

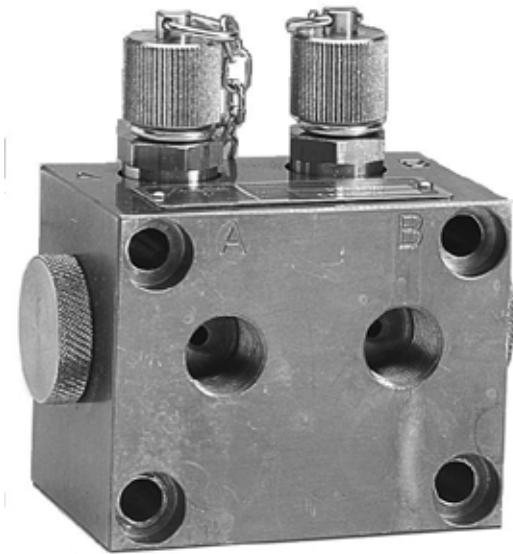
Product Data Sheet

SD 4604-2E01

July 2008

Damcos® H-DPCV

H-DPCV Double Pilot Operated Check Valve With Hand Pump Connections



General description

The connection block H-DPCV is designed for mounting on, or close to the actuator. The H-DPCV connection block contains a double operated check valve function combined with hand pump connections. The function of the double pilot operated check valve

in the hydraulic system is to hydraulically lock the piston on the actuator and prevent the actuator from moving when it is required to be held stationary. The H-DPCV connection block is manufactured in brass for corrosion free marine service.

Technical specification

Max. working pressure:	210 bar
Max. flow rate at 105 bar (through any line):	15 l/min.
Weight:	2.5 kg
Hydraulic media:	Acid-free hydraulic oil
Viscosity	Extreme: 15-200 cSt Running: 15-55 cSt
Filtration requirements:	25 µm absolute or finer
Temperature range:	-20°C to 80°C

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Operation

With the solenoid valve in the centre position both 'A' and 'B' ports are connected to tank (T) and both check valves are closed.

When pressure is applied to the 'A' port the check valve in the 'A' port opens and allows free flow of oil to the actuator 'A' line. Simultaneously the pilot piston moves across and pushes the 'B' port check valve open and allows the oil to flow freely to tank through the actuator 'B' line. The valve operates in a similar manner when the 'B' port is pressurized.

Double pilot check valves are tested to ensure zero leakage, but care must be taken to ensure that hydraulic oil in the system is free from any foreign particles that may cause damage to the seats or the hydraulic sealing ring in the pilot piston.

The hand pump connections (male screw connections) allow emergency operation by means of a portable hand pump.

Please note: The H-DPCV is to be located nearest possible to the actuator

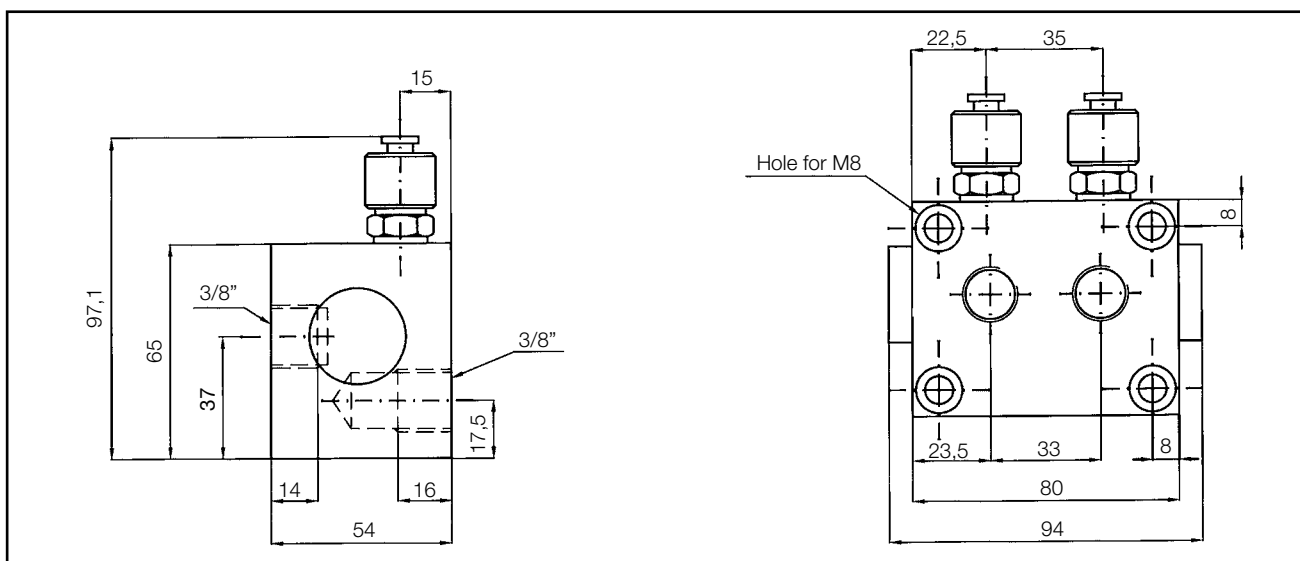
Material

Housing:	MS58 CuZn39Pb3
Pilot piston, seats, plug valve:	ETG 100
Stop screws:	MS58 CuZn39Pb3
Springs:	Spring steel W. no. 1.0600
Seals:	Perbunan/PTFE

Performance Characteristics:

Typical performance with hydraulic oil at 21 cSt and 50°C:
Check valve cracking pressure: 3 bar
Pilot piston/check valve seat area ration: 3.5 : 1

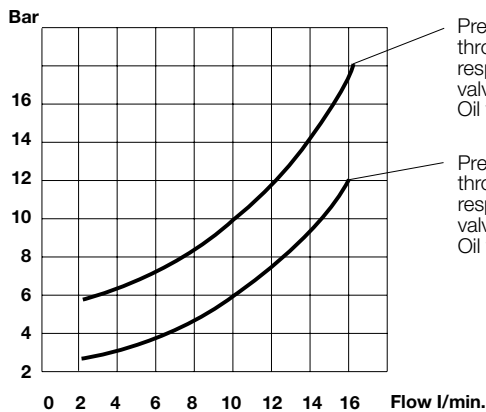
Main Dimensions



Damcos® H-DPCV

Pressure Drop:

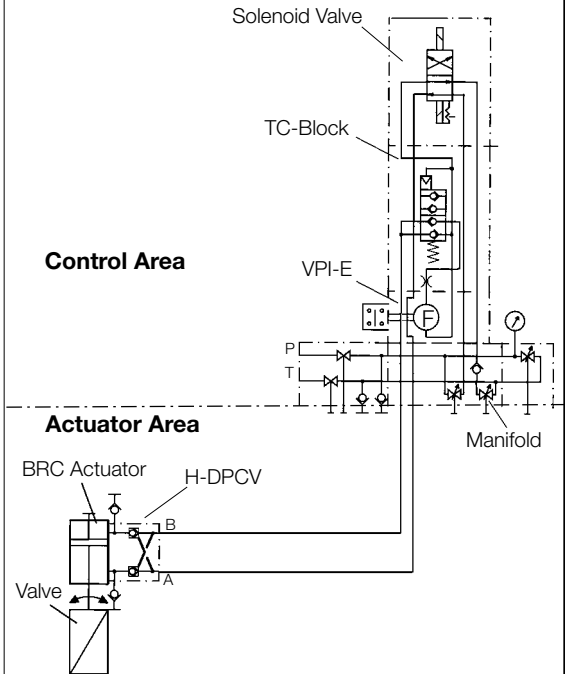
Pressure Drop:



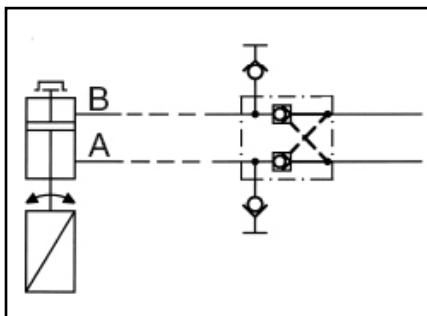
Pressure drop measured through 'A' and 'B' port respectively with check valve open.
Oil viscosity: 21 cSt.

Pressure drop measured through 'A' and 'B' port respectively with check valve opened forcibly.
Oil viscosity: 21 cSt.

Typical Application:



Hydraulic diagram



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