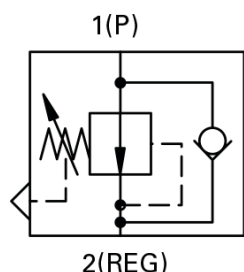
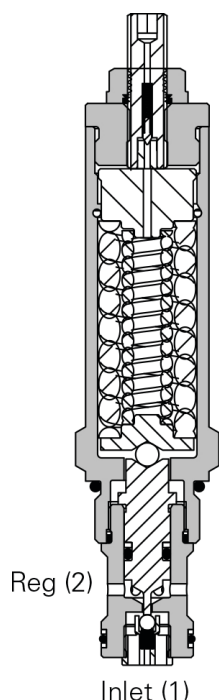


# 1PDC5 - Pressure reducing valve

Direct acting 2 ported Pressure reducing valve with check  
6L/min (1.5 USgpm) • 210bar (3000psi) Reg • 350bar (5000psi) Inlet



## Sectional view



## Operation

At low pressure the pilot piston keeps the ball away from the seat allowing flow from port 1 to 2. As the pressure in the line increases the pilot piston is forced back against the spring until the ball sits on the seat. The inlet pressure can then rise up to the maximum system pressure. If the inlet pressure is removed then the ball will remain on the seat limiting the leakage to less than 1/3 cc/ min.

It should be noted that if the inlet pressure remains higher than the set pressure then leakage may take place from port 1 to port 2. If the regulated line has no leakage then the regulated pressure may rise in time to the inlet pressure.

## Features

Hardened seat and ball provide good sealing over the life of the valve. External parts surface hardened.

## Performance data

### Ratings and specifications

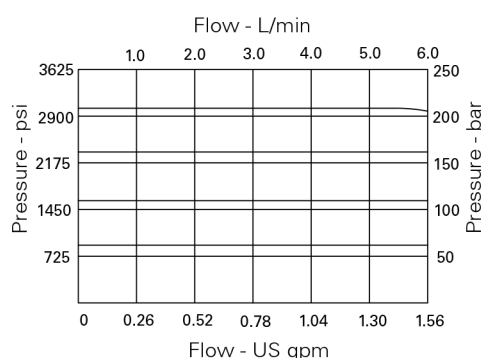
Figures based on: Oil Temp=40 C Viscosity = 32 cSt (150 SUS)

Max setting	210 bar (3000psi)
Max inlet pressure	350 bar (5000 psi)
Rated Flow	6 lts/min (1.5 US gpm)
Cavity	C-12-2
Standard housing material	Aluminium up to 210 bar add suffix "377" for steel option
Temperature range	-40° to 120°C (-40° to 248°F)
Fluids	All general purpose hydraulic fluids such as MIL-H-5606, SAE 10, SAE 20 etc
Filtration	Cleanliness code 18/16/13
Weight Cartridge only	0, 62Kg (1.36 lbs)
Seal kit	02-165889 Nitrile 02-165888 Viton®

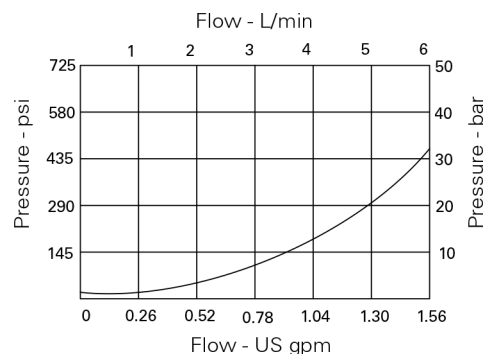
## Description

The 1PDC5 is a direct acting poppet type pressure reducing valve with a free flow check. The valve is used where leakage past the reducing valve is very important to maintain reduced locked in pressure in an accumulator or other pressurised systems.

## Pressure drop



Regulated Pressure



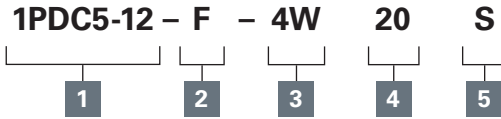
Free Flow Pressure Drop

Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.

# 1PDC5 - Pressure reducing valve

Direct acting 2 ported Pressure reducing valve with check  
6L/min (1.5 USgpm) • 210bar (3000psi) Reg • 350bar (5000psi) Inlet

## Model code



### 1 Function

**1PDC5-12** - Pressure reducing valve with free flow check

### 2 Adjustment

**F** - Screw adjust

### 3 Port sizes - bodied valves only

Code	Port size	Aluminium	Steel
<b>4W</b>	1/2" BSPP	02-161118	02-172062
<b>10T</b>	SAE 10	02-160640	02-169744

### 4 Pressure range

**20** - 30 - 210 bar  
Standard setting 100 bar

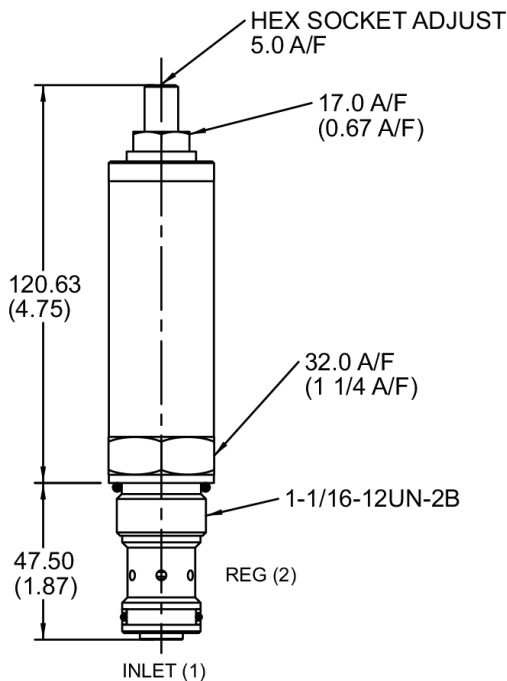
### 5 Seals

**S** - Nitrile - for standard temperatures and most fluid applications

## Dimensions

mm (inch)

## Cartridge only

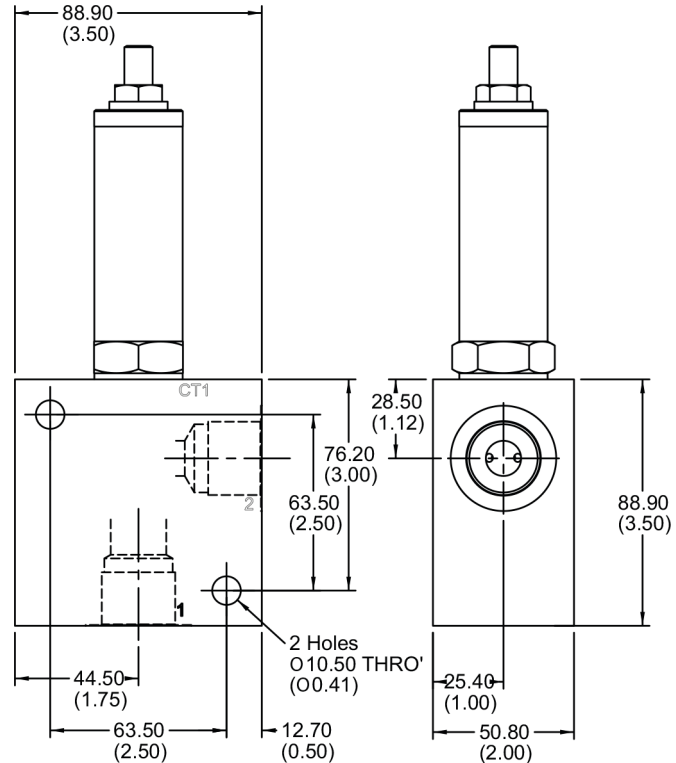


## Torque cartridge into housing

**A** - 81-95Nm (60-70 ft lbs)

**S** - 102-115 Nm (75-85 ft lbs)

## Installation drawing



## Warning

Aluminum housings can be used for pressures up to 210 bar (3000 psi). Steel housings must be used for operating pressures above 210 bar (3000 psi).

Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.