## TR-PCA PRESSURE COMPENSATING REGULATOR VALVE



## DESCRIPTION

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

## OPERATION

The TR-PCA-OP 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 bypass 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, thereby 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 bypassing 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.


## HYDRAULIC SYMBOL



## PERFORMANCE




Can be used as a logic element. TR-PCA-OP is commonly used as a bypass flow regulator (90 and 150 PSI recommended). TR-PCA-oV is commonly used as the main stage of a ventable relief valve (50 and 90 PSI recommended).

## VALVE SPECIFICATIONS

| Nominal Flow | $40 \mathrm{GPM}(151 \mathrm{LPM})$ |
| :--- | :--- |
| Rated Operating Pressure | 3500 PSI (241 bar) |
| Seat Ratio | Area of Pilot is equal to the area <br> at Port (3) |
| Viscosity Range | 36 to $3000 \mathrm{SSU}(3$ to 647 cSt$)$ |
| Filtration | ISO $18 / 16 / 13$ |
| Media Operating Temp. Range | $-40^{\circ}$ to $250^{\circ} \mathrm{F} \mathrm{(-40}^{\circ}$ to $\left.120^{\circ} \mathrm{C}\right)$ |
| Weight | $.54 \mathrm{lbs}(.24 \mathrm{~kg})$ |
| Operating Fluid Media | General Purpose Hydraulic Fluid |
| Cartridge Torque Requirements | 70 ft-lbs (95 Nm) |
| Cavity | TECNORD 3WS |
| Cavity Form Tool (Finishing) | 40500033 |
| Seal Kit | 21191306 |

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## TECNORD

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## DIMENSIONS



Body Weight: $1.56 \mathrm{lbs}(.70 \mathrm{~kg})$

## ORDERING INFORMATION



Buna, Vent to Open OV Viton, Vent to Open VV

## $\triangle$ P SETTING

@ 1 GPM with Pilot Vented
002020 PSI
005050 PSI
009090 PSI
0150150 PSI
0230230 PSI
$\pm 10 \%$

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[^0]:    WARNING: the specifications/application data shown in our catalogs and data sheets are intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

