1.95	1.15	0.682 - 0.696	0.438	0.312	8 ft-lbs
8610	7/8 - 14	1.0 TO 25.0 GPM	1.25	2.15	1.05	0.798 - 0.814	0.500	0.375	12 ft-lbs
8612	1 1/16 - 12	2.0 TO 40.0 GPM	1.50	2.50	1.30	0.972 - 0.990	0.594	0.438	18 ft-lbs
8616	1 5/16 - 12	5.0 TO 50.0 GPM	1.50	2.67	1.30	1.222 - 1.240	0.594	0.500	30 ft-lbs
8620	1 5/8 - 12	5.0 TO 65.0 GPM	1.85	3.05	1.30	1.535 - 1.553	0.594	0.625	40 ft-lbs
8624	1 7/8 - 12	5.0 TO 80.0 GPM	2.13	3.38	1.37	1.785 - 1.803	0.594	0.687	50 ft-lbs

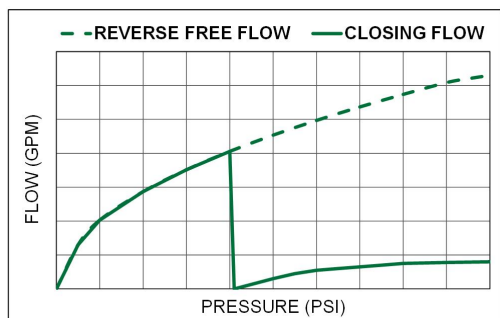
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE, 90° SWIVEL ELBOW FLOW LIMITER WITH AN SAE O-RING OUTLET PORT THAT PREVENTS FREE FALL IN THE EVENT OF A LINE FAILURE, BUT ALLOWS A METERED FLOW AFTER CLOSING.

OPERATION

- BLEED RATE AFTER CLOSING IS 2.0 - 3.0 GPM AT 3500 PSI.
- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS LIMITED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).

FEATURES

- RAPID RESPONSE.
- POSITIVE CLOSE
- SWIVEL DESIGN FOR EASY ALIGNMENT.
- 90° ELBOW FOR LOW PROFILE APPLICATIONS.
- NON-STANDARD BLEED FLOW RATES ARE AVAILABLE UPON REQUEST.
- FAIL SAFE DESIGN.
- STEEL COMPONENTS.
- SAE O-RING PORT OUTLET FOR LEAK FREE CONNECTIONS.

SPECIFICATIONS

CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

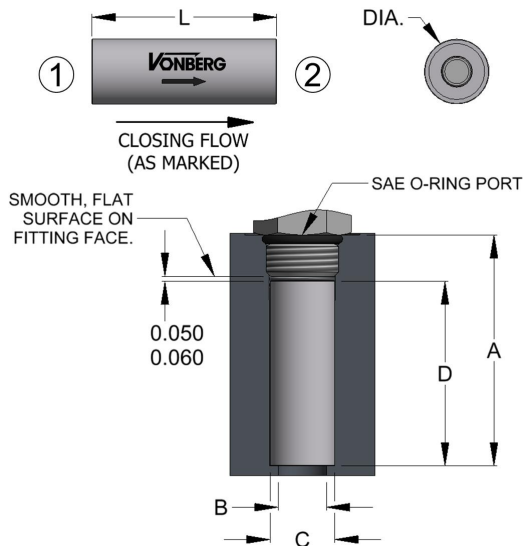
ORDERING INFORMATION

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XX
XX

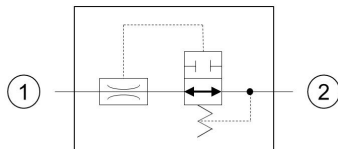
SERIES NUMBER _____
 OUTLET PORT SIZE _____
 CLOSING FLOW (GPM) _____

MODEL	PORT 1	PORT 2	FLOW RANGE	L	T	N	P (MIN)	SQ
8804	-04 SAE - 7/16-20	-04 SAE - 7/16-20	0.2 TO 4.0 GPM	1.770	1.110	0.400	0.950	0.750
8806	-06 SAE - 9/16-18	-06 SAE - 9/16-18	0.2 TO 8.0 GPM	2.125	1.160	0.390	1.000	0.875
8808	-08 SAE - 3/4-16	-08 SAE 3/4-16	0.5 TO 15.0 GPM	2.555	1.430	0.550	1.250	1.000
8810	-10 SAE - 7/8-14	-10 SAE - 7/8-14	1.0 TO 25.0 GPM	3.230	1.870	0.850	1.688	1.125
8812	-12 SAE - 1 1/6-12	-12 SAE - 1 1/16-12	2.0 TO 40.0 GPM	3.625	2.065	0.905	1.980	1.375
8816	-16 SAE - 1 5/16-12	-16 SAE - 1 5/16-12	5.0 TO 50.0 GPM	3.825	2.200	0.885	2.000	1.625

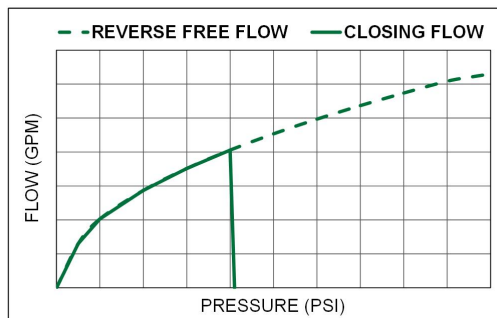
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE, SLIP-IN CARTRIDGE STYLE VELOCITY FUSE THAT PROVIDES FULL-LINE SHUT-OFF IN THE EVENT OF A LINE FAILURE.

OPERATION

- VALVE BODY SEATS ON SMOOTH, FLAT SURFACE OF FITTING IN THE CLOSING FLOW DIRECTION.
- VALVE BODY IS LEFT WITH APPROX. 0.060" OF SLACK IN THE CAVITY TO PREVENT DAMAGING VALVE.
- BORE DEPTHS ASSUME THE USE OF A STANDARD O-RING COSS CONNECTOR WITH THREAD LENGTHS BASED ON SAE J514.
- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS BLOCKED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).

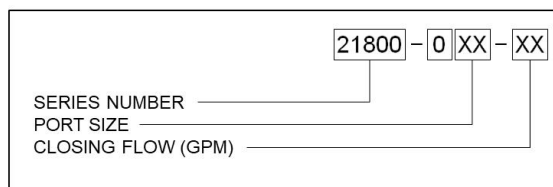
FEATURES

- RAPID RESPONSE.
- FAIL SAFE DESIGN.
- STEEL COMPONENTS.

SPECIFICATIONS

CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

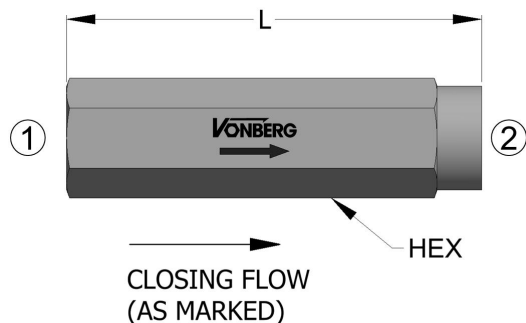


Model	DIA.	L	FLOW RANGE	A	B (MAX.)	C	D
21800-006	0.506	1.70	0.5 TO 10.0 GPM	2.15 / 2.16	0.375	0.510 / 0.515	1.76 / 1.77
21800-008	0.670	1.88	0.5 TO 25.0 GPM	2.38 / 2.39	0.500	0.672 / 0.677	1.94 / 1.95
21800-010	0.795	1.90	2.0 TO 40.0 GPM	2.46 / 2.47	0.625	0.797 / 0.802	1.96 / 1.97
21800-012	0.970	1.90	2.0 TO 40.0 GPM	2.56 / 2.57	0.812	0.972 / 0.977	1.96 / 1.97
21800-014	1.095	2.14	2.0 TO 50.0 GPM	2.80 / 2.81	0.812	1.097 / 1.102	2.20 / 2.21
21800-016	1.220	2.14	2.0 TO 50.0 GPM	2.80 / 2.81	0.937	1.222 / 1.227	2.20 / 2.21
21800-024	1.783	3.25	5.0 TO 80.0 GPM	3.91 / 3.92	1.437	1.787 / 1.792	3.31 / 3.32

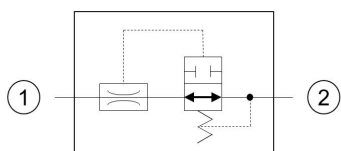
This document, as well as all catalogs, price lists and information provided by Vonberg Valve, Inc., is intended to provide product information for further consideration by users having substantial technical expertise due to the variety of operating conditions and applications for these valves, the user, through its own analysis, testing and evaluation, is solely responsible for making the final selection of the products and ensuring that all safety, warning and performance requirements of the application or use are met. The valves described herein, including without limitation, all component features, specifications, designs, pricing and availability, are subject to change at any time at the sole discretion of Vonberg Valve, Inc. without prior notification.

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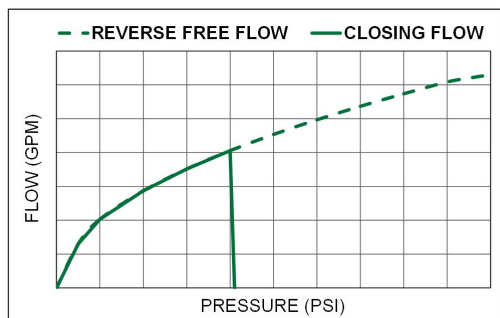
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE VELOCITY FUSE WITH FEMALE NPTF PORTS THAT PROVIDES FULL-LINE SHUT-OFF IN THE EVENT OF A LINE FAILURE.

OPERATION

- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS BLOCKED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).

FEATURES

- RAPID RESPONSE.
- FAIL SAFE DESIGN.
- STEEL COMPONENTS.

SPECIFICATIONS

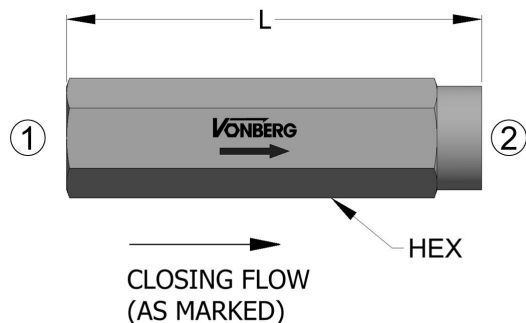
CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

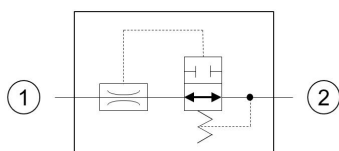


Model	INLET / OUTLET	FLOW RANGE	L	HEX
28000-102	1/4-18 NPTF	0.5 TO 10.0 GPM	3.18	0.750
28000-103	3/8-18 NPTF	0.5 TO 25.0 GPM	3.50	0.875
28000-104	1/2-14 NPTF	2.0 TO 40.0 GPM	3.85	1.125
28000-106	3/4-14 NPTF	2.0 TO 50.0 GPM	4.20	1.375

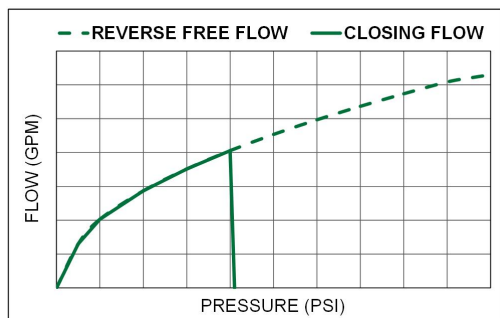
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE VELOCITY FUSE WITH FEMALE SAE PORTS THAT PROVIDES FULL-LINE SHUT-OFF IN THE EVENT OF A LINE FAILURE.

OPERATION

- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS BLOCKED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).

FEATURES

- RAPID RESPONSE.
- FAIL SAFE DESIGN.
- STEEL COMPONENTS.

SPECIFICATIONS

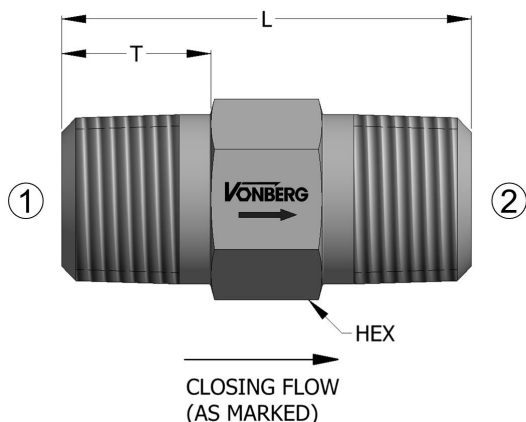
CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

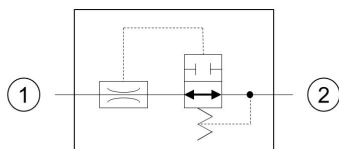


Model	INLET / OUTLET	THREAD	FLOW RANGE	L	HEX
28000-204	-04 SAE	7/16-20	0.1 TO 4.0 GPM	2.75	0.625
28000-206	-06 SAE	9/16-18	0.5 TO 10.0 GPM	3.00	0.750
28000-208	-08 SAE	3/4-16	0.5 TO 25.0 GPM	3.38	0.938
28000-210	-10 SAE	7/8-14	2.0 TO 40.0 GPM	3.75	1.125
28000-212	-12 SAE	1 1/16-12	2.0 TO 50.0 GPM	4.25	1.375

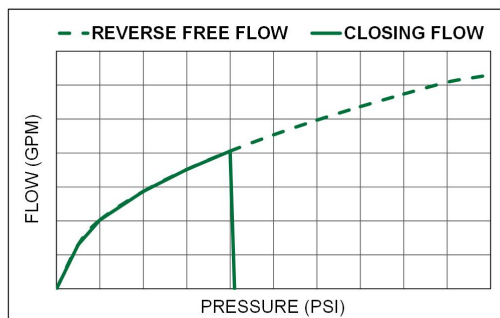
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE VELOCITY FUSE WITH MALE NPTF CONNECTIONS THAT PROVIDES FULL-LINE SHUT-OFF IN THE EVENT OF A LINE FAILURE.

OPERATION

- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS BLOCKED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).

FEATURES

- RAPID RESPONSE.
- FAIL SAFE DESIGN.
- STEEL COMPONENTS.

SPECIFICATIONS

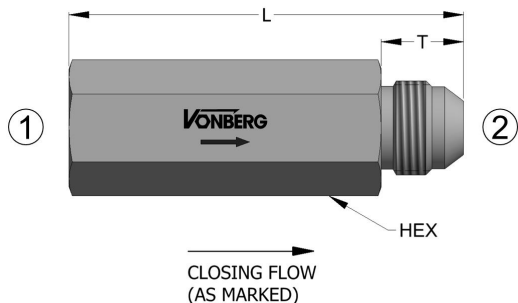
CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

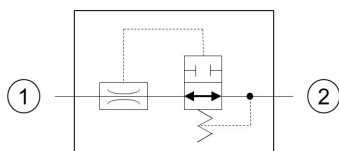


Model	INLET/OUTLET	FLOW RANGE	L	T	HEX
28000-502	1/4-18 NPTF	0.1 TO 4.0 GPM	2.05"	0.560"	0.625"
28000-503	3/8-18 NPTF	0.5 TO 10.0 GPM	1.75"	0.600"	0.750"
28000-504	1/2-14 NPTF	1.0 TO 25.0 GPM	2.06"	0.750"	0.875"
28000-506	3/4-14 NPTF	2.0 TO 40.0 GPM	2.00"	0.750"	1.125"
28000-508	1-11 1/2 NPTF	2.0 TO 50.0 GPM	2.34"	0.922"	1.375"
28000-512	1 1/2-11 1/2 NPTF	2.0 TO 80.0 GPM	4.75"	1.000"	2.000"

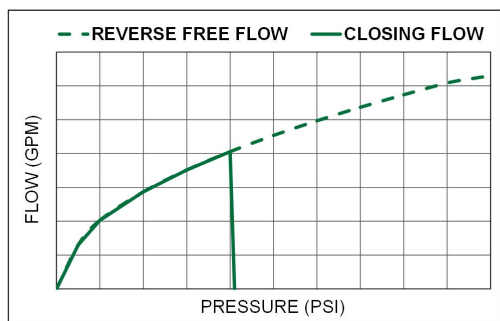
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE VELOCITY FUSE WITH A FEMALE NPTF PORT INLET AND A MALE JIC OUTLET THAT PROVIDES FULL-LINE SHUT-OFF IN THE EVENT OF A LINE FAILURE.

OPERATION

- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS BLOCKED.

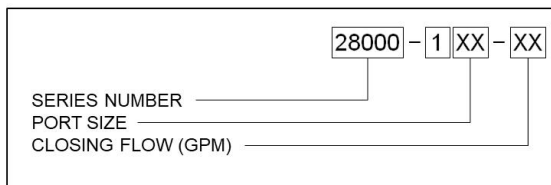
FEATURES

- RAPID RESPONSE.
- FAIL SAFE DESIGN.
- STEEL COMPONENTS.

SPECIFICATIONS

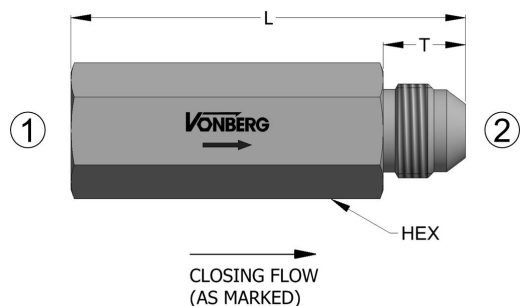
CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

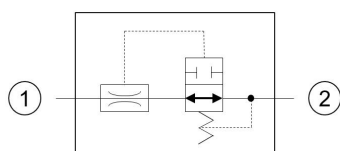


Model	INLET 1	OUTLET 2	FLOW RANGE	L	HEX
28001-102	1/4-18 NPTF	-04 JIC - 7/16-20	0.1 TO 4.0 GPM	2.78	0.750
28001-103	3/8-18 NPTF	-06 JIC - 9/16-18	1.0 TO 25.0 GPM	3.10	0.875
28001-104	1/2-14 NPTF	-08 JIC - 3/4-16	2.0 TO 40.0 GPM	3.30	1.125

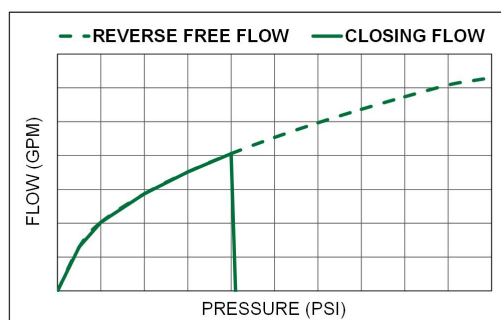
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE VELOCITY FUSE WITH A FEMALE SAE O-RING INLET AND A MALE JIC OUTLET THAT PROVIDES FULL-LINE SHUT-OFF IN THE EVENT OF A LINE FAILURE.

OPERATION

- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS BLOCKED.
- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.

FEATURES

- RAPID RESPONSE.
- FAIL SAFE DESIGN.
- STEEL COMPONENTS.

SPECIFICATIONS

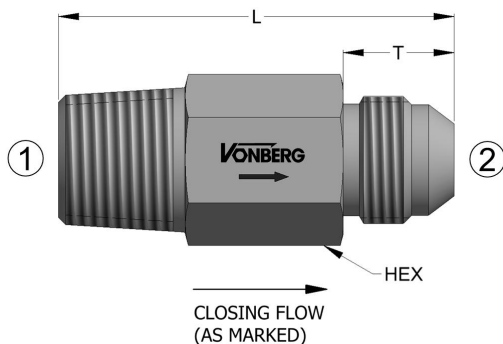
CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

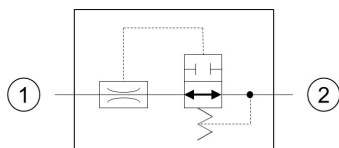


Model	INLET 1	OUTLET 2	FLOW RANGE	L	HEX
28001-204	-04 SAE - 7/16-20	-04 JIC - 7/16-20	0.1 TO 4.0 GPM	2.65	0.625
28001-206	-06 SAE - 9/16-18	-06 JIC - 9/16-18	0.5 TO 10.0 GPM	2.90	0.750
28001-208	-08 SAE - 3/4-16	-08 JIC - 3/4-16	1.0 TO 25.0 GPM	3.15	0.938
28001-210	-10 SAE - 7/8-14	-10 JIC - 7/8-14	2.0 TO 40.0 GPM	3.40	1.125
28001-212	-12 SAE - 1 1/16-12	-12 JIC - 1 1/16-12	2.0 TO 50.0 GPM	3.95	1.375

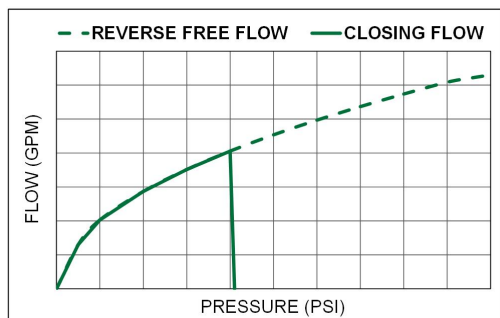
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE VELOCITY FUSE WITH A MALE NPTF INLET AND A MALE JIC OUTLET THAT PROVIDES FULL-LINE SHUT-OFF IN THE EVENT OF A LINE FAILURE.

OPERATION

- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS BLOCKED.

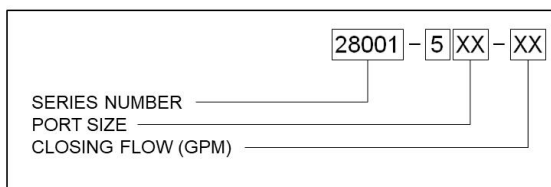
FEATURES

- RAPID RESPONSE.
- FAIL SAFE DESIGN.
- STEEL COMPONENTS.

SPECIFICATIONS

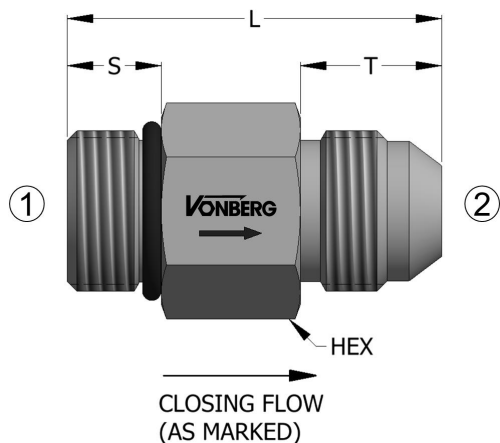
CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

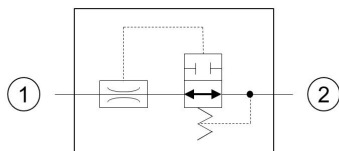


Model	INLET 1	OUTLET 2	FLOW RANGE	L	S	T	HEX
28001-502	1/4-18 NPTF	-04 JIC - 7/16-20	0.1 TO 4.0 GPM	2.56"	0.560"	0.550"	0.625
28001-503	3/8-18 NPTF	-06 JIC - 9/16-18	0.5 TO 10.0 GPM	2.30"	0.600"	0.550"	0.750
28001-504	1/2-14 NPTF	-08 JIC - 3/4-16	1.0 TO 25.0 GPM	2.34"	0.750"	0.656"	0.875
28001-506	3/4-14 NPTF	-12 JIC - 1 1/8-12	2.0 TO 40.0 GPM	2.75"	0.750"	0.864"	1.125"
28001-508	1-11 1/2 NPTF	-16 JIC - 1 5/8-12	2.0 TO 50.0 GPM	3.25"	0.920"	0.910"	1.375
28001-512	1 1/2-11 1/2 NPTF	-24 JIC - 1 7/8-12	5.0 TO 80.0 GPM	5.10"	1.000"	1.080"	2.000

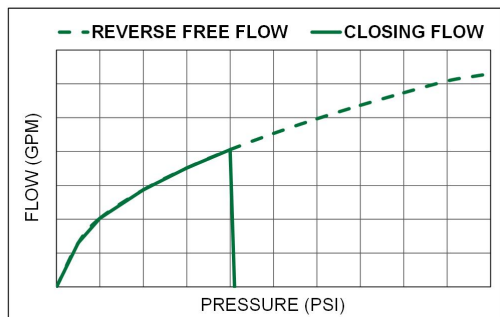
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE VELOCITY FUSE WITH A MALE SAE O-RING INLET AND A MALE JIC OUTLET THAT PROVIDES FULL-LINE SHUT-OFF IN THE EVENT OF A LINE FAILURE.

OPERATION

- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS BLOCKED.

FEATURES

- RAPID RESPONSE.
- FAIL SAFE DESIGN.
- STEEL COMPONENTS.

SPECIFICATIONS

CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

28001-8XX-XX

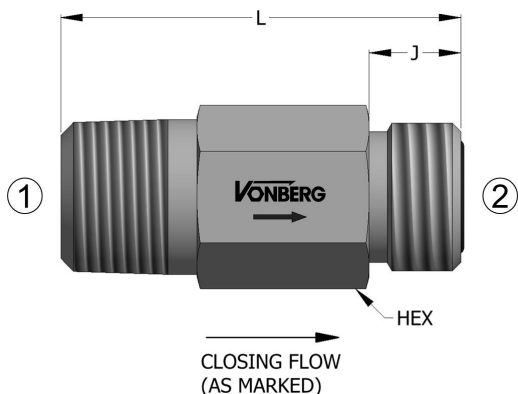
SERIES NUMBER

PORT SIZE

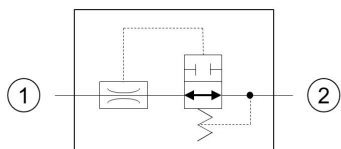
CLOSING FLOW (GPM)

MODEL	INLET 1	OUTLET 2	FLOW RANGE	L	S	T	HEX
28001-804	-04 SAE - 7/16-20	-04 JIC - 7/16-20	0.1 TO 4.0 GPM	3.06"	0.360"	0.550"	0.625
28001-806	-06 SAE - 9/16-18	-06 JIC - 9/16-18	0.1 TO 4.0 GPM	1.61"	0.390"	0.560"	0.750
28001-808	-08 SAE - 3/4-16	-08 JIC - 3/4-16	0.5 TO 10.0 GPM	1.75"	0.440"	0.660"	0.875
28001-810	-10 SAE - 7/8-14	-10 JIC - 7/8-14	1.0 TO 25.0 GPM	2.06"	0.500"	0.755"	1.000
28001-812	-12 SAE - 1 1/6-12	-12 JIC - 1 1/6-12	2.0 TO 40.0 GPM	1.97"	0.594"	0.860"	1.250
28001-816	-16 SAE - 1 5/16-12	-16 JIC - 1 5/16-12	2.0 TO 50.0 GPM	2.50"	0.594"	0.910"	1.500
28001-824	-24 SAE - 1 7/8-12	-24 JIC - 1 7/8-12	5.0 TO 80.0 GPM	4.47"	0.594"	1.080"	2.125

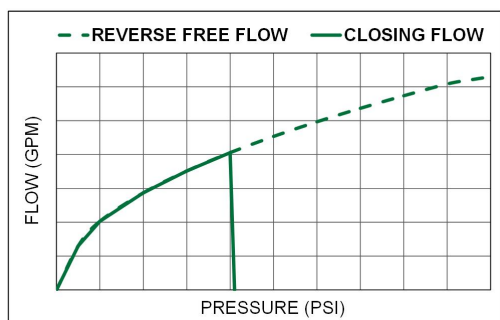
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE VELOCITY FUSE WITH A MALE NPTF INLET AND A MALE ORS OUTLET THAT PROVIDES FULL-LINE SHUT-OFF IN THE EVENT OF A LINE FAILURE.

OPERATION

- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS BLOCKED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).

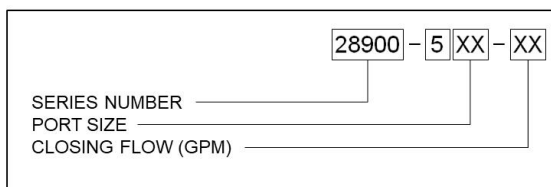
FEATURES

- RAPID RESPONSE.
- FAIL SAFE DESIGN.
- STEEL COMPONENTS.

SPECIFICATIONS

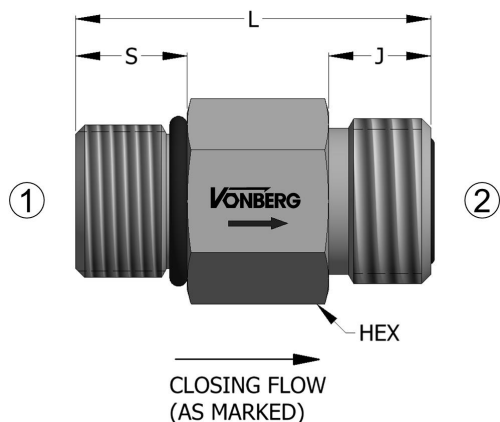
CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

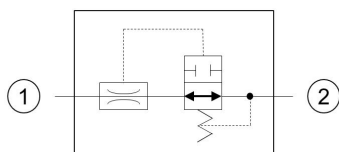


Model	INLET 1	OUTLET 2	FLOW RANGE	L	HEX	J
28009-502	1/4-18 NPTF	-04 ORS - 9/16-18	0.1 TO 4.0 GPM	2.30	0.625	0.386
28009-503	3/8-18 NPTF	-06 ORS - 11/16-16	0.5 TO 10.0 GPM	2.10	0.750	0.441
28009-504	1/2-14 NPTF	-08 ORS - 13/16-16	1.0 TO 25.0 GPM	2.34	0.875	0.504
28009-506	3/4-14 NPTF	-12 ORS - 1 3/16-12	2.0 TO 40.0 GPM	2.75	1.250	0.670
28009-508	1-11 1/2 NPTF	-16 ORS - 1 7/16-12	2.0 TO 50.0 GPM	3.25	1.375	0.689
28009-512	1 1/2-11 1/2 NPTF	-24 ORS - 2-12	5.0 TO 80.0 GPM	4.85	2.125	0.689

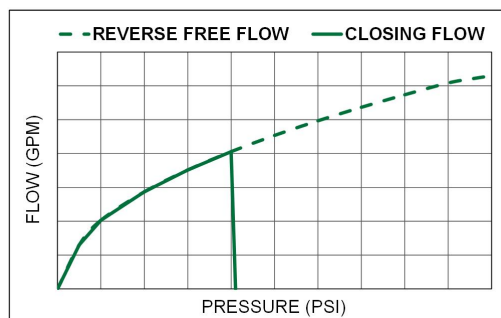
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE VELOCITY FUSE WITH A MALE SAE INLET AND A MALE ORS OUTLET THAT PROVIDES FULL-LINE SHUT-OFF IN THE EVENT OF A LINE FAILURE.

OPERATION

- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS BLOCKED.

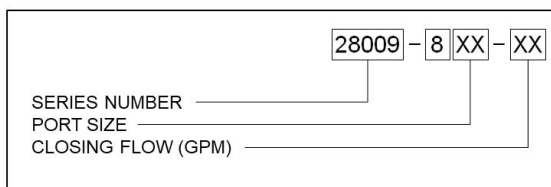
FEATURES

- RAPID RESPONSE.
- FAIL SAFE DESIGN.
- STEEL COMPONENTS.

SPECIFICATIONS

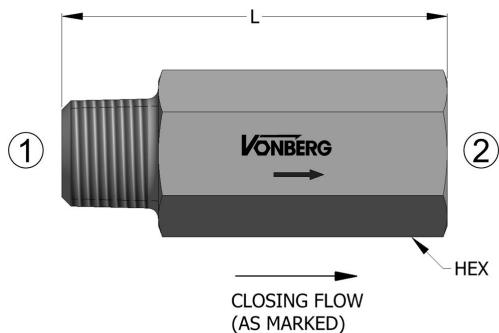
CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	5000 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

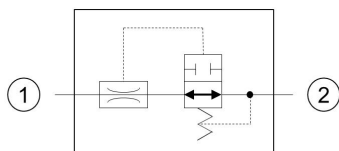


Model	INLET 1	OUTLET 2	FLOW RANGE	L	S	J	HEX
28009-806	-06 SAE - 9/16-18	-06 ORS - 11/16-16	0.1 TO 4.0 GPM	1.60"	0.470"	0.440"	0.750"
28009-808	-08 SAE - 3/4-16	-08 ORS - 13/16-16	0.5 TO 10.0 GPM	1.75"	0.550"	0.505"	0.875"
28009-810	-10 SAE - 7/8-14	-10 ORS - 1-14	1.0 TO 25.0 GPM	1.90"	0.630"	0.610"	1.125"
28009-812	-12 SAE - 1 1/16-12	-12 ORS - 1 3/16-12	2.0 TO 40.0 GPM	2.00"	0.728"	0.670"	1.250"
28009-816	-16 SAE - 1 5/16-12	-16 ORS - 1 7/16-12	2.0 TO 50.0 GPM	2.40"	0.728"	0.689"	1.500"
28009-824	-24 SAE - 1 7/8-12	-24 ORS - 2-12	5.0 TO 80.0 GPM	3.25"	0.723"	0.705	2.125"

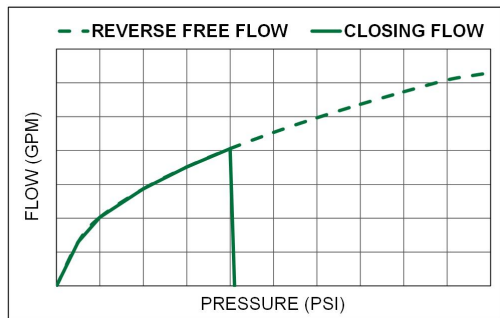
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE VELOCITY FUSE WITH A MALE NPTF INLET AND A FEMALE NPTF OUTLET THAT PROVIDES FULL-LINE SHUT-OFF IN THE EVENT OF A LINE FAILURE.

OPERATION

- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS BLOCKED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).

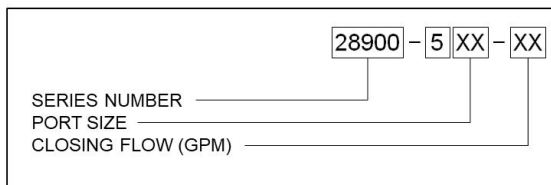
FEATURES

- RAPID RESPONSE.
- FAIL SAFE DESIGN.
- STEEL COMPONENTS.

SPECIFICATIONS

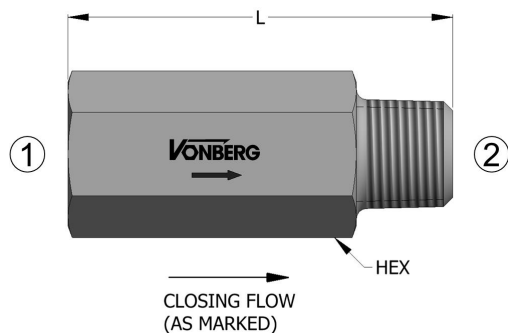
CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

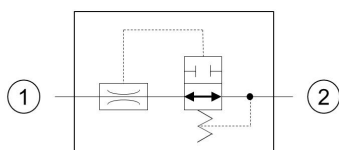


Model	INLET 1	OUTLET 2	FLOW RANGE	L	HEX
28900-502	1/4-18 NPTF	1/4-18 NPTF PORT	0.1 TO 4.0 GPM	2.70	0.75
28900-503	3/8-18 NPTF	3/8-18 NPTF PORT	0.5 TO 10.0 GPM	2.70	0.88
28900-504	1/2-14 NPTF	1/2-14 NPTF PORT	1.0 TO 25.0 GPM	3.00	1.13
28900-506	3/4-14 NPTF	3/4-14 NPTF PORT	2.0 TO 40.0 GPM	3.20	1.38
28900-508	1-11 1/2 NPTF	1-11 1/2 NPTF PORT	2.0 TO 50.0 GPM	3.80	1.63

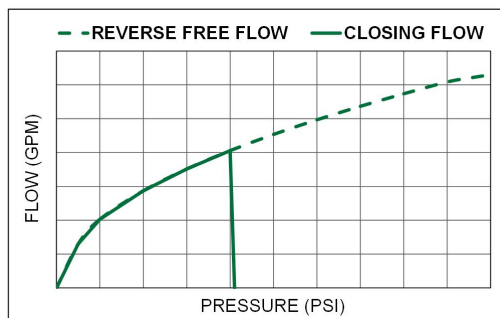
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE VELOCITY FUSE WITH A FEMALE NPTF INLET AND A MALE NPTF OUTLET THAT PROVIDES FULL-LINE SHUT-OFF IN THE EVENT OF A LINE FAILURE.

OPERATION

- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS BLOCKED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).

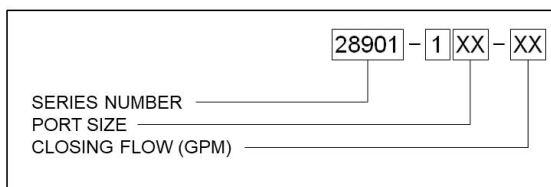
FEATURES

- RAPID RESPONSE.
- FAIL SAFE DESIGN.
- STEEL COMPONENTS.

SPECIFICATIONS

CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

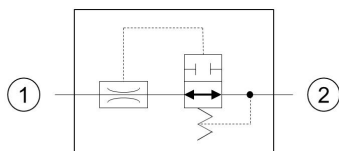


Model	INLET 1	OUTLET 2	FLOW RANGE	L	HEX
28901-102	1/4-18 NPTF PORT	1/4-18 NPTF	0.5 TO 10.0 GPM	2.85	0.750
28901-103	3/8-18 NPTF PORT	3/8-18 NPTF	1.0 TO 25.0 GPM	3.25	0.785
28901-104	1/2-14 NPTF PORT	1/2-14 NPTF	2.0 TO 40.0 GPM	3.30	1.125
28901-106	3/4-14 NPTF PORT	3/4-14 NPTF	2.0 TO 50.0 GPM	3.65	1.375

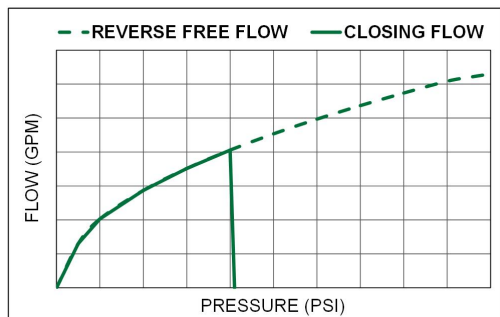
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

A CARTRIDGE STYLE VELOCITY FUSE THAT PROVIDES FULL-LINE SHUT-OFF IN THE EVENT OF A LINE FAILURE.

OPERATION

- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS BLOCKED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).

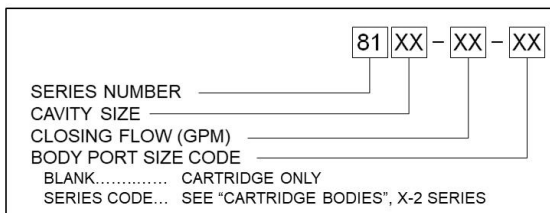
FEATURES

- STEEL COMPONENTS.
- INDUSTRY COMMON CAVITY.
- RAPID RESPONSE.
- POSITIVE CLOSE.

SPECIFICATIONS

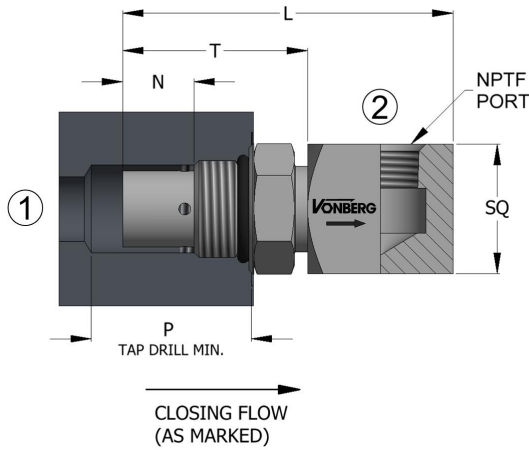
CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

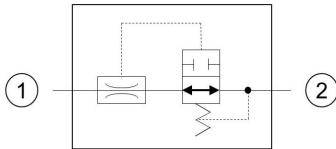


MODEL	THREAD	FLOW RANGE	CAVITY	L1	L2	HEX	A	TORQUE
8104	7/16 - 20	0.2 TO 2.0 GPM	VC04-2	0.94	0.55	0.56	0.277 / 0.278	10 ft-lbs
8106	9/16 - 18	0.5 TO 3.0 GPM	FC06-2	0.84	0.53	0.69	0.467 / 0.468	15 ft-lbs
8108	3/4 - 16	0.2 TO 5.0 GPM	VC08-2	1.10	0.50	0.88	0.495 / 0.497	20 ft-lbs
8110	7/8 - 14	0.5 TO 8.0 GPM	VC10-2	1.25	0.75	1.00	0.621 / 0.623	25 ft-lbs
8112	1 1/16 - 12	1.0 TO 15.0 GPM	VC12-2	1.81	0.75	1.25	0.870 / 0.873	40 ft-lbs
8116	1 5/16 - 12	2.0 TO 25.0 GPM	VC16-2	1.75	0.75	1.50	1.121 / 1.123	60 ft-lbs

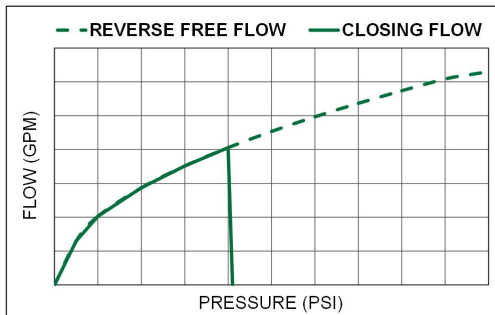
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE, 90° SWIVEL ELBOW VELOCITY FUSE WITH AN NPTF OUTLET PORT THAT PROVIDES FULL-LINE SHUT-OFF IN THE EVENT OF A LINE FAILURE.

OPERATION

- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS BLOCKED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).

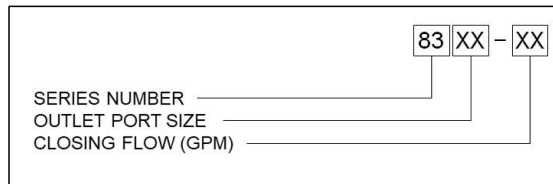
FEATURES

- 90° ELBOW FOR LOW PROFILE APPLICATIONS.
- SWIVEL DESIGN FOR EASY ALIGNMENT.
- POSITIVE CLOSE
- RAPID RESPONSE.
- FAIL SAFE DESIGN.
- STEEL COMPONENTS.

SPECIFICATIONS

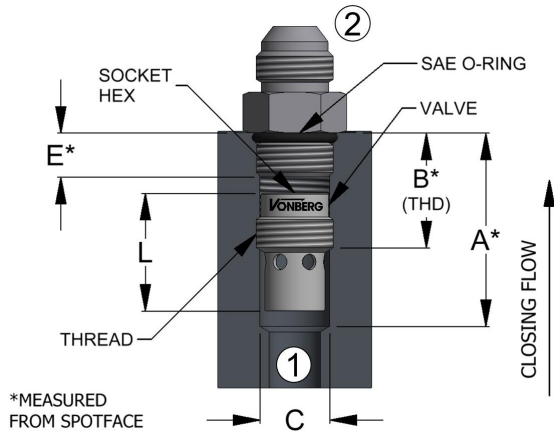
CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

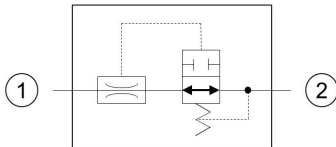


Model	PORT 1	PORT 2	FLOW RANGE	L	T	N	P (MIN)	SQ
8302	-06 SAE - 9/16-18	1/4-18 NPTF	0.2 TO 8.0 GPM	2.125	1.160	0.390	1.000	0.875
8303	-08 SAE - 3/4-16	3/8-18 NPTF	0.5 TO 15.0 GPM	2.555	1.430	0.550	1.250	1.000
8304	-10 SAE - 7/8-14	1/2-14 NPTF	1.0 TO 25.0 GPM	3.230	1.870	0.850	1.688	1.125
8306	-12 SAE - 1 1/16-12	3/4-14 NPTF	2.0 TO 40.0 GPM	3.625	2.065	0.905	1.980	1.375

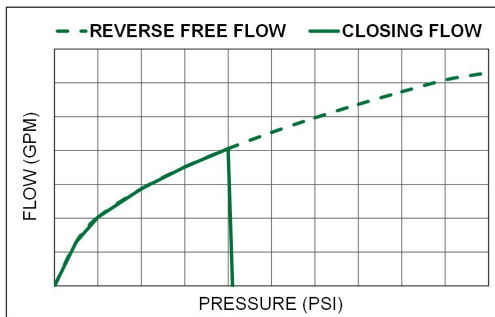
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

A IN-LINE, THREADED INSERTABLE VELOCITY FUSE THAT PROVIDES FULL-LINE SHUT-OFF IN THE EVENT OF A LINE FAILURE.

OPERATION

- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS BLOCKED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).

FEATURES

- POSITIVE CLOSE.
- RAPID RESPONSE.
- STEEL COMPONENTS.

SPECIFICATIONS

CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

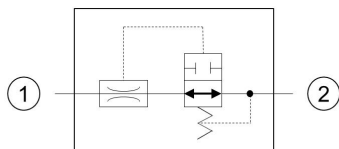
ORDERING INFORMATION

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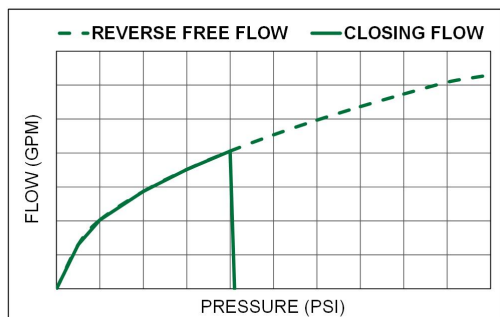
SERIES NUMBER _____
 THREAD SIZE _____
 CLOSING FLOW (GPM) _____

MODEL	THREAD	FLOW RANGE	L	A	B	C	E	HEX	TORQUE
8504	7/16 - 20	0.2 TO 4.0 GPM	0.66	1.30	0.80	0.390 - 0.395	0.360	0.125	25 in-lbs
8506	9/16 - 18	0.2 TO 8.0 GPM	0.72	1.41	0.87	0.502 - 0.515	0.391	0.187	5 ft-lbs
8508	3/4 - 16	0.5 TO 15.0 GPM	1.15	1.95	1.15	0.682 - 0.696	0.438	0.312	8 ft-lbs
8510	7/8 - 14	1.0 TO 25.0 GPM	1.25	2.15	1.05	0.798 - 0.814	0.500	0.375	12 ft-lbs
8512	1 1/16 - 12	2.0 TO 40.0 GPM	1.50	2.50	1.30	0.972 - 0.990	0.594	0.438	18 ft-lbs
8516	1 5/16 - 12	5.0 TO 50.0 GPM	1.50	2.67	1.30	1.222 - 1.240	0.594	0.500	30 ft-lbs
8520	1 5/8-12	5.0 TO 65.0 GPM	1.85	3.05	1.30	1.535 - 1.553	0.594	0.625	40 ft-lbs
8524	1 7/8-12	5.0 TO 80.0 GPM	2.13	3.38	1.37	1.785 - 1.803	0.594	0.687	50 ft-lbs

SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

A IN-LINE, THREADED INSERTABLE VELOCITY FUSE THAT PROVIDES FULLLINE SHUT-OFF IN THE EVENT OF A LINE FAILURE.

OPERATION

- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS BLOCKED.
- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.

FEATURES

- STEEL COMPONENTS.
- RAPID RESPONSE.
- POSITIVE CLOSE

SPECIFICATIONS

CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

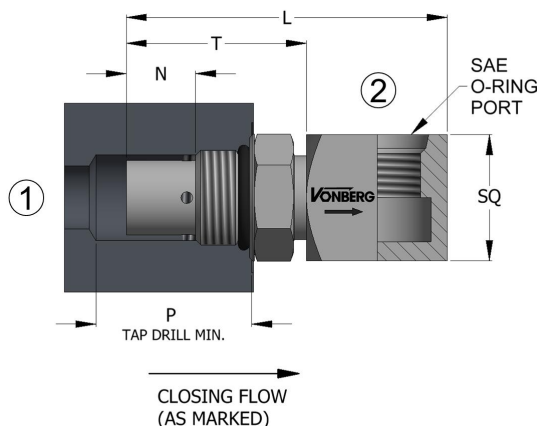
ORDERING INFORMATION

Velocity Fuse – 8500G Series

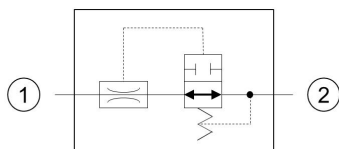
	85	XX	G	-XX
SERIES NUMBER				
THREAD SIZE				
CLOSING FLOW (GPM)				

MODEL	THREAD	FLOW RANGE	A	B	C	E	L	HEX
8502G	G 1/4 - 19	0.1 - 6.0 GPM	1.45	0.85	.464	0.43	0.72	5 MM
8503G	G 3/8 - 19	0.5 - 12.0 GPM	1.80	1.00	.600	0.49	1.00	6 MM
8504G	G 1/2 - 14	1.0 - 20.0 GPM	2.15	1.05	.760	.500	1.18	9 MM
8506G	G 3/4 - 14	2.0 - 35.0 GPM	2.50	1.30	.970	.594	1.50	11 MM

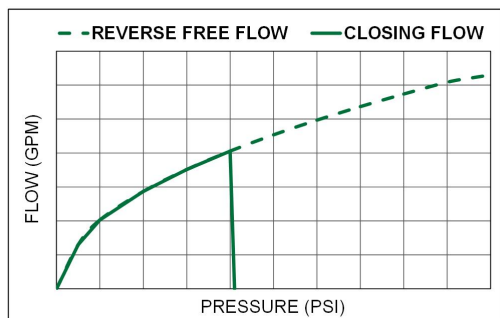
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE, 90° SWIVEL ELBOW VELOCITY FUSE WITH AN SAE O-RING OUTLET PORT THAT PROVIDES FULL-LINE SHUT-OFF IN THE EVENT OF A LINE FAILURE.

OPERATION

- FLOW FROM (2) TO (1) PASSES THROUGH THE CONTROLLING ORIFICE BUT IS UNCONTROLLED.
- FLOW ABOVE THE SPECIFIED LIMIT IS ASSUMED TO BE A LINE FAILURE AND IS BLOCKED.
- A FLOW BELOW THE SPECIFIED LIMIT IS ALLOWED FROM (1) TO (2).

FEATURES

- SAE O-RING PORT OUTLET FOR LEAK FREE CONNECTIONS.
- SWIVEL DESIGN FOR EASY ALIGNMENT.
- 90° ELBOW FOR LOW PROFILE APPLICATIONS.
- POSITIVE CLOSE
- RAPID RESPONSE.
- FAIL SAFE DESIGN.
- STEEL COMPONENTS.

SPECIFICATIONS

CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	3500 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION

87
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XX

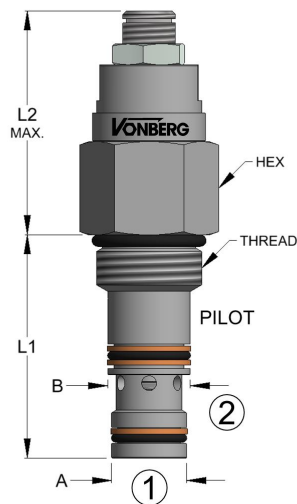
SERIES NUMBER _____
 OUTLET PORT SIZE _____
 CLOSING FLOW (GPM) _____

Model	PORT 1	PORT 2	FLOW RANGE	L	T	N	P (MIN)	SQ
8704	-04 SAE - 7/16-20	-04 SAE - 7/16-20	0.2 TO 4.0 GPM	1.770	1.110	0.400	0.950	0.750
8706	-06 SAE - 9/16-18	-06 SAE - 9/16-18	0.2 TO 8.0 GPM	2.125	1.160	0.390	1.000	0.875
8708	-08 SAE - 3/4-16	-08 SAE - 3/4-16	0.5 TO 15.0 GPM	2.555	1.430	0.550	1.250	1.000
8710	-10 SAE - 7/8-14	-10 SAE - 7/8-14	1.0 TO 25.0 GPM	3.230	1.870	0.850	1.688	1.125
8712	-12 SAE - 1 1/16-12	-12 SAE - 1 1/16-12	2.0 TO 40.0 GPM	3.625	2.065	0.905	1.980	1.375
8716	-16 SAE - 1 5/16-12	-16 SAE - 1 5/16-12	5.0 TO 50.0 GPM	3.825	2.200	0.885	2.000	1.625

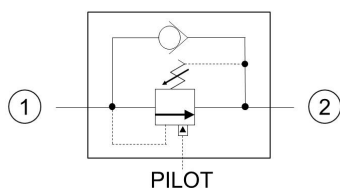
PRESSURE CONTROLS



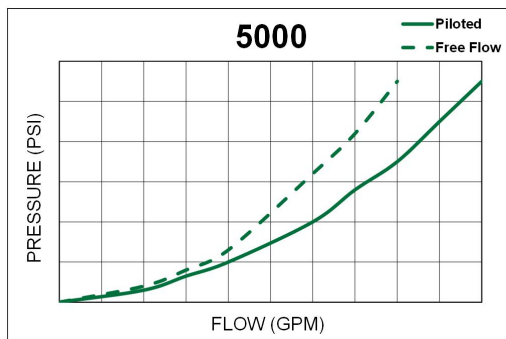
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

A CARTRIDGE STYLE, THREE PORT, PILOT TO OPEN COUNTERBALANCE VALVE WITH AN INTERNALLY VENTED SPRING CHAMBER AND FREE REVERSE FLOW CHECK, INTENDED FOR MOTION CONTROL AND OVER-CENTER LOAD HOLDING APPLICATIONS.

OPERATION

- BACK PRESSURE AT PORT (2) IS ADDITIVE TO RELIEF SETTING.
- FLOW FROM (1) TO (2) IS BLOCKED UNTIL THE RELIEF PRESSURE SETTING HAS BEEN EXCEEDED.
- FLOW FROM (1) TO (2) IS BLOCKED UNTIL A PILOT PRESSURE INVERSELY PROPORTIONAL TO THE LOAD PRESSURE IS APPLIED TO THE PILOT PORT.
- FLOW FROM (2) TO (1) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 25 PSI.

FEATURES

- PILOT RATIOS UP TO 10:1 AVAILABLE (HIGHER PILOT RATIOS MAY REDUCE FLOW CAPACITY)
- LOW RELIEF HYSTERESIS.
- INDUSTRY COMMON CAVITY.
- QUIET, STABLE OPERATION.
- SEALED PILOT PISTON, LOW INTERNAL LEAKAGE.
- ADJUSTABLE WITH LOCKING NUT.
- CLOCKWISE ADJUSTMENT TO INCREASE RELIEF SETTING.

SPECIFICATIONS

INTERNAL LEAKAGE	5 DROPS/MIN. MAX.
OPERATING PRESSURE	5000 PSI
RELIEF SETTING RANGE	500 - 5000 PSI
RELIEF TOLERANCE	+/- 10%
STANDARD CRACK PRESSURE	25 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

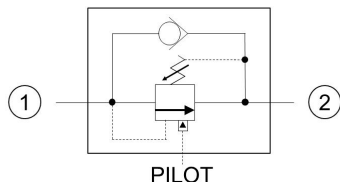
50	XX	-	X	-	XXXX	-	XX
SERIES NUMBER	CAVITY SIZE	PILOT RATIO	RELIEF SETTING (PSI)	BODY PORT SIZE CODE	BLANK..... CARTRIDGE ONLY	SERIES CODE..... SEE "CARTRIDGE BODIES", X-3 SERIES	D SERIES CODE... SEE "CARTRIDGE BODIES", X-3D SERIES

MODEL	THREAD	FLOW CAPACITY	CAVITY	L1	L2 (MAX.)	HEX	A	B	TORQUE
5006	9/16 - 18	3.0 GPM	FC06-3	1.23	1.30	0.69	0.438 / 0.439	0.467 / 0.468	15 ft-lbs
5008	3/4 - 16	7.0 GPM	VC08-3	1.63	1.38	0.88	0.558 / 0.560	0.621 / 0.623	20 ft-lbs
5010	7/8 - 14	15.0 GPM	VC10-3	1.85	1.78	1.00	0.621 / 0.623	0.683 / 0.685	25 ft-lbs
5010S	7/8 - 14	15.0 GPM	VC10-S3	1.85	2.00	1.00	0.683 / 0.685	0.746 / 0.748	25 ft-lbs
5012	1 1/16 - 12	25.0 GPM	C12-3S	2.25	1.78	1.25	0.870 / 0.873	0.933 / 0.935	40 ft-lbs

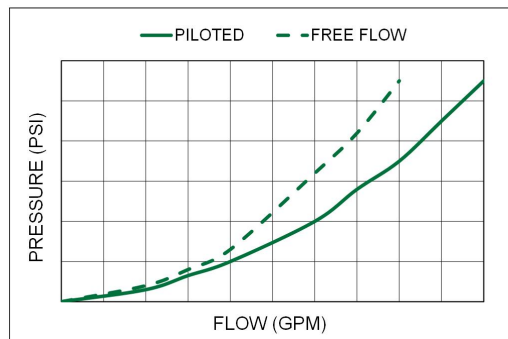
This document, as well as all catalogs, price lists and information provided by Vonberg Valve, Inc., is intended to provide product information for further consideration by users having substantial technical expertise due to the variety of operating conditions and applications for these valves, the user, through its own analysis, testing and evaluation, is solely responsible for making the final selection of the products and ensuring that all safety, warning and performance requirements of the application or use are met. The valves described herein, including without limitation, all component features, specifications, designs, pricing and availability, are subject to change at any time at the sole discretion of Vonberg Valve, Inc. without prior notification.

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SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

A CARTRIDGE STYLE, THREE PORT, PILOT TO OPEN COUNTERBALANCE VALVE WITH AN INTERNALLY VENTED SPRING CHAMBER AND FREE REVERSE FLOW CHECK, INTENDED FOR MOTION CONTROL AND OVER-CENTER LOAD HOLDING APPLICATIONS.

OPERATION

- BACK PRESSURE AT PORT (2) IS ADDITIVE TO RELIEF SETTING.
- FLOW FROM (1) TO (2) IS BLOCKED UNTIL THE RELIEF PRESSURE SETTING HAS BEEN EXCEEDED.
- FLOW FROM (1) TO (2) IS BLOCKED UNTIL A PILOT PRESSURE INVERSELY PROPORTIONAL TO THE LOAD PRESSURE IS APPLIED TO THE PILOT PORT.
- FLOW FROM (2) TO (1) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 25 PSI.

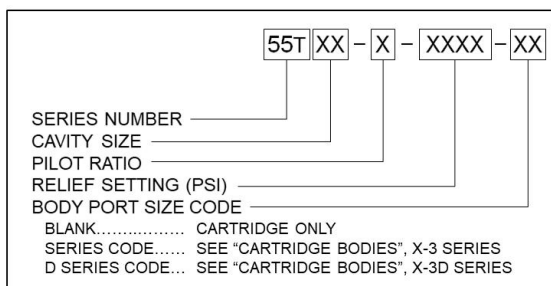
FEATURES

- PILOT RATIOS UP TO 10:1 AVAILABLE (HIGHER PILOT RATIOS MAY REDUCE FLOW CAPACITY)
- LOW RELIEF HYSTERESIS.
- QUIET, STABLE OPERATION.
- SEALED PILOT PISTON, LOW INTERNAL LEAKAGE.
- ADJUSTABLE WITH LOCKING NUT.
- CLOCKWISE ADJUSTMENT TO INCREASE RELIEF SETTING.
- THE 55T17 IS LIMITED TO A 4000 PSI SETTING

SPECIFICATIONS

INTERNAL LEAKAGE	5 DROPS/MIN. MAX.
OPERATING PRESSURE	5000 PSI
RELIEF SETTING RANGE	500 - 5000 PSI
RELIEF TOLERANCE	+/- 10%
STANDARD CRACK PRESSURE	25 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

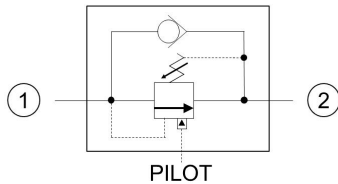


MODEL	THREAD	FLOW CAPACITY	CAVITY	L1	L2 (MAX.)	HEX	A	B	C	SD (MAX.)	TORQUE
55T163	M16 X 1.5	5.0 GPM	T-163A	1.22	1.80	0.750	0.512 / 0.513	0.653 / 0.654	0.700 / 0.701	0.650	20 ft-lbs
55T11	M20 X 1.5	15.0 GPM	T-11A	1.38	2.25	0.938	0.683 / 0.685	0.807 / 0.809	0.855 / 0.857	0.850	30 ft-lbs
55T2	1-14	25.0 GPM	T-2A	1.38	2.50	1.125	0.871 / 0.873	1.027 / 1.029	1.074 / 1.076	0.870	45 ft-lbs
55T17	M36 X 2.0	60.0 GPM	T-17A	1.81	4.50	1.625	1.246 / 1.247	1.433 / 1.435	1.558 / 1.559	1.18	95 ft-lbs

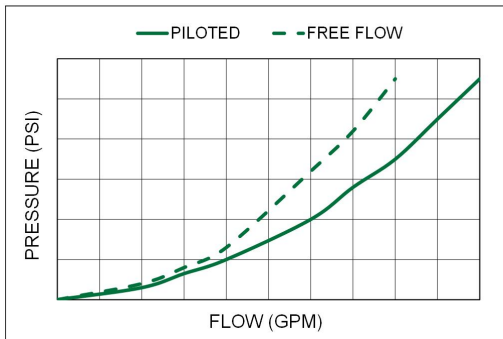
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2/21/19, 9:14 PM

SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

A CARTRIDGE STYLE, THREE PORT, PILOT TO OPEN COUNTERBALANCE VALVE WITH AN INTERNALLY VENTED SPRING CHAMBER AND FREE REVERSE FLOW CHECK, INTENDED FOR MOTION CONTROL AND OVER-CENTER LOAD HOLDING APPLICATIONS.

OPERATION

- FLOW FROM (2) TO (1) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 25 PSI.
- FLOW FROM (1) TO (2) IS BLOCKED UNTIL THE RELIEF PRESSURE SETTING HAS BEEN EXCEEDED.
- BACK PRESSURE AT PORT (2) IS ADDITIVE TO RELIEF SETTING.
- FLOW FROM (1) TO (2) IS BLOCKED UNTIL A PILOT PRESSURE INVERSELY PROPORTIONAL TO THE LOAD PRESSURE IS APPLIED TO THE PILOT PORT.

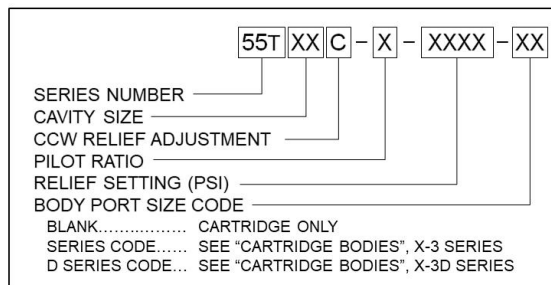
FEATURES

- LOW RELIEF HYSTERESIS.
- PILOT RATIOS UP TO 10:1 AVAILABLE (HIGHER PILOT RATIOS MAY REDUCE FLOW CAPACITY)
- QUIET, STABLE OPERATION.
- ADJUSTABLE WITH LOCKING NUT.
- SEALED PILOT PISTON, LOW INTERNAL LEAKAGE.
- COUNTERCLOCKWISE ADJUSTMENT TO INCREASE RELIEF SETTING.

SPECIFICATIONS

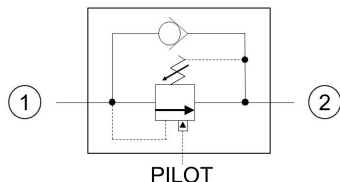
INTERNAL LEAKAGE	5 DROPS/MIN. MAX.
OPERATING PRESSURE	5000 PSI
RELIEF SETTING RANGE	500 - 5000 PSI
RELIEF TOLERANCE	+/- 10%
STANDARD CRACK PRESSURE	25 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

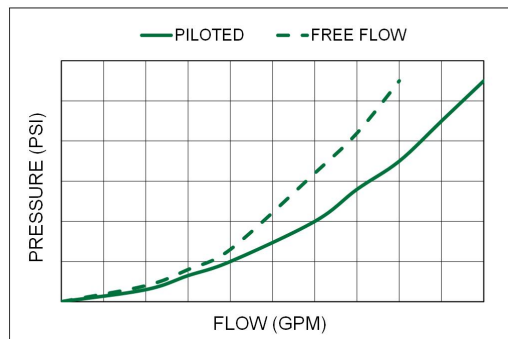


MODEL	THREAD	FLOW CAPACITY	CAVITY	L1	L2 (MAX.)	HEX	A	B	C	SD (MAX.)	TORQUE
55T11C	M20 X 1.5	15.0 GPM	T-11A	1.38	2.25	0.938	0.683 / 0.685	0.807 / 0.809	0.855 / 0.857	0.850	30 ft-lbs
55T2C	1-14	25.0 GPM	T-2A	1.38	2.50	1.125	0.871 / 0.873	1.027 / 1.029	1.074 / 1.076	0.870	45 ft-lbs

SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

A CARTRIDGE STYLE, THREE PORT, PILOT TO OPEN COUNTERBALANCE VALVE WITH AN INTERNALLY VENTED SPRING CHAMBER AND FREE REVERSE FLOW CHECK, INTENDED FOR MOTION CONTROL AND OVER-CENTER LOAD HOLDING APPLICATIONS.

OPERATION

- FLOW FROM (2) TO (1) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 4 PSI.
- FLOW FROM (1) TO (2) IS BLOCKED UNTIL THE RELIEF PRESSURE SETTING HAS BEEN EXCEEDED.
- BACK PRESSURE AT PORT (2) IS ADDITIVE TO RELIEF SETTING.
- FLOW FROM (1) TO (2) IS BLOCKED UNTIL A PILOT PRESSURE INVERSELY PROPORTIONAL TO THE LOAD PRESSURE IS APPLIED TO THE PILOT PORT.

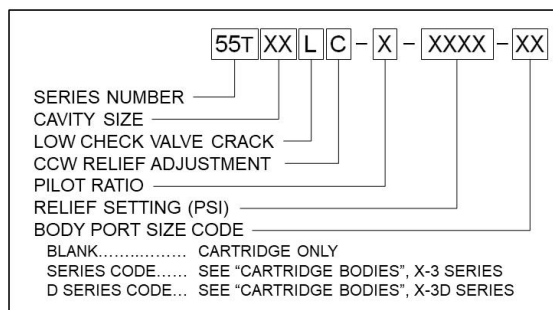
FEATURES

- LOW RELIEF HYSTERESIS.
- PILOT RATIOS UP TO 10:1 AVAILABLE (HIGHER PILOT RATIOS MAY REDUCE FLOW CAPACITY)
- QUIET, STABLE OPERATION.
- ADJUSTABLE WITH LOCKING NUT.
- SEALED PILOT PISTON, LOW INTERNAL LEAKAGE.
- COUNTERCLOCKWISE ADJUSTMENT TO INCREASE RELIEF SETTING.

SPECIFICATIONS

INTERNAL LEAKAGE	5 DROPS/MIN. MAX.
OPERATING PRESSURE	5000 PSI
RELIEF SETTING RANGE	500 - 5000 PSI
RELIEF TOLERANCE	+/- 10%
STANDARD CRACK PRESSURE	4 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

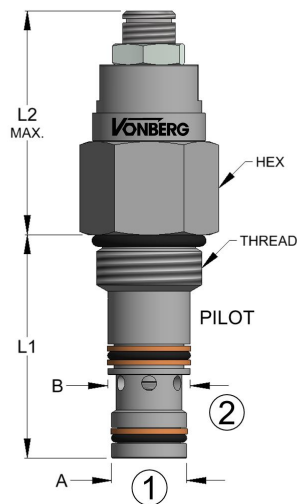


MODEL	THREAD	FLOW CAPACITY	CAVITY	L1	L2 (MAX.)	HEX	A	B	C	SD (MAX.)	TORQUE
55T11LC	M20 X 1.5	15.0 GPM	T-11A	1.38	2.25	0.938	0.850	0.807 / 0.809	0.855 / 0.857	0.850	30 ft-lbs

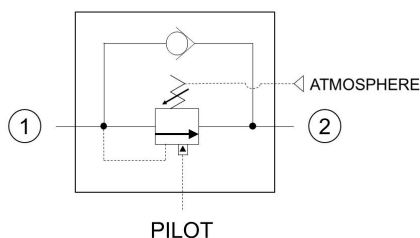
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8/9/19, 1:16 PM

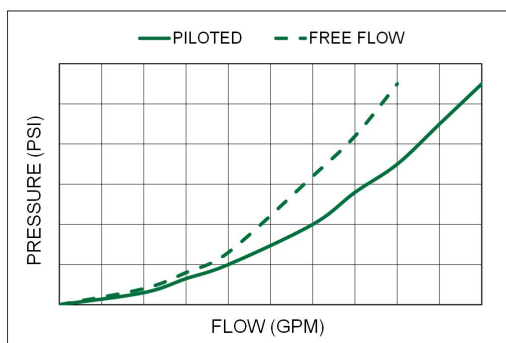
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

A CARTRIDGE STYLE, THREE PORT, PILOT TO OPEN COUNTERBALANCE VALVE WITH AN ATMOSPHERICALLY VENTED SPRING CHAMBER AND FREE REVERSE FLOW CHECK, INTENDED FOR MOTION CONTROL AND OVER-CENTER LOAD HOLDING APPLICATIONS.

OPERATION

- BACK PRESSURE AT PORT (2) DOES NOT AFFECT RELIEF SETTING.
- FLOW FROM (1) TO (2) IS BLOCKED UNTIL A PILOT PRESSURE INVERSELY PROPORTIONAL TO THE LOAD PRESSURE IS APPLIED TO THE PILOT PORT.
- FLOW FROM (1) TO (2) IS BLOCKED UNTIL THE RELIEF PRESSURE SETTING HAS BEEN EXCEEDED.
- FLOW FROM (2) TO (1) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 25 PSI.

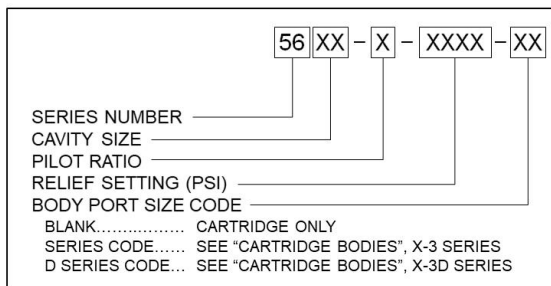
FEATURES

- LOW RELIEF HYSTERESIS.
- CLOCKWISE ADJUSTMENT TO INCREASE RELIEF SETTING.
- SEALED PILOT PISTON, LOW INTERNAL LEAKAGE.
- QUIET, STABLE OPERATION.
- INDUSTRY COMMON CAVITY.
- ADJUSTABLE WITH LOCKING NUT.
- PILOT RATIOS UP TO 10:1 AVAILABLE (HIGHER PILOT RATIOS MAY REDUCE FLOW CAPACITY)

SPECIFICATIONS

INTERNAL LEAKAGE	5 DROPS/MIN. MAX.
OPERATING PRESSURE	5000 PSI
RELIEF ADJUSTMENT RANGE	500 - 5000 PSI
RELIEF TOLERANCE	+/- 10%
STANDARD CRACK PRESSURE	25 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

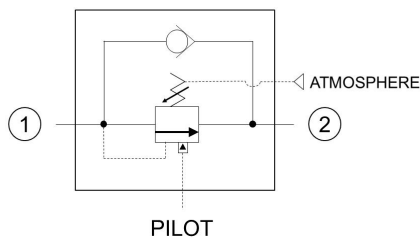


MODEL	THREAD	FLOW CAPACITY	CAVITY	L1	L2 (MAX.)	HEX	A	B	TORQUE
5610	7/8 - 14	10.0 GPM	VC10-3	1.85	2.00	1.00	0.621 / 0.623	0.683 / 0.685	25 ft-lbs

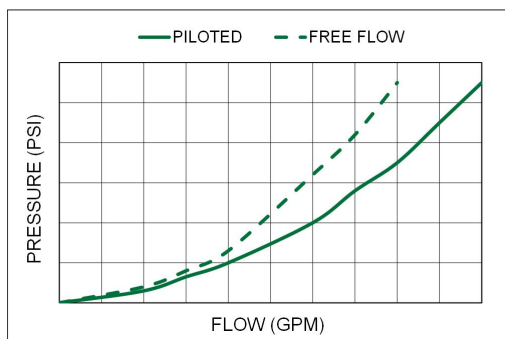
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11/13/18, 8:34 PM

SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

A CARTRIDGE STYLE, THREE PORT, PILOT TO OPEN COUNTERBALANCE VALVE WITH AN ATMOSPHERICALLY VENTED SPRING CHAMBER AND FREE REVERSE FLOW CHECK, INTENDED FOR MOTION CONTROL AND OVER-CENTER LOAD HOLDING APPLICATIONS.

OPERATION

- BACK PRESSURE AT PORT (2) DOES NOT AFFECT RELIEF SETTING.
- FLOW FROM (1) TO (2) IS BLOCKED UNTIL A PILOT PRESSURE INVERSELY PROPORTIONAL TO THE LOAD PRESSURE IS APPLIED TO THE PILOT PORT.
- FLOW FROM (2) TO (1) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 25 PSI.
- FLOW FROM (1) TO (2) IS BLOCKED UNTIL THE RELIEF PRESSURE SETTING HAS BEEN EXCEEDED.

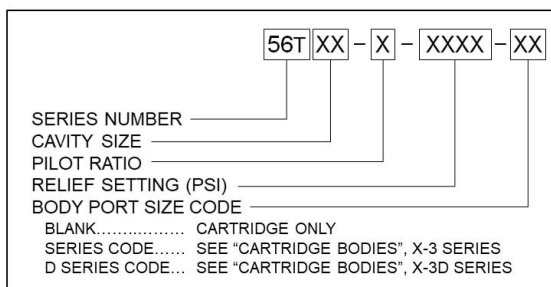
FEATURES

- LOW RELIEF HYSTERESIS.
- SEALED PILOT PISTON, LOW INTERNAL LEAKAGE.
- QUIET, STABLE OPERATION.
- ADJUSTABLE WITH LOCKING NUT.
- CLOCKWISE ADJUSTMENT TO INCREASE RELIEF SETTING.
- PILOT RATIOS UP TO 10:1 AVAILABLE (HIGHER PILOT RATIOS MAY REDUCE FLOW CAPACITY)

SPECIFICATIONS

INTERNAL LEAKAGE	5 DROPS/MIN. MAX.
OPERATING PRESSURE	5000 PSI
RELIEF SETTING RANGE	500 - 5000 PSI
RELIEF TOLERANCE	+/- 10%
STANDARD CRACK PRESSURE	25 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

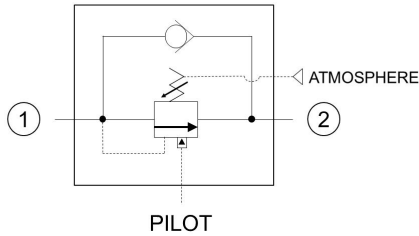


MODEL	THREAD	FLOW CAPACITY	CAVITY	L1	L2 (MAX.)	HEX	A	B	C	SD (MAX.)	TORQUE
56T11	M20 X 1.5	15.0 GPM	T-11A	1.38	2.45	0.938	0.683 / 0.685	0.807 / 0.809	0.855 / 0.857	0.850	30 ft-lbs
56T2	1-14	30.0 GPM	T-2A	1.38	2.75	1.125	0.871 / 0.873	1.027 / 1.029	1.074 / 1.076	0.870	45 ft-lbs

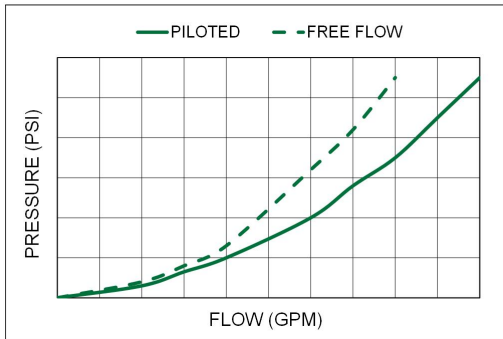
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12/11/19, 5:44 PM

SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

A CARTRIDGE STYLE, THREE PORT, PILOT TO OPEN COUNTERBALANCE VALVE WITH AN ATMOSPHERICALLY VENTED SPRING CHAMBER AND FREE REVERSE FLOW CHECK, INTENDED FOR MOTION CONTROL AND OVER-CENTER LOAD HOLDING APPLICATIONS.

OPERATION

- BACK PRESSURE AT PORT (2) DOES NOT AFFECT RELIEF SETTING.
- FLOW FROM (1) TO (2) IS BLOCKED UNTIL THE RELIEF PRESSURE SETTING HAS BEEN EXCEEDED.
- FLOW FROM (1) TO (2) IS BLOCKED UNTIL A PILOT PRESSURE INVERSELY PROPORTIONAL TO THE LOAD PRESSURE IS APPLIED TO THE PILOT PORT.
- FLOW FROM (2) TO (1) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 25 PSI.

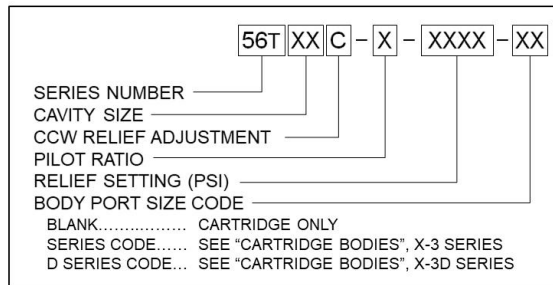
FEATURES

- PILOT RATIOS UP TO 10:1 AVAILABLE (HIGHER PILOT RATIOS MAY REDUCE FLOW CAPACITY)
- LOW RELIEF HYSTERESIS.
- SEALED PILOT PISTON, LOW INTERNAL LEAKAGE.
- QUIET, STABLE OPERATION.
- COUNTERCLOCKWISE ADJUSTMENT TO INCREASE RELIEF SETTING.
- ADJUSTABLE WITH LOCKING NUT.

SPECIFICATIONS

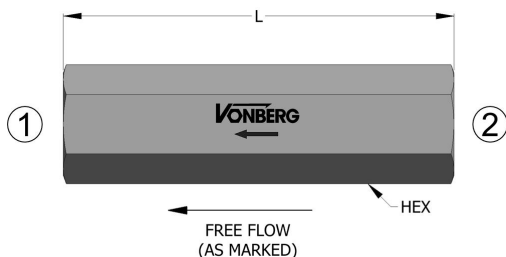
INTERNAL LEAKAGE	5 DROPS/MIN. MAX.
OPERATING PRESSURE	5000 PSI
RELIEF SETTING RANGE	500 - 5000 PSI
RELIEF TOLERANCE	+/- 10%
STANDARD CRACK PRESSURE	25 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

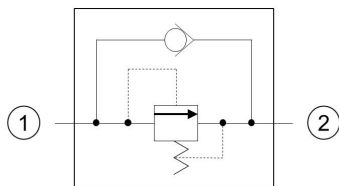


MODEL	THREAD	FLOW CAPACITY	CAVITY	L1	L2 (MAX.)	HEX	A	B	C	SD (MAX.)	TORQUE
56T11C	M20 X 1.5	10.0 GPM	T-11A	1.38	2.45	0.938	0.683 / 0.685	0.807 / 0.809	0.855 / 0.857	0.850	30 ft-lbs

PRODUCT



SCHEMATIC



DESCRIPTION

AN IN-LINE, DIFFERENTIAL AREA RELIEF VALVE WITH FREE REVERSE FLOW THAT LIMITS MAXIMUM SYSTEM PRESSURE OR ALLOWS SEQUENCING OF PRESSURES WITHIN A CIRCUIT.

OPERATION

- FLOW FROM (2) TO (1) IS UNRESTRICTED WITH A 5-10 PSI CRACK PRESSURE.
- FLOW FROM (1) TO (2) IS BLOCKED UNTIL THE SPECIFIED RELIEF PRESSURE SETTING HAS BEEN EXCEEDED.

FEATURES

- LOW PRESSURE DROP.
- INTERNAL PACKING - BUNA N.
- LOW INTERNAL LEAKAGE.
- ALUMINUM BODY, STEEL INTERNALS.

SPECIFICATIONS

OPERATING PRESSURE	3000 PSI
RELIEF TOLERANCE	+/- 10% (+/- 20% BELOW 150 PSI)
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

49023 - XXXX

SERIES NUMBER _____

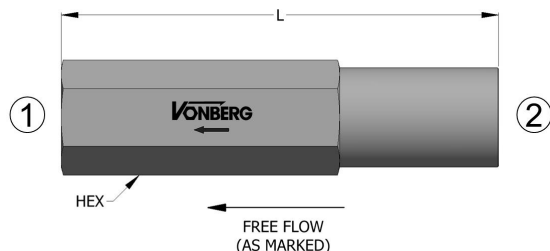
RELIEF PRESSURE (PSI) _____

100 - 1250 (PSI)*

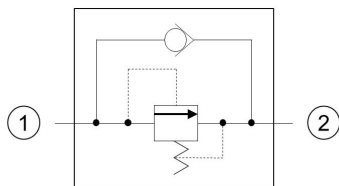
* AVAILABLE IN 50 PSI INCREMENTS 100-1250 PSI

MODEL	INLET / OUTLET	THREAD	FLOW CAPACITY	L	HEX
49023	-12 SAE PORT	1 1/16-12	30 GPM	5.25	1.250

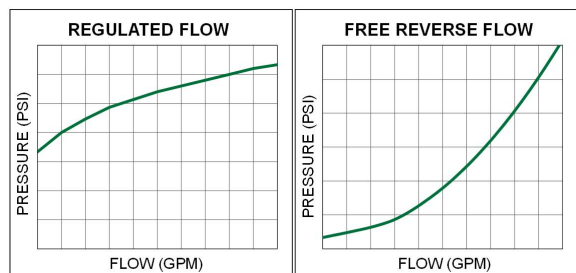
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE, DIFFERENTIAL AREA RELIEF VALVE WITH FREE REVERSE FLOW THAT LIMITS MAXIMUM SYSTEM PRESSURE OR ALLOWS SEQUENCING OF PRESSURES WITHIN A CIRCUIT.

OPERATION

- FLOW FROM (2) TO (1) IS UNRESTRICTED WITH A 5-10 PSI CRACK PRESSURE.
- FLOW FROM (1) TO (2) IS BLOCKED UNTIL THE SPECIFIED RELIEF PRESSURE SETTING HAS BEEN EXCEEDED.

FEATURES

- LOW PRESSURE DROP.
- INTERNAL PACKING - BUNA N.
- LOW INTERNAL LEAKAGE.
- ALUMINUM BODY, STEEL INTERNALS.

SPECIFICATIONS

OPERATING PRESSURE	3000 PSI
RELIEF TOLERANCE	+/- 10% (+/- 20% BELOW 150 PSI)
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

49040 - XXXX

SERIES NUMBER _____

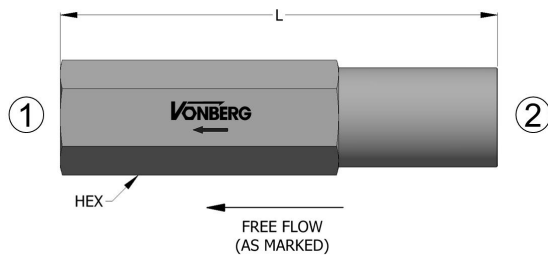
RELIEF PRESSURE (PSI) _____

100 - 1250 (PSI)*

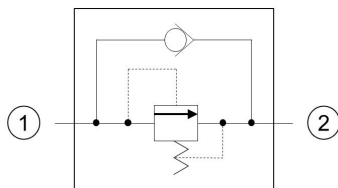
* AVAILABLE IN 50 PSI INCREMENTS 100-1250 PSI

MODEL	INLET / OUTLET	THREAD	FLOW CAPACITY	L	HEX
49040	-08 SAE PORT	3/4-16	20 GPM	4.12	0.94

PRODUCT



SCHEMATIC



DESCRIPTION

AN IN-LINE, DIFFERENTIAL AREA RELIEF VALVE WITH FREE REVERSE FLOW THAT LIMITS MAXIMUM SYSTEM PRESSURE OR ALLOWS SEQUENCING OF PRESSURES WITHIN A CIRCUIT.

OPERATION

- FLOW FROM (1) TO (2) IS BLOCKED UNTIL THE SPECIFIED RELIEF PRESSURE SETTING HAS BEEN EXCEEDED.
- FLOW FROM (2) TO (1) IS UNRESTRICTED WITH A 5-10 PSI CRACK PRESSURE.

FEATURES

- LOW PRESSURE DROP.
- INTERNAL PACKING - BUNA N.
- ALUMINUM BODY, STEEL INTERNALS.
- LOW INTERNAL LEAKAGE.

SPECIFICATIONS

OPERATING PRESSURE	3000 PSI
RELIEF TOLERANCE	+/- 10% (+/- 20% BELOW 150 PSI)
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

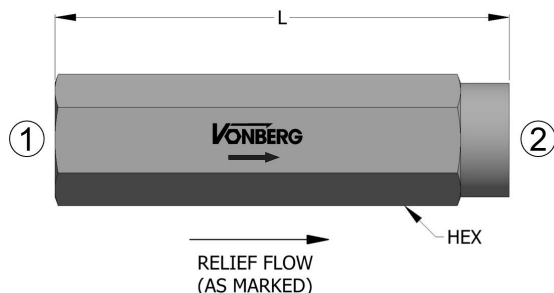
49080 - XXXX

SERIES NUMBER _____
 RELIEF PRESSURE (PSI) _____
 100 - 1250 (PSI)*

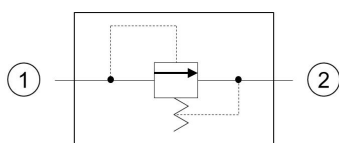
* AVAILABLE IN 50 PSI INCREMENTS 100-1250 PSI

MODEL	INLET / OUTLET	THREAD	FLOW CAPACITY	L	HEX
49080	-06 SAE PORT	9/16-18	5.0 GPM	3.50	0.75

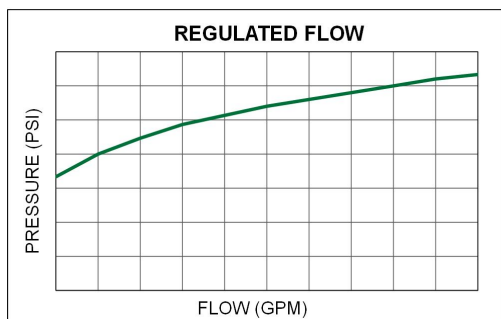
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE, DIRECT ACTING RELIEF VALVE THAT LIMITS MAXIMUM SYSTEM PRESSURE OR MAINTAINS A DESIRED PRESSURE WITHIN A CIRCUIT.

OPERATION

- FLOW FROM (1) TO (2) IS BLOCKED UNTIL THE SPECIFIED RELIEF PRESSURE SETTING HAS BEEN EXCEEDED.
- FLOW FROM (2) TO (1) IS ALWAYS BLOCKED.

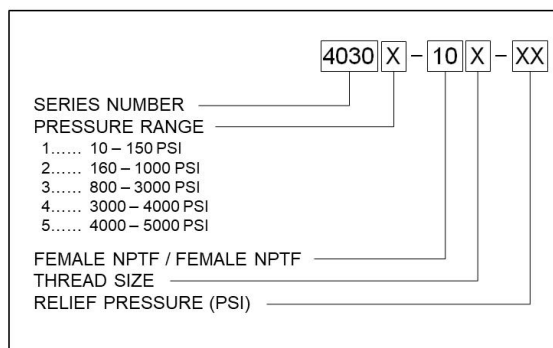
FEATURES

- CHROME STEEL BALL / HARDENED SEAT.
- LOW INTERNAL LEAKAGE.
- STEEL COMPONENTS.

SPECIFICATIONS

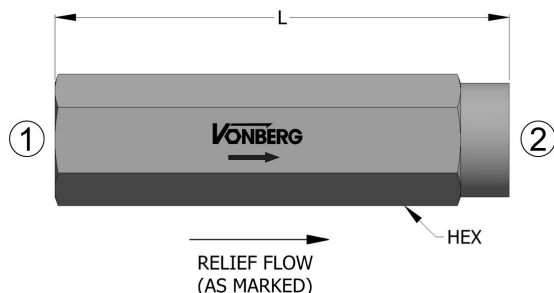
OPERATING PRESSURE	5000 PSI
RELIEF TOLERANCE	+/- 10%
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

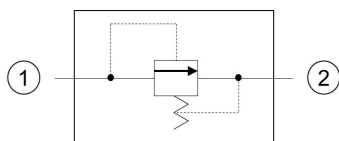


MODEL	INLET / OUTLET	L	HEX
4030X-102	1/4-18 NPTF	3.85	0.750
4030X-103	3/8-18 NPTF	3.65	0.875
4030X-104	1/2-14 NPTF	4.50	1.125

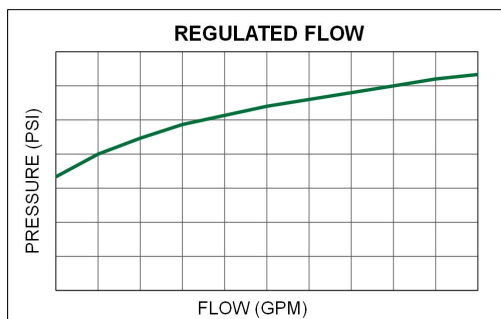
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE, DIRECT ACTING RELIEF VALVE THAT LIMITS MAXIMUM SYSTEM PRESSURE OR MAINTAINS A DESIRED PRESSURE WITHIN A CIRCUIT.

OPERATION

- FLOW FROM (2) TO (1) IS ALWAYS BLOCKED.
- FLOW FROM (1) TO (2) IS BLOCKED UNTIL THE SPECIFIED RELIEF PRESSURE SETTING HAS BEEN EXCEEDED.

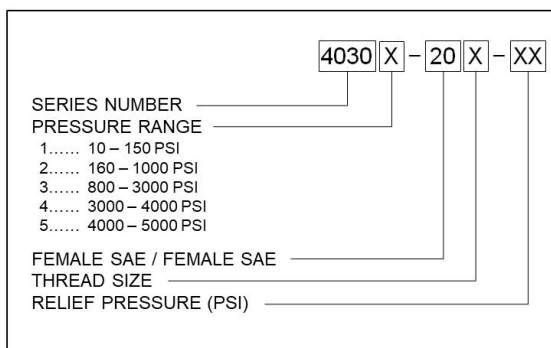
FEATURES

- LOW INTERNAL LEAKAGE.
- CHROME STEEL BALL / HARDENED SEAT.
- STEEL COMPONENTS.

SPECIFICATIONS

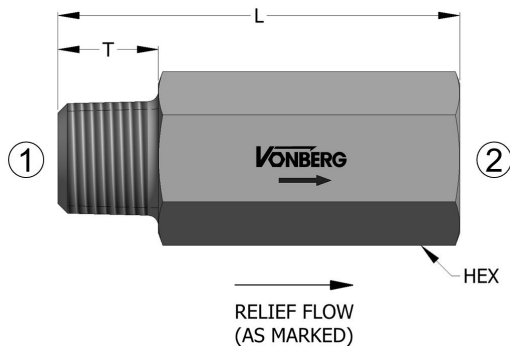
OPERATING PRESSURE	5000 PSI
RELIEF TOLERANCE	+/- 10%
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

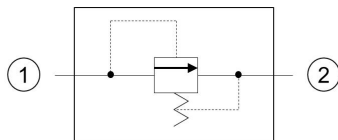


MODEL	INLET / OUTLET	THREAD	L	HEX
4030X-204	-04 SAE	7/16-20	3.20	0.63
4030X-206	-06 SAE	9/16-18	3.70	0.75
4030X-208	-08 SAE	3/4-16	4.00	0.94

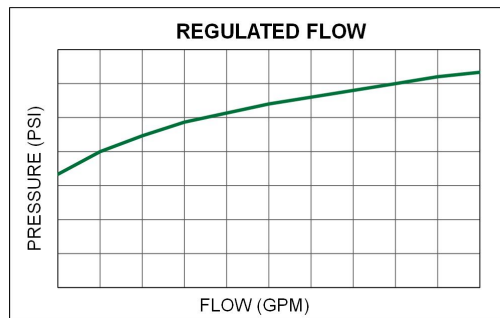
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE, DIRECT ACTING RELIEF VALVE THAT LIMITS MAXIMUM SYSTEM PRESSURE OR MAINTAINS A DESIRED PRESSURE WITHIN A CIRCUIT.

OPERATION

- FLOW FROM (2) TO (1) IS ALWAYS BLOCKED.
- FLOW FROM (1) TO (2) IS BLOCKED UNTIL THE SPECIFIED RELIEF PRESSURE SETTING HAS BEEN EXCEEDED.

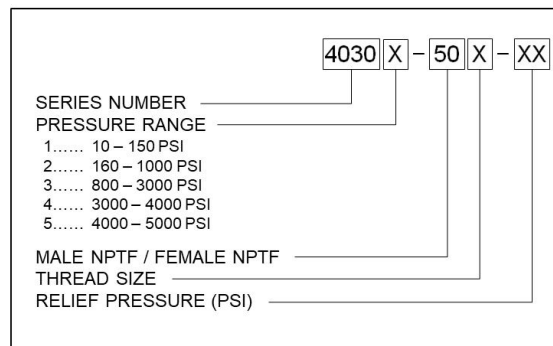
FEATURES

- LOW INTERNAL LEAKAGE.
- CHROME STEEL BALL / HARDENED SEAT.
- STEEL COMPONENTS.

SPECIFICATIONS

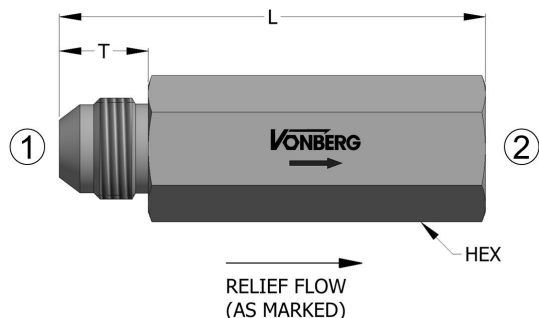
OPERATING PRESSURE	5000 PSI
RELIEF TOLERANCE	+/- 10%
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

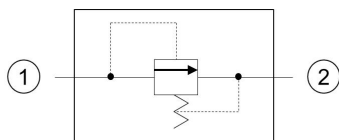


MODEL	INLET 1	OUTLET 2	L	T	HEX
4030X-502	1/4-18 NPTF	1/4-18 NPTF PORT	3.70	0.563	0.750
4030X-503	3/8-18 NPTF	3/8-18 NPTF PORT	2.94	0.625	0.875
4030X-504	1/2-14 NPTF	1/2-14 NPTF PORT	3.50	0.750	1.125

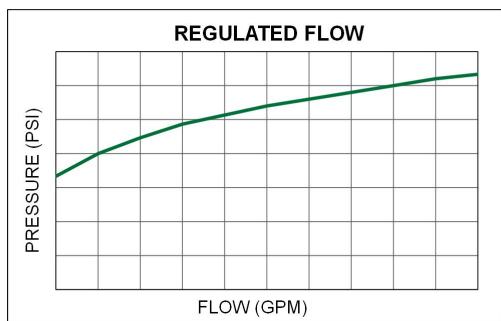
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE, DIRECT ACTING RELIEF VALVE WITH THAT LIMITS MAXIMUM SYSTEM PRESSURE OR MAINTAINS A DESIRED PRESSURE WITHIN A CIRCUIT.

OPERATION

- FLOW FROM (1) TO (2) IS BLOCKED UNTIL THE SPECIFIED RELIEF PRESSURE SETTING HAS BEEN EXCEEDED.
- FLOW FROM (2) TO (1) IS ALWAYS BLOCKED.

FEATURES

- STEEL COMPONENTS.
- LOW INTERNAL LEAKAGE.
- CHROME BALL / HARDENED SEAT.

SPECIFICATIONS

OPERATING PRESSURE	5000 PSI
RELIEF TOLERANCE	+/- 10%
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

4030
X
-
60
X
-
XX

SERIES NUMBER _____

PRESSURE RANGE _____

1..... 10 – 150 PSI

2..... 160 – 1000 PSI

3..... 800 – 3000 PSI

4..... 3000 – 4000 PSI

5..... 4000 – 5000 PSI

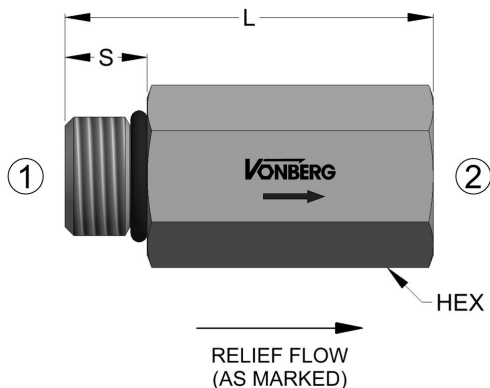
MALE JIC / FEMALE SAE _____

THREAD SIZE _____

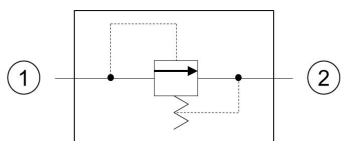
RELIEF PRESSURE (PSI) _____

MODEL	INLET 1	OUTLET 2	THREAD	L	T	HEX
4030X-604	-04 JIC	-04 SAE PORT	7/16-20	3.20	0.550	0.625
4030X-606	-06 JIC	-06 SAE PORT	9/16-18	3.56	0.560	0.750
4030X-608	-08 JIC	-08 SAE PORT	3/4-14	3.70	0.660	0.938

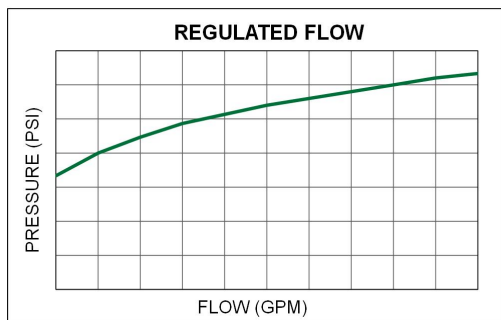
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE, DIRECT ACTING RELIEF VALVE WITH THAT LIMITS MAXIMUM SYSTEM PRESSURE OR MAINTAINS A DESIRED PRESSURE WITHIN A CIRCUIT.

OPERATION

- FLOW FROM (2) TO (1) IS ALWAYS BLOCKED.
- FLOW FROM (1) TO (2) IS BLOCKED UNTIL THE SPECIFIED RELIEF PRESSURE SETTING HAS BEEN EXCEEDED.

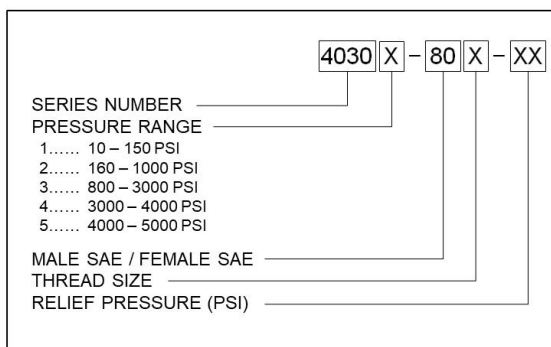
FEATURES

- LOW INTERNAL LEAKAGE.
- CHROME BALL / HARDENED SEAT.
- STEEL COMPONENTS.

SPECIFICATIONS

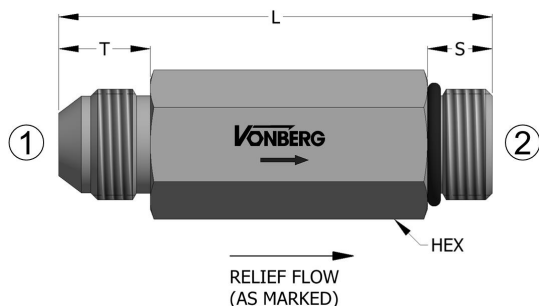
OPERATING PRESSURE	5000 PSI
RELIEF TOLERANCE	+/- 10%
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

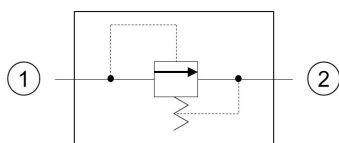


MODEL	INLET 1	OUTLET 2	THREAD	L	T	HEX
4030X-804	-04 SAE	-04 SAE PORT	7/16-20	3.00	0.360	0.625
4030X-806	-06 SAE	-06 SAE PORT	9/16-18	3.40	0.390	0.750
4030X-808	-08 SAE	-08 SAE PORT	3/4-14	3.50	0.440	0.938

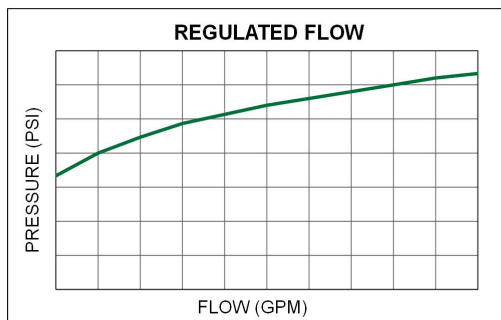
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE, DIRECT ACTING RELIEF VALVE WITH THAT LIMITS MAXIMUM SYSTEM PRESSURE OR MAINTAINS A DESIRED PRESSURE WITHIN A CIRCUIT.

OPERATION

- FLOW FROM (2) TO (1) IS ALWAYS BLOCKED.
- FLOW FROM (1) TO (2) IS BLOCKED UNTIL THE SPECIFIED RELIEF PRESSURE SETTING HAS BEEN EXCEEDED.

FEATURES

- LOW INTERNAL LEAKAGE.
- CHROME BALL / HARDENED SEAT.
- STEEL COMPONENTS.

SPECIFICATIONS

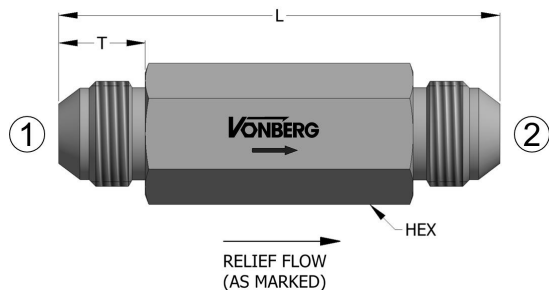
OPERATING PRESSURE	5000 PSI
RELIEF TOLERANCE	+/- 10%
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

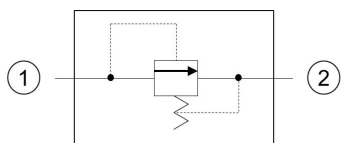
4031	X	-	60	X	-	XX
SERIES NUMBER						
PRESSURE RANGE						
1.....	10 – 150 PSI					
2.....	160 – 1000 PSI					
3.....	800 – 3000 PSI					
4.....	3000 – 4000 PSI					
5.....	4000 – 5000 PSI					
MALE JIC / MALE SAE						
THREAD SIZE						
RELIEF PRESSURE (PSI)						

MODEL	INLET 1	OUTLET 2	THREAD	L	HEX
40310-608	-08 JIC	-08 SAE	3/4-16	2.98	0.875

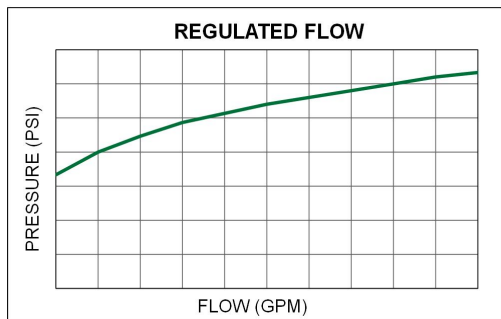
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE, DIRECT ACTING RELIEF VALVE WITH MALE JIC CONNECTIONS THAT LIMITS MAXIMUM SYSTEM PRESSURE OR MAINTAINS A DESIRED PRESSURE WITHIN A CIRCUIT.

OPERATION

- FLOW FROM (2) TO (1) IS ALWAYS BLOCKED.
- FLOW FROM (1) TO (2) IS BLOCKED UNTIL THE SPECIFIED RELIEF PRESSURE SETTING HAS BEEN EXCEEDED.

FEATURES

- LOW INTERNAL LEAKAGE.
- CHROME BALL / HARDENED SEAT.
- STEEL COMPONENTS.

SPECIFICATIONS

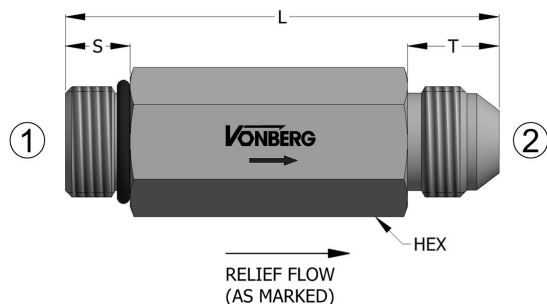
OPERATING PRESSURE	5000 PSI
RELIEF TOLERANCE	+/- 10%
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

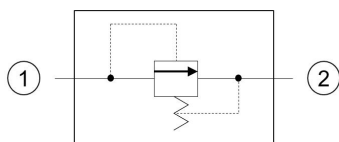
SERIES NUMBER	4033	X	-	60	X	-	XX
PRESSURE RANGE							
1.....	10 – 150 PSI						
2.....	160 – 1000 PSI						
3.....	800 – 3000 PSI						
4.....	3000 – 4000 PSI						
5.....	4000 – 5000 PSI						
MALE JIC / MALE JIC							
THREAD SIZE							
RELIEF PRESSURE (PSI)							

MODEL	INLET / OUTLET	THREAD	FLOW CAPACITY	L	HEX
4033X-608	-08 JIC	3/4-16	5 GPM	3.16	0.88

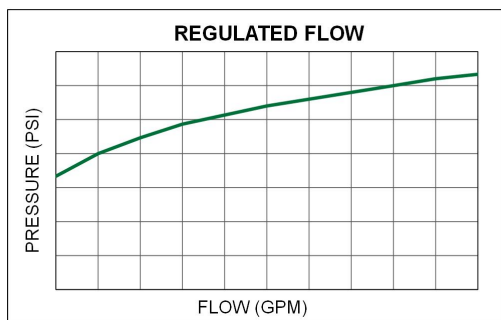
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE, DIRECT ACTING RELIEF VALVE WITH THAT LIMITS MAXIMUM SYSTEM PRESSURE OR MAINTAINS A DESIRED PRESSURE WITHIN A CIRCUIT.

OPERATION

- FLOW FROM (2) TO (1) IS ALWAYS BLOCKED.
- FLOW FROM (1) TO (2) IS BLOCKED UNTIL THE SPECIFIED RELIEF PRESSURE SETTING HAS BEEN EXCEEDED.

FEATURES

- LOW INTERNAL LEAKAGE.
- CHROME BALL / HARDENED SEAT.
- STEEL COMPONENTS.

SPECIFICATIONS

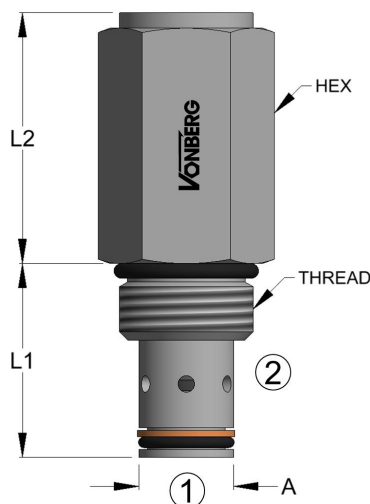
OPERATING PRESSURE	5000 PSI
RELIEF TOLERANCE	+/- 10%
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

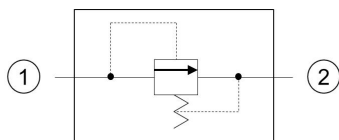
4033	X	-	80	X	-	XX
SERIES NUMBER						
PRESSURE RANGE						
1..... 10 – 150 PSI						
2..... 160 – 1000 PSI						
3..... 800 – 3000 PSI						
4..... 3000 – 4000 PSI						
5..... 4000 – 5000 PSI						
MALE SAE / MALE JIC						
THREAD SIZE						
RELIEF PRESSURE (PSI)						

MODEL	INLET 1	OUTLET 2	THREAD	L	HEX
4033X-808	-08 SAE	-08 JIC	3/4-14	2.94	0.875

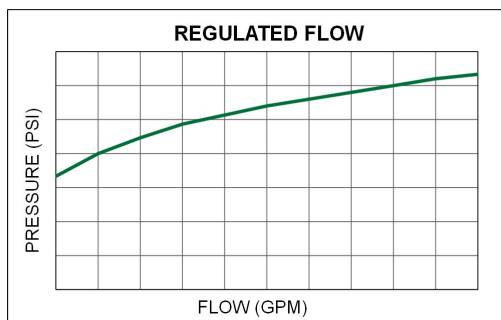
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

A CARTRIDGE STYLE, DIRECT ACTING RELIEF VALVE THAT LIMITS MAXIMUM SYSTEM PRESSURE OR MAINTAINS A DESIRED PRESSURE WITHIN A CIRCUIT.

OPERATION

- FLOW FROM (2) TO (1) IS ALWAYS BLOCKED.
- FLOW FROM (1) TO (2) IS BLOCKED UNTIL THE SPECIFIED RELIEF PRESSURE SETTING HAS BEEN EXCEEDED.

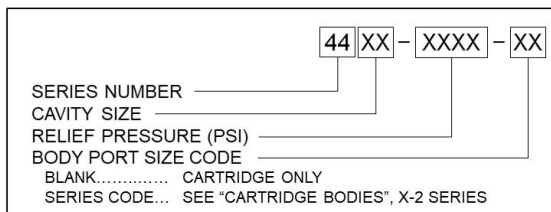
FEATURES

- INDUSTRY COMMON CAVITY.
- QUIET OPERATION.
- LOW INTERNAL LEAKAGE.
- HARDENED SEAT.
- GUIDED POPPET.
- STEEL COMPONENTS.

SPECIFICATIONS

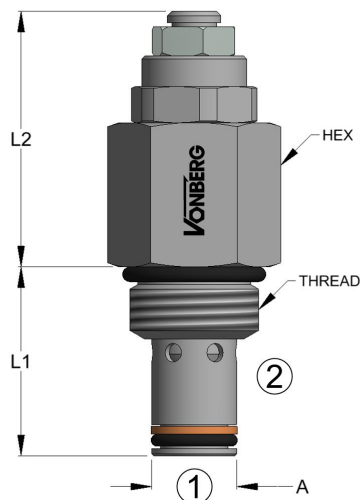
OPERATING PRESSURE	5000 PSI
PRESSURE RANGE	50 PSI - 5000 PSI
RELIEF TOLERANCE	+/- 10%
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

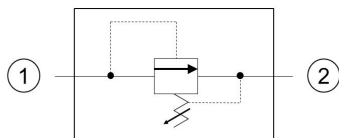


MODEL	THREAD	FLOW CAPACITY	CAVITY	L1	L2	HEX	A	TORQUE
4404	7/16 - 20	1.0 GPM	VC04-2	0.94	0.83	0.56	0.277 / 0.278	10 ft-lbs
4406	9/16-18	3.0 GPM	FC06-2	0.84	1.50	0.69	0.467 / 0.468	15 ft-lbs
4408	3/4-16	5.0 GPM	VC08-2	1.10	1.65	0.88	0.496 / 0.497	20 ft-lbs
4410	7/8-14	8.0 GPM	VC10-2	1.25	1.70	1.00	0.622 / 0.623	25 ft-lbs

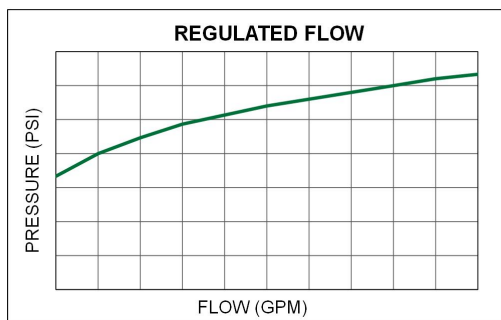
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

ADJUSTABLE CARTRIDGE STYLE, DIRECT ACTING RELIEF VALVE THAT LIMITS MAXIMUM SYSTEM PRESSURE OR MAINTAINS A DESIRED PRESSURE WITHIN A CIRCUIT.

OPERATION

- FLOW FROM (1) TO (2) IS BLOCKED UNTIL THE SPECIFIED RELIEF PRESSURE SETTING HAS BEEN EXCEEDED.
- FLOW FROM (2) TO (1) IS ALWAYS BLOCKED.

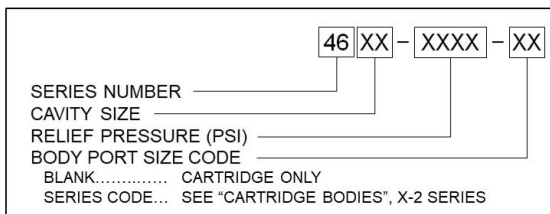
FEATURES

- ADJUSTABLE
- LOW INTERNAL LEAKAGE.
- QUIET OPERATION.
- INDUSTRY COMMON CAVITY.
- HARDENED SEAT.
- GUIDED POPPET.
- STEEL COMPONENTS.

SPECIFICATIONS

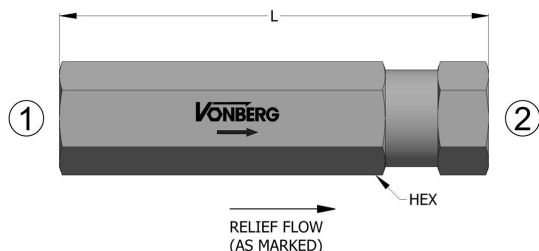
OPERATING PRESSURE	5000 PSI
PRESSURE RANGE	50 PSI - 5000 PSI
RELIEF TOLERANCE	+/- 10%
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

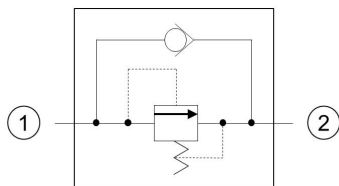


MODEL	THREAD	FLOW CAPACITY	CAVITY	L1	L2	HEX	A	TORQUE
4604	7/16-20	1.0 GPM	VC04-2	0.94	0.92	0.56	0.277/0.278	10 ft-lbs
4606	9/16-18	3.0 GPM	FC06-2	0.84	1.40	0.69	0.467/0.468	15 ft-lbs
4608	3/4-16	5.0 GPM	VC08-2	1.10	1.70	0.88	0.496/0.497	20 ft-lbs
4610	7/8-14	8.0 GPM	VC010-2	1.25	1.70	1.00	0.622/0.623	25 ft-lbs

PRODUCT



SCHEMATIC



DESCRIPTION

AN IN-LINE, DIRECT ACTING RELIEF VALVE WITH FREE REVERSE FLOW THAT LIMITS MAXIMUM SYSTEM PRESSURE OR ALLOWS SEQUENCING OF PRESSURES WITHIN A CIRCUIT.

OPERATION

- FLOW FROM (2) TO (1) IS UNRESTRICTED WITH A 5-10 PSI CRACK PRESSURE.
- FLOW FROM (1) TO (2) IS BLOCKED UNTIL THE SPECIFIED RELIEF PRESSURE SETTING HAS BEEN EXCEEDED.

FEATURES

- LOW PRESSURE DROP.
- INTERNAL PACKING - BUNA N.
- ALUMINUM BODY, STEEL INTERNALS.
- LOW INTERNAL LEAKAGE.

SPECIFICATIONS

OPERATING PRESSURE	3000 PSI
RELIEF TOLERANCE	+/- 10%
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

49000 - 1 XX - XX

SERIES NUMBER _____

THREAD SIZE _____

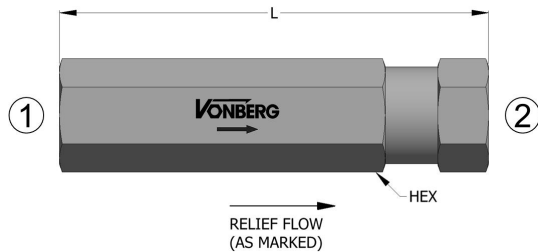
RELIEF PRESSURE (PSI) _____

10 - 150 (PSI)*

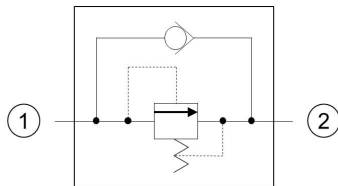
* AVAILABLE IN 10 PSI INCREMENTS UP TO A MAXIMUM OF 150 PSI
FOR HIGHER PRESSURE APPLICATIONS, SEE 49005 SERIES

MODEL	INLET / OUTLET	FLOW CAPACITY	L	HEX
49000-103	3/8-18 NPTF PORT	15 GPM	4.13	0.875

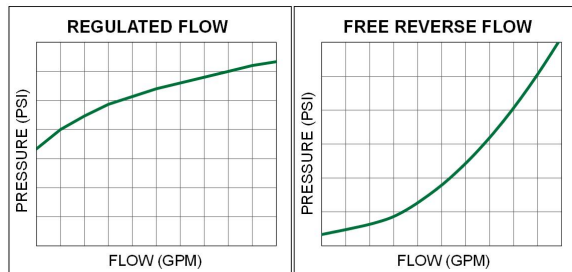
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE, DIRECT ACTING RELIEF VALVE WITH FREE REVERSE FLOW THAT LIMITS MAXIMUM SYSTEM PRESSURE OR ALLOWS SEQUENCING OF PRESSURES WITHIN A CIRCUIT.

OPERATION

- FLOW FROM (1) TO (2) IS BLOCKED UNTIL THE SPECIFIED RELIEF PRESSURE SETTING HAS BEEN EXCEEDED.
- FLOW FROM (2) TO (1) IS UNRESTRICTED WITH A 5-10 PSI CRACK PRESSURE.

FEATURES

- LOW PRESSURE DROP.
- ALUMINUM BODY, STEEL INTERNALS.
- LOW INTERNAL LEAKAGE.
- INTERNAL PACKING - BUNA N.

SPECIFICATIONS

OPERATING PRESSURE	3000 PSI
RELIEF TOLERANCE	+/- 10%
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

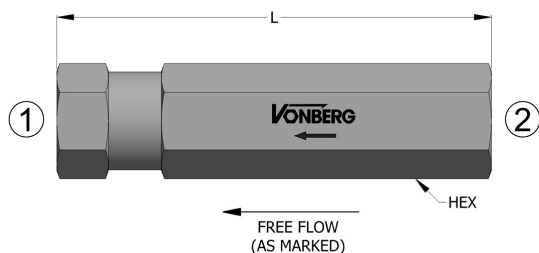
49000 - 2 XX - XX

SERIES NUMBER _____
 THREAD SIZE _____
 RELIEF PRESSURE (PSI) _____
 10 - 150 (PSI)*

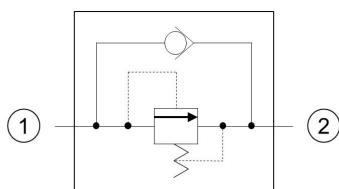
* AVAILABLE IN 10 PSI INCREMENTS UP TO A MAXIMUM OF 150 PSI
 FOR HIGHER PRESSURE APPLICATIONS, SEE 49005 SERIES

MODEL	INLET / OUTLET	THREAD	FLOW CAPACITY	L	HEX
49000-208	-08 SAE PORT	3/4-16	15 GPM	4.13	0.88

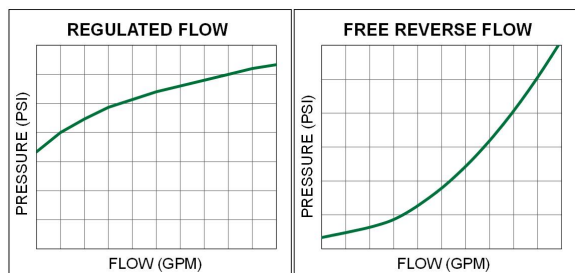
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN IN-LINE, DIRECT ACTING RELIEF VALVE WITH FREE REVERSE FLOW THAT LIMITS MAXIMUM SYSTEM PRESSURE OR ALLOWS SEQUENCING OF PRESSURES WITHIN A CIRCUIT.

OPERATION

- FLOW FROM (1) TO (2) IS BLOCKED UNTIL THE SPECIFIED RELIEF PRESSURE SETTING HAS BEEN EXCEEDED.
- FLOW FROM (2) TO (1) IS UNRESTRICTED WITH A 5-10 PSI CRACK PRESSURE.

FEATURES

- LOW INTERNAL LEAKAGE.
- INTERNAL PACKING - BUNA N.
- LOW PRESSURE DROP.
- ALUMINUM BODY, STEEL INTERNALS.

SPECIFICATIONS

OPERATING PRESSURE	3000 PSI
RELIEF TOLERANCE	+/- 10%
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

49005 - XXXX

SERIES NUMBER _____

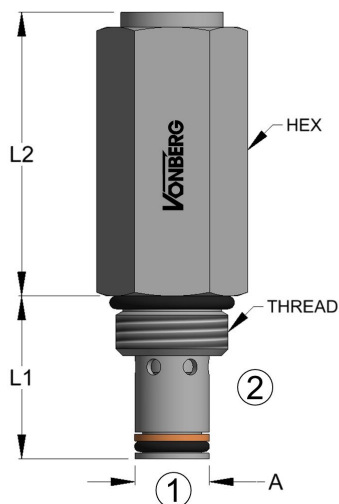
RELIEF PRESSURE (PSI) _____

100 - 1000 (PSI)*

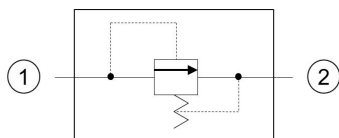
* AVAILABLE IN 50 PSI INCREMENTS 100-500 PSI, 100 PSI INCREMENTS 500+ PSI
FOR LOW PRESSURE APPLICATIONS, SEE 49000 SERIES

MODEL	INLET / OUTLET	FLOW RANGE	L	HEX
49005	3/8-18 NPTF	2.0 TO 12.0 GPM	4.13	0.88

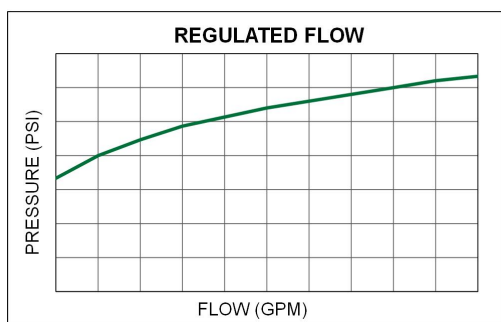
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

AN CARTRIDGE STYLE, DIRECT ACTING RELIEF VALVE THAT LIMITS MAXIMUM SYSTEM PRESSURE OR MAINTAINS A DESIRED PRESSURE WITHIN A CIRCUIT.

OPERATION

- FLOW FROM (2) TO (1) IS ALWAYS BLOCKED.
- FLOW FROM (1) TO (2) IS BLOCKED UNTIL THE SPECIFIED RELIEF PRESSURE SETTING HAS BEEN EXCEEDED.

FEATURES

- LIMITED ADJUSTABILITY.
- INDUSTRY COMMON CAVITY.
- QUIET OPERATION.
- LOW INTERNAL LEAKAGE.
- HARDENED SEAT.
- GUIDED POPPET.
- STEEL COMPONENTS.

SPECIFICATIONS

OPERATING PRESSURE	3500 PSI
RELIEF TOLERANCE	+/- 10%
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

49045 - XXXX - XX	
SERIES NUMBER	49045
RELIEF PRESSURE (PSI)	XXXX
100 - 3500 (PSI)*	
BODY PORT SIZE CODE	XX
BLANK.....	CARTRIDGE ONLY
SERIES CODE...	SEE "CARTRIDGE BODIES", X-2 SERIES
* AVAILABLE IN 50 PSI INCREMENTS 100-3500 PSI	

MODEL	THREAD	FLOW CAPACITY	CAVITY	L1	L2	HEX	A	TORQUE
49045	3/4 - 16	6.0 GPM	8-2	1.00	3.09	0.88	0.495 / 0.497	20 ft-lbs

CARTRIDGE BODIES



DESCRIPTION

STANDARD 2 WAY CARTRIDGE BODY FOR INDUSTRY COMMON CAVITIES WITH O-RING PORTS CONFORMING TO SAE J1926.

OPERATION

- FLOW DIRECTION IS DEPENDENT ON VALVE TO BE INSTALLED, CONSULT CARTRIDGE VALVE LITERATURE.

FEATURES

- TO ORDER A CARTRIDGE VALVE IN A BODY AS AN ASSEMBLY, ADD THE PORT DESIGNATOR DIGITS OF THE BODY PART NUMBER TO THE END OF THE CARTRIDGE VALVE NUMBER. EXAMPLE: 1810-3P
- CONSULT FACTORY FOR AVAILABILITY OF ALTERNATE MATERIALS.
- MANY PORT SIZE AND THREAD OPTIONS AVAILABLE.
- STANDARD BODIES ARE ALUMINUM

SPECIFICATIONS

PRESSURE RANGE 50 PSI TO 3500 PSI

TEMPERATURE RANGE 250°F TO -40°F

ORDERING INFORMATION

X - 2 - XX

CAVITY SIZE _____

CAVITY TYPE _____

(1) & (2) PORT DESIGNATOR _____

PORT	SIZE	CAVITY →	4	6	8	10	12	16
2P	1/4"	NPTF						
3P	3/8"							
4P	1/2"							
6P	3/4"							
8P	1"	SAE						
4T	-04							
6T	-06							
8T	-08							
10T	-10							
12T	-12							
16T	-16							

MODEL	THREAD	A	B	C	D	E	H	T	W	X
4-2	7/16 - 20	1.50	1.50	0.75	0.55	0.60	1.25	0.20	1.25	0.13
6-2	9/16 - 18	1.75	1.75	1.00	0.55	0.70	1.25	0.28	1.38	0.19
8-2	3/4 - 16	2.00	2.00	1.00	0.60	0.75	1.50	0.28	1.63	0.13
10-2	7/8 - 14	2.00	2.00	1.25	0.75	0.75	1.50	0.28	1.63	0.13
12-2	1 1/16 - 12	3.00	3.00	2.00	1.06	1.13	2.25	0.34	2.56	0.16
16-2	1 5/16 - 12	3.00	3.00	2.00	1.00	1.13	2.25	0.34	2.56	0.16

DESCRIPTION

STANDARD 3 WAY CARTRIDGE BODY FOR INDUSTRY COMMON CAVITIES WITH NPTF PORTS OR O-RING PORTS CONFORMING TO SAE J1926.

OPERATION

- FLOW DIRECTION IS DEPENDENT ON VALVE TO BE INSTALLED, CONSULT CARTRIDGE VALVE LITERATURE.

FEATURES

- CONSULT FACTORY FOR AVAILABILITY OF ALTERNATE MATERIALS.
- STANDARD BODIES ARE ALUMINUM
- TO ORDER A CARTRIDGE VALVE IN A BODY AS AN ASSEMBLY, ADD THE PORT DESIGNATOR DIGITS OF THE BODY PART NUMBER TO THE END OF THE CARTRIDGE VALVE NUMBER. EXAMPLE: 1710-2P
- MANY PORT SIZE AND THREAD OPTIONS AVAILABLE.

SPECIFICATIONS

PRESSURE RANGE	50 PSI TO 3500 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

X - 3 - XX X

CAVITY SIZE _____

CAVITY TYPE _____

PORT DESIGNATOR _____

PORT	SIZE	CAVITY →	6	8	10	12	16
2P	1/4"	NPTF					
3P	3/8"						
4P	1/2"						
6P	3/4"						
8P	1"						
4T	-.04	SAE					
6T	-.06						
8T	-.08						
10T	-.10						
12T	-.12						
16T	-.16						

PORT (3) INDICATOR _____

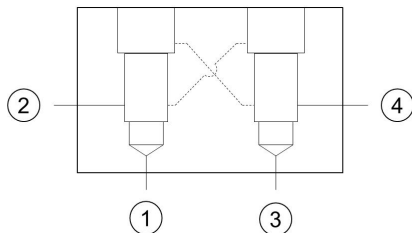
BLANK..... ALL PORTS SAME SIZE

C..... 1/4" NPTF OR -.06 SAE* AT PORT (3)

* -.04 SAE PORT IF 6T

MODEL	THREAD	A	B	C	D	E	H	T	W	X
6-3-XX	9/16 - 18	2.00	2.00	1.00	0.55	0.95	1.75	0.20	1.75	0.13
8-3-XX	3/4 - 16	2.50	2.62	1.00	0.60	1.17	2.12	0.28	2.00	0.25
8-3S-XX	3/4 - 16	2.50	2.50	1.00	0.51	1.06	2.00	0.28	2.00	0.25
10-3-XX	7/8 - 14	2.50	2.62	1.25	0.75	1.36	2.12	0.28	2.00	0.25
10-3S-XX	7/8 - 14	2.50	2.62	1.25	0.59	1.25	2.12	0.28	2.00	0.25
12-3-XX	1 1/16 - 12	4.00	4.00	2.00	1.15	2.12	3.25	0.34	3.62	0.19
12-3S-XX	1 1/16 - 12	3.25	3.50	1.50	0.91	1.66	3.00	0.34	2.50	0.38
16-3-XX	1 5/16 - 12	4.00	4.00	2.00	1.00	2.12	3.25	0.34	3.62	0.19

SCHEMATIC



DESCRIPTION

STANDARD 3 WAY DUAL CARTRIDGE BODY WITH CROSS-PILOTED INDUSTRY COMMON CAVITIES, WITH NPTF PORTS OR O-RING PORTS CONFORMING TO SAE J1926.

OPERATION

- FLOW DIRECTION IS DEPENDENT ON VALVE TO BE INSTALLED, CONSULT CARTRIDGE VALVE LITERATURE.

FEATURES

- STANDARD BODIES ARE ALUMINUM
- CONSULT FACTORY FOR AVAILABILITY OF ALTERNATE MATERIALS.
- TO ORDER A CARTRIDGE VALVE IN A BODY AS AN ASSEMBLY, ADD THE PORT DESIGNATOR DIGITS OF THE BODY PART NUMBER TO THE END OF THE CARTRIDGE VALVE NUMBER. EXAMPLE: 5008-3-3000-D8T
- MANY PORT SIZE AND THREAD OPTIONS AVAILABLE.

SPECIFICATIONS

PRESSURE RANGE 50 PSI TO 3500 PSI

TEMPERATURE RANGE 250°F TO -40°F

ORDERING INFORMATION

X - 3 - D XX

CAVITY SIZE _____

CAVITY TYPE _____

PORT DESIGNATOR _____

PORT	SIZE	CAVITY →	6	8	10	12	16
2P	1/4"	NPTF					
3P	3/8"						
4P	1/2"						
6P	3/4"						
8P	1"						
4T	-04	SAE					
6T	-06						
8T	-08						
10T	-10						
12T	-12						
16T	-16						

MODEL	THREAD	A	B	C	D	E	F	H	R	W	X
6-3-DXX	9/16 - 18	3.00	2.00	1.00	0.95	1.00	1.00	0.38	0.28	2.50	0.25
8-3-DXX	3/4 - 16	3.50	2.62	1.00	1.17	1.15	1.20	0.50	0.28	3.00	0.25
8-3S-DXX	3/4 - 16	3.50	2.50	1.00	1.06	1.15	1.20	0.38	0.28	3.00	0.25
10-3-DXX	7/8 - 14	4.00	2.62	1.25	1.36	1.33	1.34	0.50	0.34	3.00	0.50
10-3S-DXX	7/8 - 14	4.00	2.62	1.25	1.25	1.33	1.34	0.50	0.34	3.00	0.50
12-3-DXX	1 1/16 - 12	5.00	4.00	2.00	2.12	1.60	1.80	0.75	0.34	4.25	0.38
12-3S-DXX	1 1/16 - 12	5.00	3.50	2.00	1.66	1.60	1.80	0.50	0.34	4.25	0.38
16-3-DXX	1 5/16 - 12	5.50	4.00	2.00	2.12	1.75	2.00	0.75	0.34	4.75	0.38

DESCRIPTION

3 WAY CARTRIDGE BODY FOR T SERIES CAVITIES WITH NPTF PORTS OR O-RING PORTS CONFORMING TO SAE J1926.

OPERATION

- FLOW DIRECTION IS DEPENDENT ON VALVE TO BE INSTALLED, CONSULT CARTRIDGE VALVE LITERATURE.

FEATURES

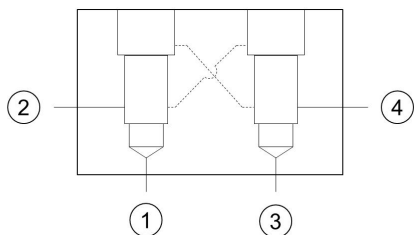
- MANY PORT SIZE AND THREAD OPTIONS AVAILABLE.
- STANDARD BODIES ARE ALUMINUM
- CONSULT FACTORY FOR AVAILABILITY OF ALTERNATE MATERIALS.
- TO ORDER A CARTRIDGE VALVE IN A BODY AS AN ASSEMBLY, ADD THE PORT DESIGNATOR DIGITS OF THE BODY PART NUMBER TO THE END OF THE CARTRIDGE VALVE NUMBER. EXAMPLE: 55T11-4-3000-8T

SPECIFICATIONS

PRESSURE RANGE	50 PSI TO 3500 PSI
TEMPERATURE RANGE	250°F TO -40°F

MODEL	THREAD	A	B	C	D	E	H	R	W	X	L (MIN.)
T163-XX	M16 X 1.5-6H	2.00	3.00	1.00	0.44	1.27	2.13	0.28	0.44	0.28	0.61
T11-XX	M20 X 1.5-6H	2.50	3.00	1.25	0.47	1.44	2.13	0.34	0.44	0.38	0.69
T2-XX	1-14 UNS-2B	3.00	3.25	1.50	0.59	1.50	2.25	0.42	0.50	0.50	0.72
T17-XX	M36 X 2.0-6H	4.00	4.25	2.25	0.81	2.125	2.75	0.42	0.75	0.75	0.91

SCHEMATIC



DESCRIPTION

3 WAY DUAL CARTRIDGE BODY WITH CROSS-PILOTED T SERIES CAVITIES WITH NPTF PORTS OR O-RING PORTS CONFORMING TO SAE J1926.

OPERATION

- FLOW DIRECTION IS DEPENDENT ON VALVE TO BE INSTALLED, CONSULT CARTRIDGE VALVE LITERATURE.

FEATURES

- TO ORDER A CARTRIDGE VALVE IN A BODY AS AN ASSEMBLY, ADD THE PORT DESIGNATOR DIGITS OF THE BODY PART NUMBER TO THE END OF THE CARTRIDGE VALVE NUMBER. EXAMPLE: 55T2-3-3000-D6P
- MANY PORT SIZE AND THREAD OPTIONS AVAILABLE.
- STANDARD BODIES ARE ALUMINUM
- CONSULT FACTORY FOR AVAILABILITY OF ALTERNATE MATERIALS.

SPECIFICATIONS

PRESSURE RANGE	50 PSI TO 3500 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

T XX - D XX

MANIFOLD SERIES _____
FOR INTEGRATED MANIFOLD USE COUNTERBALANCE
 ASSEMBLY NUMBER WITH PORT DESIGNATOR ONLY

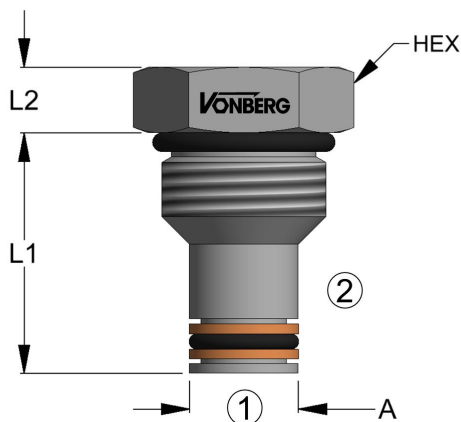
MANIFOLD DESIGNATOR _____
 163..... T-163A CAVITY 11..... T-11A CAVITY
 2 T-2A CAVITY

PORT DESIGNATOR _____

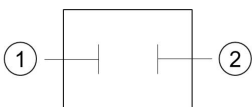
	ALL PORTS	T163	T11	T2
2P	1/4 NPTF			
3P	3/8 NPTF			
4P	1/2 NPTF			
6P	3/4 NPTF			
4T	-04 SAE			
6T	-06 SAE			
8T	-08 SAE			
10T	-10 SAE			
12T	-12 SAE			

MODEL	THREAD	A	B	C	D	E	F	H	R	X	W
T163-DXX	M16X1.5-6H	3.00	3.00	1.00	1.27	0.96	1.08	0.28	0.28	0.25	2.50
T11-DXX	M20X1.5-6H	4.00	3.00	1.25	1.44	1.25	1.50	0.50	0.34	0.38	3.25
T2-DXX	1-14 UNS-2B	4.50	3.25	1.50	1.50	1.50	1.50	0.50	0.34	0.50	3.50

PRODUCT



SCHEMATIC



DESCRIPTION

A CARTRIDGE STYLE, 2-WAY CAVITY PLUG INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLUID FLOW IS BLOCK IN BOTH DIRECTIONS.

FEATURES

- STEEL BODY.
- BUNA O-RINGS AND BACK-UP RINGS.
- INDUSTRY COMMON CAVITY.
- ALTERNATE SEAL MATERIAL IS AVAILABLE ON REQUEST.

SPECIFICATIONS

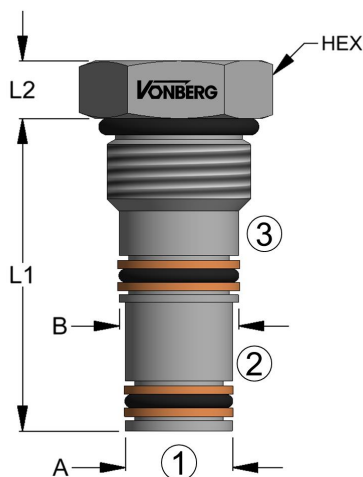
OPERATING PRESSURE	3500 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

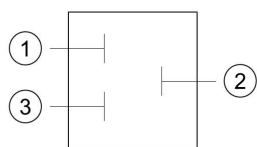
SERIES NUMBER	92	XX
CAVITY SIZE		

MODEL	THREAD	CAVITY	L1	L2	HEX	A	TORQUE (FT-LBS.)
9204	7/16-20	VC04-2	0.94	0.19	0.56	0.277/0.278	10
9206	9/16-18	FC06-2	0.84	0.19	0.69	0.467/0.468	15
9208	3/4-16	VC08-2	1.10	0.30	0.88	0.495/0.497	20
9210	7/8-14	VC10-2	1.25	0.30	1.00	0.621/0.623	25
9212	1 1/16-12	VC12-2	1.81	0.34	1.25	0.870/0.873	40
9216	1 5/16-12	VC16-2	1.75	0.38	1.50	1.121/1.123	60

PRODUCT



SCHEMATIC



DESCRIPTION

A CARTRIDGE STYLE, 3-WAY CAVITY PLUG INTENDED FOR BLOCKING FLUID FLOW.

OPERATION

- FLUID FLOW IS BLOCKED IN ALL DIRECTIONS.
- SPECIAL PORT CONFIGURATIONS AVAILABLE, SEE ORDERING INFORMATION.

FEATURES

- STEEL BODY.
- BUNA O-RINGS AND BACK-UP RINGS.
- INDUSTRY COMMON CAVITY.
- ALTERNATE SEAL MATERIAL IS AVAILABLE ON REQUEST.

SPECIFICATIONS

OPERATING PRESSURE	3500 PSI
TEMPERATURE RANGE	250°F TO -40°F

ORDERING INFORMATION

SERIES NUMBER 93 CAVITY SIZE XX PORT CONFIGURATION CODE X

	PORT: O = OPEN		
	1	2	3
BLANK	X	X	X
A	O	O	X
B	O	X	O
C	X	O	O

Model	Thread	Cavity	L1	L2	HEX	A	B	Torque (ft-lbs.)
9304	7/16 - 20	C04-3	1.24	0.30	0.56	0.309/0.310	0.340/0.341	10
9306	9/16 - 18	FC06-3	1.23	0.30	0.69	0.438/0.439	0.467/0.468	15
9308	3/4 - 16	VC08-3	1.63	0.30	0.88	0.558/0.560	0.621/0.623	20
9310	7/8 - 14	VC10-3	1.85	0.30	1.00	0.621/0.623	0.683/0.685	25
9310S	7/8 - 14	VC10-S3	1.85	0.30	1.25	0.683/0.685	0.746/0.748	25
9312	1 1/16 - 12	VC12-3	2.63	0.31	1.25	0.870/0.873	0.933/0.935	40
9312S	1 1/16 - 12	C12-3S	2.25	0.31	1.25	0.870/0.873	0.933/0.935	40
9316	1 5/16 - 12	VC16-3	2.88	0.38	1.50	1.058/1.060	1.121/1.123	60