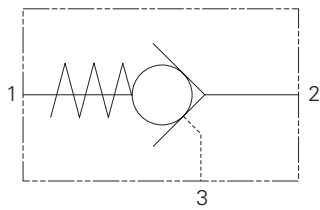


# 4CK120 - Check valve

Pilot-to-open, poppet type  
120 L/min (32 USgpm) • 350 bar (5000 psi)



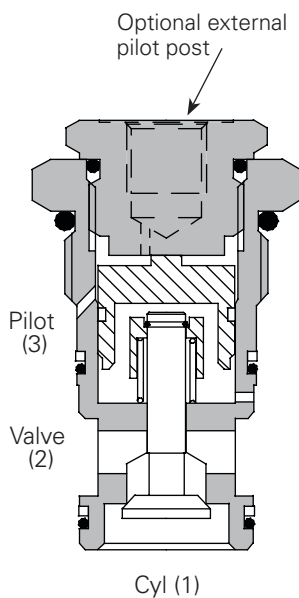
## Operation

Pressure on the valve port 2 causes the poppet to lift against the spring force, allowing the flow to the cylinder port 1. Reverse flow is prevented by the poppet reseating. Pressure applied to the pilot port 3 will overcome the cylinder port pressure and lift the poppet from its seat, allowing flow from the cylinder to valve port.

## Features

Hardened and ground poppet gives excellent flow capability for valve size, positive sealing and long working life. Cartridge construction allows installation in actuators, manifold blocks and Hydraulic Integrated Circuits. Fits the same cavity as the overcenter valves of a similar size.

## Sectional view



## Performance data

### Ratings and specifications

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

Rated flow	120 L/min (32 USgpm)
Max pressure	350 bar (5000 psi)
Pilot ratio	3:1
Cartridge material	Working parts hardened and ground steel. Zinc plated body.
Standard housing material	Standard aluminium (up to 210 bar). Add suffix "377" for steel option.
Mounting position	Unrestricted
Cavity number	A877 (See Section M)
Torque cartridge into cavity	100 Nm (74 lbs ft)
Weight	4CK120 0.28 kg (0.62 lbs) 4CK125 1.15 kg (2.54 lbs) 4CKK125 1.96 kg (4.32 lbs)
Seal kit number	SK381 (Nitrile) SK381V (Viton®)
Recommended filtration level	BS5540/4 Class 18/13 (25 micron nominal)
Operating temperature	-30°C to +90°C (-22° to +194°F)
Leakage	0.3 milliliters/min nominal (5 dpm)
Nominal viscosity range	5 to 500 cSt

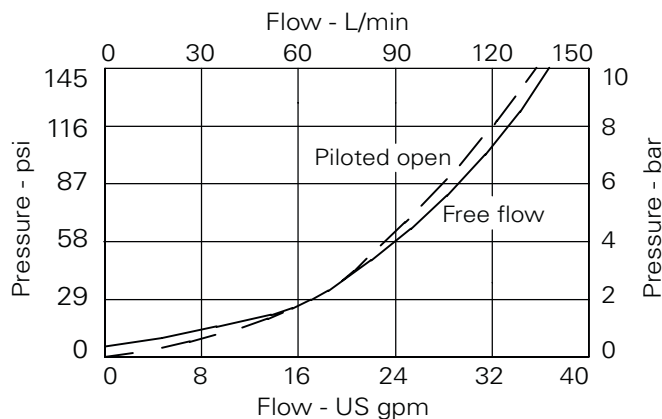
Viton is a registered trademark of E.I. DuPont

## Description

Pilot check valves allow flow to pass in one direction, with a low pressure drop, then prevent reverse flow until pilot pressure is applied. There are many applications for this valve type, the most common being to lock and hold a cylinder, or another hydraulic actuator, in position.

These valves are ideally suited for fitting directly into a cylinder, giving economy of installation, direct control of cylinder movement and ease of servicing.

## Pressure drop

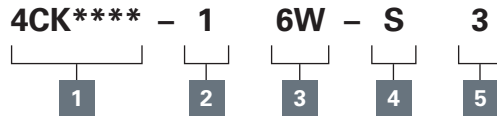


Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.

# 4CK120 - Check valve

Pilot-to-open, poppet type  
120 L/min (32 USgpm) • 350 bar (5000 psi)

## Model code



### 1 Basic code

**4CK120** - Cartridge Only  
**4CK125** - Cartridge and Body  
**4CKK125** - Cartridges and Dual Body

### 2 Pilot port sizes

Code	Port size
1	Internal
2W	1/4" BSP (External Pilot). Omit for bodied valves
4T	1/4" SAE (External Pilot). Omit for bodied valves

### 4 Seals

**S** - Nitrile (For use with most industrial hydraulic oils)  
**SV** - Viton (For high temperature and most special fluid applications)

### 3 Port sizes - bodied valves only

Code	Port size	Housing number - body only			
		Aluminium single	Steel single	Aluminium double	Steel double
6W	3/4" BSP 1/4" BSP Pilot Port	B6898	B5544	C2543	C1200
12T	3/4" SAE 1/4" SAE Pilot Port	B8200		C10629	C16434
16T	1" SAE 1/4" SAE Pilot Port	B10708	B11814		

### 5 Optional pilot seal

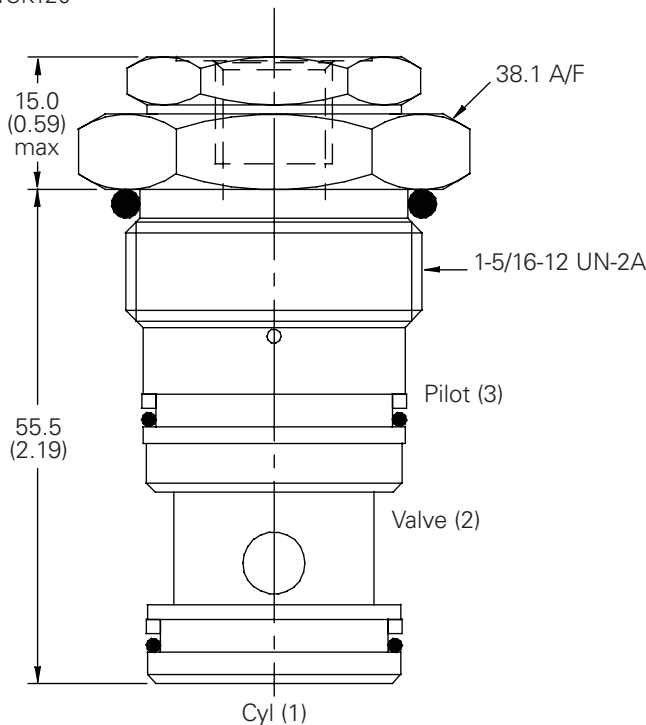
Omit if not required

## Dimensions

mm (inch)

### Cartridge only

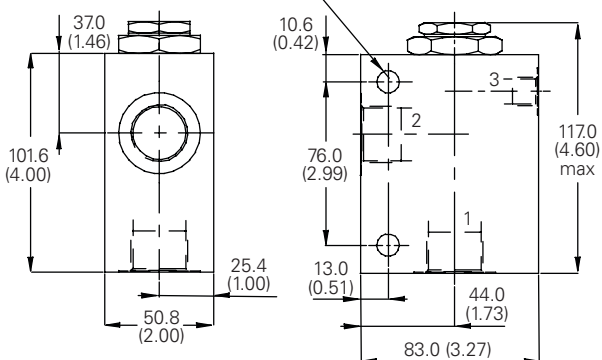
Basic code  
4CK120



**Note:** For applications above 210 bar (3000 psi) please consult our technical department or use the steel body.

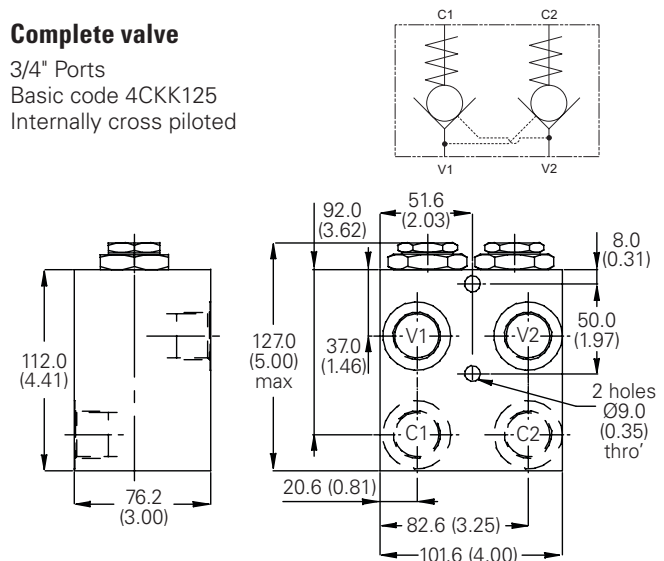
### Complete valve

3/4", 1/2" Ports  
Basic code 4CK125  
2 holes Ø10.5 (0.41) thro'



### Complete valve

3/4" Ports  
Basic code 4CKK125  
Internally cross piloted



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