General Description
The XRDH101 Series Cross-Over Relief Valves are designed to provide both overload and shock protection for double acting hydraulic actuators.

Operation
The valve relieves oil from one side of the actuator to tank, thus reducing shock and preventing overload. It also eliminates cavitation and the need for a separate tank connection. The valve should be installed as close to the actuator as possible for best results.

Features
- Fast acting differential area reliefs
- Low leakage
- Cartridge reliefs
- Ball type pilot for added stability
- All external parts have yellow zinc dichromate. This coating allows them to withstand a 200 hour salt spray test.

Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Flow</td>
<td>75 LPM (20 GPM)</td>
</tr>
<tr>
<td>Maximum Inlet Pressure</td>
<td>380 Bar (5500 PSI)</td>
</tr>
<tr>
<td>Maximum Setting Pressure</td>
<td>345 Bar (5000 PSI)</td>
</tr>
<tr>
<td>Reseat Pressure</td>
<td>80% of crack pressure</td>
</tr>
<tr>
<td>Leakage</td>
<td>.67 cc/min. (10 drops/min.) per relief at 75% of crack pressure</td>
</tr>
</tbody>
</table>
| Operating Temp. Range (Ambient) | -40°C to +93.3°C (Nitrile)  
|                             | (-40°F to +200°F)                  |
|                             | -31.7°C to +121.1°C (Fluorocarbon) |
|                             | (-25°F to +250°F)                  |
| Cartridge Material          | Steel                              |
| Filtration                  | ISO Code 16/13, SAE Class 4 or better |
| Mounting                    | No restrictions                    |

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

*Inch equivalents for millimeter dimensions are shown in (*)

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Relief Valves
Series XRDH101

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THIRD-ANGLE PROJECTION

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[Diagram with dimensions and annotations]

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Parker Hannifin Corporation
Hydraulic Valve Division
Elyria, Ohio  44035  USA

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Relief Valves
Series XRDH101

**Ordering Information**

- **XRDH**
- **10**
- **1**

- **5000 PSI**
- **Size**
- **Adjustment Style**
- **Pressure Range**
- **Optional Pressure Setting**

- **Dual Cross-Over Relief Valve**

- **7/8-14UNF-2B**
- **Threaded Cavity with .62” Dia. Seat**

- **Code Style**
- **1 Inline**

**Code Type**

<table>
<thead>
<tr>
<th>Code</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>Fixed style, preset at factory. Specify desired flow and pressure. i.e. 172.4 Bar (2500 PSI) @ 11.3 LPM (3 GPM). Note: For any given valve setting, any change in flow will cause a change in pressure.</td>
</tr>
<tr>
<td>K</td>
<td>Knob Adjust</td>
</tr>
<tr>
<td>S</td>
<td>Screw Adjust</td>
</tr>
<tr>
<td>T</td>
<td>Tamper Resistant Cap</td>
</tr>
</tbody>
</table>

**Adjustment Style**

- **RVA**
- **RVB**

**Pressure Range**

- **Optional Pressure Setting**
- **Seals**
- **Body Option**

**Description**

- **Pressure ÷ 10**
- i.e. 16.2 = 162 Bar (235 = 2350 PSI)

**Setting Range:**

- 6.9 to 345 Bar (100 to 5000 PSI)
- All settings at 11.3 LPM (3 GPM)

**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. XRDH101-S-50-ST6 means that both A & B reliefs are screw adjustable and have a range of 6.9 - 345 Bar (100 - 5000 PSI).

**Code Port Size & Material**

<table>
<thead>
<tr>
<th>Code</th>
<th>Port Size &amp; Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>6P</td>
<td>3/8” NPTF (B10-2-6P) Steel</td>
</tr>
<tr>
<td>8P</td>
<td>1/2” NPTF (B10-2-8P) Steel</td>
</tr>
<tr>
<td>6T</td>
<td>SAE-6 (B10-2-6T) Steel</td>
</tr>
<tr>
<td>8T</td>
<td>SAE-8 (B10-2-8T) Steel</td>
</tr>
<tr>
<td>6B</td>
<td>3/8” BSPG (B10-2-6B) Steel</td>
</tr>
<tr>
<td>8B</td>
<td>1/2” BSPG (B10-2-8B) Steel</td>
</tr>
</tbody>
</table>

**SERVICE PARTS**

- **Knob Option:** 852605 & 852634
  (To convert screw adjust to knob adjust)
- **Nitrile Seal Kit:** SK10-2
- **Fluorocarbon Seal Kit:** SK10-2V

**Shipping Weight**: 1.9 kg (4.3 lbs.)