Typical application for the PCR, PCA and CP3 is in a proportional circuit to achieve pressure compensated flow control or as main stage of a ventable relief valve.

The pressure compensator is -pass located and is spring biased to a closed position.

The PCA-0V version is commonly used as main stage of a ventable relief valve.
DESCRIPTION
10 size, 7/8-14 thread, "Delta" series, pressure compensating regulator valve.

OPERATION
The DF-PCR-0P with an orifice between ports (3) and (1) maintains a constant flow rate from (3) regardless of load pressure changes in the system upstream of (3), or in the pass leg at (2) as long as pressure at (2) is less than (1).

The valve’s spool maintains a constant differential pressure across an external orifice, there regulating the hydraulic flow rate from (3) to (2). (see options table for pressure ranges)

When used with an orifice as described above, as a priority type regulator, delivering pump flow first to (3), then passing excess to (2). All ports may be fully pressurized.

FEATURES
- Hardened parts for long life.
- Industry common cavity.
- Spring range from 2,8 to 14 bar

HYDRAULIC SYMBOL
Pressure compensator for 3–way flow control, typically used with an external orifice between ports (3) and (1). Port (1) should sense upstream pressure of orifice.
Can be used as a logic element.

PERFORMANCE
Actual Test Data (Cartridge Only)

VALVE SPECIFICATIONS
Nominal Flow 10 GPM (38 LPM)
Rated Operating Pressure 3500 PSI (241 bar)
Typical Internal Leakage (150 SSU) 35 ml/min @ 250 bar
Seat Ratio Area of Pilot is equal to the area at Port (3)
Viscosity Range 36 to 3000 SSU (3 to 647 cSt)
Filtration ISO 18/16/13
Media Operating Temperature Range -40° to 250° F (-40° to 120° C)
Weight .19 lbs. (.08 kg)
Operating Fluid Media General Purpose Hydraulic Fluid
Cartridge Torque Requirements 30 ft-lbs (40.6 Nm)
Cavity DELTA 3W
Cavity Tools kit (form tool, reamer, tap) 40500001
Seal Kit 21191206

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**PRESSURE CONTROLS**

**DIMENSIONS**

![Diagram of DF-PCR pressure control](image)

(for bodies style and sizes see section “Accessories”)

**ORDERING INFORMATION**

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<thead>
<tr>
<th>OPTIONS</th>
<th>DF-PCR</th>
<th>OPTIONS</th>
<th>BODIES</th>
<th>PRESSURE SETTING</th>
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<tr>
<td>Buna Standard</td>
<td>0P</td>
<td>Blank</td>
<td>Without Body</td>
<td>0040</td>
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<td>Viton Standard</td>
<td>VP</td>
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<td>3/8 &quot; BSP Ports</td>
<td>0080</td>
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TECNORD

Phone +39 059 254895  Fax +39 059 253512  E-mail: tecnord@tecnord.com

*a Delta Power Co.*
**DESCRIPTION**

12 size, 1 1/16-12 thread, "Tecnord" series, pressure compensating regulator valve.

**OPERATION**

The TR-PCA-0P with an orifice between ports (3) and (1) maintains a constant flow rate from (3) regardless of load pressure changes in the system upstream of (3), or in the pass leg at (2) as long as pressure at (2) is less than (1).

The valve's spool maintains a constant differential pressure across an external orifice, there regulating the hydraulic flow rate across this external orifice. (see options table for pressure ranges)

When used with an orifice as described above, it functions as a priority type regulator, delivering pump flow first to the external orifice, then passing excess to (2). All ports may be fully pressurized.

The TR-PCA-0V with a dump valve and a pilot relief valve at (1) acts as main stage of a ventable relief valve.

**FEATURES**

- Hardened parts for long life.
- Industry common cavity.
- Spring range from 20 to 230 PSI

**HYDRAULIC SYMBOL**

Can be used as a logic element.

**TR-PCA-0P** is commonly used as a pass flow regulator (90 and 150 PSI recommended).

**TR-PCA-0V** is commonly used as the main stage of a ventable relief valve (50 and 90 PSI recommended).

**PERFORMANCE**

Actual Test Data (Cartridge Only)

**VALVE SPECIFICATIONS**

- Nominal Flow: 40 GPM (151 LPM)
- Rated Operating Pressure: 3500 PSI (241 bar)
- Seat Ratio: Area of Pilot is equal to the area at Port (3)
- Viscosity Range: 36 to 3000 SSU (3 to 647 cSt)
- Filtration: ISO 18/16/13
- Media Operating Temperature Range: -40° to 250° F (-40° to 120° C)
- Weight: .54 lbs. (.24 kg)
- Operating Fluid Media: General Purpose Hydraulic Fluid
- Cartridge Torque Requirements: 70 ft-lbs (95 Nm)
- Cavity: TECNORD 3W
- Cavity Tools kit (form tool, reamer, tap): 40500034
- Seal Kit: 21191306

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**TECNORD**

Phone +39 059 254895  Fax +39 059 253512  E-mail: tecnord@tecnord.com

*a Delta Power Co.*
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TECNORD

a Delta Power Co.
DESCRIPTION

OPERATION
The SL-PCA-0P with an external orifice between ports (3) and (1) maintains a constant flow rate across the external orifice, regardless of load pressure changes in the system upstream of (3), or in the pass leg at (2) as long as pressure at (2) is less than (1).

The valve’s spool maintains a constant differential pressure across the external orifice, there regulating the hydraulic flow rate across the external orifice. (see options table for pressure ranges)

When used with an orifice as described above, it functions as a priority type regulator, delivering pump flow first to the external orifice, then passing excess to (2). All ports may be fully pressurized.

The SL-PCA-0V with a dump valve and a pilot relief valve at (1) acts as main stage of a ventable relief valve.

FEATURES
- Hardened parts for long life.
- Industry common cavity.

HYDRAULIC SYMBOL
Can be used as a logic element.
SL-PCA-0P is commonly used as a pass flow regulator (100 PSI recommended).
SL-PCA-0V is commonly used as the main stage of a ventable relief valve (50 and 100 PSI recommended).

PERFORMANCE
Actual Test Data (Cartridge Only)

Valve Specifications
- Nominal Flow: 40 GPM (151 LPM)
- Rated Operating Pressure: 3500 PSI (241 bar)
- Seat Ratio: Initially area of Pilot is 1.2 times the area at Port (3), then 1:1
- Viscosity Range: 36 to 3000 SSU (3 to 647 cSt)
- Filtration: ISO 18/16/13
- Media Operating Temperature Range: -40° to 250° F (-40° to 120° C)
- Weight: 70 lbs. (.32 kg)
- Operating Fluid Media: General Purpose Hydraulic Fluid
- Cartridge Torque Requirements: 90 ft-lbs (122 Nm)
- Cavity: SUPER 3W SHORT
- Cavity Tools kit (form tool, reamer, tap): 40500021
- Seal Kit: 21191406

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TECNORD Phone +39 059 254895 Fax +39 059 253512 E-mail: tecnord@tecnord.com

a Delta Power Co.
QC-CP3 Pressure Compensating Valve, -Pass type for 3-way Flow control

**DESCRIPTION**
Special cavity, pressure compensating valve, -pass type, for 3-way flow control, normally closed.

**OPERATION**
The QC-CP3 with an orifice between ports (3) and (1) maintains a constant flow rate from (3) regardless of load pressure changes in the system upstream of (3), or in the pass leg at (2) as long as pressure at (2) is less than (1).
The valve’s spool maintains a constant differential pressure across an external orifice, there regulating the hydraulic flow rate from (3) to (2). (see options table for pressure ranges)

When used with an orifice as described above, as a priority type regulator, delivering pump flow first to (3), then passing excess to (2). All ports may be fully pressurized.

**FEATURES**
- Hardened parts for long life.
- Spring range from 8 to 24 bar

**HYDRAULIC SYMBOL**
Pressure compensator for 3 way flow control, typically used with an external orifice between ports (3) and (1). Port (1) should sense upstream pressure of orifice.

**PERFORMANCE**
Actual Test Data (Cartridge Only)

**VALVE SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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<tbody>
<tr>
<td>Nominal Flow</td>
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<tr>
<td>Rated Operating Pressure</td>
<td>3500 PSI (241 bar)</td>
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<tr>
<td>Typical Internal Leakage (150 SSU)</td>
<td>35 ml/min @ 250 bar</td>
</tr>
<tr>
<td>Viscosity Range</td>
<td>36 to 3000 SSU (3 to 647 cSt)</td>
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<tr>
<td>Filtration</td>
<td>ISO 18/16/13</td>
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<tr>
<td>Media Operating Temperature Range</td>
<td>-40° to 250° F (-40° to 120° C)</td>
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<tr>
<td>Weight</td>
<td>.35 lbs. (.16 kg)</td>
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<tr>
<td>Operating Fluid Media</td>
<td>General Purpose Hydraulic Fluid</td>
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<td>Cavity</td>
<td>T031</td>
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<td>Cavity Tools kit (form tool, reamer, tap)</td>
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a Delta Power Co.

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