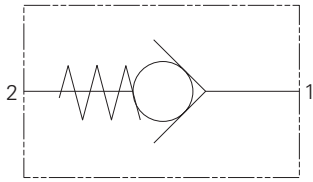


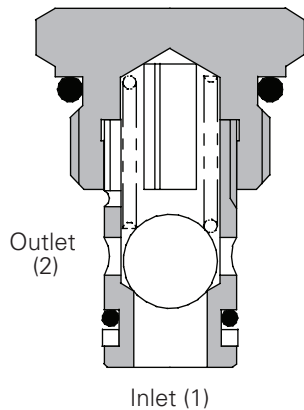
# 3CA20 - Check Valve

Direct acting, ball type

40 L/min (10 USgpm) • 350 bar (5000 psi)



## Sectional View



## Operation

The valve remains closed until the spring bias is reached at port 1 at which time the poppet lifts of the seat and allows flow from port 1 to port 2. In the other direction the valve is closed.

## Features

Cartridge design with machined seats and precision ground balls gives excellent flow reseal characteristics. Installation into the 2-port 7/8" UNF cavity gives easy fitment and serviceability.

## Performance Data

### Ratings and Specifications

Figures based on oil temperature of 40° C and viscosity of 32 cSt (150 SUS)

Rated flow	40 L/min (10 USgpm)
Maximum pressure	350 bar (5000 psi)
Cracking pressures	0.5 bar (7 psi)
	1.5 bar (22 psi)
	3.5 bar (50 psi)
	7.0 bar (100 psi)

Cartridge material	All steel construction. External parts electroless zinc plated.
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Standard housing material	Standard aluminum (up to 210 bar). Add suffix "377" for steel option.
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Mounting position	Unrestricted
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Cavity number	A879 (See Section M)
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Torque cartridge into cavity	45 Nm (33 lbs. ft.)
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Weight	0.05 kg (0.11 lbs.)
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Seal kit number	SK396 (Nitrile), SK396V (Viton®)
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Recommended filtration level	BS5540/4 Class 18/3 (25 micron nominal)
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Operating temperature	-30°C to +90°C (-22°C to +194°F)
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Leakage	0.2 ml/min nominal
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Nominal viscosity range	5 to 500 cSt
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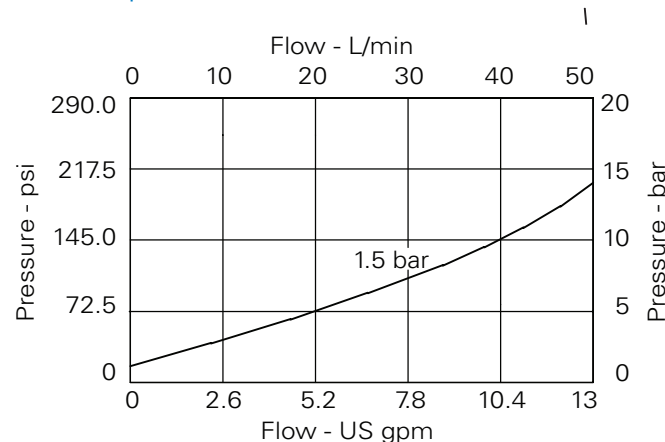
Viton is a registered trademark of E. I. DuPont

## Description

These cartridge check valves allow flow at a low pressure drop, with cracking pressure from 0.5 to 7 bar (7 to 100 psi) in the free flow direction and close to prevent flow in the reverse direction.

They fit into simply machined cavities and are therefore ideal for installation into custom designed Hydraulic Integrated Circuits, manifold blocks and other hydraulic equipment.

## Pressure Drop Curves

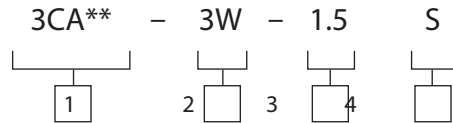


# 3CA20 - Check Valve

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## Model Code



### 1 Basic Code

3CA20 - Cartridge only  
3CA25 - Cartridge and body

### 2 Port Size

Code	Port Size	Housing Number - Body Only	
		Aluminium	Steel
2W	1/4" BSP	A1485	
3W	3/8" BSP	A1043	A14175
6T	3/8" SAE	A15676	A14843

### 3 Cracking Pressure

0.5 - 0.5 bar (7 psi)  
1.5 - 1.5 bar (22 psi)  
3.5 - 3.5 bar (50 psi)  
7.0 - 7.0 bar (100 psi)

### 4 Seals

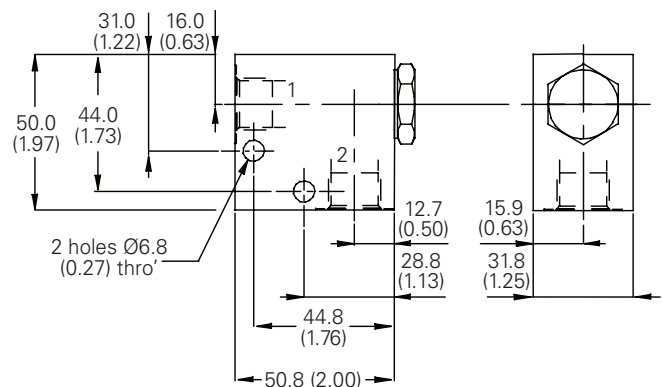
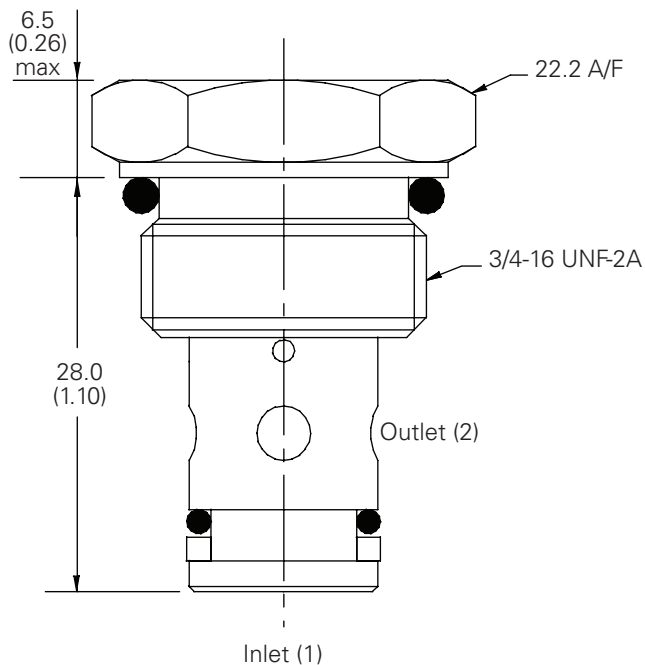
S - Nitrile (For use with most industrial hydraulic oils)  
SV - Viton (for high temperature and most special fluid applications)

## Dimensions

mm (inch)

Cartridge Only

Single Valve  
1/4", 3/8" Ports  
Basic Code  
3CA25



Note: For applications above 210 please consult our technical department or use the steel body option.