'CVH' Check Valves

Guided poppet design and precision ground surfaces for 10,000 PSI service; 1/4" to 2" NPT/SAE/BSPP/BSPT/6149



The DMIC 'CVH' Check Valve is a quality leader in the worldwide marketplace. Computer optimized flow passages and super heavy duty construction results in a 10,000 PSI rated product which will provide greatly extended service in 3,000 and 5,000 PSI applications.

- ✓ Precision ground oversize poppet landing zone for longevity, factory tested for zero leakage - install with confidence
- Designed for 10,000 PSI maximum operating pressure
- Standard 5 PSI & 65 PSI cracking pressures, with rapid delivery for 15 PSI, 30 PSI, 75 PSI and 135 PSI - call with your custom requirement
- Hybrid models with **SAE Code 61 4-Bolt** and **Split Flange** available
- Spring laid out such that it never fully packs, extending life expectancy
- One piece steel construction eliminates leakage from joints

'CVH' Physical Parameters

| BODY:Carbon Steel (Opt. All Stainless Steel) | | | | | |
|--|-----------------------------|--|--|--|--|
| POPPET: Hardened Carbon Steel (Opt. All S/S) Precision Ground Hard Seat | | | | | |
| SPRING: | PRING:Helical, Spring Steel | | | | |
| POPPET LANDING ZONE: | | | | | |
| RETAINER: | Spiral, Spring Steel | | | | |
| SEALING: | Metallic Hard Seat | | | | |
| TEMP RANGE: | 5°F/195°F (-20°C/90°C) | | | | |

'CVH' Ordering Codes

| CVH | 65 | - | 2000 | S |
|-----|----|---|------|---|
| | | | | |

MODEL:

CVH: Carbon Steel 10.000 PSI CVH: Stainless Steel 6,000 PSI

CRACKING PRESSURE:

Stock Options:

135:

5 PSI (0,35 Bar) 65: 65 PSÌ (4,5 Bar) **Rapid Delivery Options:**15: 15 PSI (1,03 Bar)
30: 30 PSI (2,1 Bar)
75: 75 PSI (5,2 Bar)

NOMINAL SIZE:

Expressed in 1/1000ths inch. Example: $0375 = \frac{3}{8}$ ", $1\frac{1}{2} = 1500$

135 PSÌ (9,3 Bár)

INLET PORT THREAD:

Standard US/Canada:

N: NPTF S: SAE ORB

Metric Standard:

B: BSPP

Optional Threads (Call DMIC):

BSPP B: B5PP IU: IS06149

T: Other:

BSPT CALL

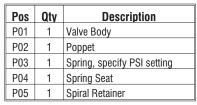
| Cheek Volue | Naminal | Dowl | PERFORMANCE DATA | | DIMENSIONS (inch. mm) | | |
|-------------------------|-----------------|----------------|-------------------|-----------------------|-----------------------|---------------|--------------|
| Check Valve Part No. | Nominal Size | Port Thread | Flow | Working | Α | В | Lbs. |
| | OILO | | GPM ¹ | Pressure | Hex | Length | kg |
| CVH**-0250N | 1/4" | 1/4" NPTF | | | | | |
| CVH**-0250S | | #4 SAE | 5 GPM | 10,000 PSI | 0.75 | 2.19 | 0.24 |
| CVH**-0250B | , ' | ½" BSPP | 19 l/m | 680 Bar | 19,1 | 55,5 | 0,11 |
| CVH**-0250IU | | 12mm IS06149 | | | | | |
| CVH**-0375N | | 3/8" NPTF | | | | | |
| CVH**-0375S | 3/8" | #6 SAE | 8 GPM | 10,000 PSI | 0.94 | 2.50 | 0.48 |
| CVH**-0375B | , , , | 3/8" BSPP | 30 l/m | 680 Bar | 23,8 | 63,5 | 0,22 |
| CVH**-0375IU | | 16mm IS06149 | | | | | |
| CVH**-0500N | | ½" NPTF | | | | | 0.64 |
| CVH**-0500S | 1/2" | #8 SAE | 15 GPM | 10,000 PSI | 1.13 | 3.13 79,4 | |
| CVH**-0500B | / 2 | ½" BSPP | 57 l/m | 680 Bar | 28,6 | | |
| CVH**-0500IU | | 18mm IS06149 | | | | | |
| CVH**-0750N | | 3/4" NPTF | 25 GPM 95 I/m | 10,000 PSI 680 Bar | 1.38 34,9 | 3.81 96,9 | 1.03 |
| CVH**-0750S | 3/4" | #12 SAE | | | | | |
| CVH**-0750B | / 4 | ¾" BSPP | | | | | |
| CVH**-0750IU | | 22mm IS06149 | | | | | |
| CVH**-1000N | | 1" NPTF | | 10,000 PSI 680 Bar | | | |
| CVH**-1000S | 1" | #16 SAE | 40 GPM 152 l/m | | 1,75 44,5 | 4,31 109,6 | 2.00 0,91 |
| CVH**-1000B | | 1" BSPP | | | | | |
| CVH**-1000IU | | 33mm IS06149 | | | | | |
| CVH**-1250N | | 11/4" NPTF | | | | | |
| CVH**-1250S | 11/4" | #20 SAE | 70 GPM | 10,000 PSI | 2.13 | 5.04 | 2.71 |
| CVH**-1250B | 1 /4 | 11/4' BSPP | 266 l/m | 680 Bar | 54,0 | 128.0 | 1,23 |
| CVH**-1250IU | | 42mm IS06149 | | | | | |
| CVH**-1500N | | 1½" NPTF | | | | | |
| CVH**-1500S | 11/2" | #24 SAE | 100 GPM | 10,000 PSI 680 Bar | 2.50 | 5.50 | 4.97 |
| CVH**-1500B | 1 //2 | 1½" BSPP | 380 l/m | | 63,5 | 139,7 | 2,26 |
| CVH**-1500IU | | 48mm IS06149 | | | | | |
| CVH**-2000N | | 2" NPTF | | | | | |
| CVH**-2000S | 2" | #32 SAE | 150 GPM | 10,000 PSI | 3.25 | 6.75 | 9.86 |
| CVH**-2000B | 2" | 2" BSPP | 570 l/m | 680 Bar | 82,6 | 171,5 | 4,48 |
| CVH**-2000IU | | 60mm IS06149 | | | | | |



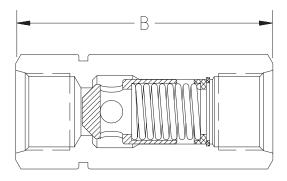
'CVH' Internal Parts BOM (FYI Only)

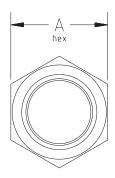


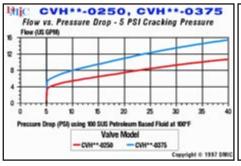
'CVH' Dimensions & Flow Characteristics



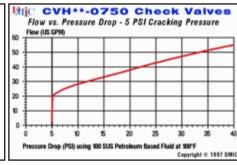
This valve series is factory sealed and disassembly will destroy the valve and void the warranty. Due to our policy of continual product improvement, specifications may change without notice. When designing by spec, please request a certified print.

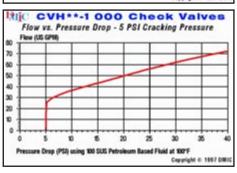


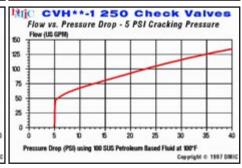


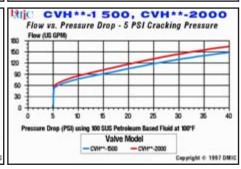












Poppet Orifice Option

For metered reverse flow, rapid-stock & custom sizes

DFC-9801B

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ORIFICE SIZE SELECTION

The orifice size is specified in 1/1000" units.

Select an available orifice from the table and append as "slash code" to check valve p/n.

Rapid delivery sizes are denoted with smiley faces. Please call for custom-order orifice sizes.

With the poppet orifice option, the designer can achieve metered flow in the opposite direction. This is useful for safety bleed and other specific applications. DMIC's flexible manufacturing allows you to select from rapid delivery standard sizes or specify a custom-order orifice diameter.

| CVII | ORIFIC | ORIFICE DIAMETER, RAPID AVAILABILITY BY VALVE MODEL | | | | | | |
|----------------|--------|---|--------|--------|--------|--------|--|--|
| CVH | 1/32" | 1/16" | 3/32" | 1/8" | 5/32" | 3/16" | | |
| Valve Size | 0,79mm | 1,58mm | 2,38mm | 3,18mm | 3,96mm | 4,76mm | | |
| Orifice Code-> | > /031 | /062 | /093 | /125 | /156 | /188 | | |
| CVH**-0250 | © | | | | | | | |
| CVH**-0375 | © | ☺ | | | | | | |
| CVH**-0500 | © | ☺ | ☺ | | | | | |
| CVH**-0750 | | ☺ | ☺ | ☺ | | | | |
| CVH**-1000 | | | ☺ | ☺ | © | | | |
| CVH**-1250 | | | | ☺ | © | ☺ | | |
| CVH**-1500 | | | | | © | 0 | | |
| CVH**-2000 | | | | | | © | | |

'CVH' Stainless Steel

Top Grade "All Stainless Steel" Check Valves; Hand Seated & Tested Parts; 1/2" to 2" N/S/B/T/IU



You'll probably **never** have to replace a **stainless 'CVH'** once it's installed. DMIC's **S/S 'CVH'** expresses our dedication to craftsmanship in a premium stainless steel design for food service, aerospace, military, and other high end applications where only the best will do. After six years of production, no **S/S 'CVH'** Check Valve had yet been returned for defect or repair, due to hand matching and assembly, individual quality control & testing, and **the realization that the customer who specifies a S/S 'CVH' expects nothing less than the best**.

| 'CVH' Part | Port | Working Pressure | |
|----------------|------|------------------|------------|
| Number | Size | PSI | Bar |
| CVH**-0250*-21 | 1/4" | | |
| CVH**-0375*-21 | 3/8" | | |
| CVH**-0500*-21 | 1/2" | 6,000 PSI | 413 Bar |
| CVH**-0750*-21 | 3/4" | 1 01 | Βαι |
| CVH**-1000*-21 | 1" | | |

| 'CVH' Part | Port | Working | king Pressure | | |
|----------------|-------|--------------|---------------|--|--|
| Number | Size | PSI | Bar | | |
| CVH**-1250*-21 | 11/4" | | 413 Bar | | |
| CVH**-1500*-21 | 11/2" | 6,000 PSI | | | |
| CVH**-2000*-21 | 2" | 1 01 | Dai | | |

'CVH' shares external dimensions with the 'CVH' Carbon Steel series, see page 17.

Check Valve Construction

Chances are you will never have to replace a DMIC Check Valve, because they are built to last a long time

OPTIONAL. Poppet orifice option for designer flexibility & safety.

One piece steel body eliminates leakage from joints, especially at elevated pressures up to 10,000 PSI (680 Bar). All-S/S model option.

We make them in standard and metric threads for rapid delivery worldwide.

Black Oxide finishing.

Hardened parts for durability.

Computer generated contour of internal fluid passages and equalization of cross-sectional areas reduce pressure drop and increase laminar flow through the valve. DMIC features one of the lowest DP designs on the market today.

Spring is laid out so it never fully packs, extending high cycle life expectancy.

Oversize spring seating

surface and Poppet landing zone features high precision to minimize wear.

Spiral retainer secures the internals, to eliminate possibility of reverse collapse.

NEW ! Refined poppet contour further aids laminar flow.

Your guarantee of a properly engineered fluid control valve.





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