VONBERG

PRODUCT CATALOG

Vonberg Valve, inc.
Hydraulic Valve Specialists

1380 Norwood Avenue • Itasca, IL 60143 USA © 2015
phone: 847-259-3800 • fax: 847-259-3997 • email: info@vonberg.com

FLOW REGULATING VALVES

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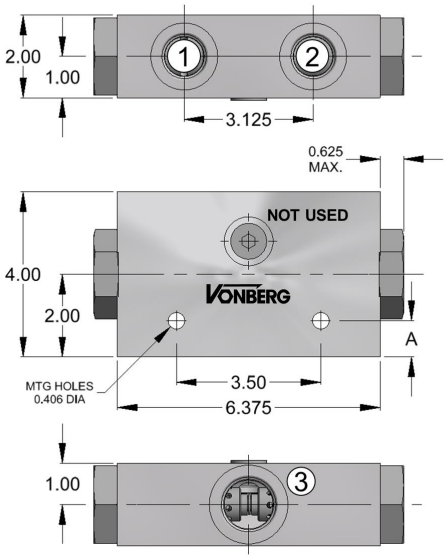
FLOW DIVIDER & COMBINER

FLOW REGULATING VALVES
INLINE
270X1 SERIES
SPOOL TYPE

PRODUCT



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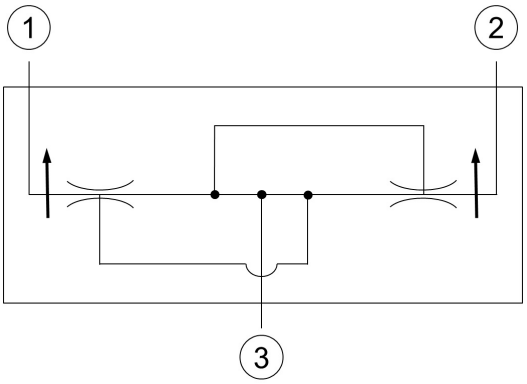


DESCRIPTION

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.

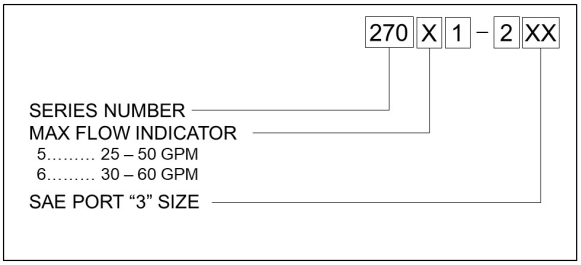
FEATURES

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

ORDERING INFORMATION



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

10/2/20, 2:39 PM

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

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

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DESCRIPTION

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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

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	.0.38	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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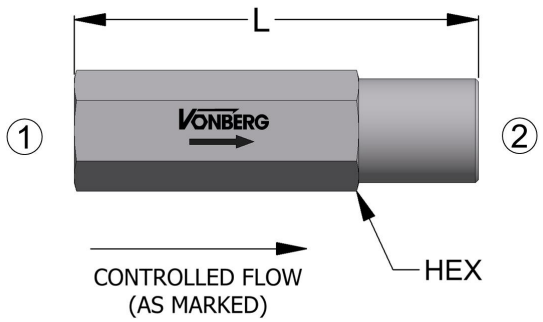
FLOW REGULATOR

PRODUCT



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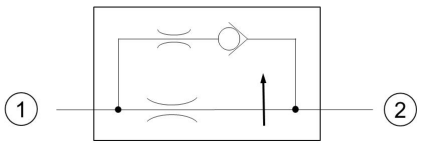
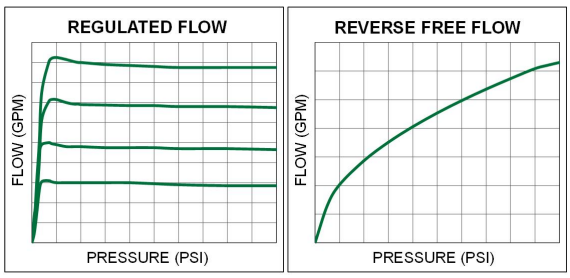


TYPICAL PERFORMANCE



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.

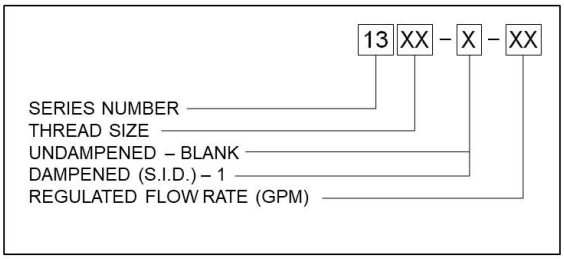
FEATURES

- 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

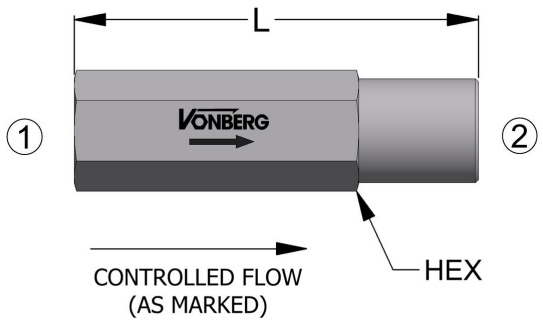
ORDERING INFORMATION



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

12/5/18, 6:08 PM

PRODUCT



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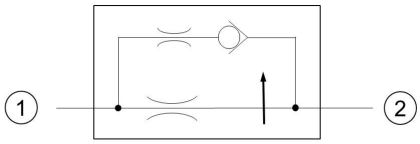
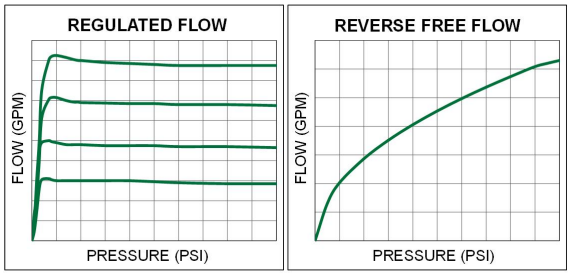


TYPICAL PERFORMANCE



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.

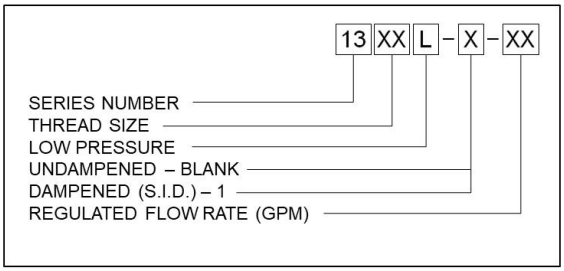
FEATURES

- 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



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

9/5/18, 4:37 PM

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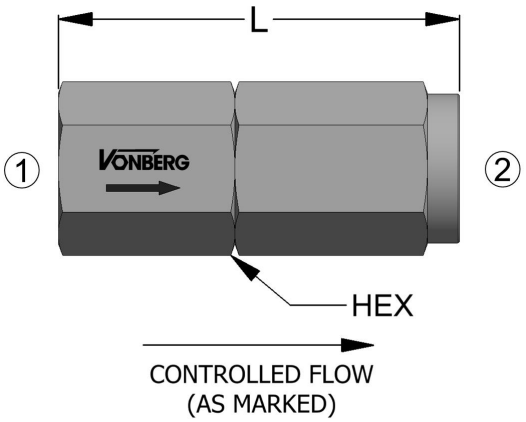
FLOW REGULATOR

PRODUCT



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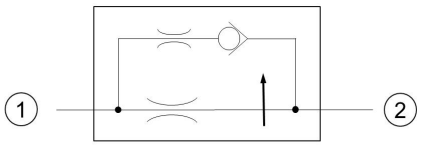

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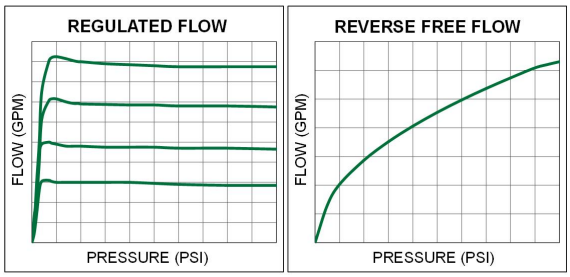

DESCRIPTION

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

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

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FLOW REGULATOR

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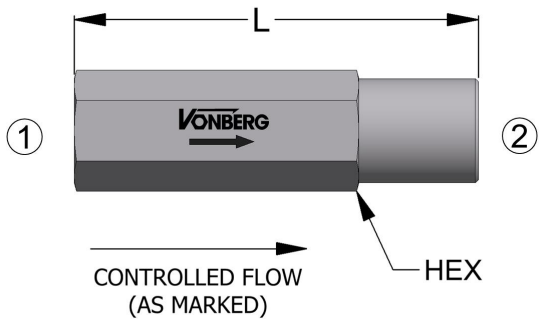

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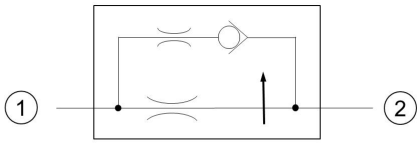

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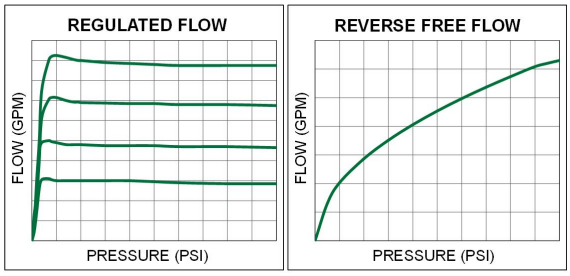


DESCRIPTION

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.

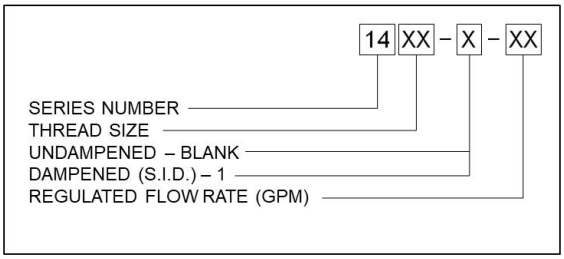
FEATURES

- 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



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

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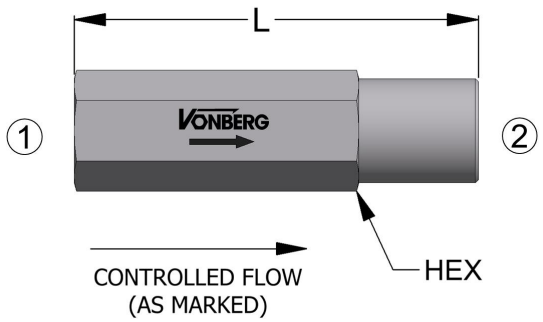
PRODUCT



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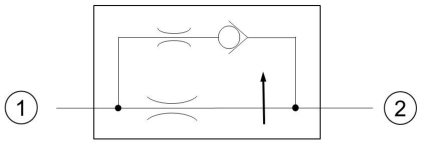
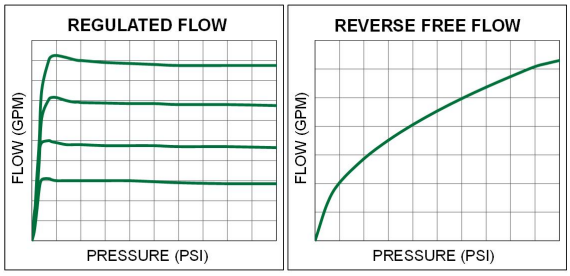


TYPICAL PERFORMANCE



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.

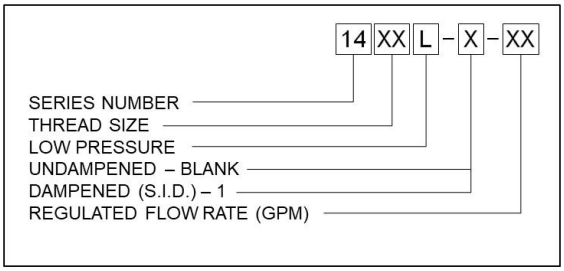
FEATURES

- 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



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

11/14/18, 7:15 PM

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FLOW REGULATOR

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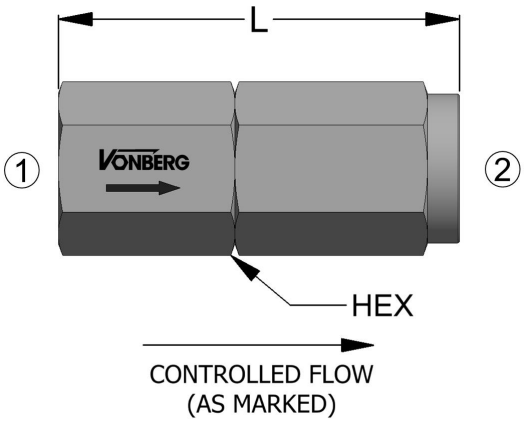

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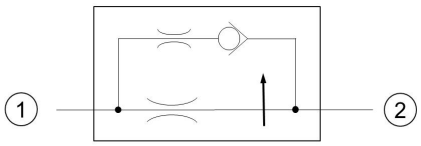

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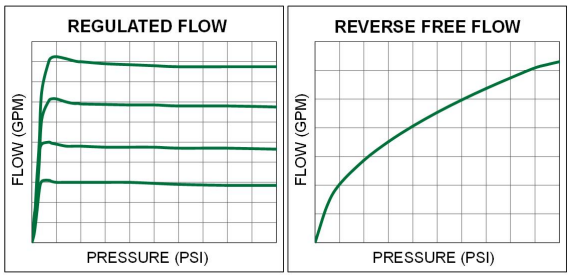


DESCRIPTION

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.

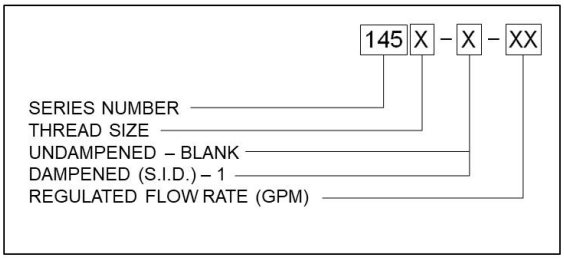
FEATURES

- 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



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

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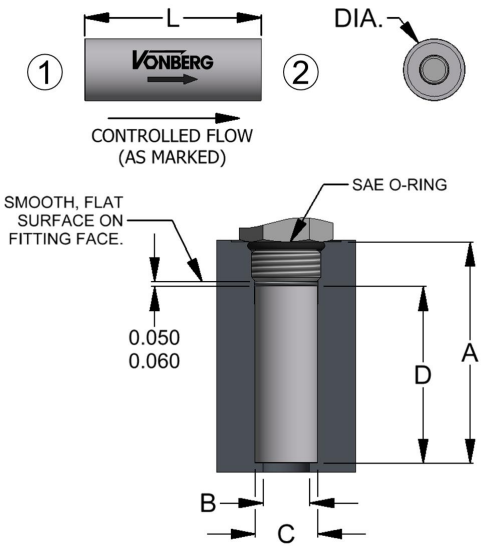
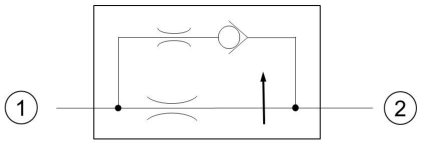
FLOW REGULATOR

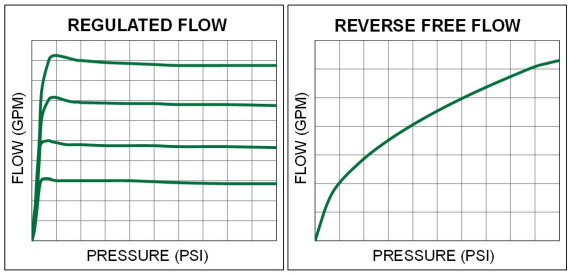
PRODUCT



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.

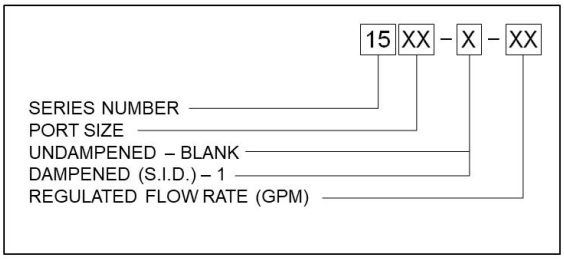
FEATURES

- 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



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

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DESCRIPTION

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

OPERATION

- THIS REGULATOR WILL MAINTAIN A CONSTANT FLOW RATE FROM (2) TO (3) AND FROM (3) TO (2) THROUGHOUT A SPECIFIED PRESSURE RANGE.
- PORT 1 MUST BE BLOCKED

FEATURES

- INDUSTRY COMMON CAVITY
- HYDRAULIC FLUIDS - GENERAL
- STEEL BODY, STEEL INTERNALS

SPECIFICATIONS

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

MODEL	THREAD	FLOW RANGE	CAVITY	L1	L2	HEX	A	TORQUE
2210	7/8 - 14	0.25 TO 3.0 GPM	VC10-3	1.85	0.56	1.00	0.683/0.685	25 ft-lbs

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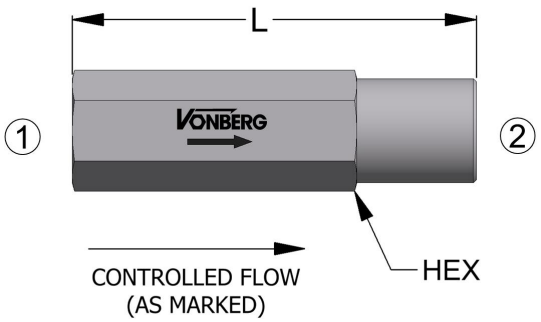
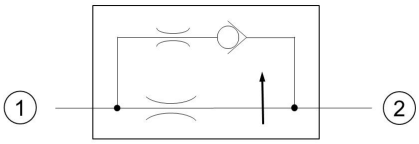
FLOW REGULATOR

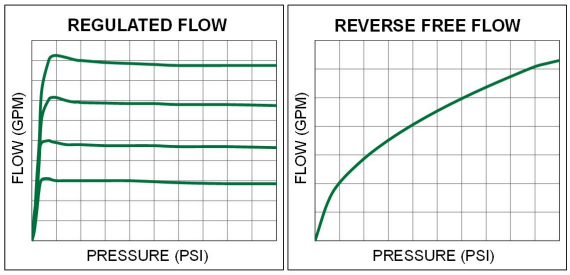
PRODUCT



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.

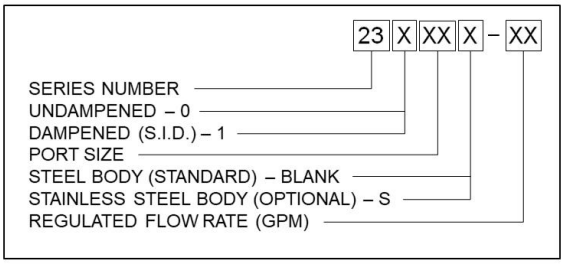
FEATURES

- 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



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

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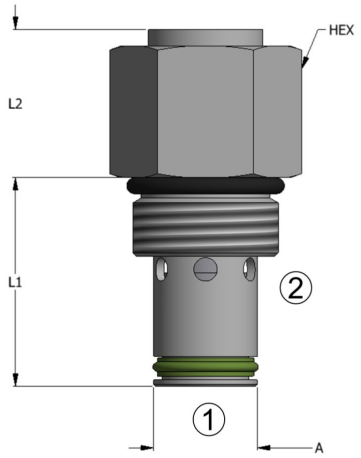
PRODUCT



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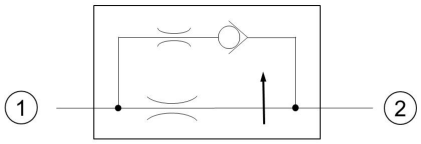
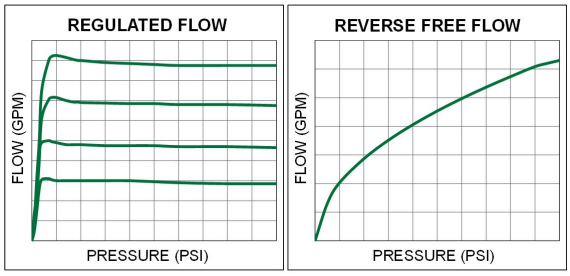


TYPICAL PERFORMANCE



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.

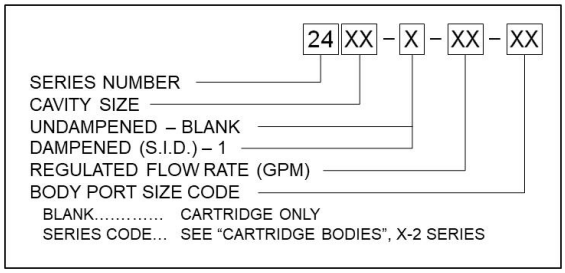
FEATURES

- 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



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

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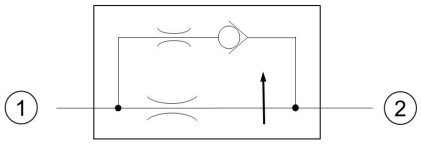
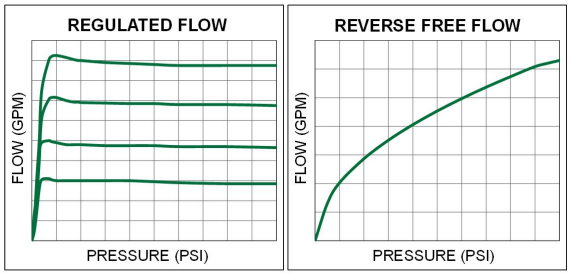
FLOW REGULATOR

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.

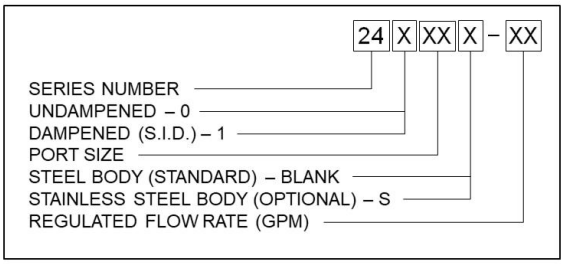
FEATURES

- 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



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

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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

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

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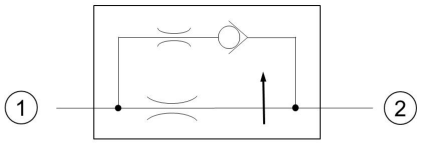
FLOW REGULATOR

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

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

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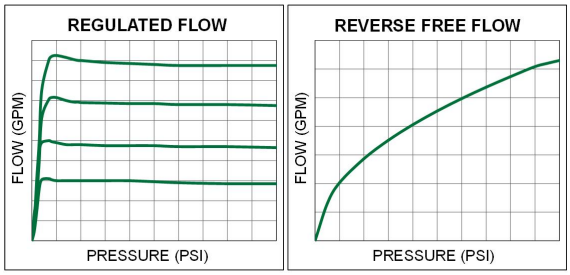
FLOW REGULATOR

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.

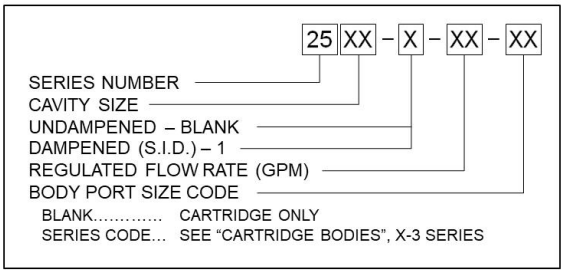
FEATURES

- 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



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

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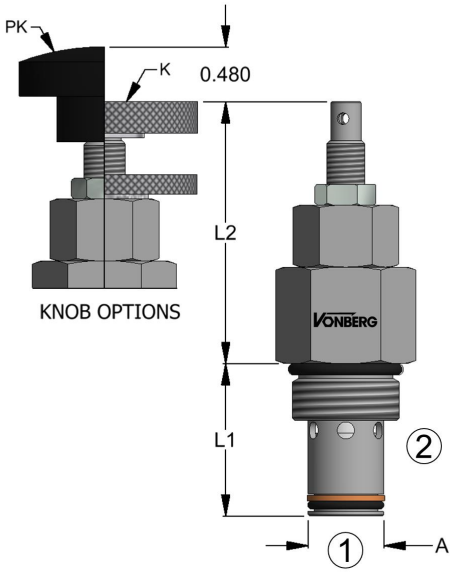
FLOW REGULATOR

PRODUCT



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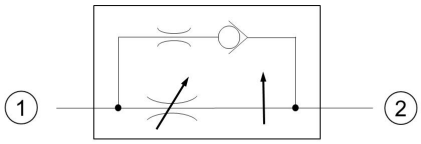
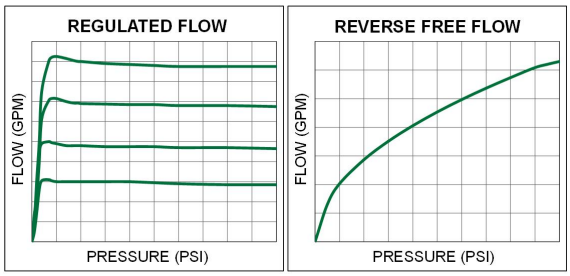


TYPICAL PERFORMANCE



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.

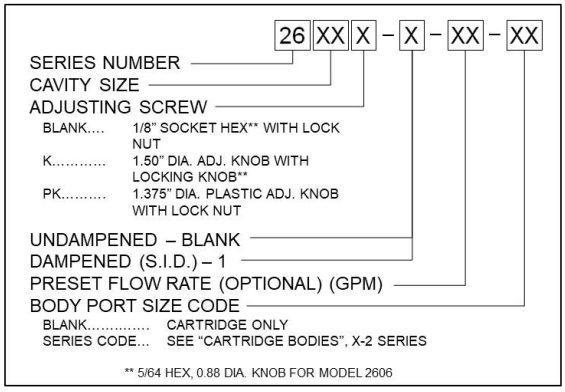
FEATURES

- 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



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

12/30/22, 10:34 PM

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

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

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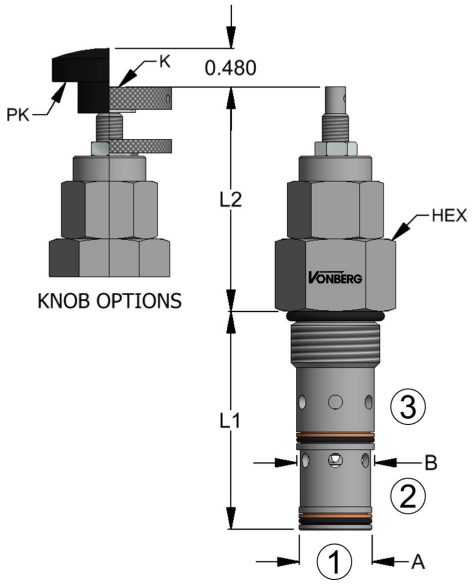
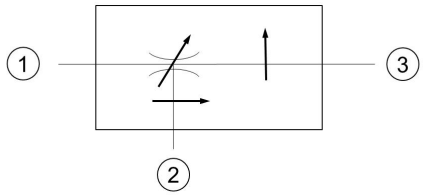
FLOW REGULATOR

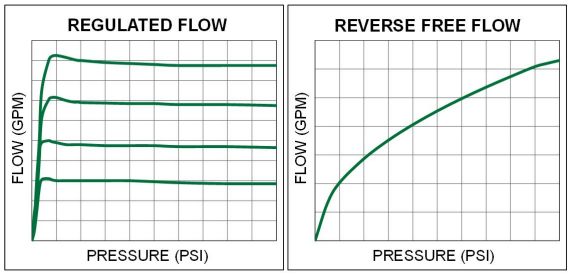
PRODUCT



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.

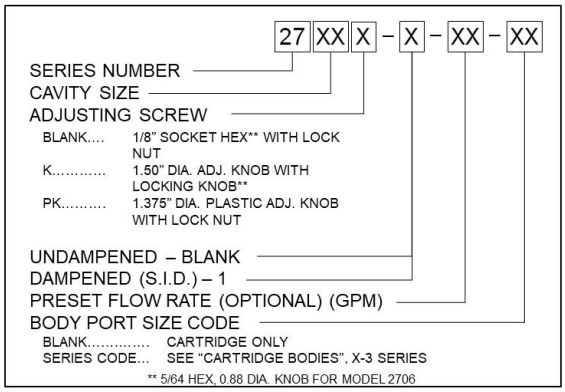
FEATURES

- 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



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

11/14/18, 7:39 PM

DESCRIPTION

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

OPERATION

- CLOCKWISE 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

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

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FLOW REGULATOR

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

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	0683 / 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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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

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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 ADJUSTABLITY.
- 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

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

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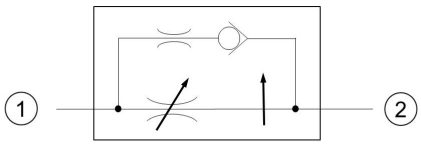
FLOW REGULATOR

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 ADJUSTABLITY.

SPECIFICATIONS

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

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

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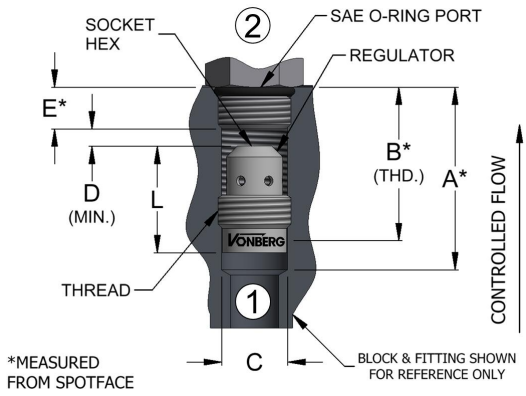
PRODUCT



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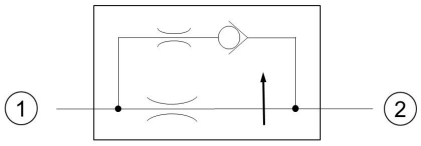


DESCRIPTION

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.

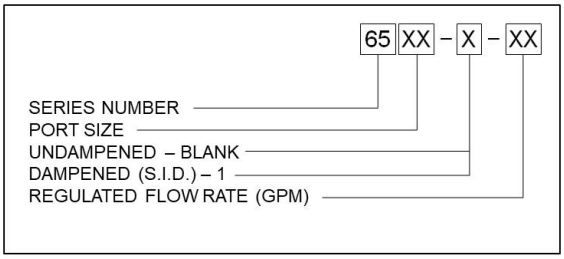
FEATURES

- 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



Model	THREAD	FLOW RANGE	L	A	B	C	D	E	HEX	TORQUE
6504	7/16-20	0.4 TO 1.50 GPM	0.700	1.35	1.15	0.385 - 0.395	0.10	0.360	0.187	2 ft-lbs
6506	9/16 - 18	0.25 TO 2.5 GPM	0.720	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

7/6/21, 8:06 PM

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DIRECTIONAL VALVES

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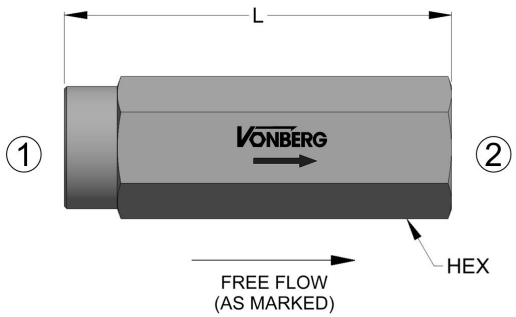
CHECK VALVE - BALL

PRODUCT



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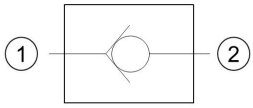
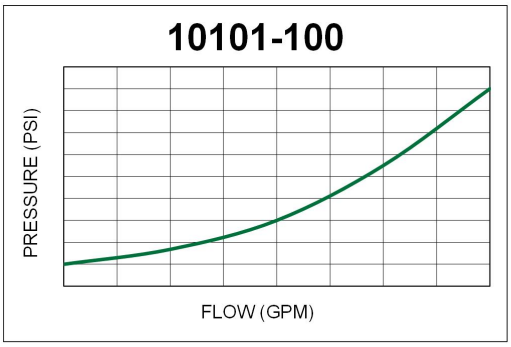


TYPICAL PERFORMANCE



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.

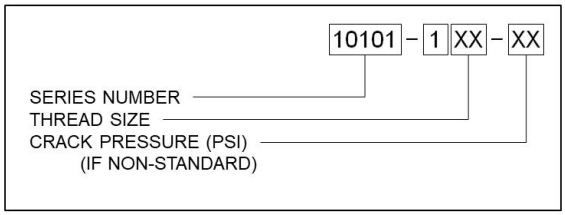
FEATURES

- 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

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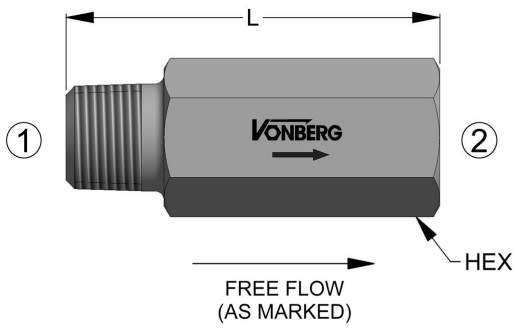
CHECK VALVE - BALL

PRODUCT



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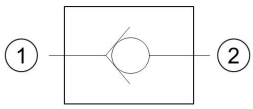
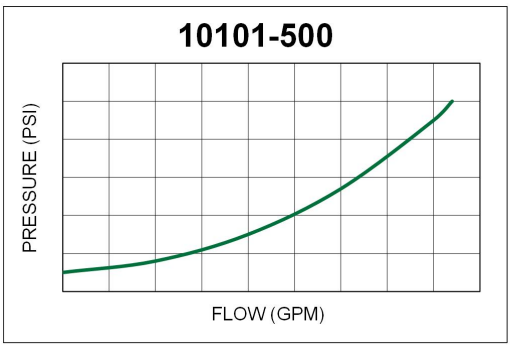


TYPICAL PERFORMANCE



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.

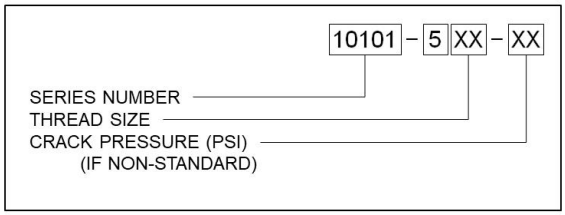
FEATURES

- 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

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CHECK VALVE - BALL

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 PRESSURE DROP
- 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

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

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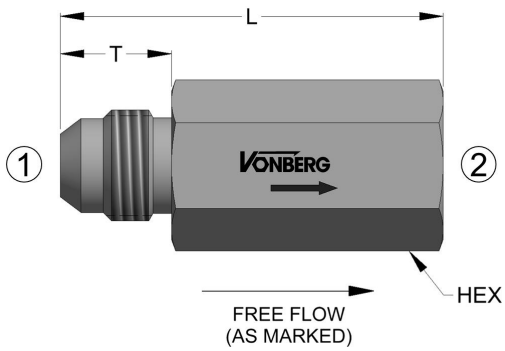
CHECK VALVE - BALL

PRODUCT



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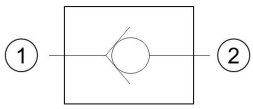
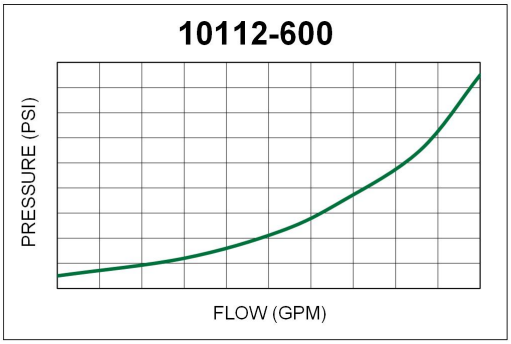


TYPICAL PERFORMANCE



DESCRIPTION

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

OPERATION

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FEATURES

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- 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

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

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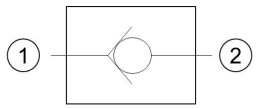
CHECK VALVE - BALL

SCHEMATIC



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

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

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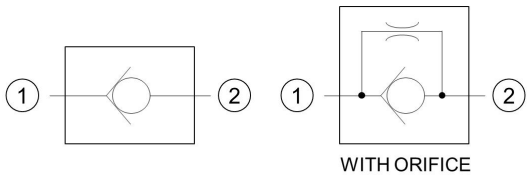
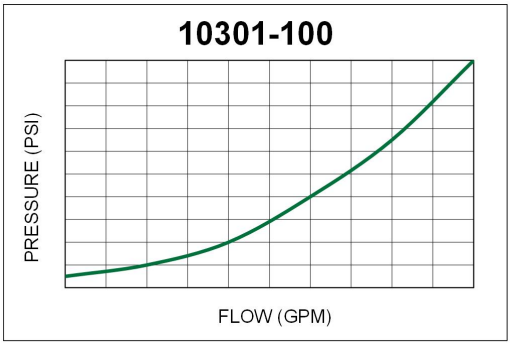


TYPICAL PERFORMANCE



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.

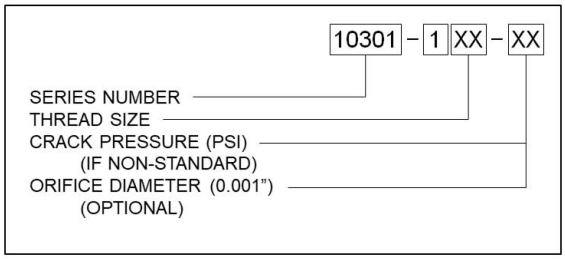
FEATURES

- 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



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

6/16/20, 11:12 PM

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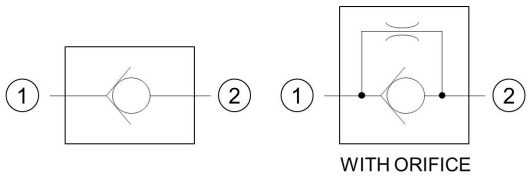
SCHEMATIC



DESCRIPTION

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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

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

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SPECIFICATIONS

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

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

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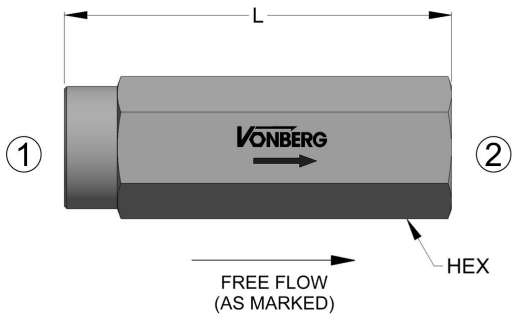
CHECK VALVE - POPPET

PRODUCT



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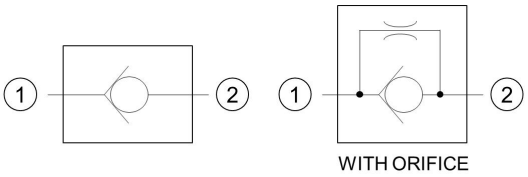
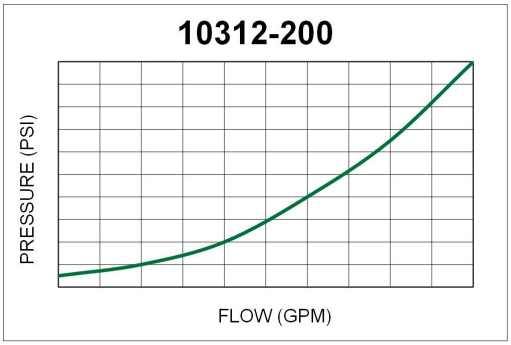


TYPICAL PERFORMANCE



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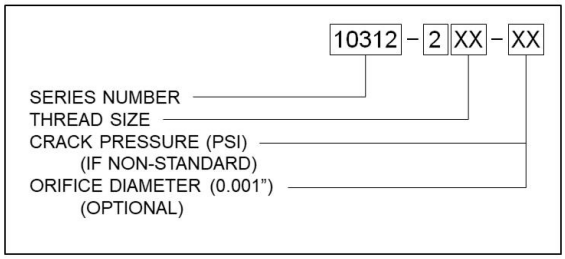
- LOW PRESSURE DROP.
- NO INTERNAL PACKINGS.
- LOW INTERNAL LEAKAGE, 5 DPM.
- ALUMINUM BODY AND STEEL POPPET.

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

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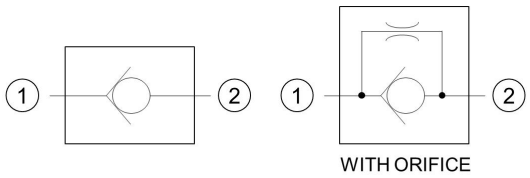
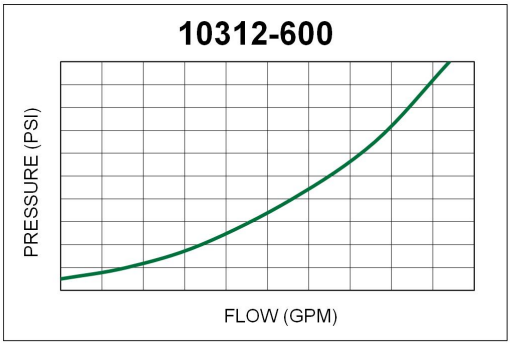
SCHEMATIC



TYPICAL PERFORMANCE



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SPECIFICATIONS

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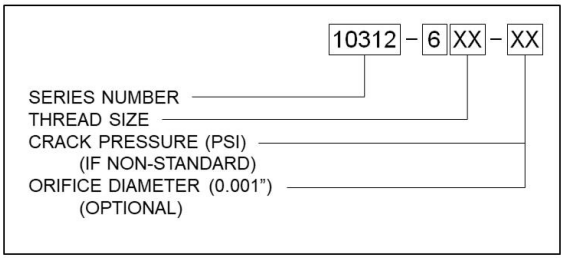
TEMPERATURE RANGE	250° F TO -40° F

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

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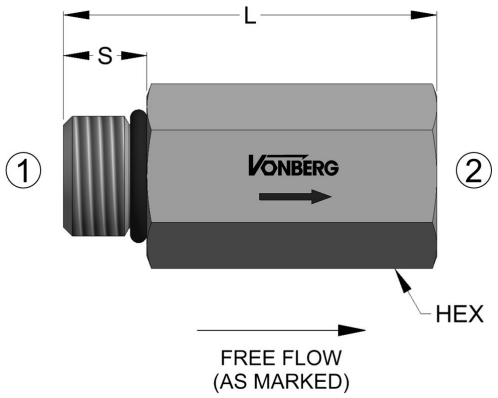
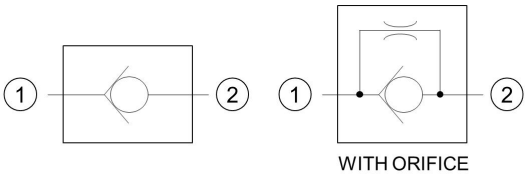
CHECK VALVE - POPPET

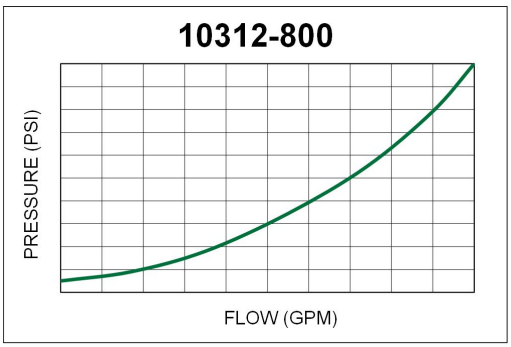
PRODUCT



SCHEMATIC



TYPICAL PERFORMANCE



DESCRIPTION

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

OPERATION

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FEATURES

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

SPECIFICATIONS

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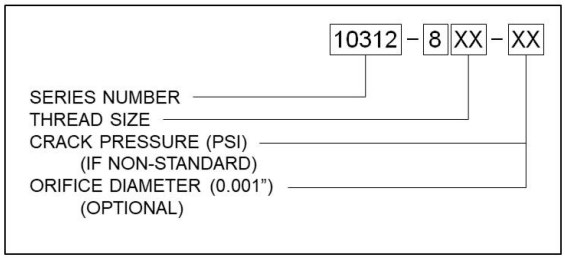
STANDARD CRACK PRESSURE	3-5 PSI
TEMPERATURE RANGE	250° F TO -40° F

ORDERING INFORMATION



MODEL	INLET 1	OUTLET 2	THREAD	FLOW CAPACITY	L	HEX
10312-804	-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

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CHECK VALVE - POPPET

DESCRIPTION

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FEATURES

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- 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

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

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MODEL	INLET / OUTLET	THREAD	FLOW CAPACITY	L	T	HEX
10412-604	-04 JIC	7/16-20	5.0 GPM	2.72	0.550	0.625
10412-606	-06 JIC	9/16-18	5.0 GPM	2.85	0.555	0.750
10412-608	-08 JIC	3/4-16	20.0 GPM	3.75	0.657	0.937
10412-610	-10 JIC	7/8-14	30.0 GPM	4.45	0.750	1.125
10412-612	-12 JIC	1 1/16-12	40.0 GPM	5.13	0.864	1.375
10412-616	-16 JIC	1 5/16-12	50.0 GPM	5.95	0.910	1.625
10412-620	-20 JIC	1 5/8-12	60.0 GPM	6.35	0.960	2.000

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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

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

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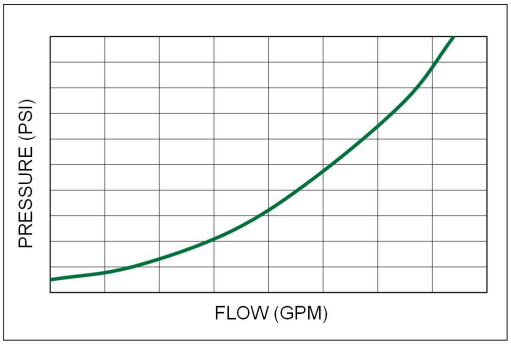
TYPICAL PERFORMANCE



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.

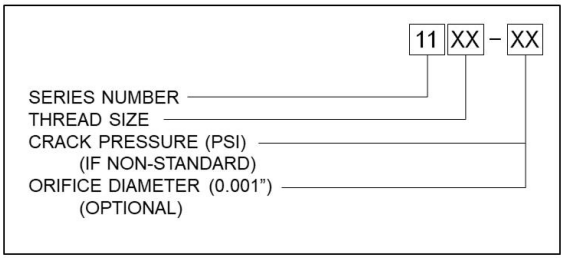
FEATURES

- 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



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

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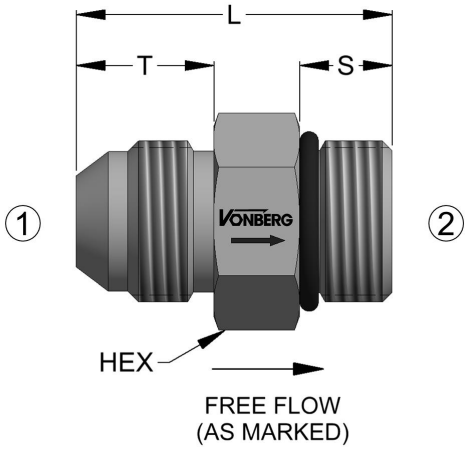
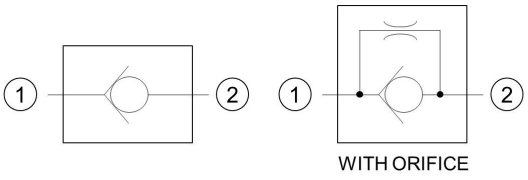
CHECK VALVE - POPPET

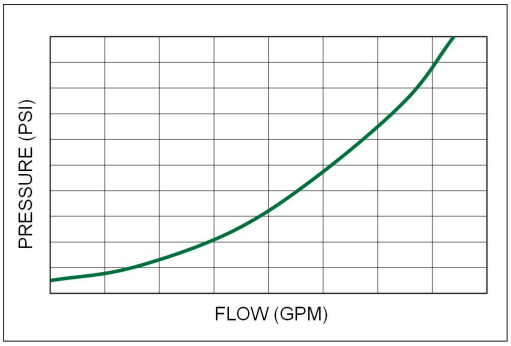
PRODUCT



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.

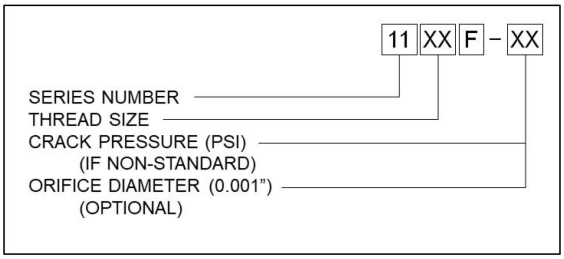
FEATURES

- 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



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

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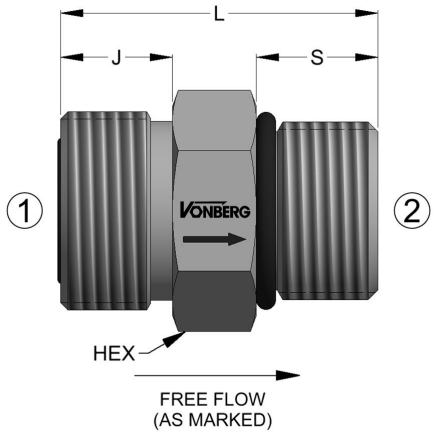
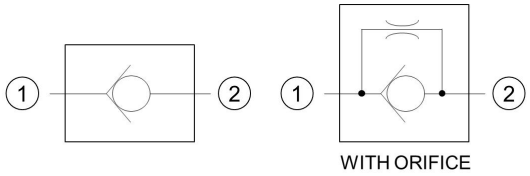
CHECK VALVE - POPPET

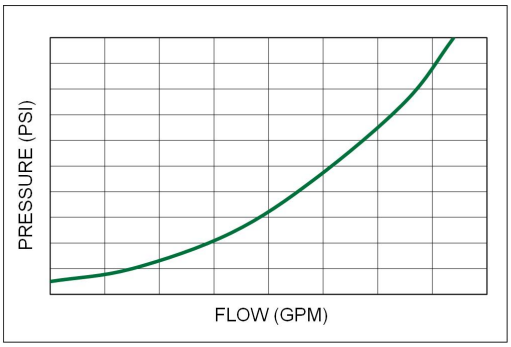
PRODUCT



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.

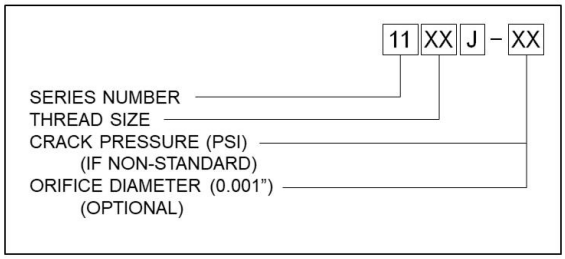
FEATURES

- 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

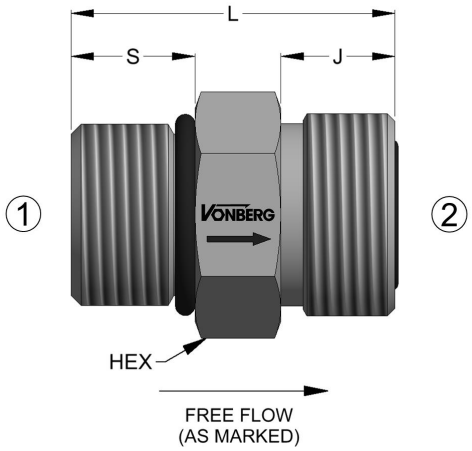
ORDERING INFORMATION



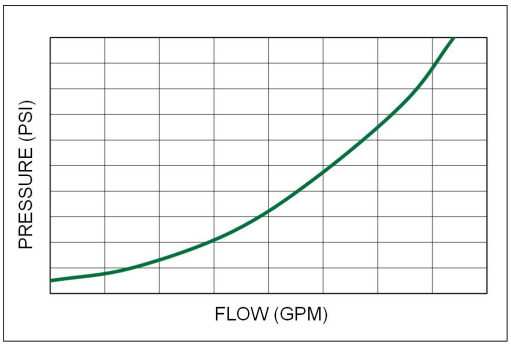
MODEL	INLET 1	OUTLET 2	L	J	S	HEX
1104J	-04 ORS - 9/16-18	-04 SAE - 7/16-20	1.07	0.38	0.43	0.625
1106J	-06 ORS - 11/16-16	-06 SAE - 9/16-18	1.16	0.44	0.47	0.750
1108J	-08 ORS - 13/16-16	-08 SAE - 3/4-16	1.40	0.50	0.55	0.875
1110J	-10 ORS - 1-14	-10 SAE - 7/8-14	1.65	0.61	0.63	1.125
1112J	-12 ORS - 1 3/16-12	-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
1181J	-08 ORS - 13/16-16	-10 SAE - 7/8-14	1.90	0.50	0.63	1.13

1/4/22, 5:21 PM

PRODUCT



TYPICAL PERFORMANCE



DESCRIPTION

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

OPERATION

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- 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

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	0.55	0.44	0.875

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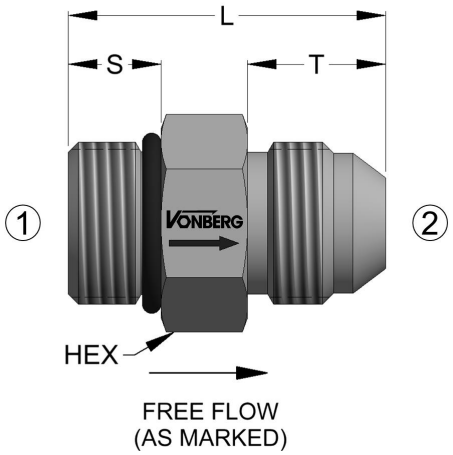
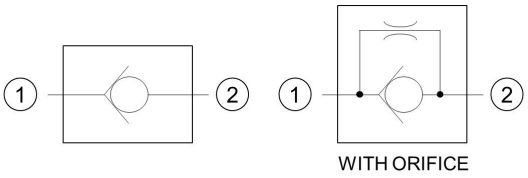
CHECK VALVE - POPPET

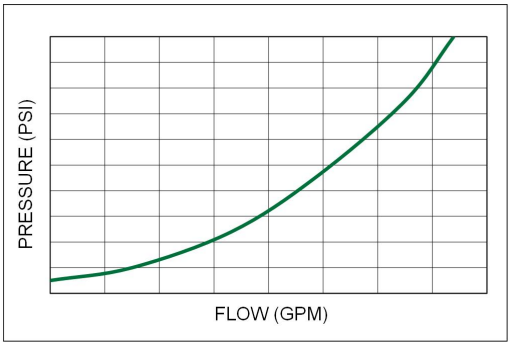
PRODUCT



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.

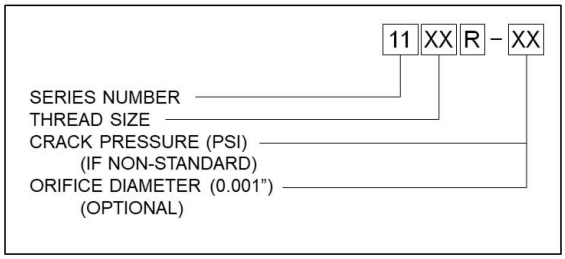
FEATURES

- 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



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

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CHECK VALVE - POPPET

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

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
1208TJ	M20 X 2.5	1.30	1.63	1.45	0.681-0.697	0.359	0.44	0.250	8 ft-lbs

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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

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

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CHECK VALVE - POPPET

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

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

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CHECK VALVE - POPPET

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

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

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DESCRIPTION

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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

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

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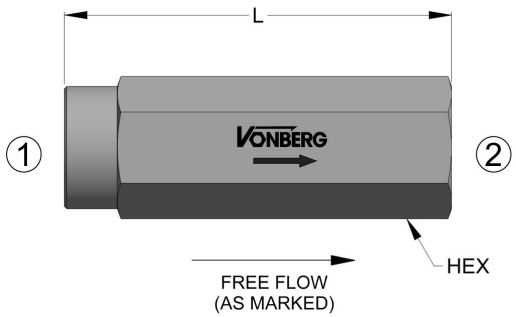
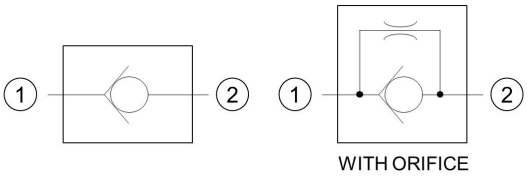
CHECK VALVE - POPPET

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.

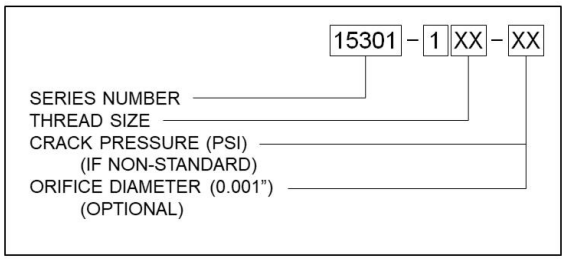
FEATURES

- SPECIAL CRACK PRESSURES AVAILABLE UPON REQUEST.
- LOW 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 / 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

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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.

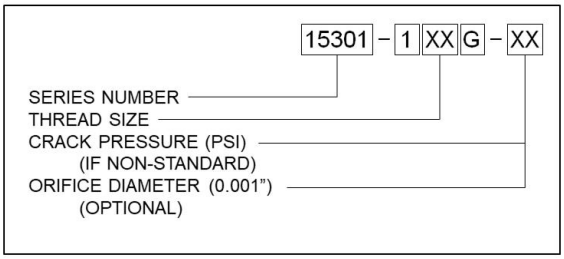
FEATURES

- 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



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

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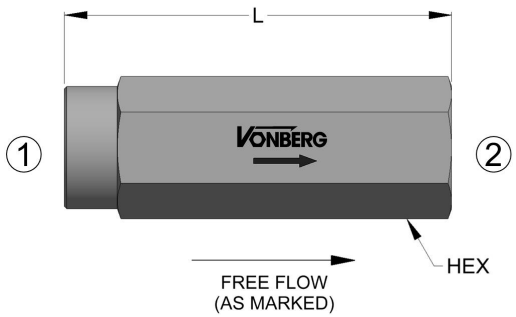
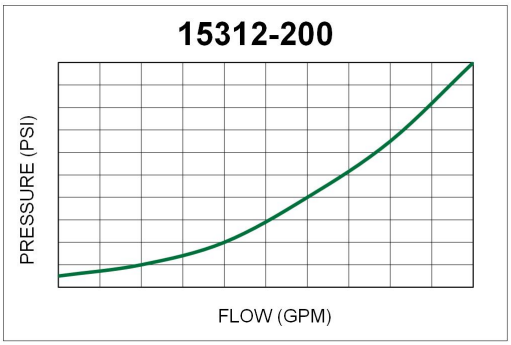
CHECK VALVE - POPPET

PRODUCT



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.

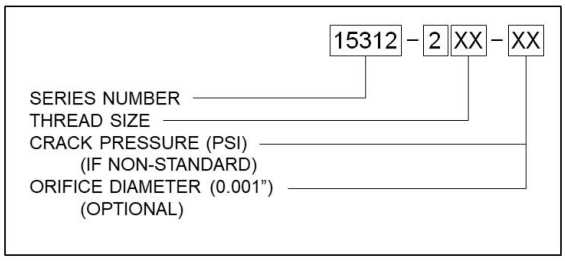
FEATURES

- 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

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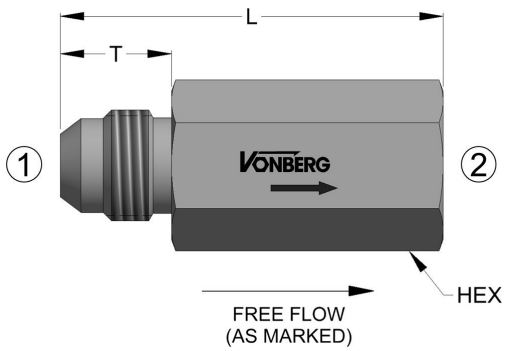
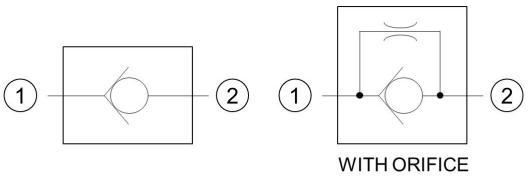
PRODUCT



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 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

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

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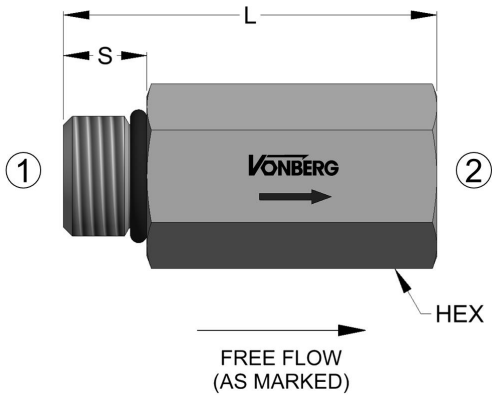
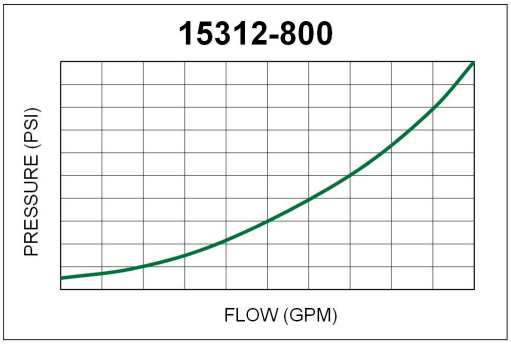
CHECK VALVE - POPPET

PRODUCT



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.

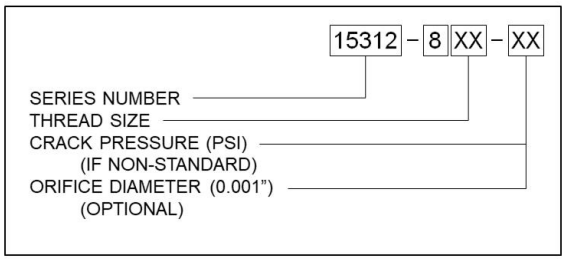
FEATURES

- 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

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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.

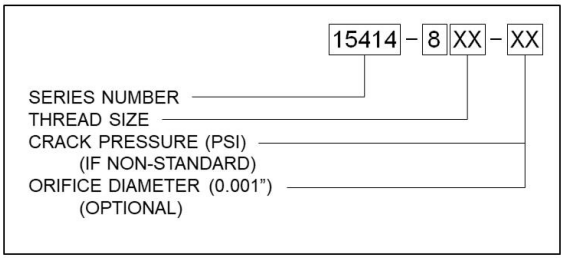
FEATURES

- 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

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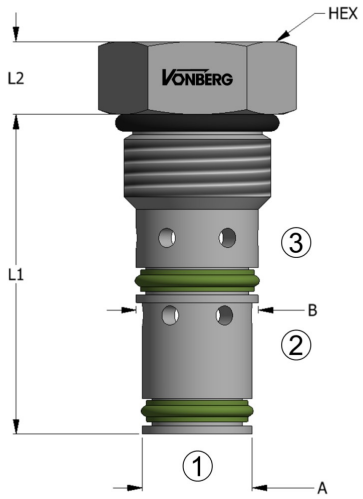
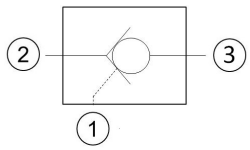
CHECK VALVE - POPPET

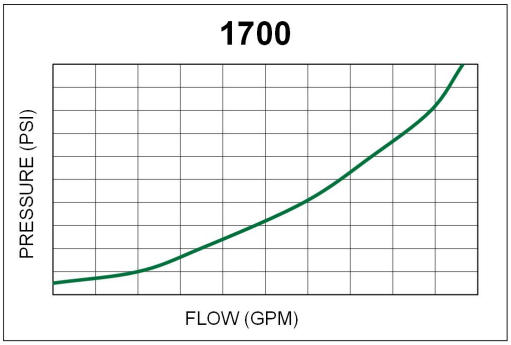
PRODUCT



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 (3) TO (2).
- FLOW FROM (3) TO (2) IS BLOCKED WITH A SPRING BIAS TO ASSIST IN STATIC AND LOW LOAD CONDITIONS.
- FLOW FROM (2) TO (3) IS ALLOWED WITH A STANDARD CRACK PRESSURE OF 30 PSI.

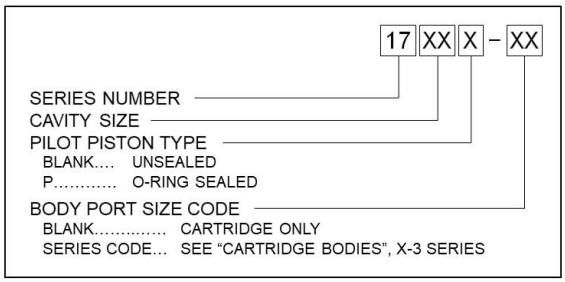
FEATURES

- 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



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

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CHECK VALVE - POPPET

DESCRIPTION

A CARTRIDGE STYLE, DUAL SEALED 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.
- STEEL COMPONENTS.

SPECIFICATIONS

INTERNAL LEAKAGE	5 DROPS / MIN. @ 3000 PSI MAX.
PRESSURE RANGE	50 PSI TO 3500 PSI

MODEL	THREAD	CAVITY	RATED FLOW	L1	L2	A	B	C	HEX
1708DP	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
1710DP	7/8 - 14	VC10-4	5.0 GPM	2.49	0.31	0.622/0.620	0.685/0.683	0.747/0.745	1.00

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CHECK VALVE - POPPET

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

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
17T17	M36 x 2.0	60.0 GPM	T-17A	1.81	1.70	1.63	1.246	1.433	1.558	1.18	95 ft-lbs

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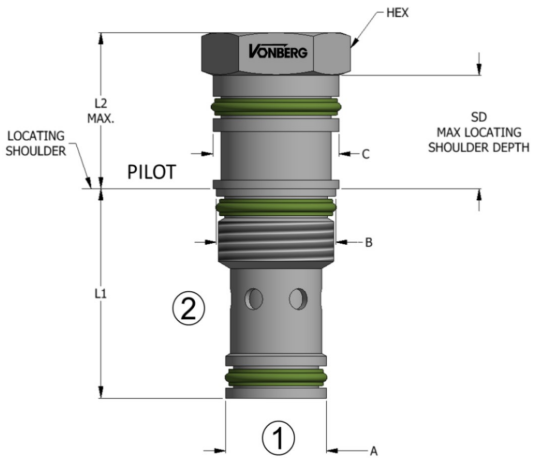
CHECK VALVE - POPPET

PRODUCT



DESCRIPTION

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

OPERATION

- THE CARTRIDGE HAS A STANDARD 1.8:1 PILOT RATIO TO BLOCK FLOW FROM (1) TO (2).
- FLOW FROM (2) TO (1) IS NORMALLY 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.

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

MODEL	THREAD	RATED FLOW	CAVITY	L1	L2	HEX	A	B	C	SD(MAX)	TORQUE
17T11B	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
17T17B	M36 X 2.0	60.0 GPM	T-17A	1.81	1.70	1.63	1.246	1.433	1.558	1.18	95 FT-LBS

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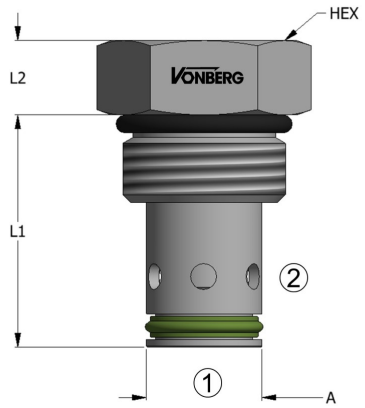
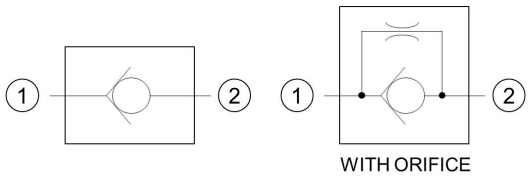
CHECK VALVE - POPPET

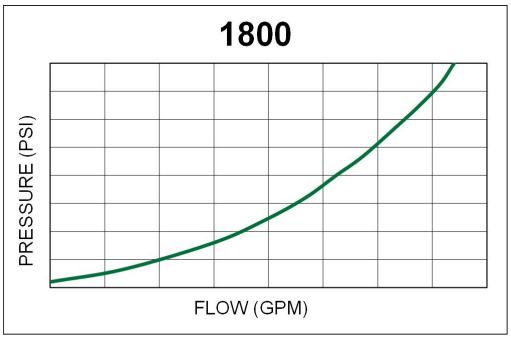
PRODUCT



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.

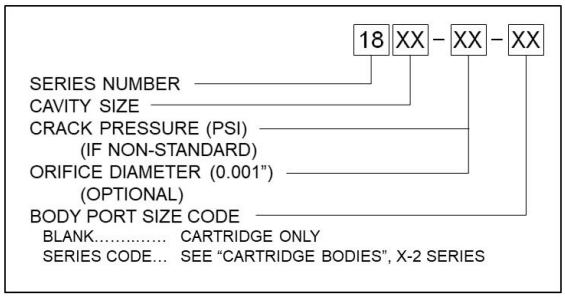
FEATURES

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

SPECIFICATIONS

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

ORDERING INFORMATION



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
1806L	9/16 - 18	5.0 GPM	HVC06-2 & VC06-2	0.935	0.26	0.69	0.433 / 0.435	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

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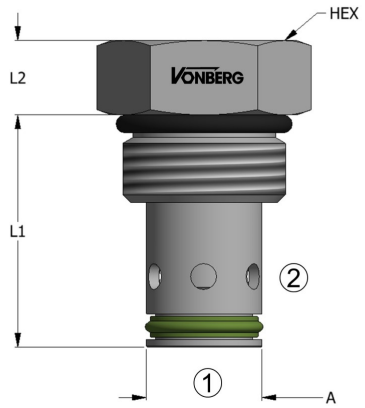
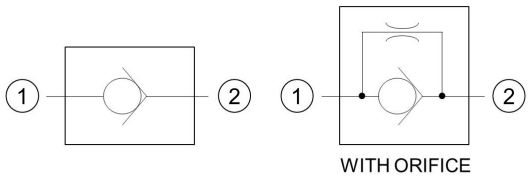
CHECK VALVE - POPPET

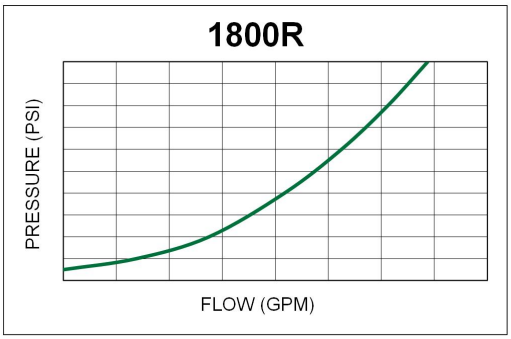
PRODUCT



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.

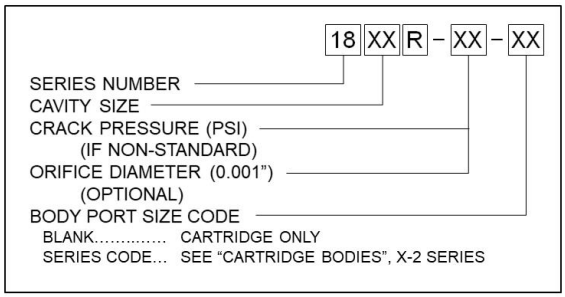
FEATURES

- 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



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

12/27/22, 8:22 PM

CHECK VALVE - POPPET

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

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	15.0 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	20.0 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	30.0 GPM	T-16A	1.246 / 1.247	1.433 / 1.435	1.50	0.220	2.43	.0957	45 ft-lbs

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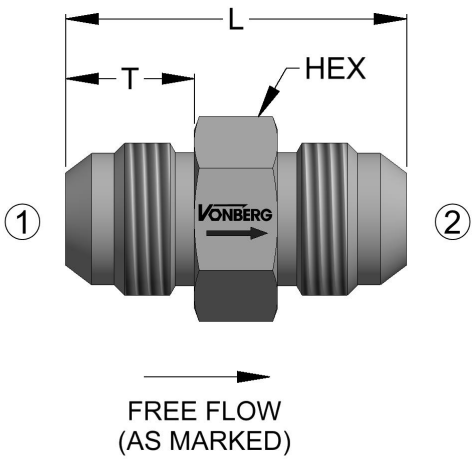
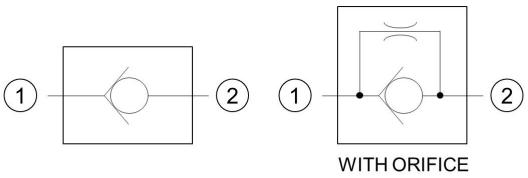
CHECK VALVE - POPPET

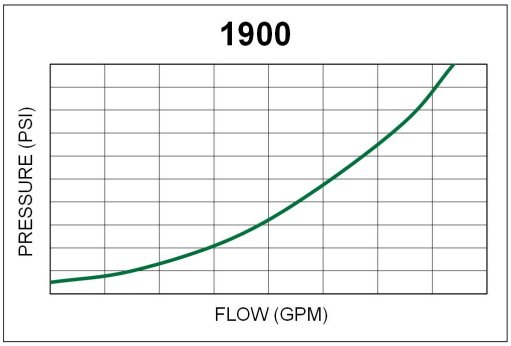
PRODUCT



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.

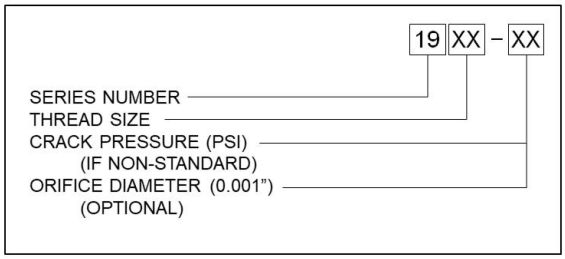
FEATURES

- 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

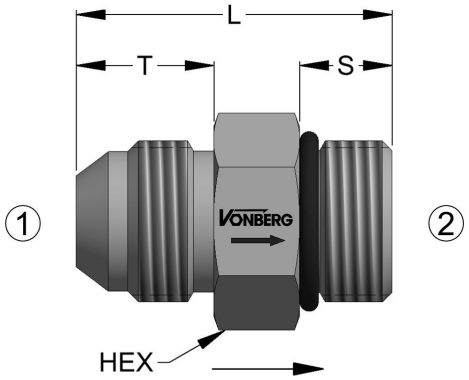


MODEL	INLET / OUTLET	THREAD	CAPACITY	L	T	HEX
1904	-04 JIC	7/16-20	2 GPM	1.42	0.540	0.562
1906	-06 JIC	9/16-18	4 GPM	1.60	0.540	0.750
1908	-08 JIC	3/4-16	8 GPM	1.68	0.655	0.875
1910	-10 JIC	7/8-14	12 GPM	1.88	0.760	1.000
1912	-12 JIC	1 1/16-12	15 GPM	2.12	0.860	1.250
1916	-16 JIC	1 5/16-12	40 GPM	2.55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

7/29/22, 5:13 PM

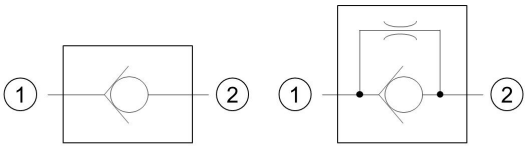
CHECK VALVE - POPPET

PRODUCT



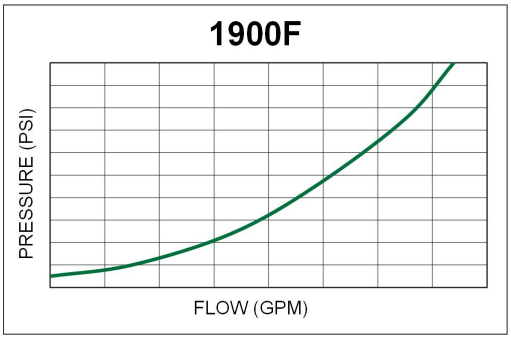
FREE FLOW
(AS MARKED)

SCHEMATIC



WITH ORIFICE

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.

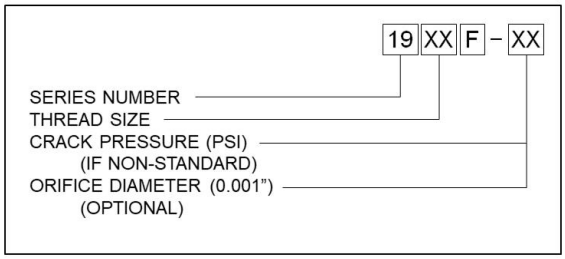
FEATURES

- 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



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

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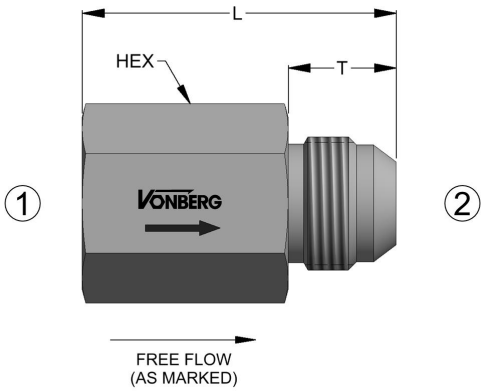
CHECK VALVE - POPPET

PRODUCT



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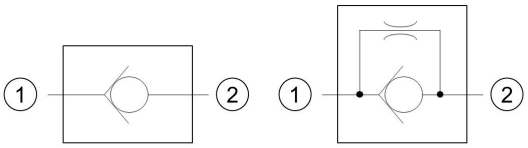
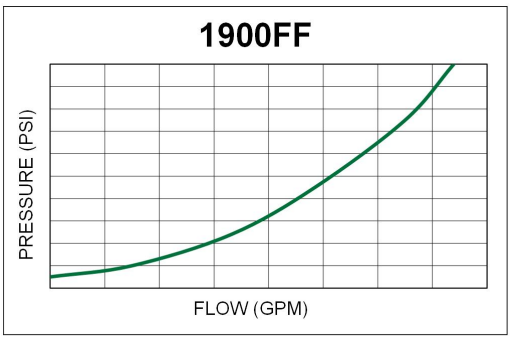


TYPICAL PERFORMANCE



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.

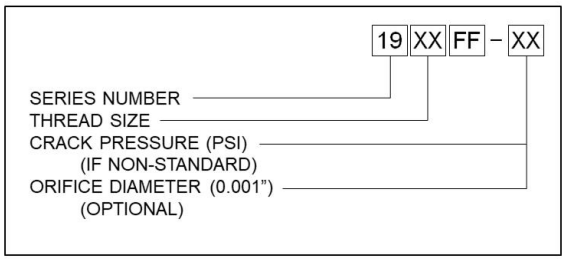
FEATURES

- 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



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

6/16/20, 11:49 PM

CHECK VALVE - POPPET

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

MODEL	INLET 1	OUTLET 2	THREAD	CAPACITY	L	J	HEX
1904FK	-04 ORFS PORT	-04 ORFS	9/16 - 18	5.0 GPM	1.10	0.385	0.75
1906FK	-06 ORFS PORT	-06 ORFS	1 1/16 - 16	10.0 GPM	1.20	0.440	0.812
1916FK	-16 ORFS PORT	-16 ORFS	1 7/16 - 12	50.0 GPM	2.90	0.690	1.625

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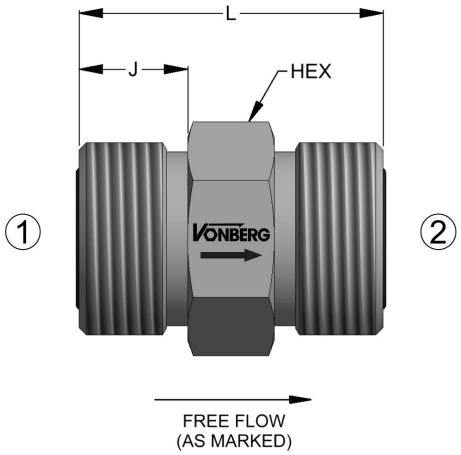
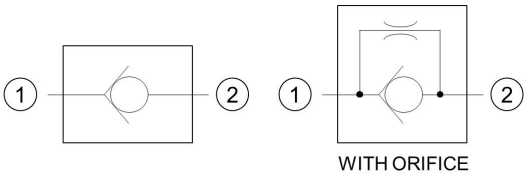
CHECK VALVE - POPPET

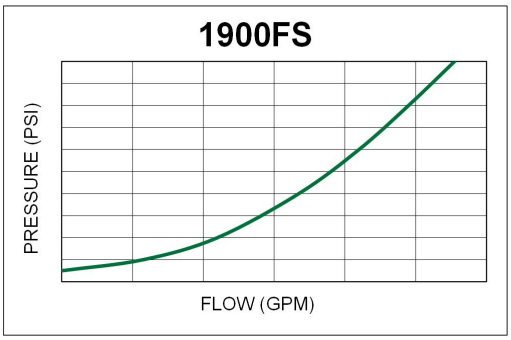
PRODUCT



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.

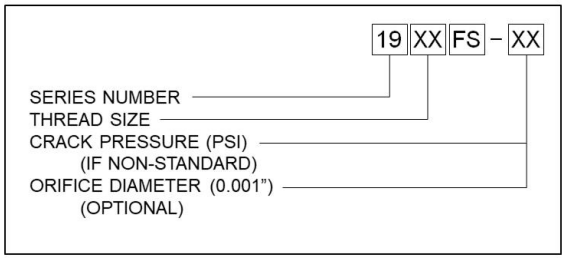
FEATURES

- 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



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

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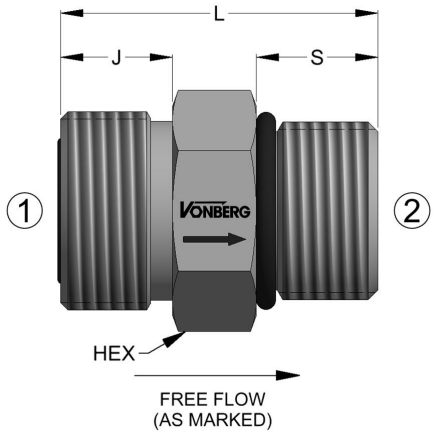
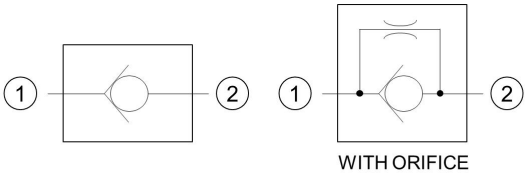
CHECK VALVE - POPPET

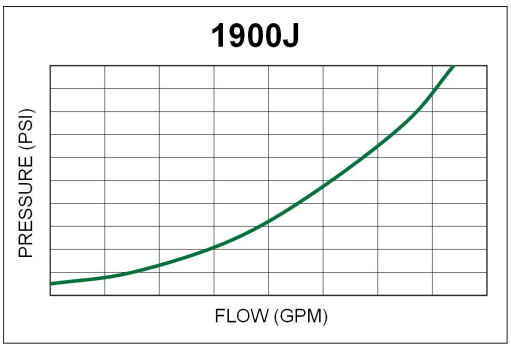
PRODUCT



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.

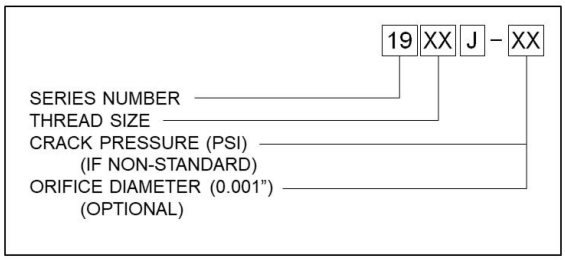
FEATURES

- 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

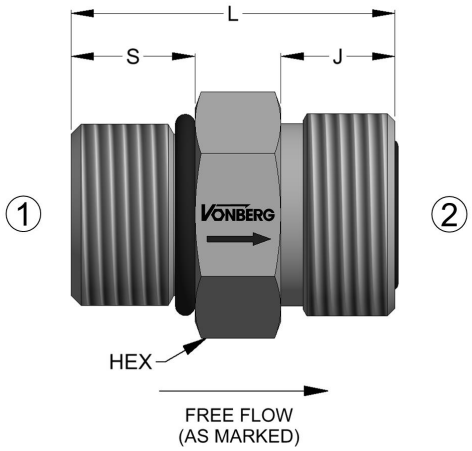


MODEL	INLET 1	OUTLET 2	CAPACITY	L	J	S	HEX
1904J	-04 ORS - 9/16-18	-04 SAE - 7/16-20	2 GPM	1.06	0.38	0.43	0.625
1906J	-06 ORS - 11/16-16	-06 SAE - 9/16-18	4 GPM	1.42	0.44	0.47	0.750
1908J	-08 ORS - 13/16-16	-08 SAE - 3/4-16	8 GPM	1.42	0.50	0.55	0.875
1910J	-10 ORS - 1-14	-10 SAE - 7/8-14	12 GPM	1.62	0.61	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

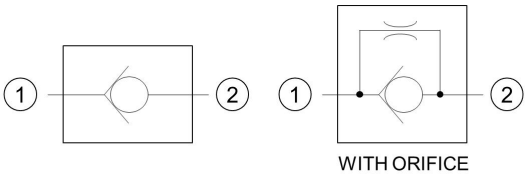
6/16/20, 11:50 PM

CHECK VALVE - POPPET

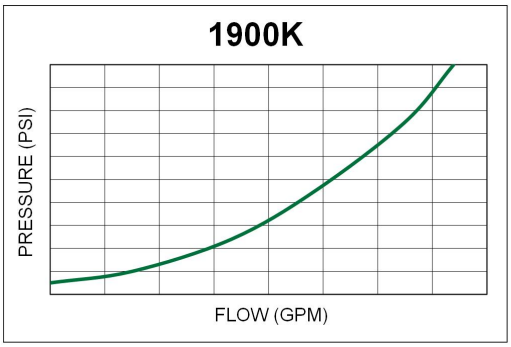
PRODUCT



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.

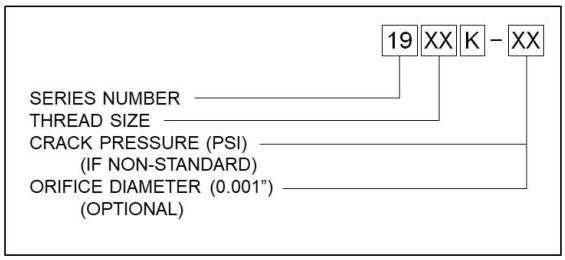
FEATURES

- 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



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 1/6-12	-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

6/16/20, 11:51 PM

CHECK VALVE - POPPET

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

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

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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

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

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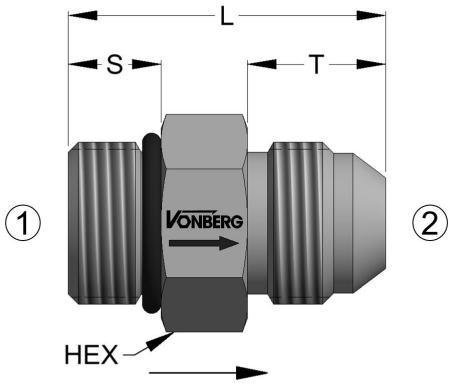
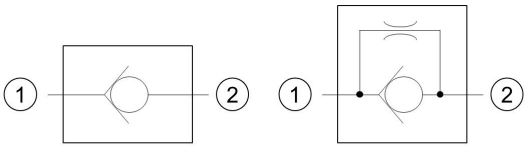
PRODUCT



FREE FLOW
(AS MARKED)

SCHEMATIC



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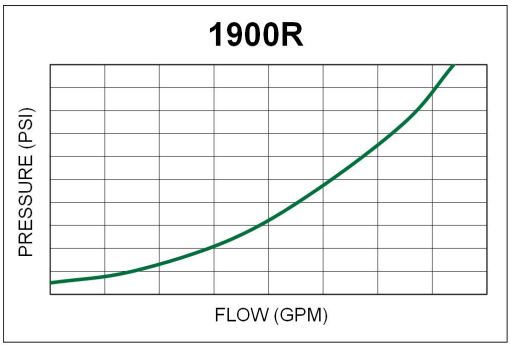
TYPICAL PERFORMANCE



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.

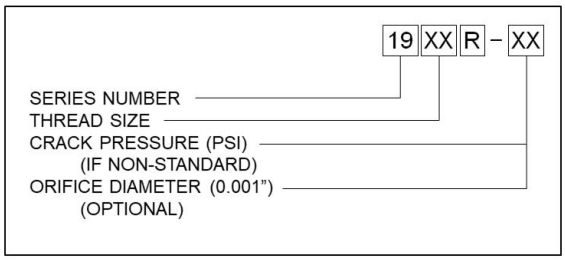
FEATURES

- 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

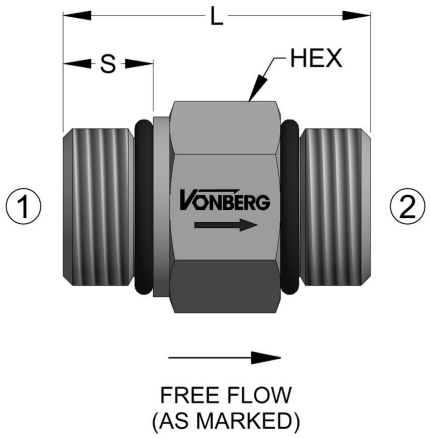


MODEL	INLET 1	OUTLET 2	THREAD	CAPACITY	L	T	S	HEX
1904R	-04 SAE	-04 JIC	7/16-20	2 GPM	1.23	0.540	0.360	0.562
1906R	-06 SAE	-06 JIC	9/16-18	4 GPM	1.45	0.540	0.390	0.750
1908R	-08 SAE	-08JIC	3/4-16	8 GPM	1.47	0.655	0.440	0.875
1910R	-10 SAE	-10 JIC	7/8-14	12 GPM	1.62	0.760	0.500	1.000
1912R	-12 SAE	-12 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

6/16/20, 11:53 PM

CHECK VALVE - POPPET

PRODUCT



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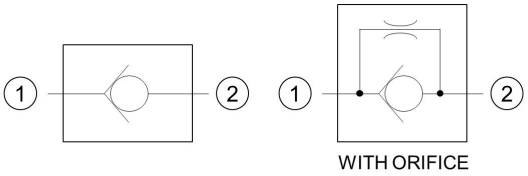
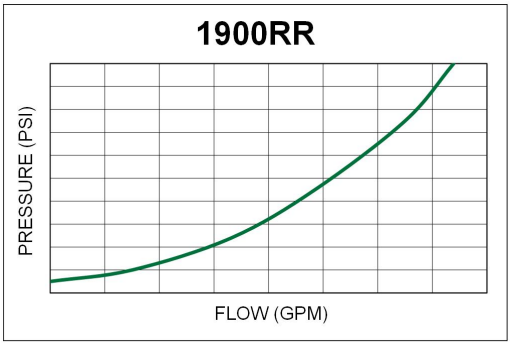


TYPICAL PERFORMANCE



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.

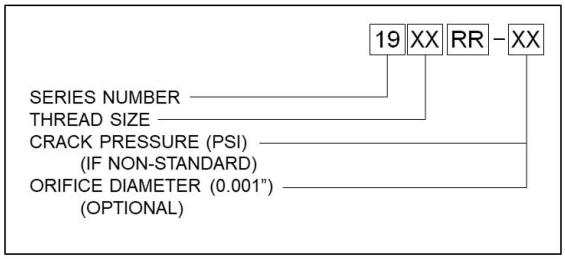
FEATURES

- 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



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

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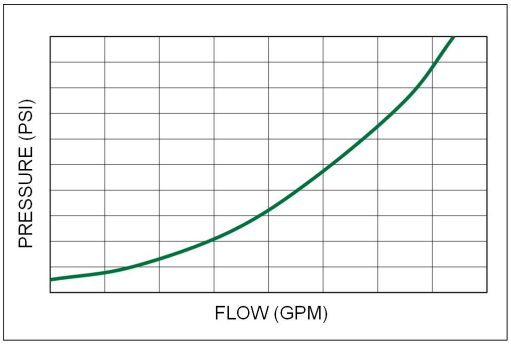
CHECK VALVE - POPPET

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.

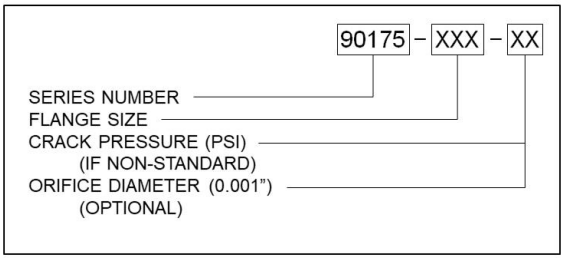
FEATURES

- 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



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

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CHECK VALVE - POPPET

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

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

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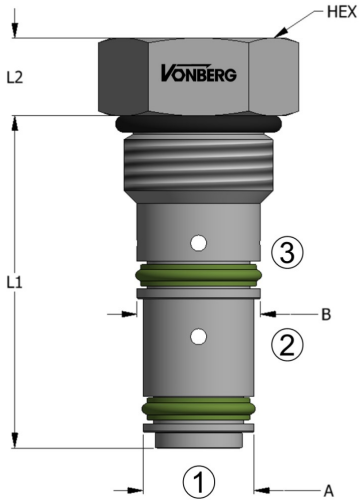
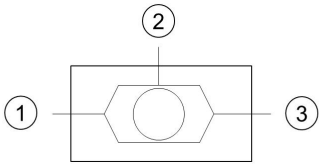
SHUTTLE VALVE

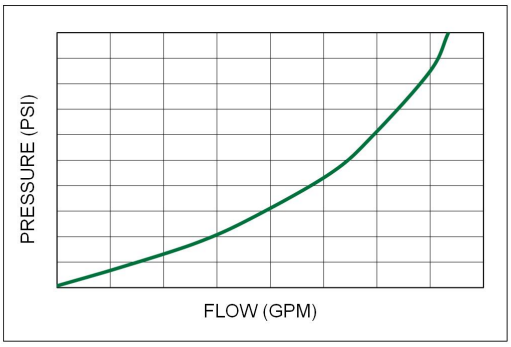
PRODUCT



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.

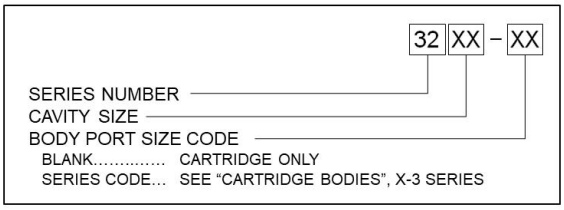
FEATURES

- 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



MODEL	THREAD	RATED FLOW	CAVITY	L1	L2	HEX	A	B
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

12/29/22, 5:20 PM

SHUTTLE VALVE

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

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.)

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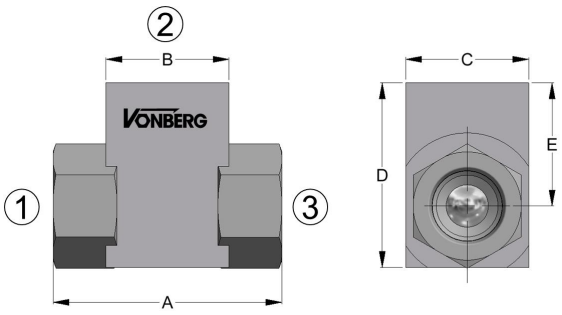
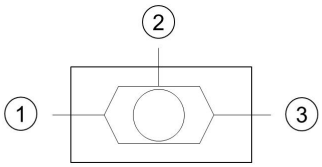
SHUTTLE VALVE

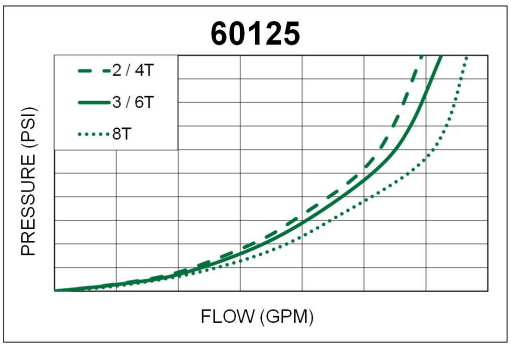
PRODUCT



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

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

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Hydraulic Valve Specialists
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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

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

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SHUTTLE VALVE

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

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

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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

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

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SHUTTLE VALVE

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

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

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SAFETY VALVES

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FLOW LIMITER

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

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

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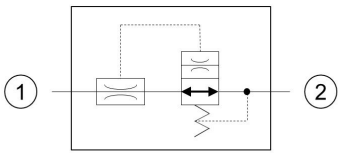
SCHEMATIC



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

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

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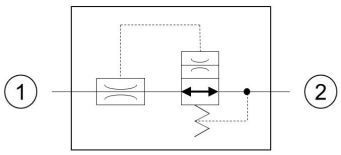
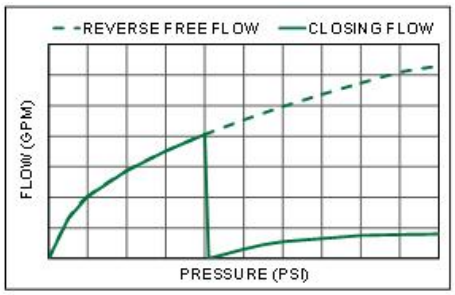
SCHEMATIC



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.

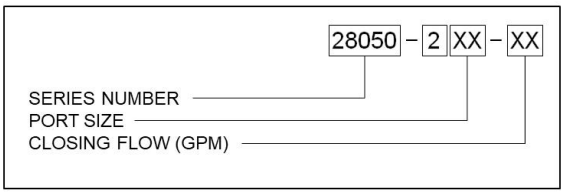
FEATURES

- 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



Model	INLET / OUTLET	FLOW RANGE	L	HEX
28050-204	-04 SAE	0.1 TO 5.0 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

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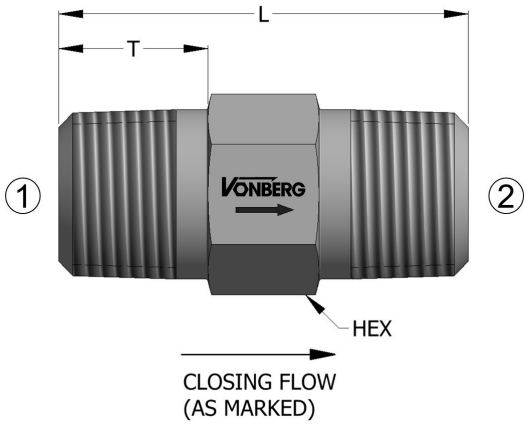
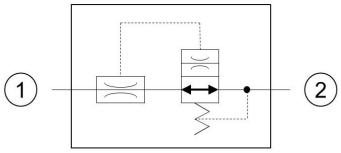
FLOW LIMITER

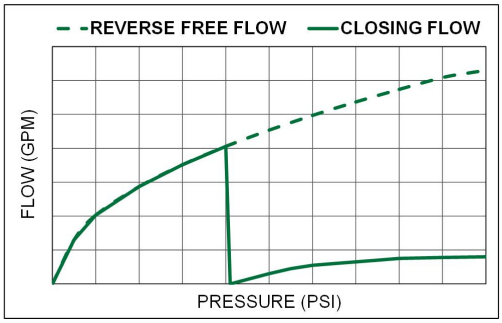
PRODUCT



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.

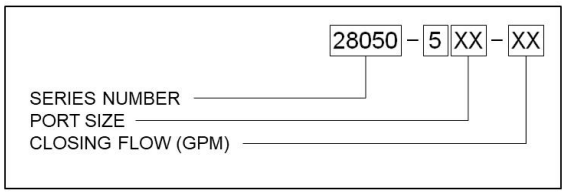
FEATURES

- 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



Model	INLET / OUTLET	FLOW RANGE	L	T	HEX
28050-502	1/4-18 NPTF	0.1 TO 5.0 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

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FLOW LIMITER

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

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

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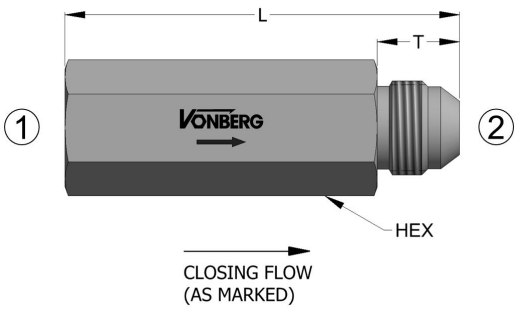
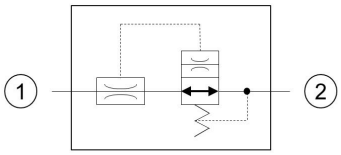
FLOW LIMITER

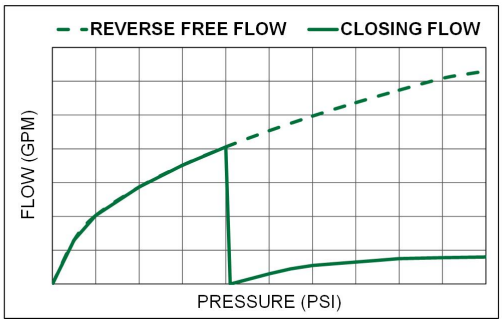
PRODUCT



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.

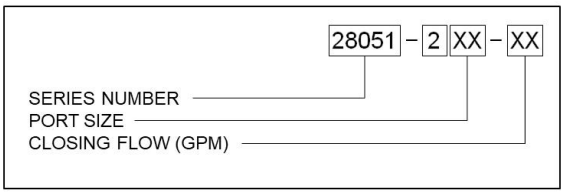
FEATURES

- 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



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

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FLOW LIMITER

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

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

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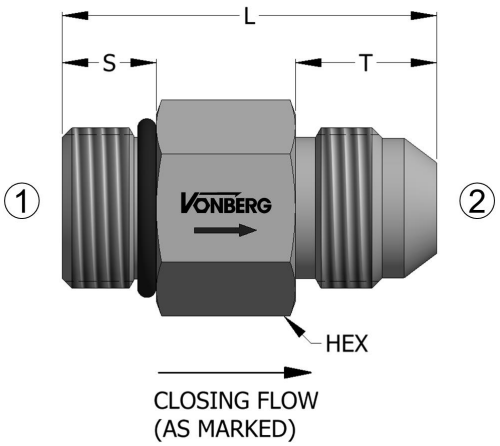
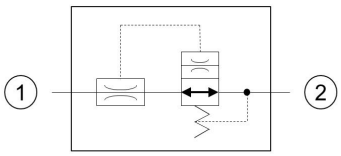
FLOW LIMITER

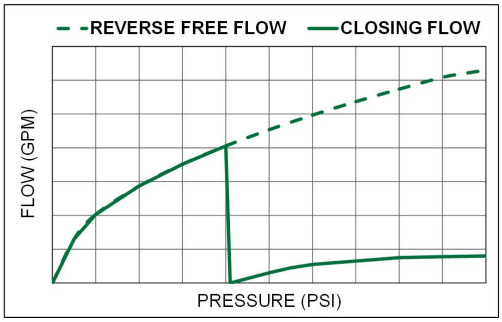
PRODUCT



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.

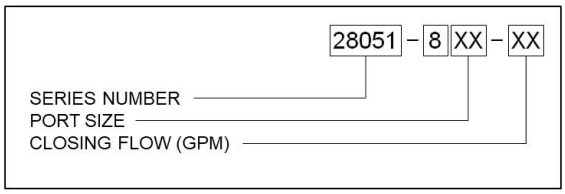
FEATURES

- 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



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

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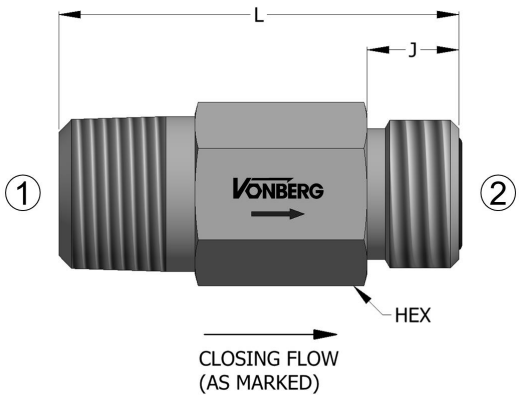
FLOW LIMITER

PRODUCT



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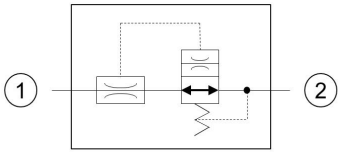
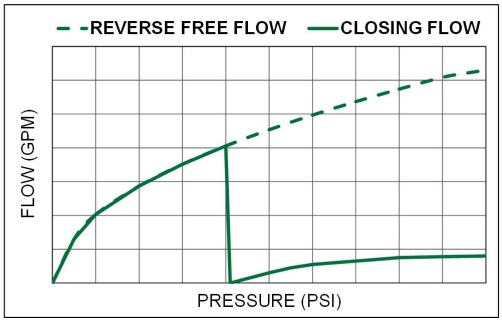


TYPICAL PERFORMANCE



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.

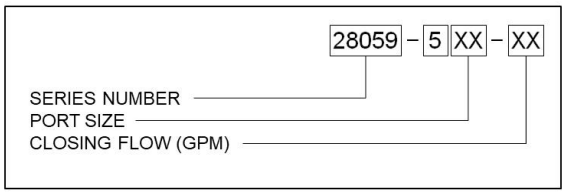
FEATURES

- 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



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

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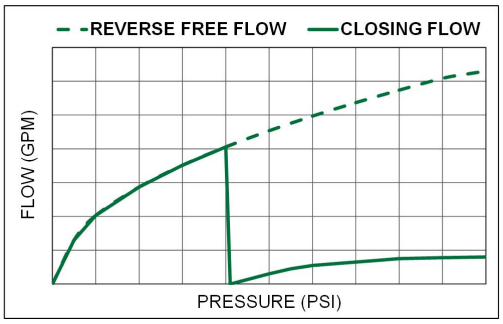
FLOW LIMITER

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).

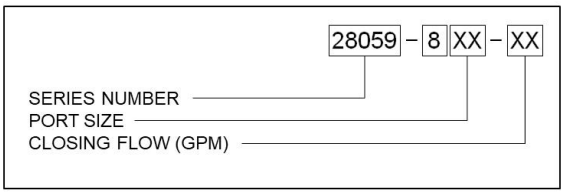
FEATURES

- 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



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

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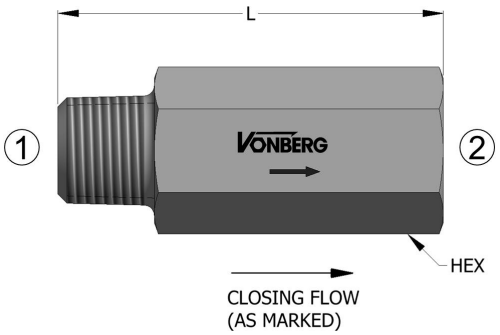
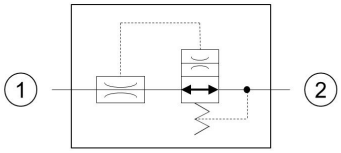
FLOW LIMITER

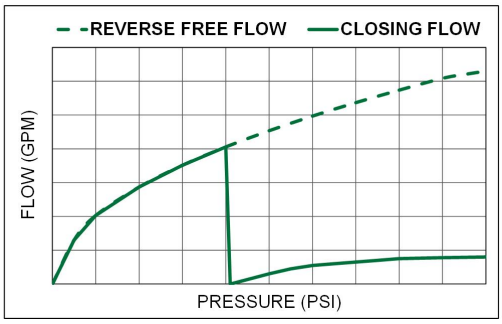
PRODUCT



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

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

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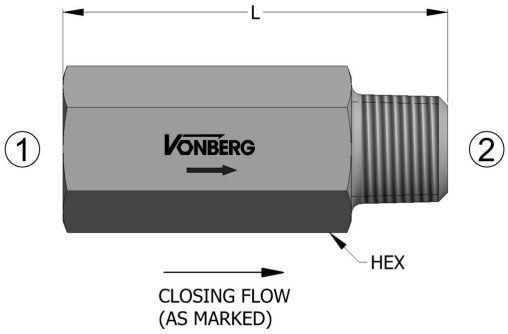
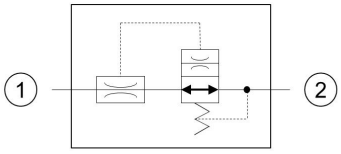
FLOW LIMITER

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).

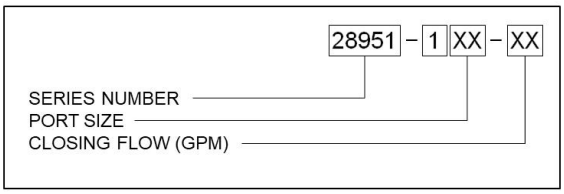
FEATURES

- 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



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

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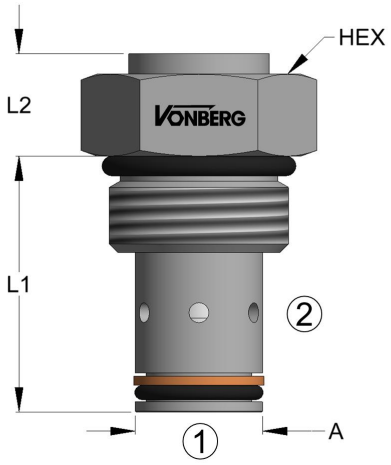
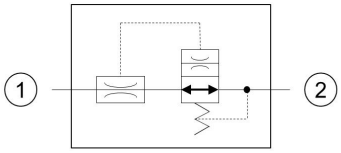
FLOW LIMITER

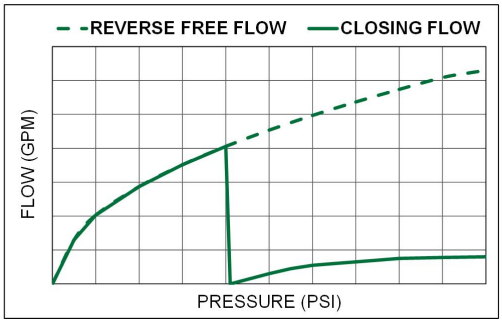
PRODUCT



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.

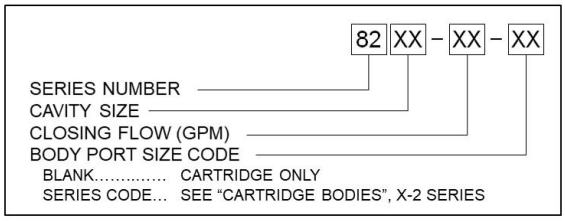
FEATURES

- 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

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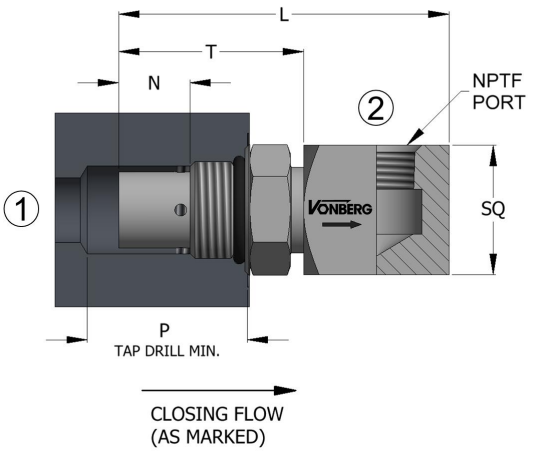
FLOW LIMITER

PRODUCT



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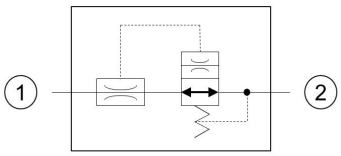
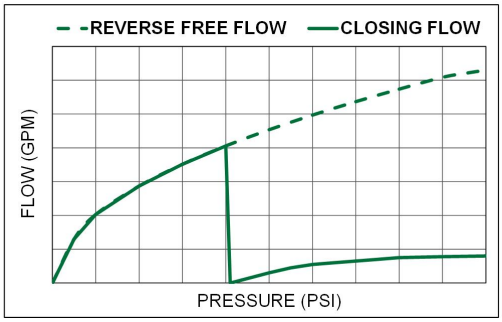


TYPICAL PERFORMANCE



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).

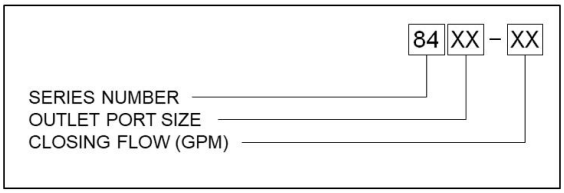
FEATURES

- 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



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

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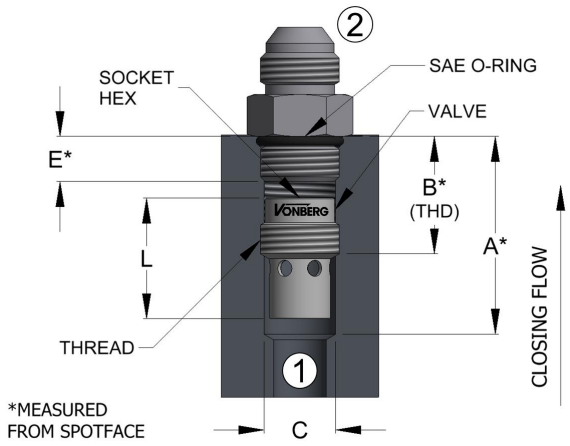
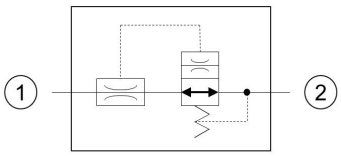
FLOW LIMITER

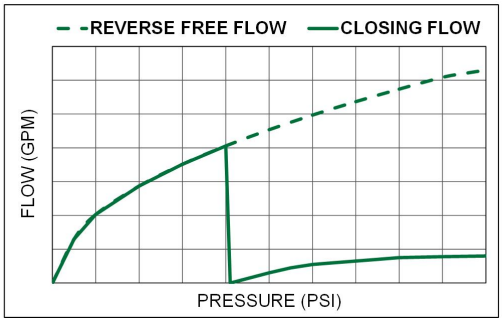
PRODUCT



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

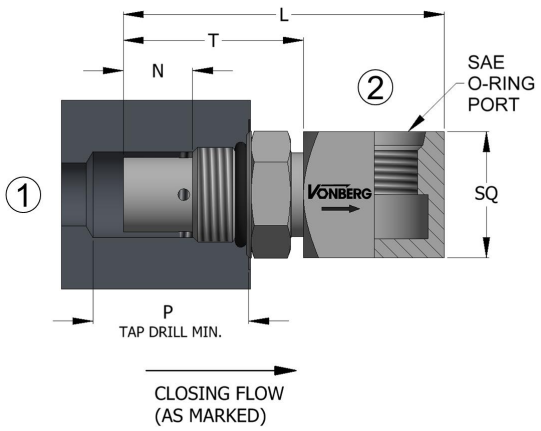
CLOSING FLOW TOLERANCE	+15% / -0%
OPERATING PRESSURE	5000 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

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

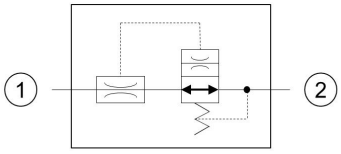
3/4/21, 9:44 PM

FLOW LIMITER

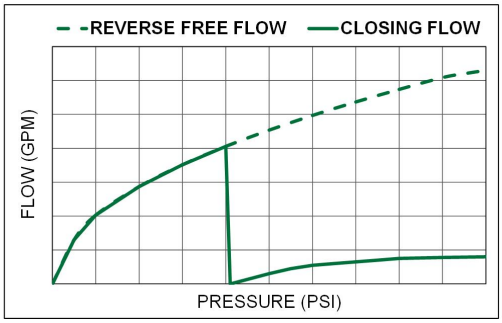
PRODUCT



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).

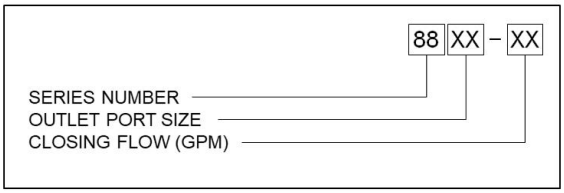
FEATURES

- 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

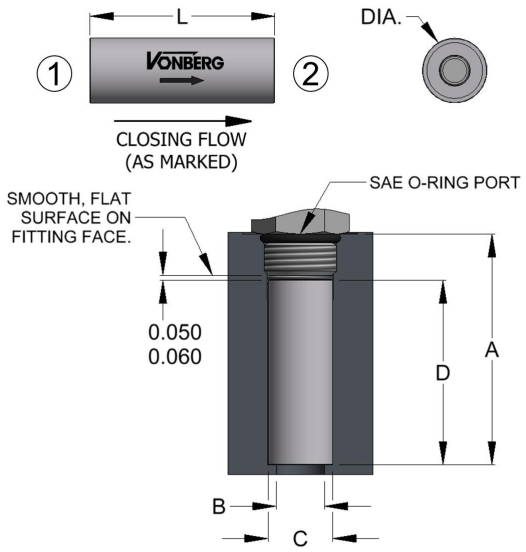


MODEL	PORT 1	PORT 2	FLOW RANGE	L	T	N	P (MIN)	SQ
8804	-04 SAE - 7/16-20	-04 SAE - 7/16-20	0.2 TO 4.0 GPM	1.770	1.110	0.400	0.950	0.750
8806	-06 SAE - 9/16-18	-06 SAE - 9/16-18	0.2 TO 8.0 GPM	2.125	1.160	0.390	1.000	0.875
8808	-08 SAE - 3/4-16	-08 SAE 3/4-16	0.5 TO 15.0 GPM	2.555	1.430	0.550	1.250	1.000
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

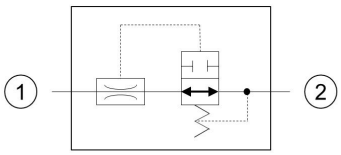
9/26/18, 4:58 PM

VELOCITY FUSE

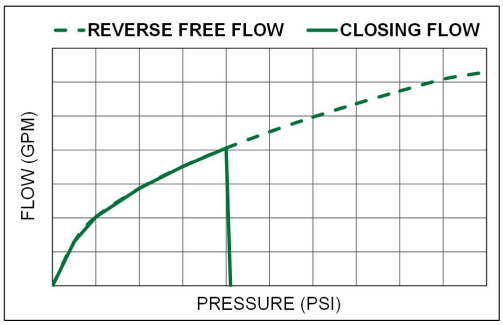
PRODUCT



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).

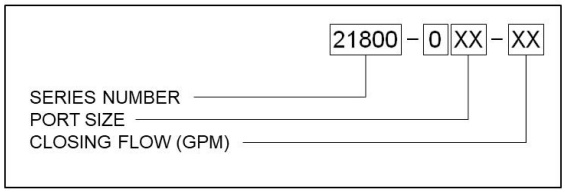
FEATURES

- 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

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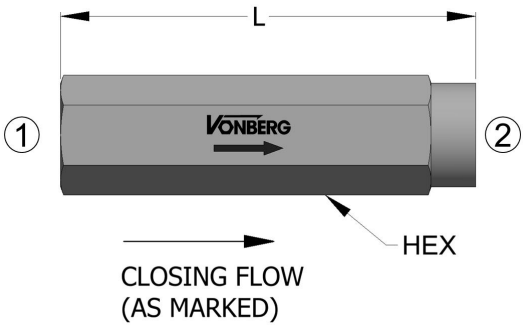
VELOCITY FUSE

PRODUCT



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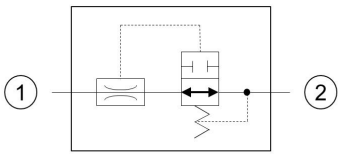
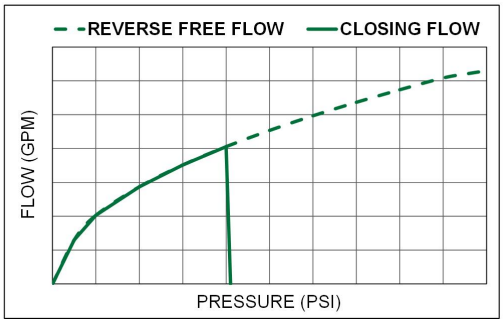


TYPICAL PERFORMANCE



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).

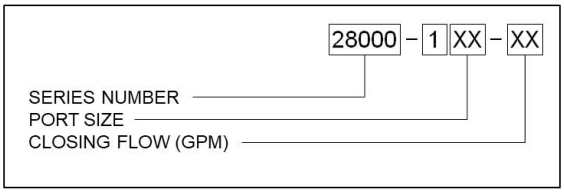
FEATURES

- 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

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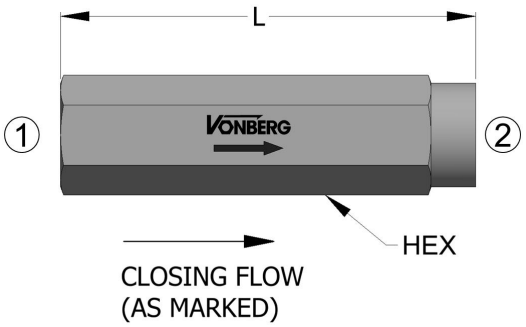
VELOCITY FUSE

PRODUCT



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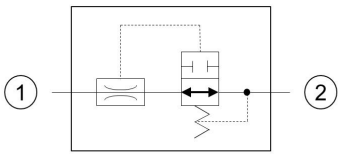
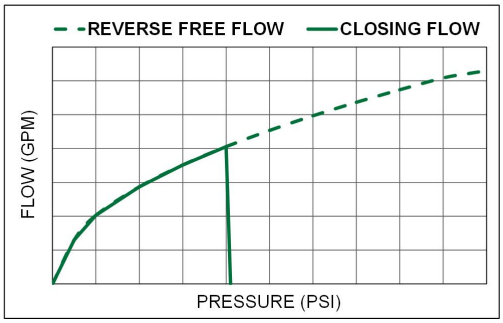


TYPICAL PERFORMANCE



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).

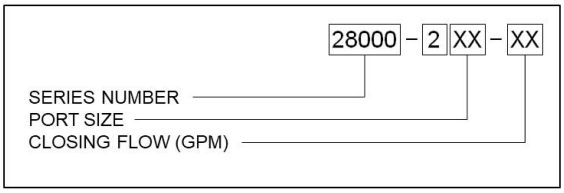
FEATURES

- 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

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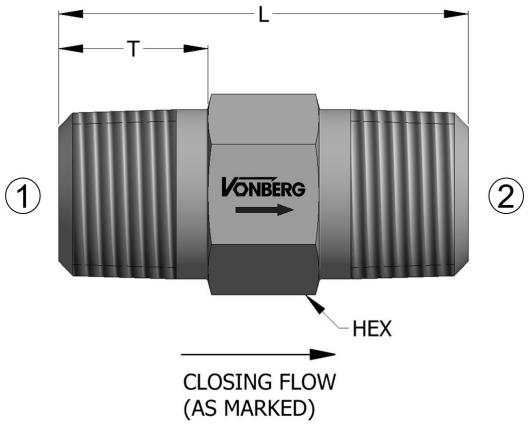
VELOCITY FUSE

PRODUCT



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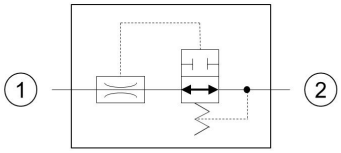
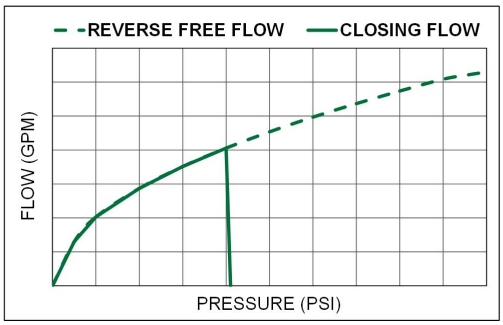


TYPICAL PERFORMANCE



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).

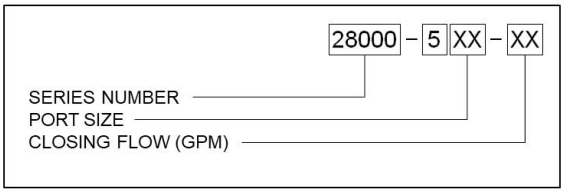
FEATURES

- 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 5.0 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

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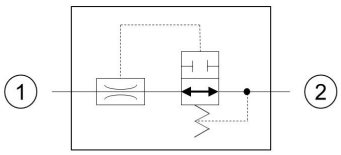
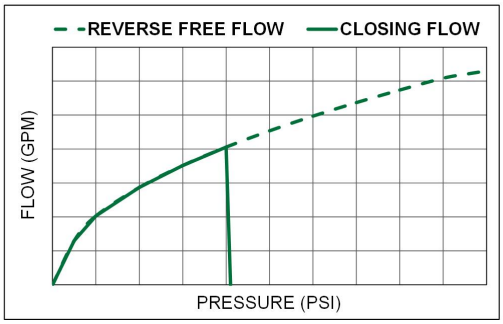
VELOCITY FUSE

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.

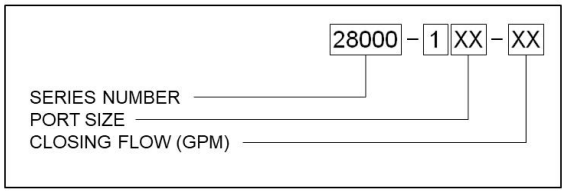
FEATURES

- 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 5.0 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

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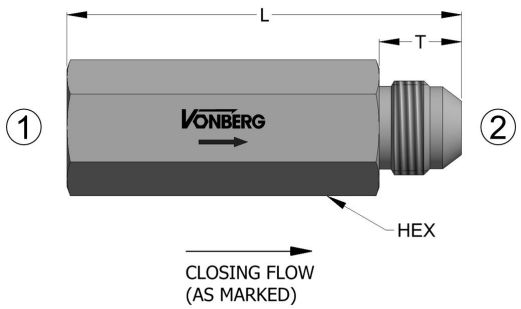
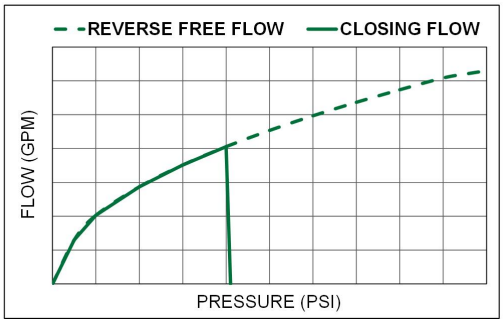
VELOCITY FUSE

PRODUCT



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.

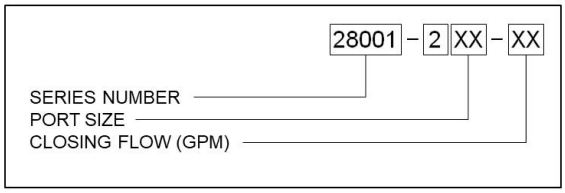
FEATURES

- 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 5.0 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

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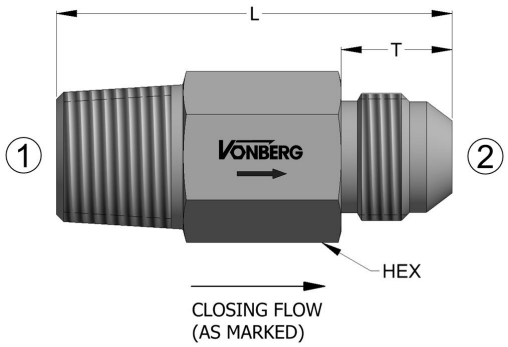
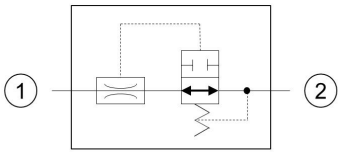
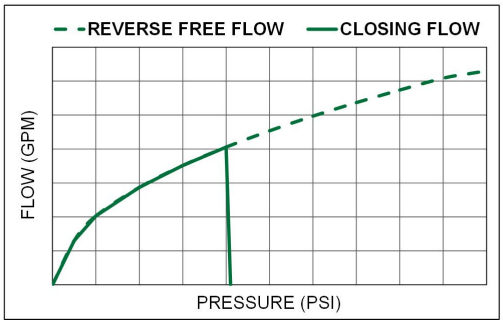
PRODUCT



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.

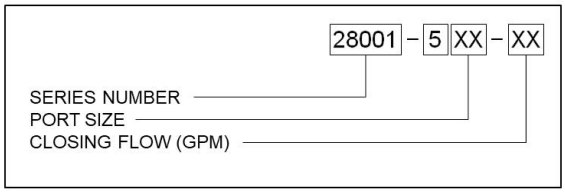
FEATURES

- 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 5.0 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 1/6-12	2.0 TO 40.0 GPM	2.75"	0.750"	0.864"	1.125"
28001-508	1-11 1/2 NPTF	-16 JIC - 1 5/6-12	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

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VELOCITY FUSE

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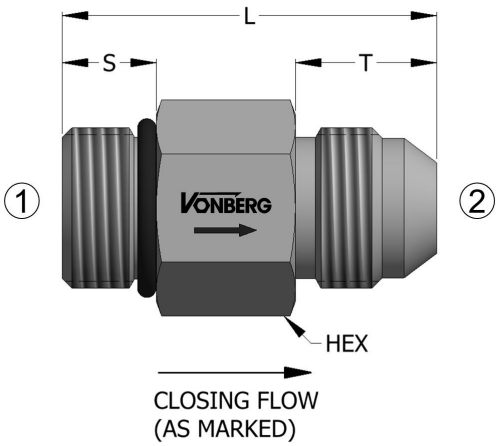

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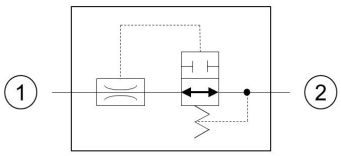
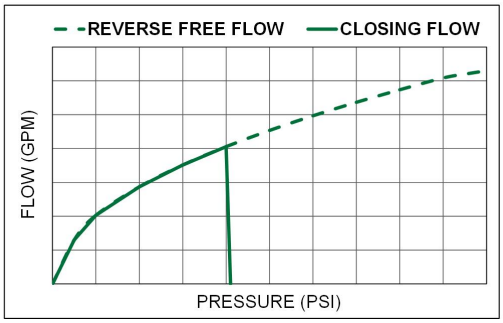


TYPICAL PERFORMANCE



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.

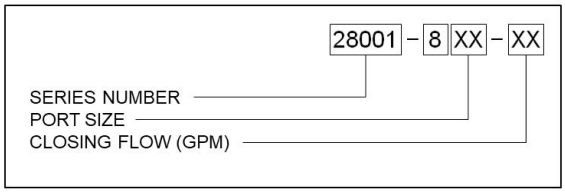
FEATURES

- 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



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 5.0 GPM	3.06"	0.360"	0.550"	0.625
28001-806	-06 SAE - 9/16-18	-06 JIC - 9/16-18	0.1 TO 5.0 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

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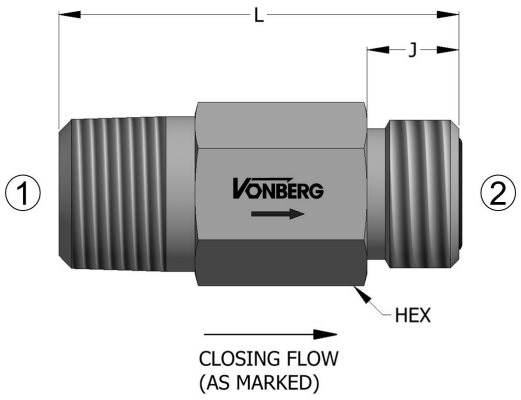
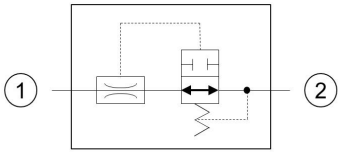
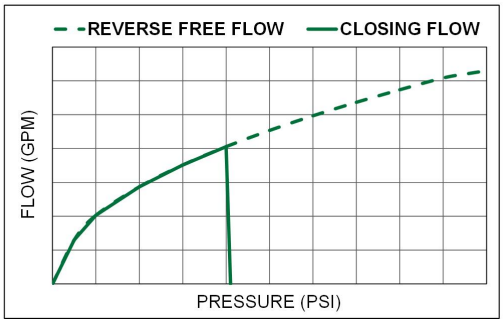


SCHEMATIC



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).

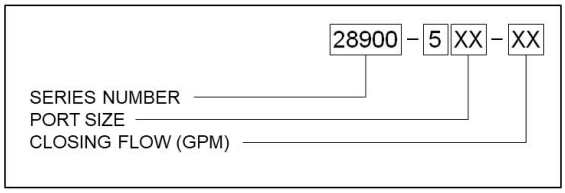
FEATURES

- 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

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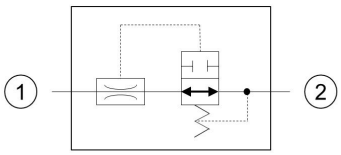
SCHEMATIC



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

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 5.0 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"

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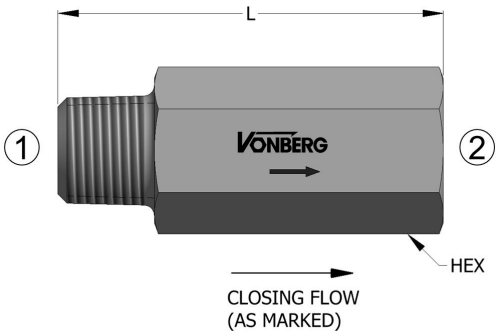
VELOCITY FUSE

PRODUCT



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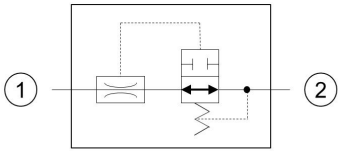
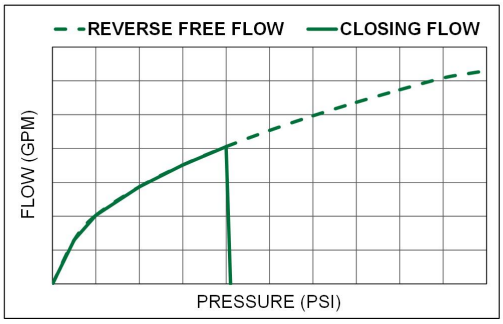


TYPICAL PERFORMANCE



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).

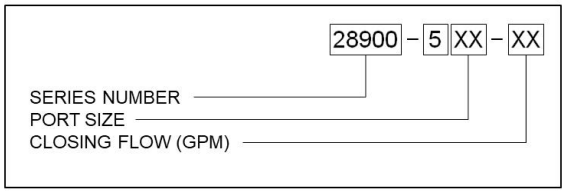
FEATURES

- 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

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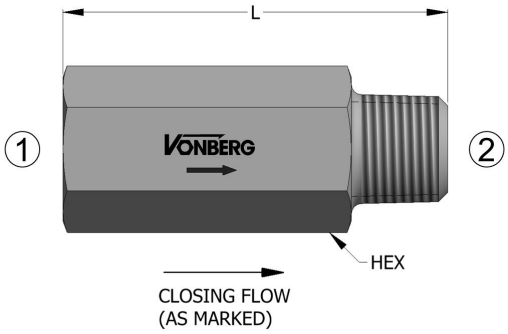
VELOCITY FUSE

PRODUCT



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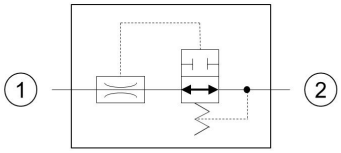


DESCRIPTION

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).

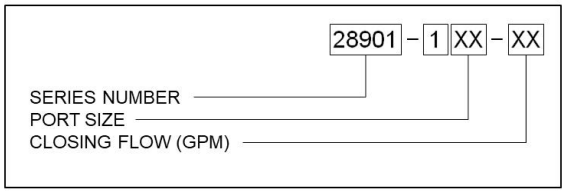
FEATURES

- 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

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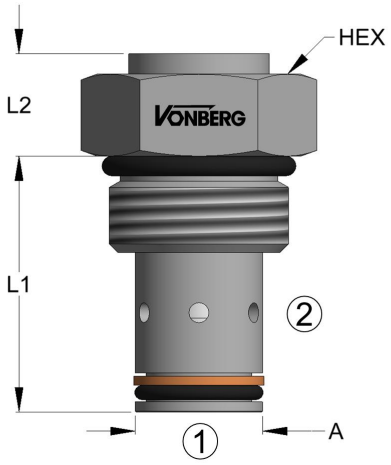
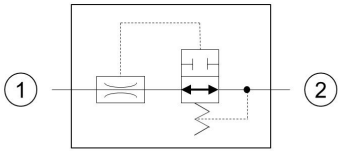
VELOCITY FUSE

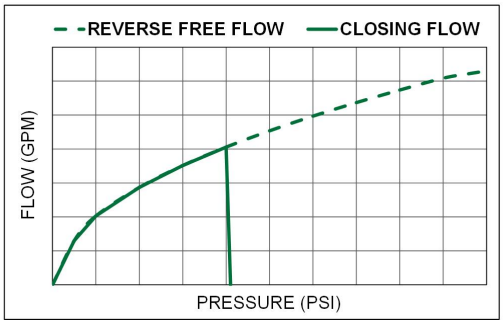
PRODUCT



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).

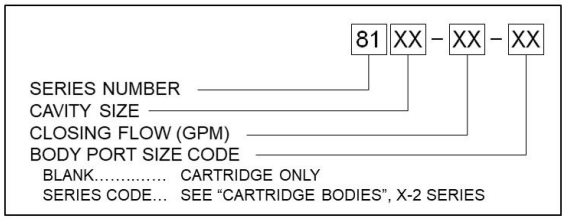
FEATURES

- 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

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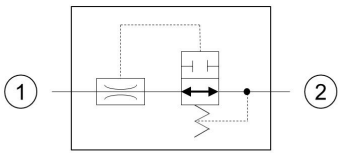
SCHEMATIC



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

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

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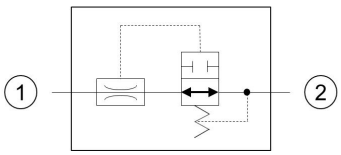
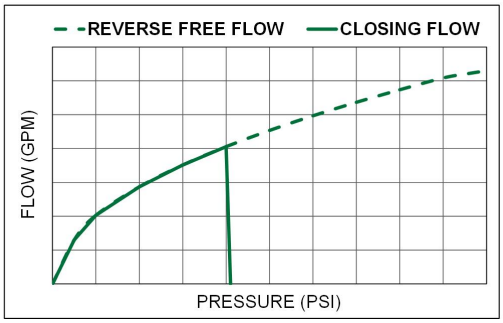
VELOCITY FUSE

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).

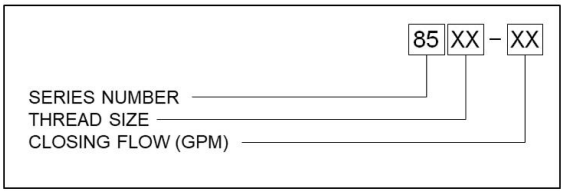
FEATURES

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

SPECIFICATIONS

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

ORDERING INFORMATION



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

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VELOCITY FUSE

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	5000 PSI
REOPENING DIFFERENTIAL	50 PSI
TEMPERATURE RANGE	250° F TO -40° F

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

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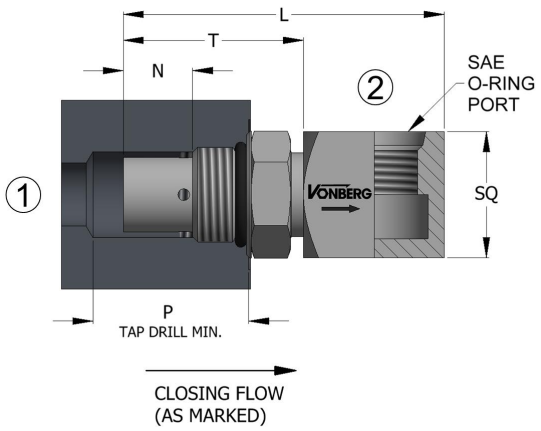
VELOCITY FUSE

PRODUCT



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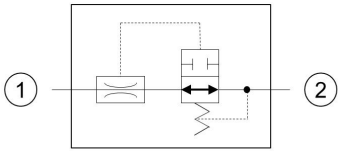
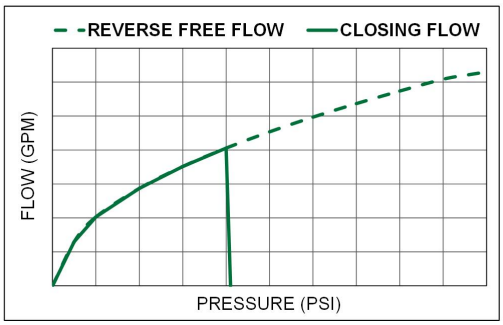


TYPICAL PERFORMANCE



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).

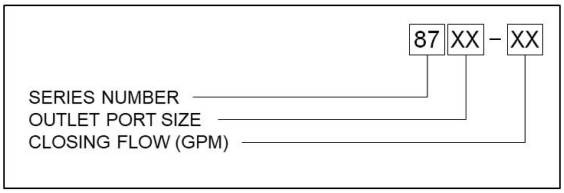
FEATURES

- 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



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 1/6-12	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

9/26/18, 4:58 PM

PRESSURE CONTROLS

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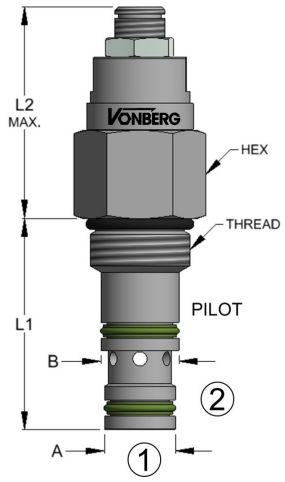
VONBERG COUNTERBALANCE VALVE

PRODUCT



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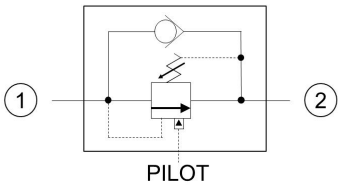

DESCRIPTION

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

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

8/1/22, 4:51 PM

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.

SPECIFICATIONS

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

MODEL	THREAD	FLOW CAPACITY	CAVITY	L1	L2 (MAX.)	HEX	A	B	TORQUE
55A66	M20 X 1.5	12 GPM	A6610	1.54	2.10	1.00	0.626	0.686	25 ft-lbs

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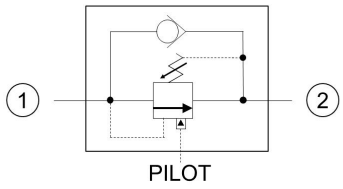
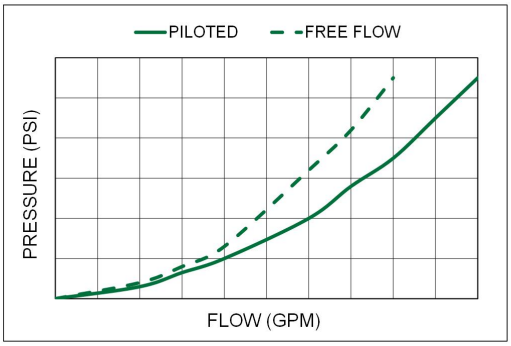
VONBERG COUNTERBALANCE VALVE

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.

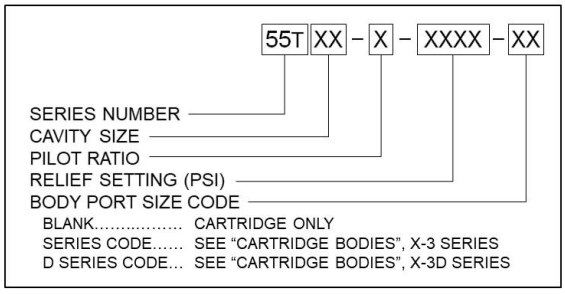
FEATURES

- 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

8/1/22, 5:51 PM

COUNTERBALANCE VALVE

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

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

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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

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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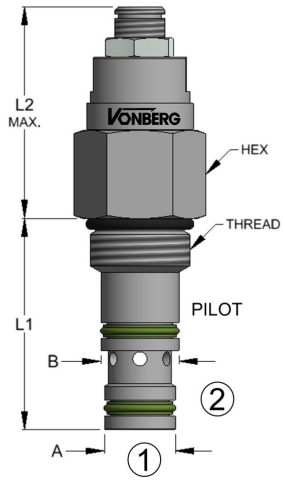
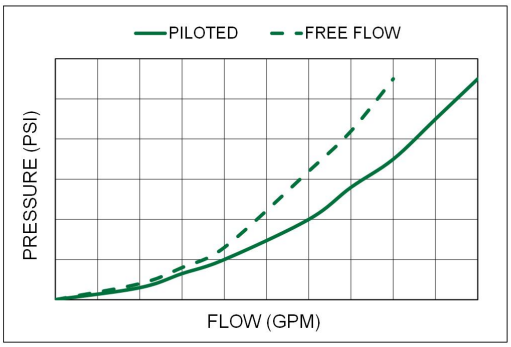
VONBERG COUNTERBALANCE VALVE

PRODUCT



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.

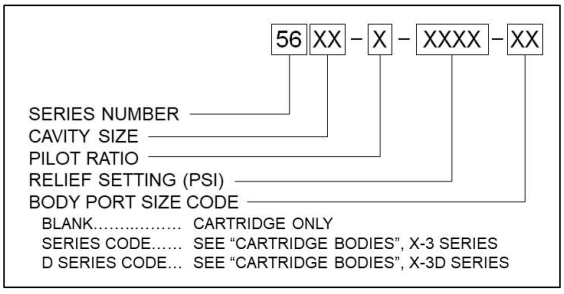
FEATURES

- 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

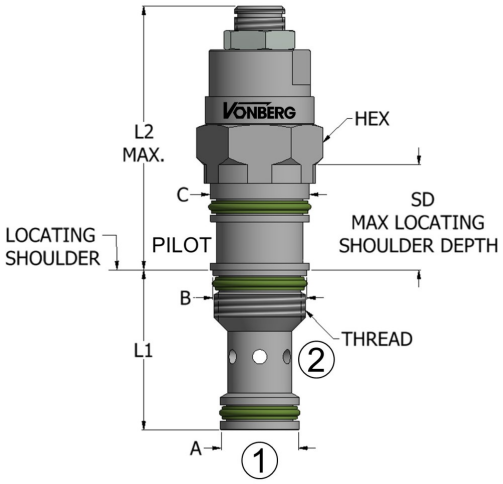


MODEL	THREAD	FLOW CAPACITY	CAVITY	L1	L2 (MAX.)	HEX	A	B	TORQUE
5610	7/8 - 14	10.0 GPM	VC10-3	1.85	2.00	1.00	0.621 / 0.623	0.683 / 0.685	25 ft-lbs

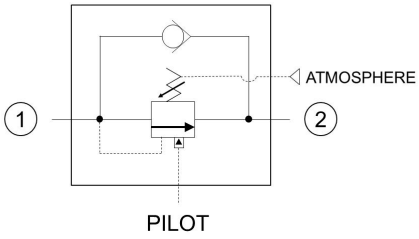
8/1/22, 5:53 PM

VONBERG COUNTERBALANCE VALVE

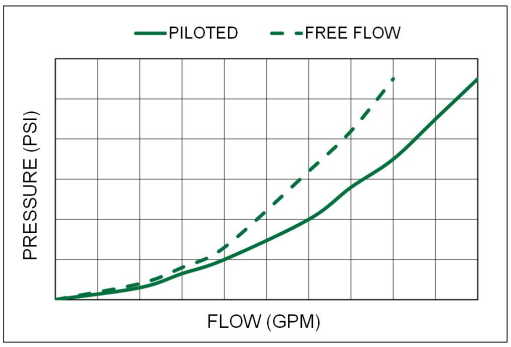
PRODUCT



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 (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.

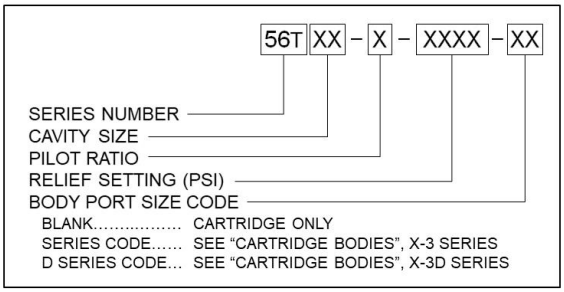
FEATURES

- 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

8/1/22, 6:28 PM

COUNTERBALANCE VALVE

T SERIES CAVITY, ATMOSPHERICALLY VENTED, CCW

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

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

8/1/22, 7:27 PM

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COUNTERBALANCE VALVE

T SERIES CAVITY, EXTERNALLY VENTED PORT 4

DESCRIPTION

A CARTRIDGE STYLE , FOUR PORT, PILOT TO OPEN COUNTERBALANCE VALVE WITH A VENTED SPRING CHAMBER TO A FOURTH PORT 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.
- SPRING CHAMBER VENTED TO FOURTH PORT.

FEATURES

- LOW RELIEF HYSTERISIS.
- SEALED PILOT PISTON, LOW INTERNAL LEAKAGE.
- QUIET, STABLE OPERATION.
- ADJUSTABLE WITH LOCKING NUT.
- CLOCKWISE ADJUSTMENT TO INCREASE RELIEF.
- 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	+/- 10%
STANDARD CRACK PRESSURE	25 PSI
TEMPERATURE RANGE	250°F TO -40°F

MODEL	THREAD	FLOW CAPACITY	CAVITY	L1	L2	HEX	A	B	C	SD (MAX.)	TORQUE
57T21	M20 X 1.5	15.0 GPM	T-21A	1.38	2.81	0.938	0.683/0.685	0.55/0.57	0.86/0.85	1.27"	30 FT-LBS
57T22	1-14	30.0 GPM	T-22A	1.38	3.10	1.125	0.871/0.873	1.074/1.076	1.104/1.106	1.72"	40 FT-LBS
57T23	M36 X 2	60.0 GPM	T-23A	1.81	4.60	1.625	1.246/1.247	1.558/1.559	1.589/1.590	1.72"	95 FT-LBS

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RELIEF VALVE - DIFF. AREA

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

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

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RELIEF VALVE - DIFF. AREA

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

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

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RELIEF VALVE - DIFF. AREA

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

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

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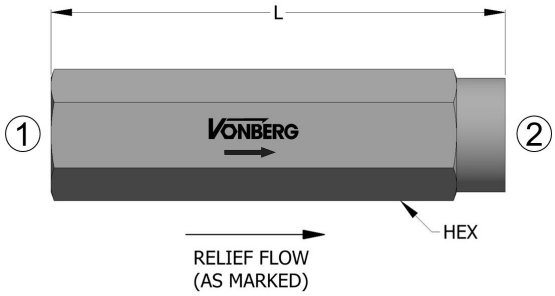
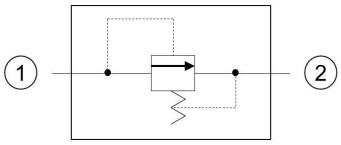
RELIEF VALVE - DIRECT ACTING

PRODUCT



SCHEMATIC



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

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

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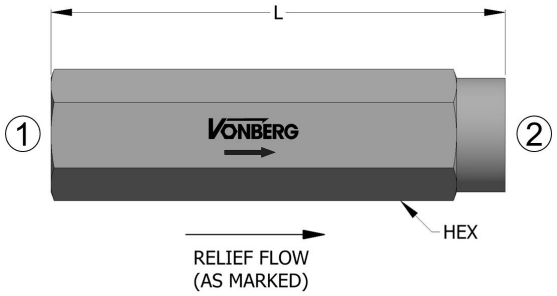
RELIEF VALVE - DIRECT ACTING

PRODUCT



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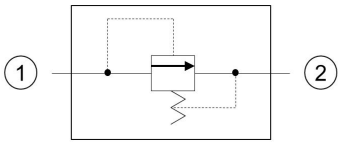
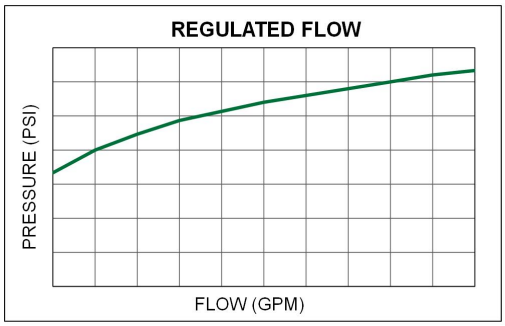


TYPICAL PERFORMANCE



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.

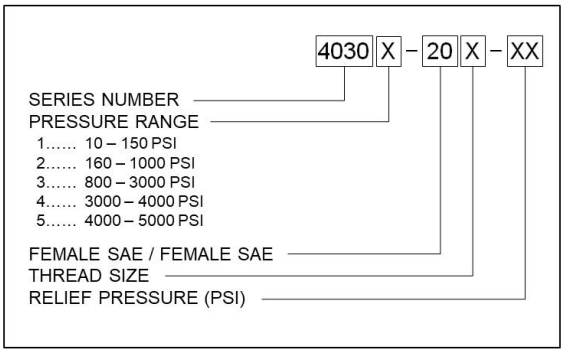
FEATURES

- 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

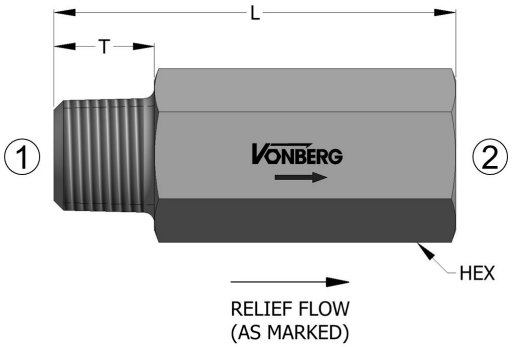


MODEL	INLET / OUTLET	THREAD	L	HEX
4030X-204	-04 SAE	7/16-20	3.20	0.63
4030X-206	-06 SAE	9/16-18	3.70	0.75
4030X-208	-08 SAE	3/4-16	4.00	0.94

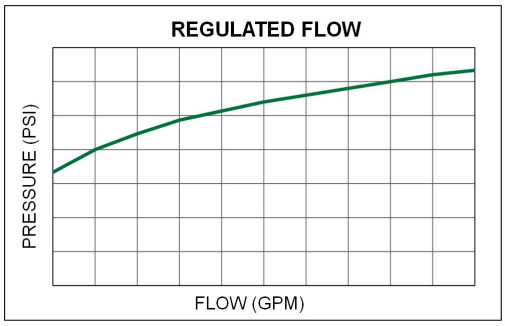
3/25/19, 3:52 PM

RELIEF VALVE - DIRECT ACTING

PRODUCT



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.

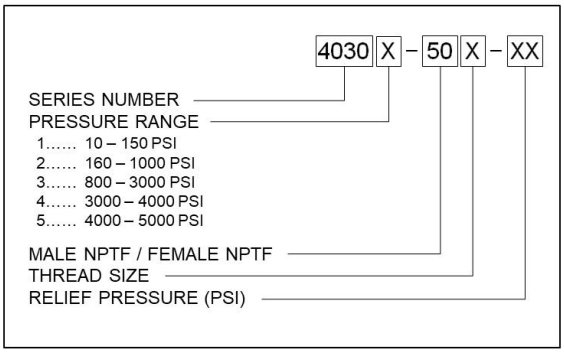
FEATURES

- 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

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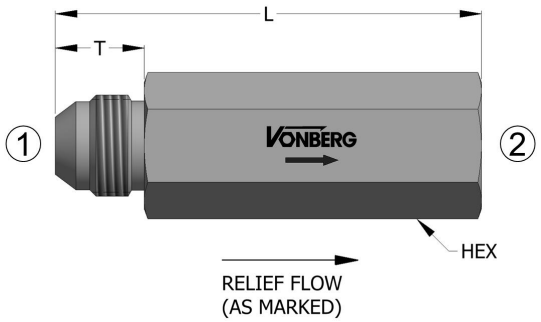
RELIEF VALVE - DIRECT ACTING

PRODUCT



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

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

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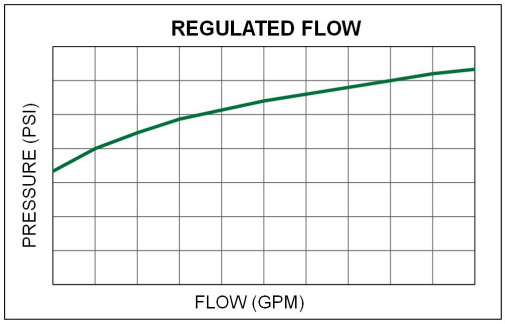
RELIEF VALVE - DIRECT ACTING

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

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	3/4-16	3.50	0.440	0.938

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RELIEF VALVE - DIRECT ACTING

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

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

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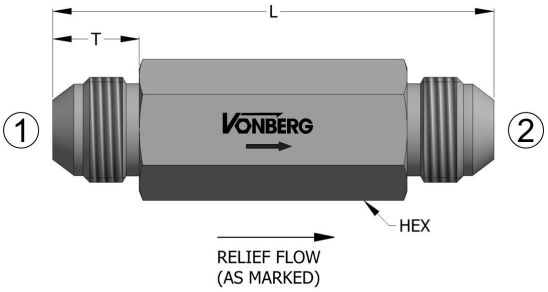
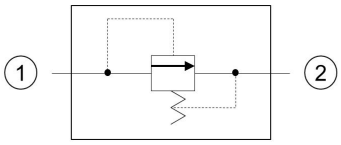
RELIEF VALVE - DIRECT ACTING

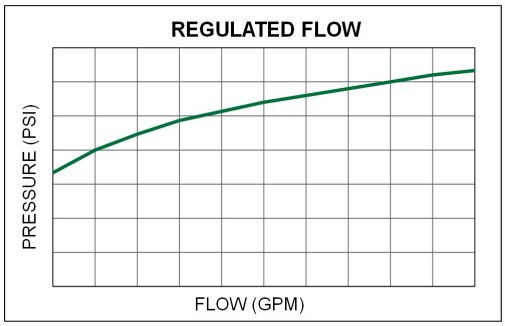
PRODUCT



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.

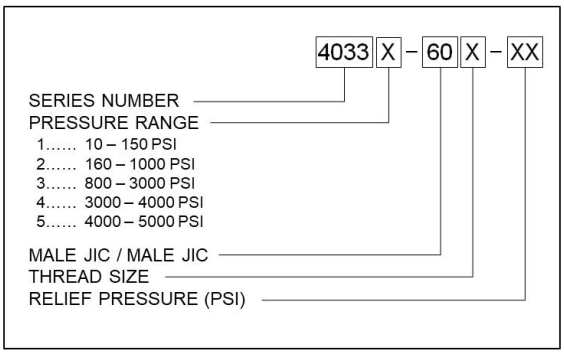
FEATURES

- 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



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

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RELIEF VALVE - DIRECT ACTING

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

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

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RELIEF VALVE - DIRECT ACTING

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.
- BI-DIRECTIONAL SEALS AS STANDARD
- STEEL COMPONENTS.

SPECIFICATIONS

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

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

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RELIEF VALVE - DIRECT ACTING

DESCRIPTION

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

FEATURES

- INDUSTRY COMMON CAVITY
- QUIET OPERATION
- LOW INTERNAL LEAKAGE
- HARDENED SEAT
- BI-DIRECTIONAL SEALS AS STANDARD
- STEEL COMPONENTS.

SPECIFICATIONS

OPERATING PRESSURE	5000 PSI
PRESSURE RANGE	50 PSI - 3600 PSI
RELIEF TOLERANCE	+/- 10%
TEMPERATURE RANGE	250°F TO -40°F

MODEL	THREAD	FLOW CAPACITY	CAVITY	L1	L2	HEX	A	TORQUE
4408R	3/4-16	10 GPM	VC08-2	1.11	2.00	1.00	0.496 / 0.497	20 ft-lbs
4410R	7/8-14	25 GPM	VC10-2	1.25	1.90	1.00	0.622 / 0.623	25 ft-lbs

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RELIEF VALVE - DIRECT ACTING

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.
- BI-DIRECTIONAL SEALS AS STANDARD.
- STEEL COMPONENTS.

SPECIFICATIONS

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

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
46C04	7/16-20	1.0 GPM	C04-2	0.87	1.00	0.56	0.339/0.340	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	10.0 GPM	VC010-2	1.25	1.70	1.00	0.622/0.623	25 ft-lbs

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RELIEF VALVE - DIRECT ACTING

DESCRIPTION

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

OPERATION

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

FEATURES

- ADJUSTABLE
- LOW INTERNAL LEAKAGE
- QUIET OPERATION
- INDUSTRY COMMON CAVITY
- HARDENED SEAT
- BI-DIRECTIONAL SEALS AS STANDARD
- STEEL COMPONENTS

SPECIFICATIONS

OPERATING PRESSURE	5000 PSI
PRESSURE RANGE	50 PSI - 3600 PSI
RELIEF TOLERANCE	+/- 10%
TEMPERATURE RANGE	250°F TO -40°F

MODEL	THREAD	FLOW CAPACITY	CAVITY	L1	L2	HEX	A	TORQUE
4608R	3/4-16	8.0 GPM	VC08-2	1.11	2.11	1.00	0.496/0.497	20 ft-lbs
4610R	7/8-14	25.0 GPM	VC10-2	1.25	1.93	1.00	0.622/0.623	25 ft-lbs

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RELIEF VALVE - DIRECT ACTING

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

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

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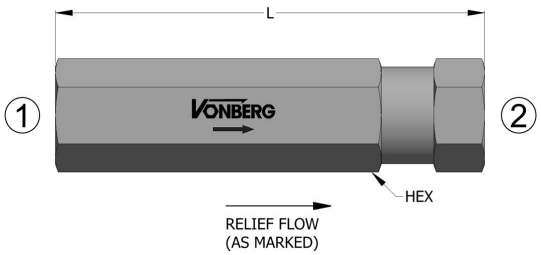
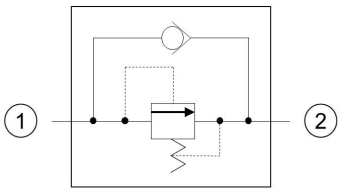
RELIEF VALVE - DIRECT ACTING

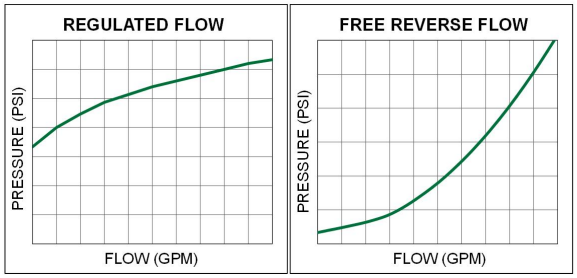
PRODUCT



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.

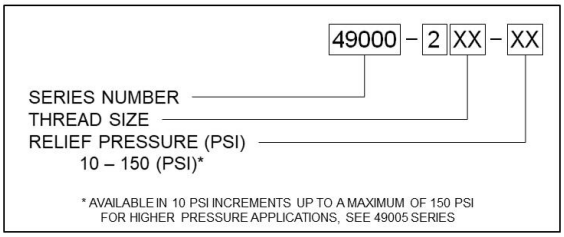
FEATURES

- 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



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

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RELIEF VALVE - DIRECT ACTING

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

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

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RELIEF VALVE - DIRECT ACTING

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

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

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CARTRIDGE BODIES

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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

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

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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

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	3.50	3.50	2.00	0.91	1.66	3.00	0.34	3.06	0.22
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

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3 WAY INDUSTRY STD. MANIFOLD

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

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

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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

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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

MODEL	THREAD	A	B	C	D	E	F	H	R	X	W
T163-DXX	M16X1.5-6H	3.50	2.75	1.00	1.25	1.06	1.38	0.50	0.28	0.38	2.75
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
T17-DXX	M36 X 2.0-6H	6.50	4.00	2.25	1.91	2.00	2.50	0.75	0.41	0.75	5.00

Vonberg Valve, inc.
Hydraulic Valve Specialists

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phone: 847-259-3800 • fax: 847-259-3997 • email: info@vonberg.com

CAVITY PLUG

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

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
9206L	9/16-18	VC06-2 & HVC06-2	0.90	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	11/16-12	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

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OPERATION

• FLUID FLOW IS BLOCK IN BOTH DIRECTIONS.

FEATURES

• STEEL BODY
• BUNA O-RINGS AND BACK-UP RINGS
• T SERIES CAVITY
• ALTERNATE SEAL MATERIAL IS AVAILABLE ON REQUEST

SPECIFICATIONS

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

MODEL	THREAD	CAVITY	L1	L2	HEX	A	B	SD	TORQUE
92T162	M16 X 1.5	T-162A	1.21	0.64	0.75	0.512 / 0.513	0.653 / 0.654	0.290	15 ft-lbs

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CAVITY PLUG

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

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

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CAVITY PLUG

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
- BUNA O-RINGS AND BACK-UP RINGS
- ALTERNATE SEAL MATERIAL IS AVAILABLE ON REQUEST

SPECIFICATIONS

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

MODEL	THREAD	CAVITY	L1	L2	HEX	A	B	C	SD (MAX)	TORQUE
93T11	M20X1.5	T-11A	1.38	1.20	0.875	0.685	0.809	0.857	0.90	30 ft-lbs
93T2	1"-14	T-2A	1.38	1.37	1.125	0.871	1.027	1.074	0.90	45 ft-lbs
93T17	M36 X 2.0	T-17A	1.81	1.70	1.63	1.246	1.433	1.558	1.18	95 ft-lbs

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CAVITY PLUG

DESCRIPTION

A CARTRIDGE STYLE, 4-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	5000 PSI
TEMPERATURE RANGE	250°F TO -40°F

MODEL	THREAD	CAVITY	L1	L2	HEX	A	B	C	TORQUE (FT-LBS.)
9408	3/4-16	VC08-4	2.150	0.30	0.875	0.495/0.497	0.557/0.559	0.620/0.622	20
9410	7/8-14	VC10-4	2.44	0.31	1.000	0.620/0.622	0.683/0.685	0.745/0.747	25

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