



A division of CIRCOR International, Inc.

CVH Series Check Valves



The CVH Series Check Valves are engineered for a competitive price with no compromise of quality and performance to meet the growing requirements of instrumentation valves. The function of this valve series is to maintain system integrity by preventing back flow of a wide variety of fluids over a broad range of pressures.

- High Flow 7.4 C_v Maximum
- High Pressure 0 to 6000 psig
- High Performance Quick acting, zero leakage, low maintenance
- Size Range 1/8" to 1" 6mm to 25mm

Features & Specifications

- Colored band makes the o-ring easy to identify and promotes safety
- Resilient o-ring seat provides cushioned, quiet closing and zero leakage
- Floating o-ring design—o-ring is continually cleaned and contaminants do not prevent sealing
- Various materials of construction can be used with any liquid or gas service
- Various end connections can be assembled in any system or application
- Spring-loaded poppet can be mounted in any orientation
- Full flow with minimal restriction for maximum C_v rates
- Virtually maintenance free for maximum dependability
- Pressure up to 6000 psig
- Cracking pressure range is .5 to 20psi
- Flow up to 7.4 C_v maximum
- More than 100,000 life cycles

2301 Wardlow Circle, P.O. Box 3300
Corona, California 92878
tel 909.270.6200
fax 909.270.6201
www.circle-seal.com
sales@circle-seal.com

CVH Series Check Valves

Specifications

Pressure Range	0 to 6000 PSIG/ 0 to 414 BAR
Temperature Range	-320° F to +900° F / -196° C to +482° C
Flow Range	.32 Cv to 7.4 Cv
Crack Pressure Range	.5 to 20 PSI / .035 to 1.379 BAR
Leakage	External All - zero Internal Soft seat - zero Teflon® seat < 5cc/minute Metal seat < 30cc/minute
Life Cycles	In excess of 100,000 cycles

Operating Temperatures

Seal Material	Temperature F	Temperature C	Color Band
Teflon®	-320° to +400°	-196° to +204°	Maroon
Chemraz	-20° to +425°	-29° to +218°	Olive
Viton®	-20° to +400°	-29° to +204°	Blue
Neoprene	-40° to +250°	-40° to +121°	Red
Ethylene Propylene	-65° to +300°	-54° to + 149°	Purple
Fluorosilicone	-80° to +350°	-62° to +177°	Black
Kalrez®	-40° to +550°	-40° to +288°	Olive
Buna-N	-65° to +275°	-54° to +135°	Green
Metal	-320° to +900°	-196° to +482°	Gold

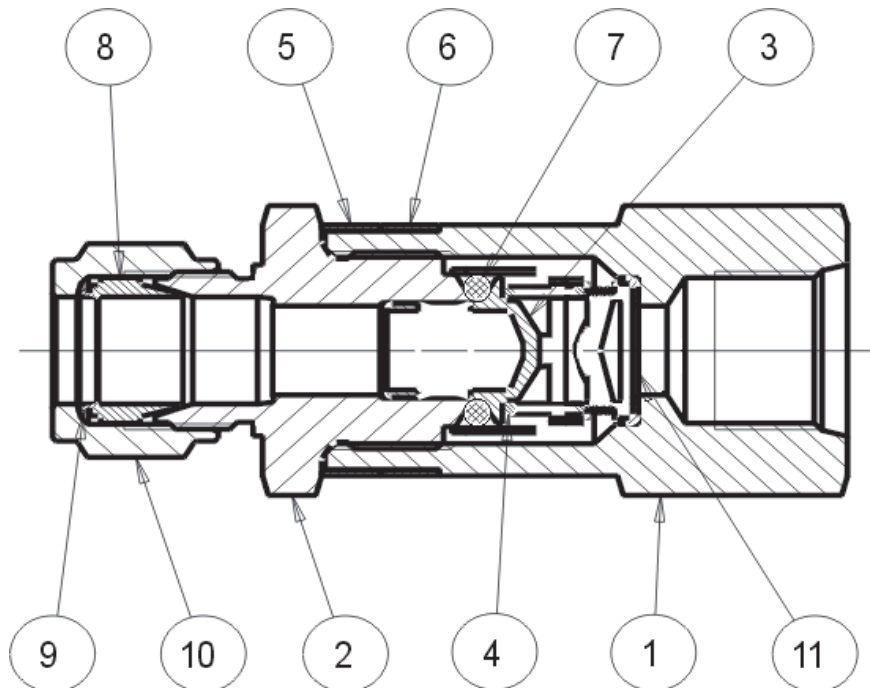
Flow Chart

Valve Size	2	4	6	8	10	12	16
Cv	.32	.79	1.71	3.08	3.87	7.38	7.38

CVH Series Check Valves

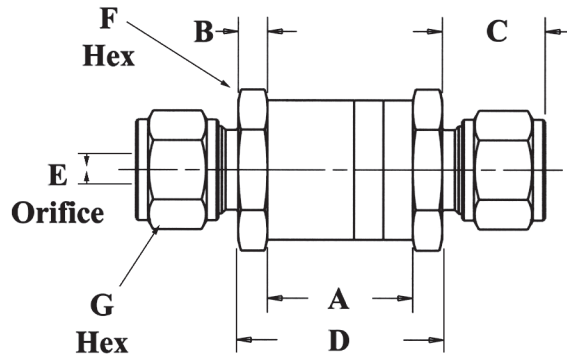
Materials of Construction

Item	Part	Standard Materials (others on request)
1	Body* (outlet)	316 Stainless Steel
2	End Adapter* (inlet)	316 Stainless Steel
3	Poppet*	316 Stainless Steel
4	Spring*	302 Stainless Steel
5	Part Number Band	Anodized Aluminum
6	O-ring Band	Anodized Aluminum
7	O-ring*	Viton®
8	Front Ferrule*	316 Stainless Steel
9	Rear Ferrule	316 Stainless Steel
10	Nut	316 Stainless Steel
11	Spring Guide	316 Stainless Steel



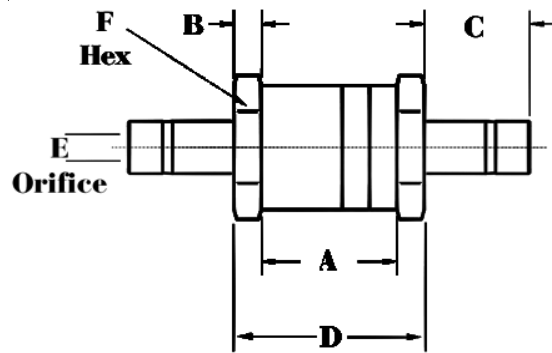
CVH Series Check Valves

Charts of Dimensions



Gyrolok® Tube Fitting Fractional

Fractional (Inches)	Size	A	B	C	D	E	F	G
	02	0.83	0.20	0.67	1.23	.09	0.81	0.44
	04	0.83	0.20	0.77	1.23	.19	0.81	0.56
	06	1.26	0.20	0.83	1.66	.30	1.19	0.69
	08	1.26	0.20	0.92	1.66	.42	1.19	0.88
	12	2.05	0.50	0.97	3.05	.66	2.00	1.13
	16	2.05	0.50	1.08	3.05	.66	2.00	1.50

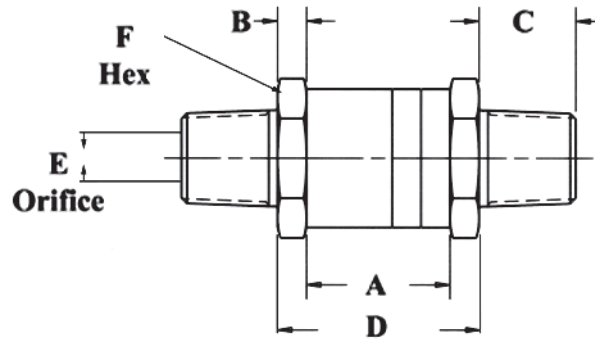


Gyrolok® Tube Adapter Fractional

Fractional (Inches)	Size	A	B	C	D	E	F
	02	0.83	0.20	0.63	1.23	.09	0.81
	04	0.83	0.20	0.68	1.23	.19	0.81
	06	1.26	0.20	0.78	1.66	.28	1.19
	08	1.26	0.20	0.97	1.66	.34	1.19
	12	2.05	0.50	1.13	3.05	.53	2.00
	16	2.05	0.50	1.38	3.05	.53	2.00

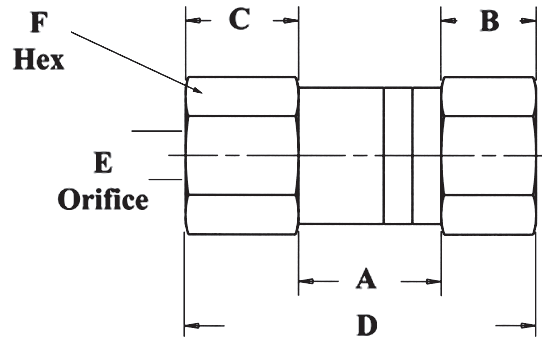
CVH Series Check Valves

Charts of Dimensions



Male NPT

Fractional (Inches)	Size	A	B	C	D	E	F
	02	0.83	0.20	0.40	1.23	.19	0.81
04	0.83	0.20	0.59	1.23	.19	0.81	
06	1.26	0.20	0.59	1.66	.39	1.19	
08	1.26	0.20	0.77	1.66	.42	1.19	
12	2.05	0.50	0.77	3.05	.66	2.00	
16	2.05	0.50	0.98	3.05	.66	2.00	

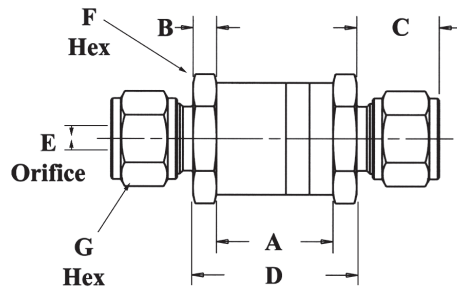


Female NPT

Fractional (Inches)	Size	A	B Inlet	C Outlet	D	E	F
	02	0.83	0.68	0.78	2.29	.19	0.81
04	0.83	0.91	1.01	2.75	.19	0.81	
06	1.26	0.92	0.97	3.15	.39	1.19	
08	1.26	1.12	1.17	3.55	.42	1.19	
12	2.05	1.40	1.12	4.57	.66	2.00	
16	2.05	1.61	1.33	4.99	.66	2.00	

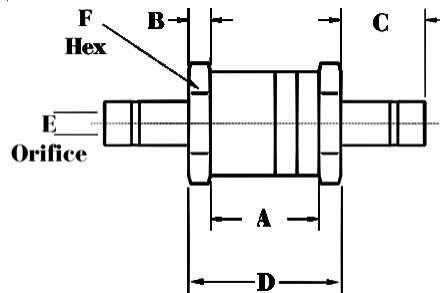
CVH Series Check Valves

Charts of Dimensions



Gyrolok® Tube Fitting Metric

Metric (mm)	Size	A	B	C	D	E	F	G
	04	21.08	5.08	16.89	31.24	2.44	20.62	12.70
	06	21.08	5.08	18.49	31.24	3.96	20.62	14.30
	08	21.08	5.08	18.08	31.24	5.94	20.62	15.90
	10	32.00	5.08	18.80	42.16	8.03	30.15	19.10
	12	32.00	5.08	22.38	42.16	10.01	30.15	22.20
	14	32.00	5.08	19.99	42.16	12.01	30.15	23.80
	16	52.07	12.70	22.38	77.47	12.70	50.80	25.40
	18	52.07	12.70	23.58	77.47	15.88	50.80	28.60
	22	52.07	12.70	23.58	77.47	16.66	50.80	31.80
25	52.07	12.70	26.38	77.47	16.66	50.80	38.10	



Gyrolok® Tube Adapter Metric

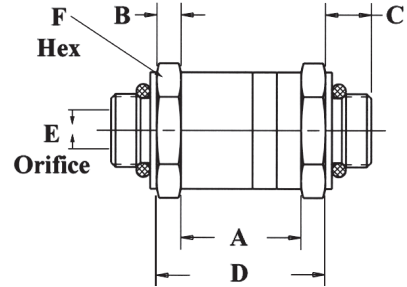
Metric (mm)	Size	A	B	C	D	E	F
	04	21.08	5.08	16.74	31.24	2.39	20.62
	06	21.08	5.08	17.32	31.24	4.52	20.62
	08	21.08	5.08	19.05	31.24	6.35	20.62
	10	32.00	5.08	19.84	42.16	7.62	30.15
	12	32.00	5.08	24.51	42.16	9.19	30.15
	14	32.00	5.08	24.51	42.16	11.10	30.15
	16	52.07	12.70	27.36	77.47	12.70	50.80
	18	52.07	12.70	27.86	77.47	13.89	50.80
	22	52.07	12.70	29.64	77.47	16.02	50.80
25	52.07	12.70	35.48	77.47	16.02	50.80	

CVH Series Check Valves

Charts of Dimensions

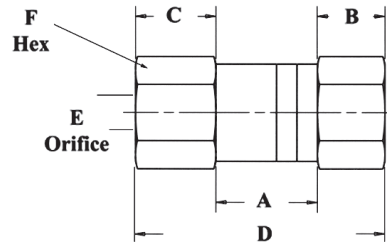
Male SAE

Fractional (Inches)	Size	A	B	C	D	E	F
	02	0.83	0.20	0.364	1.23	.19	0.81
	04	0.83	0.20	0.427	1.23	.19	0.81
	06	1.26	0.20	0.458	1.66	.39	1.19
	08	1.26	0.20	0.538	1.66	.42	1.19
	12	2.05	0.50	0.699	3.05	.66	2.00
	16	2.05	0.50	0.729	3.05	.66	2.00



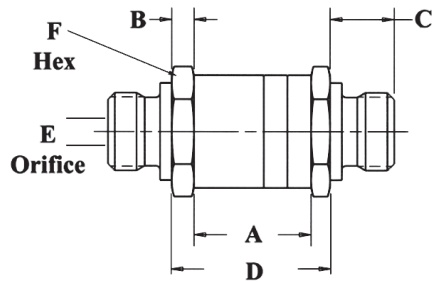
Female SAE

Fractional (Inches)	Size	A	B Inlet	C Outlet	D	E	F
	02	0.83	0.689	0.75	2.27	.19	0.81
	04	0.83	0.769	0.83	2.43	.19	0.81
	06	1.26	0.833	0.89	2.98	.39	1.19
	08	1.26	0.913	0.97	3.55	.42	1.19
	12	2.05	1.297	1.08	4.43	.66	2.00
	16	2.05	1.297	1.08	4.43	.66	2.00



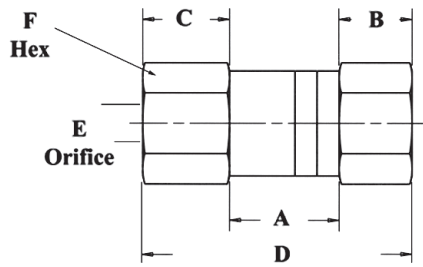
Male British Parallel Pipe

Fractional (Inches)	Size	A	B	C	D	E	F
	02	0.83	0.20	0.374	1.23	.19	0.81
	04	0.83	0.20	0.551	1.23	.19	0.81
	06	1.26	0.20	0.57	1.66	.39	1.19
	08	1.26	0.20	0.669	1.66	.42	1.19
	12	2.05	0.50	0.747	3.05	.66	2.00
	16	2.05	0.50	0.827	3.05	.66	2.00



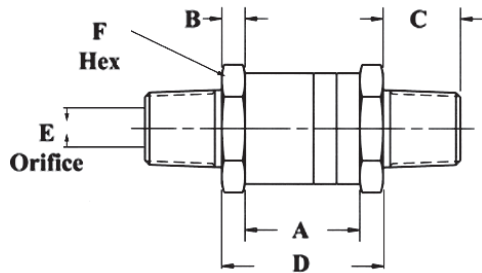
CVH Series Check Valves

Charts of Dimensions



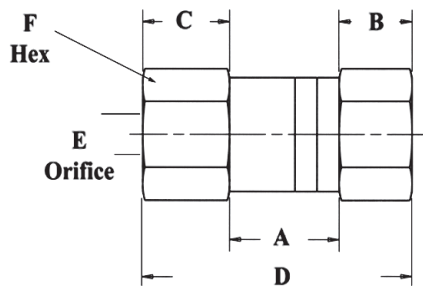
Male British Tapered Pipe

Fractional (Inches)	Size	A	B	C	D	E	F
	02	0.83	0.20	0.4	1.23	.19	0.81
	04	0.83	0.20	0.6	1.23	.19	0.81
	06	1.26	0.20	0.61	1.66	.39	1.19
	08	1.26	0.20	0.81	1.66	.42	1.19
	12	2.05	0.50	0.86	3.05	.66	2.00
	16	2.05	0.50	0.02	3.05	.66	2.00



Female British Parallel Pipe

Fractional (Inches)	Size	A	B Inlet	C Outlet	D	E	F
	02	0.83	0.629	0.77	2.23	.19	0.81
	04	0.83	0.839	0.99	2.66	.19	0.1
	06	1.26	0.863	0.98	3.10	.39	1.19
	08	1.26	0.993	1.09	3.34	.42	1.19
	12	2.05	1.257	1.03	4.34	.66	2.00
	16	2.05	1.367	1.16	4.58	.66	2.00



Female British Tapered Pipe

Fractional (Inches)	Size	A	B Inlet	C Outlet	D	E	F
	02	0.83	0.73	0.75	2.31	.19	0.81
	04	0.83	0.98	1	2.81	.19	0.81
	06	1.26	0.99	1.05	3.30	.39	1.19
	08	1.26	1.25	1.32	3.83	.42	1.19
	12	2.05	1.49	1.24	4.78	.66	2.00
	16	2.05	1.73	1.48	5.26	.66	2.00

CVH Series Check Valves

How to Order

CVH Y 04 G 04 M 32 010 A O C

MATERIAL

- B - Brass
- C - Carpenter 20
- I - Inconel
- O - 254 SMO CRES
- M - Monel
- H - Hastelloy C276
- Y - 316 SS
- T - Titanium

INLET SIZE

- | | |
|-----------------|---------------|
| 02 - 1/8" | 14 - 14mm |
| 04 - 4mm, 1/4" | 16 - 16mm, 1" |
| 06 - 6mm, 3/8" | 18 - 18mm |
| 08 - 8mm, 1/2" | 22 - 22mm |
| 10 - 10mm | 25 - 25mm |
| 12 - 12mm, 3/4" | |

INLET TYPE

- G - Gyrolok® Tube Fitting-Per HOKE
- A - Gyrolok® Tube Adapter- Per HOKE
- Z - Metric Gyrolok® Tube Fitting-Per HOKE
- W - Metric Gyrolok® Tube Adapter-Per HOKE
- S - Male SAE-Per J514
- R - Female SAE-Per J1926
- L - Male British Parallel Pipe-Per ISO 1179
- K - Female British Parallel Pipe-Per ISO 1179
- M - Male NPT-Per ANSI/ASME B1.20.1
- F - Female NPT-Per ANSI/ASME B1.20.1
- Q - Male British Tapered Pipe ISO 7/1
- P - Female British Tapered Pipe ISO 7/1

OUTLET SIZE

- | | |
|-----------------|---------------|
| 02 - 1/8" | 14 - 14mm |
| 04 - 4mm, 1/4" | 16 - 16mm, 1" |
| 06 - 6mm, 3/8" | 18 - 18mm |
| 08 - 8mm, 1/2" | 22 - 22mm |
| 10 - 10mm | 25 - 25mm |
| 12 - 12mm, 3/4" | |

CIRCLE SEAL CONTROLS

CLEANING OPTIONS

- O - Standard
- C - Cryogenic Cleaning
- B - Industrial Cleaning
- D - NACE Compliant

BAND OPTIONS

- A - Aluminum Bands (std.)
- Y - Stainless Steel Bands

CRACKING PRESSURE

- 005 - 00.5 PSI/.035 BAR
- 050 - 05.0 PSI/0.344 BAR
- 010 - 01.0 PSI/.069 BAR
- 100 - 10.0 PSI/.688 BAR
- 030 - 03.0 PSI/0.206 BAR
- 200 - 20.0 PSI/1.379 BAR
- (others available on request)

SEAL MATERIALS

- 20 - Teflon®
- 25 - Chemraz
- 32 - Viton®
- 40 - Teflon® (Cryogenic Service)
- 53 - Neoprene
- 62 - Ethylene Propylene
- 64 - Fluorosilicone
- 65 - Kalrez®
- 77 - Buna N
- 00 - Metal (high temperature service)

OUTLET TYPE

- G - Gyrolok® Tube Fitting-Per HOKE
- A - Gyrolok® Tube Adapter-Per HOKE
- Z - Metric Gyrolok® Tube Fitting-Per HOKE
- W - Metric Gyrolok® Tube Adapter-Per HOKE
- S - Male SAE-Per J514
- R - Female SAE-Per J1926
- L - Male British Parallel Pipe-Per ISO 1179
- K - Female British Parallel Pipe-Per ISO 1179
- M - Male NPT-Per ANSI/ASME B1.20.1
- F - Female NPT-Per ANSI/ASME B1.20.1
- Q - Male British Tapered Pipe ISO 7/1
- P - Female British Tapered Pipe ISO 7/1

Gyrolok® is a registered trademark of Hoke, Inc. All other company names, product names and registered trademarks are the property of their respective owners.