General Description

Series ULR unloading valves are used to divert pump flow to tank when system demand is low.

An unloading valve is normally closed (OFF). Pilot pressure from an external source, entering the valve at the pilot port, is required to shift the valve spool to the open (ON) position. To open the valve, pilot pressure must exceed the spring force of the adjustable setting. All Series ULR valves are internally drained to tank port.

Specifications

<table>
<thead>
<tr>
<th>Pressure Adjustment Range*</th>
<th>3/8” and 3/4” Valves:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code L:</td>
<td>10.2 - 17 Bar (150 - 250 PSI)</td>
</tr>
<tr>
<td>Code B:</td>
<td>10.2 - 34 Bar (150 - 500 PSI)</td>
</tr>
<tr>
<td>Code M:</td>
<td>10.2 - 68 Bar (150 - 1000 PSI)</td>
</tr>
<tr>
<td>Code F:</td>
<td>10.2 - 136 Bar (150 - 2000 PSI)</td>
</tr>
<tr>
<td>Code H:</td>
<td>10.2 - 205 Bar (150 - 3000 PSI)</td>
</tr>
<tr>
<td>1 1/4” Valves:</td>
<td></td>
</tr>
<tr>
<td>Code H:</td>
<td>68 - 205 Bar (1000 - 3000 PSI)</td>
</tr>
<tr>
<td>Code F:</td>
<td>34 - 136 Bar (500 - 2000 PSI)</td>
</tr>
<tr>
<td>Code M:</td>
<td>14 - 68 Bar (200 - 1000 PSI)</td>
</tr>
<tr>
<td>Code B:</td>
<td>7 - 34 Bar (100 - 500 PSI)</td>
</tr>
<tr>
<td>Code L:</td>
<td>3.4 - 17 Bar (50 - 250 PSI)</td>
</tr>
<tr>
<td>Code Z:</td>
<td>1.7 - 8.5 Bar (25 - 125 PSI)</td>
</tr>
</tbody>
</table>

| Maximum Operating Pressure | 205 Bar (3000 PSI) |
| Minimum Pressure Setting   | 10.2 Bar (150 PSI) minimum at maximum rated flow (except 1 1/4” size), 32 cst. (150 SSU) oil and fluid temperature of 38°C (100°F) |

Note: Change in flow, temperature or fluid [cst. (SSU)] rating will affect valve minimum pressure.

Flow Data

<table>
<thead>
<tr>
<th>Valve Model</th>
<th>Max. Flow GPM (L/M)</th>
<th>Mounting Style</th>
<th>Port Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>ULR3P</td>
<td>12 GPM (45 L/M)</td>
<td>Inline</td>
<td>3/8 NPTF</td>
</tr>
<tr>
<td>ULR3M</td>
<td>12 GPM (45 L/M)</td>
<td>Subplate (NPPA) PO3</td>
<td>3/8 NPTF*</td>
</tr>
<tr>
<td>ULR6P</td>
<td>30 GPM (114 L/M)</td>
<td>Inline</td>
<td>3/4 NPTF</td>
</tr>
<tr>
<td>ULR6M</td>
<td>30 GPM (114 L/M)</td>
<td>Subplate (NPPA) PO5</td>
<td>3/4 NPTF*</td>
</tr>
<tr>
<td>ULR10P</td>
<td>70 GPM (265 L/M)</td>
<td>Inline</td>
<td>1-1/4 NPTF</td>
</tr>
<tr>
<td>ULR10M</td>
<td>70 GPM (265 L/M)</td>
<td>Subplate (NPPA) PO10</td>
<td>1-1/4 NPTF*</td>
</tr>
</tbody>
</table>

* Refers to subplate port size.

* See Ordering Information Range Options
† With respect to normal setting
Pressure Control Valves
Series ULR

UNLOADING VALVE

ULR

SIZE

PRESSURE RANGE

SEALS

DESIGN SERIES

* NOTE: NOT REQ'D. WHEN ORDERING

Omit Nitrile
V Fluorocarbon

<table>
<thead>
<tr>
<th>SIZE</th>
<th>PRESSURE RANGE</th>
<th>SEALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3P</td>
<td>3/8&quot; NPTF Inline</td>
<td></td>
</tr>
<tr>
<td>3M</td>
<td>3/8&quot; Subplate (NFPA P03)</td>
<td></td>
</tr>
<tr>
<td>6P</td>
<td>3/4&quot; NPTF Inline</td>
<td></td>
</tr>
<tr>
<td>6M</td>
<td>3/4&quot; Subplate (NFPA P06)</td>
<td></td>
</tr>
<tr>
<td>10P</td>
<td>1-1/4&quot; NPTF Inline</td>
<td></td>
</tr>
<tr>
<td>10M</td>
<td>1-1/4&quot; Subplate (NFPA P10)</td>
<td></td>
</tr>
</tbody>
</table>

H
150-3000 psi (3/8 & 3/4 size)
600-3000 psi (1-1/4 size)

F
150-2000 psi (3/8 & 3/4 size)
400-2000 psi (1-1/4 size)

M
150-1000 psi (3/8 & 3/4 size)
200-1000 psi (1-1/4 size)

B
150-500 psi (3/8 & 3/4 size)
100-500 psi (1-1/4 size)

L
150-250 psi (3/8 & 3/4 size)
50-250 psi (1-1/4 size)

Z*
25-125 psi (1-1/4 size)

*Not available with 3/8" and 3/4" valves.

Weight:
- ULR3P 4.8 kg (10.5 lbs.)
- ULR3M 4.8 kg (10.5 lbs.)
- ULR6P 5.2 kg (11.5 lbs.)
- ULR6M 5.2 kg (11.5 lbs.)
- ULR10P 10.4 kg (23.0 lbs.)
- ULR10M 10.4 kg (23.0 lbs.)
Millimeter equivalents for inch dimensions are shown in (**) 

Manifold mounted, 3/8” pilot operated 

Unloading Valve
Millimeter equivalents for inch dimensions are shown in ("

In-line mounted, 3/8" pilot operated

Unloading Valve
Parker Hannifin Corporation
Hydraulic Valve Division
Elyria, Ohio, USA

Pressure Control Valves
Series ULR6M

Millimeter equivalents for inch dimensions are shown in (**)

Manifold mounted, 3/4" pilot operated
Unloading Valve

JAM NUT-LOCKS
PRESSURE SETTING

.90 (23) DIA.
TANK OUTLET
PORT

1/4 NPTF FOR OPTIONAL
REMOTE PRESSURE
ADJUSTMENT

.90 (23) DIA.
PRESS. INLET

25 (6.3) DIA.
LOCATING
PINS (2 PLACES)

.17 (4.3) DIA.
REMOTE
PILOT CONTROL PORT

FULLY EXTENDED

1/4 NPTF-GAGE
PORT-OUTLET

6.25 (159)

1.62 (41.1)

2.21 (55.4)

3.00 (76.2)

5.00 (127)

2.75 (70) SQ.

.93 (23.7)

.92 (23.5)

2.88 (73.1)

3.13 (79.5)

.97 (24.6)

1.56 (40)

1.97 (50)

.44 (11.1)

.56 (14.2)

1.94 (49.4)

.63 (16)

.63 (16)

2.38 (60.4)

6.25 (159)

56 (14.2)

Millimeter equivalents for inch dimensions are shown in (**)

Manifold mounted, 3/4" pilot operated
Unloading Valve
Pressure Control Valves
Series ULR6P

Millimeter equivalents for inch dimensions are shown in (**) 

In-line mounted, 3/4" pilot operated
Unloading Valve
Millimeter equivalents for inch dimensions are shown in (**)

Manifold mounted, 1 1/4" direct operated

Unloading Valve
Pressure Control Valves

Series ULR10P

Millimeter equivalents for inch dimensions are shown in (**) 
In-line mounted, 1 1/4" direct operated 
Unloading Valve