

Technical Information

- CV** Check Valves
- SH** Shuttle Valves
- LM** Load/Motor Controls
- FC** Flow Controls
- PC** Pressure Controls
- LE** Logic Elements
- DC** Directional Controls
- MV** Manual Valves
- SV** Solenoid Valves
- PV** Proportional Valves
- CE** Coils & Electronics
- BC** Bodies & Cavities
- TD** Technical Data

General Description

Dual Cross-Over Relief Valve with anti-cavitation checks. This valve provides both overload and shock protection for double acting hydraulic actuators as well as cavitation protection. For additional information see Technical Tips on pages PC1-PC6.



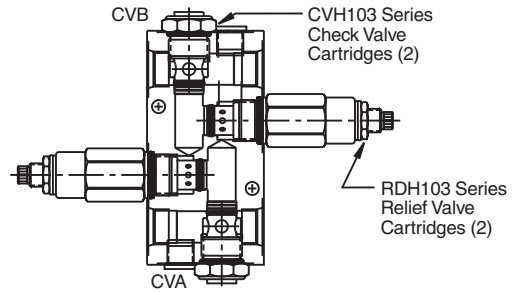
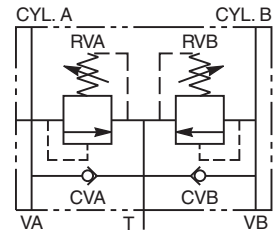
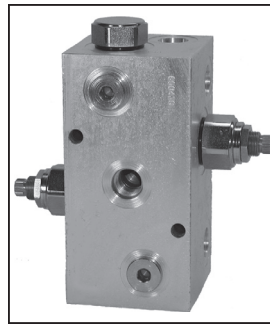
Features

- Fast acting differential area reliefs for high flow capacity
- Spherical poppets for low leakage
- Internal mechanical stop limits poppet travel eliminating spring solidification
- "D"-Ring eliminates backup rings
- All external parts zinc plated

Specifications

Maximum Flow	60 LPM (16 GPM)								
Maximum Inlet Pressure	380 Bar (5500 PSI)								
Maximum Pressure Setting	350 Bar (5000 PSI)								
Sensitivity: Pressure/Turn	<table style="display: inline-table; border: none;"> <tr> <td>10</td> <td>9.8 Bar (143 PSI)</td> </tr> <tr> <td>20</td> <td>17 Bar (246 PSI)</td> </tr> <tr> <td>30</td> <td>25.8 Bar (375 PSI)</td> </tr> <tr> <td>50</td> <td>40.6 Bar (589 PSI)</td> </tr> </table>	10	9.8 Bar (143 PSI)	20	17 Bar (246 PSI)	30	25.8 Bar (375 PSI)	50	40.6 Bar (589 PSI)
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Reseat Pressure	85% of crack pressure								
Leakage at 150 SSU (32 cSt)	5 drops/min. (.33 cc/min.) @ 75% of crack pressure								
Cartridge Material	All parts steel. All operating parts hardened steel.								
Body Material	Steel								
Operating Temp. Range/Seals	-45°C to +132°C ("D"-Ring) (-50°F to +270°F) -34°C to +121°C (Nitrile) (-30°F to +250°F) -26°C to +204°C (Fluorocarbon) (-15°F to +400°F)								
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)								
Filtration	ISO-4406 18/16/13, SAE Class 4								
Approx. Weight	1.8 kg (4.0 lbs.)								

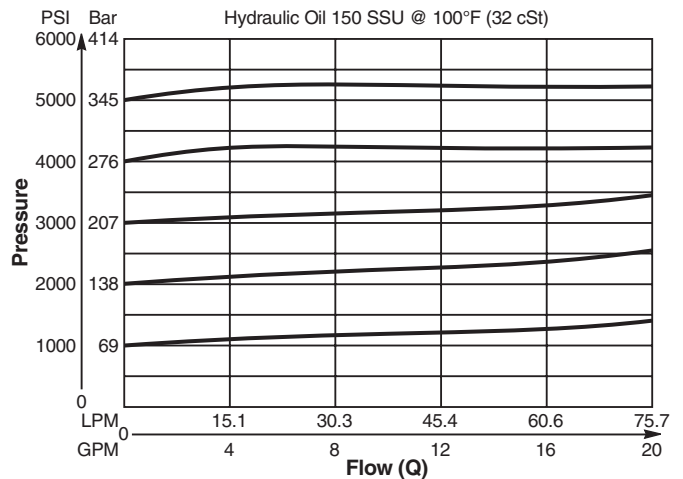
Note: A 6.9 Bar (100 PSI) pressure differential must be maintained between the two relief valve settings.



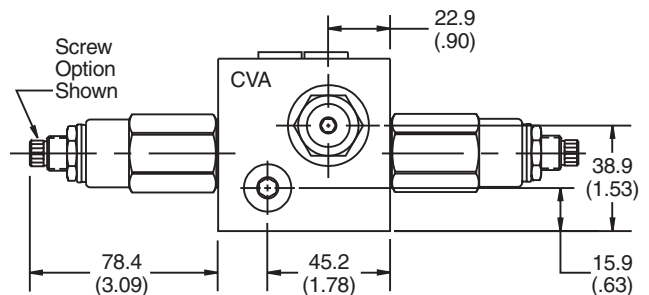
Performance Curve

Flow vs. Inlet Pressure

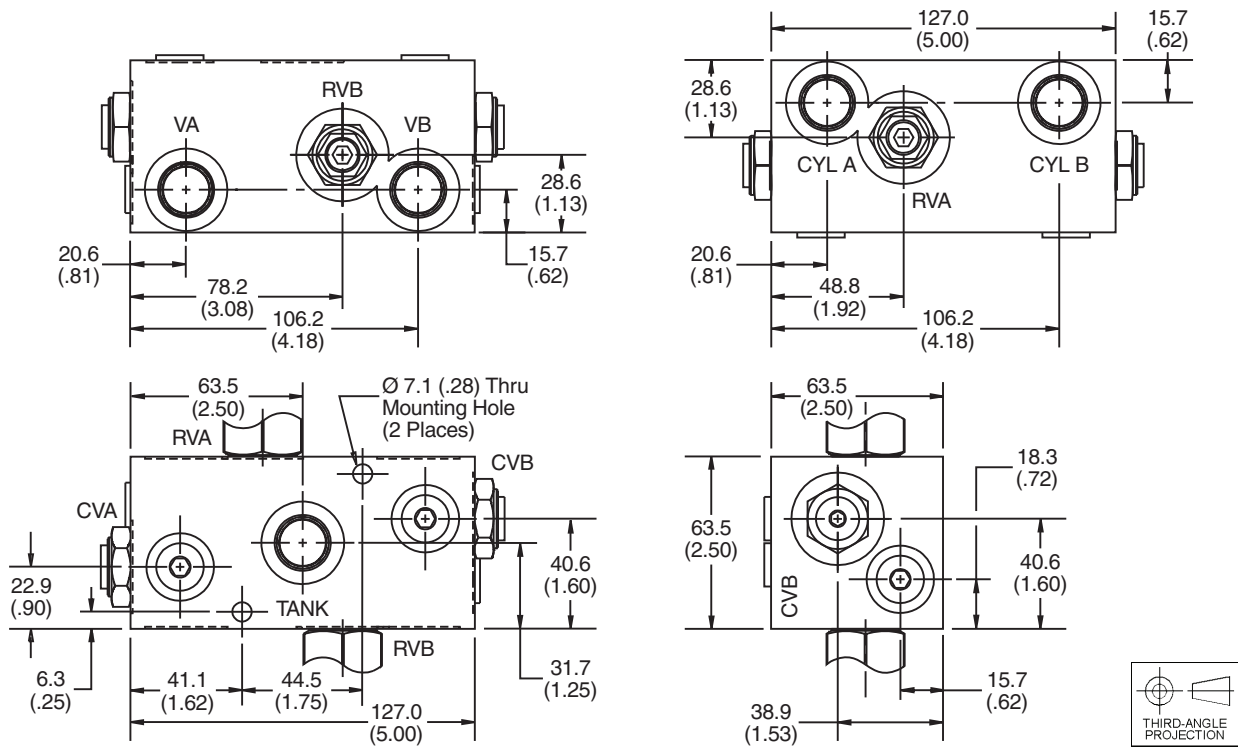
(Pressure rise through cartridge only)



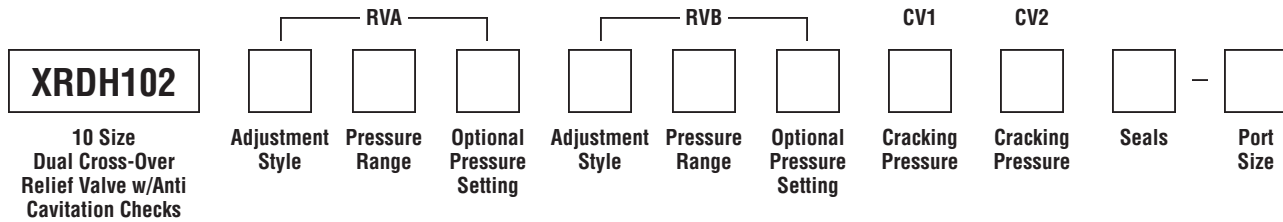
Dimensions Millimeters (Inches)



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Ordering Information



Code	Adjustment Style / Kit No.
F	Fixed style, preset at factory.
K	Knob Adjust (717784-10) (Requires 2)
S	Screw Adjust
T	Tamper Resistant Cap (717943) (Requires 2)

Optional Pressure Setting	
Pressure ÷ 10 i.e. 235 = 2350 PSI (Omit if standard setting is used) Setting Range: 100 to 5000 PSI All settings at .95 LPM (.25 GPM)	

Code	Seals
Omit	"D"-Ring
N	Nitrile
V	Fluorocarbon

Code	Port Size	Part No.
8T	SAE-8	850437

*Individual body requires 4 SAE 6 plugs.
 Part number 6 HP50N-S.*

Code	Pressure Range
10	6.9 - 69 Bar (100 - 1000 PSI) Standard Setting: 34.5 Bar (500 PSI) @ .95 LPM (.25 GPM)
20	34.5 - 138 Bar (500 - 2000 PSI) Standard Setting: 69 Bar (1000 PSI) @ .95 LPM (.25 GPM)
30	34.5 - 207 Bar (500 - 3000 PSI) Standard Setting: 103.5 Bar (1500 PSI) @ .95 LPM (.25 GPM)
50	34.5 - 345 Bar (500 - 5000 PSI) Standard Setting: 172.4 Bar (2500 PSI) @ .95 LPM (.25 GPM)

Code	Cracking Pressure
P	0.3 Bar (5 PSI)
P20	1.4 Bar (20 PSI)
P50	3.5 Bar (50 PSI)
P65	4.5 Bar (65 PSI)
P100	6.9 Bar (100 PSI)

*Note: A 6.9 Bar (100 PSI) pressure differential must be maintained between the two relief valve settings. If both reliefs are adjustable and have the same pressure range; it is not necessary to repeat the adjustment and setting.
 i.e. XRDH102S50P-T6 means that both A & B reliefs are screw adjustable and have a range of 34.5 - 345 Bar (500 - 5000 PSI).*