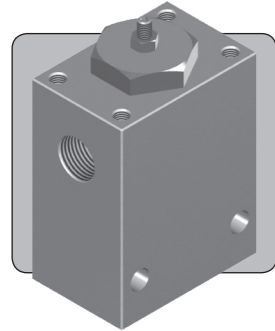


# PCFR50

## FLOW REGULATOR

1/2" 3/8"

UP TO 690 BAR  
10,000 PSI



The PCFR50 is a pressure compensated flow control valve. Unlike a standard metering valve, the PCFR50 provides a relatively constant flow in one direction, regardless of the pressure differential across the valve, and is ideal for providing constant speed control of functions that have variable loads.

In reverse, the valve will open to allow non-metered reverse

flow once a differential pressure of approximately 7 bar (102 psi) or 2 bar (29 psi) for LF versions is exceeded, and below this pressure will provide non-pressure compensated metered flow. This valve does not provide tight shut-off when closed.

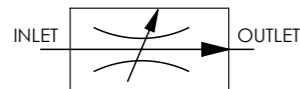
- Pressure compensated flow control valve
- Adjustable flow setting with locking feature
- Ideal for uni-directional speed control with variable loads or supply pressures
- Stainless steel construction
- Suitable for use with mineral oils and water glycols and many other media, contact us for advice
- Subsea variant available, contact us for advice
- Various porting options available, including a cartridge version for use in manifolds

### Specifications

**BASIC MODEL NUMBER**

**PCFR50**

**SYMBOL**



**MAX WORKING PRESSURE (LIQUID)**

690 bar  
(10,000 psi)

**MAXIMUM DIFFERENTIAL PRESSURE**

414 bar  
(6,000 psi)

**MINIMUM DIFFERENTIAL PRESSURE**

15 bar  
(218 psi)  
*When operated below this differential pressure, flow rate will not be pressure compensated*

**REGULATED FLOW SETTING RANGE**

5 - 45 l/min (1.3 - 11.9 USgpm)  
*For lower flows, see LF version in Product Selector opposite*

**FLUID**

Liquids only  
*See materials section*

**TEMPERATURE RANGE**

*See Product Selector opposite and Technical Data section*

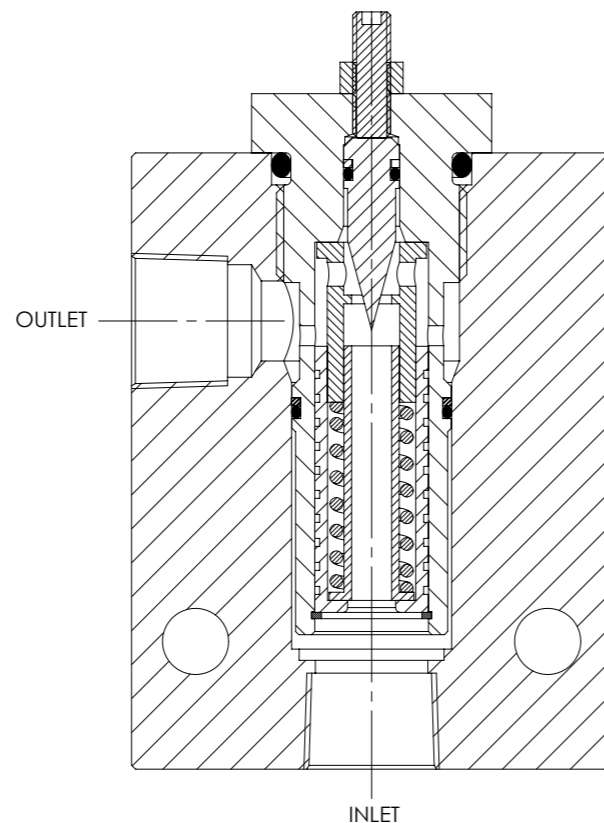
**PORT SIZE**

1/2" or 3/8"  
*See Product Selector opposite*

**WEIGHT**

**Standard** 2.8 kg (6.2 lb)  
**PCFR50C** 0.35 kg (0.8 lb)

*Specifications may change without notice*



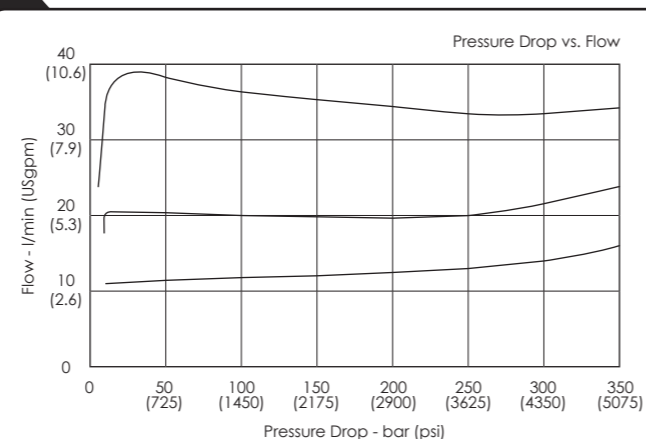
### Materials

Externally Exposed Parts: 316 and 304 stainless steel.  
Internally Wetted Parts: 316, 302, 431 and 440C stainless steel and acetal for the standard valve. 316, 302, 17-4 PH, acetal and aluminium bronze for the water duty version.

The standard valve is designed for use with non-corrosive liquids only, such as mineral oil and water glycol. A water duty version is available for use in plain water systems. Contact us for advice where use with more corrosive fluids is required.

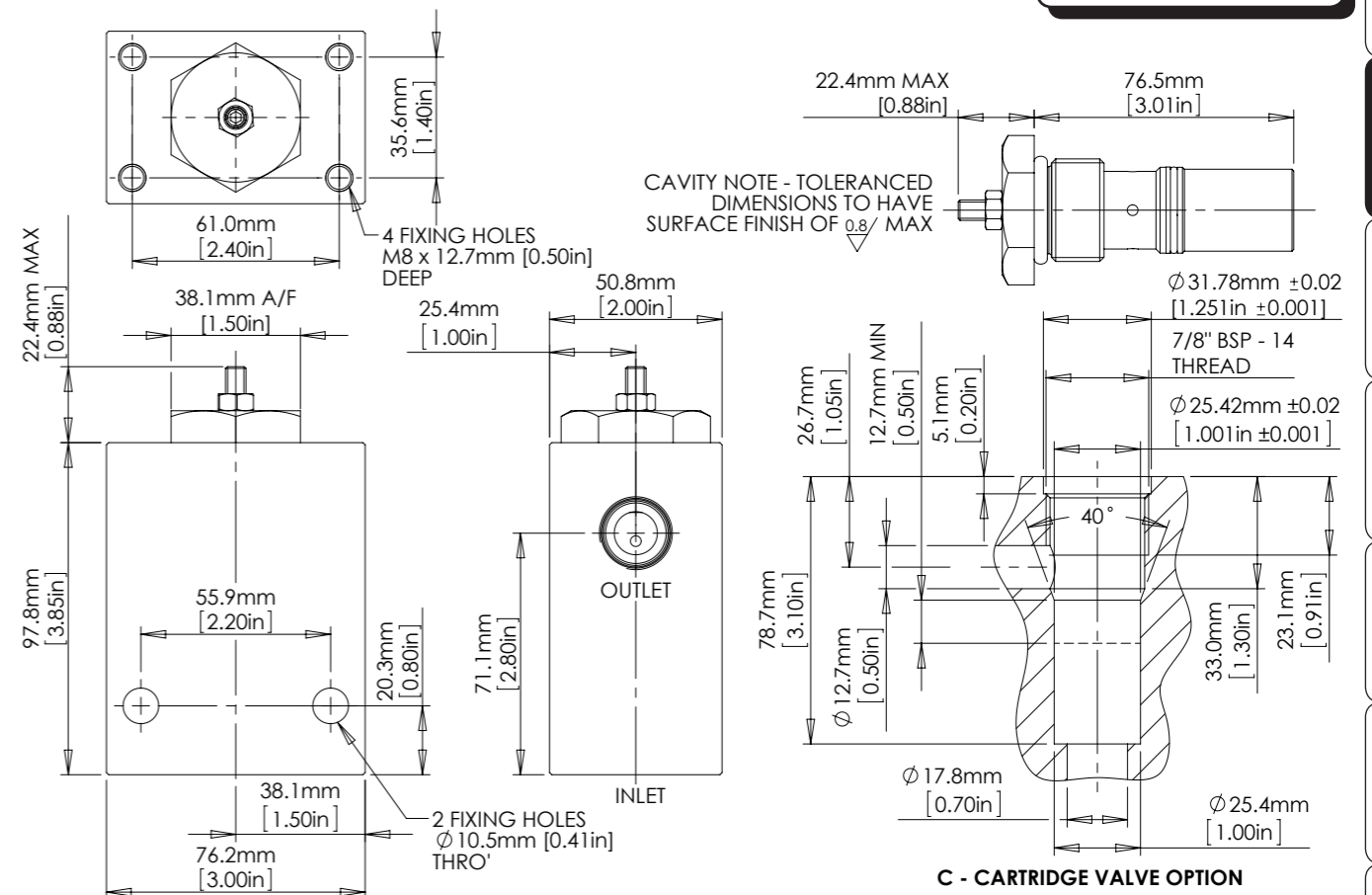
**!** The standard valve has Viton® seals. Further seal options are available via the Product Selector. Compatibility with the working fluid at the operating temperature must be considered.

### Typical Performance



*Typical performance based on water*

### Installation Diagram



### Product Selector

#### PCFR50 P - LF - NBR - 10K

VALVE TYPE	PORTING OPTIONS	VALVE OPTIONS	SEAL OPTIONS	MAX WORKING PRESSURE
PCFR50	<b>P</b> 1/2" BSPP female	<b>LF</b> Low flow 2 - 15 L/Min (0.5 - 4.0 USgpm)	<b>NBR</b> Nitrile seals -30°C to +105°C	<b>10K</b> 690 bar (10,000 psi) Liquid
	<b>N</b> 1/2" NPT female		<b>EP</b> EPDM seals -45°C to +120°C <i>Only available with the WD option</i>	
	<b>/37P</b> 3/8" BSPP female	<b>WD</b> Water Duty	<b>KLZ</b> Kalrez® seals -25°C to +120°C	
	<b>/37N</b> 3/8" NPT female	<i>Any combination of options is allowable</i>	<b>HNBR</b> Hydrogenated Nitrile seals -20°C to +120°C	
	<b>C</b> Cartridge valve		<i>Further seal options are available on request</i>	

*Repair and seal kits are available on request*

*For a seal kit add SK at the end of the model code and for a repair kit add RK*



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[www.bisvalves.co.uk](http://www.bisvalves.co.uk)

**BS VALVES**  
The Specifier's Catalogue

SOLENOID  
FLOW CONTROL  
3 PORT DIRECTIONAL CONTROL  
4 PORT DIRECTIONAL CONTROL  
CHECK AND SHUTTLE  
PILOT OPERATED CHECK  
RELIEF  
EXCESS FLOW  
FILTERS  
PRESSURE SENSING  
PUMPS  
ACTUATORS  
TECHNICAL DATA