HCV02 CHECK VALVE

HCV02

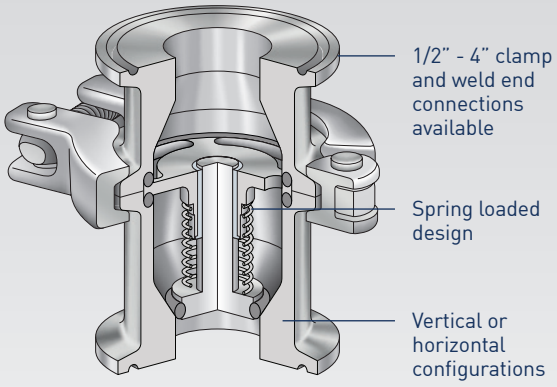
The HCV02 range is intended for use in high purity applications such as WFI systems. Valves are manufactured in 316L stainless steel with a range of seal options. Wetted surfaces are finished to 0.5 microns Ra. The standard opening pressure for the HCV02 range is either 8 or 35 mbar when horizontally installed. Where a valve is to be installed in a horizontal line and drainability is to be maintained, then an eccentric HCV02 version is available.

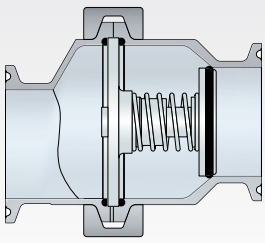
Pressure Rating	Up to 10 barg
Temperature Rating	Up to 150°C with EPDM seals Up to 200°C with Viton, Silicone or FEP-Silicone seals
Connections	1/2" - 4" ASME BPE clamp or weld end DN8 - DN50 DIN and ISO clamp and weld end Concentric and eccentric connections available
Wetted Parts	316L stainless steel*
Seal Material	EPDM, Viton, Silicone or FEP-Silicone
Opening Pressure	8 or 35 mbar
Surface Finish	Wetted surfaces - 0.5 microns Ra (SF1) External surfaces - 0.8 microns Ra
Options	Bolten body design Perlast seals (High performance PTFE) Low ferrite stainless steel (WN1.4435), C22 and other alloys Electropolished finish (SF4)
Certification	Certificate of conformity Material certification FDA Elastomer compliance certificate USP Elastomer compliance certificate Certified 'Animal Derived Ingredient' free

Features

- Wide range of connection types and sizes
- Optional finishes available - SF1 and SF4
- Concentric and eccentric connection types
- Minimal pressure drop
- Unique 'aseptic' twin o-ring body seal design

*Spring is 316 S11 stainless steel





Valve with eccentric connections

Unit 1000, Sperry Way, Stonehouse Park, Stonehouse, GL10 3UT, UK / T. +44 (0) 1453 882736 / sales@staitech.com / www.staitech.com

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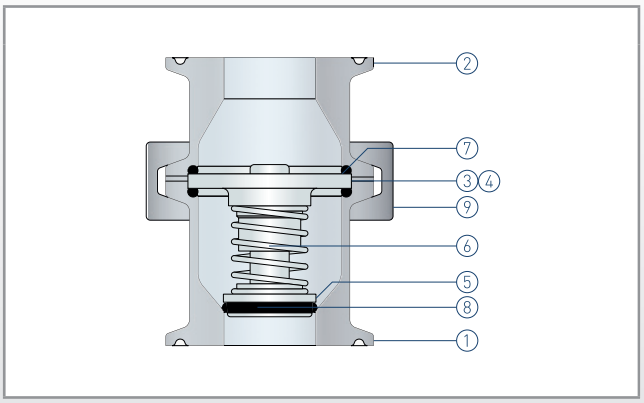

Part		Description
1	Inlet body	316L stainless steel
2	Outlet body	316L stainless steel
3	Guide plate	316 stainless steel
4	Stem guide	TFM PTFE
5	Stem	316L stainless steel
6	Spring	316 stainless steel
7	Body seals*	EPDM, Viton, Silicone or FEP-Silicone
8	Seat seal*	EPDM, Viton, Silicone or FEP-Silicone
9	Clamp	304 stainless steel

*All seals are FDA and USP compliant. EPDM and FEP-Silicone are USP 121°C compliant.

	Effect on opening pressure due to valve orientation (mbar)								
	Flow	1/2"	3/4"	1"	1-1/2"	2"	2-1/2"	3"	4"
35 mbar spring	↔	0	0	0	0	0	0	0	0
	↑	+4	+4	+4	+4	+4	+4	+4	+4
	↓	-4	-4	-4	-4	-4	-4	-4	-4

Service Parts - Seal kit comprising body seals (7) and seat seal (8).
Full refurbishment kit incorporating all internal parts and seals also available.

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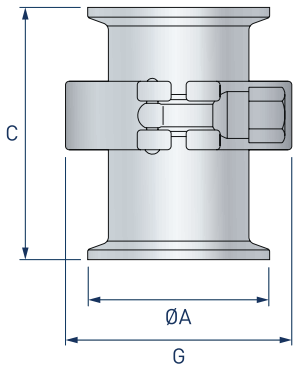
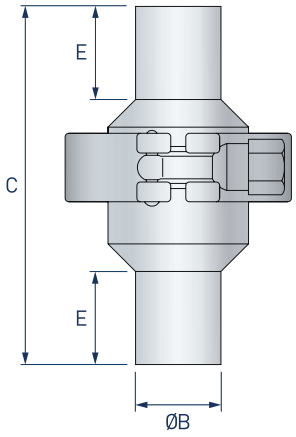
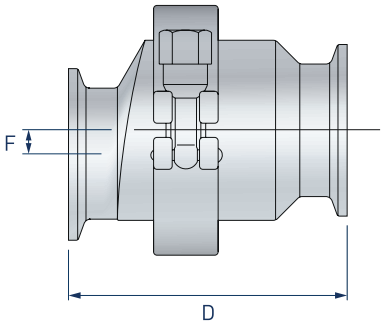






Size ASME BPE	Dimensions (mm) ØA	ØB	C (clamp)	C (weld)	D (clamp)	D (weld)	E	F	G	Kv(m³/h)	Weight (kg)
1/2"	25	12.7	80	118	85	115	28	-	60	8	0.1
3/4"	25	19.05	80	111	85	115	28	9.5	60	8	0.1
1"	50.5	25.4	70	113	70	107	28	6.3	60	17	0.3
1-1/2"	50.5	38.1	80	110	82	110	28	7.0	78	27	0.4
2"	64	50.8	80	120	90	120	28	7.0	90	40	0.6
2-1/2"	77.5	63.5	95	122	110	137	28	14.3	120	*	0.8
3"	91	76.2	125	145	140	160	28	14.3	135	*	1.0
4"	119	101.6	155	160	170	175	28	21.0	180	*	1.3

*Kv values available upon request

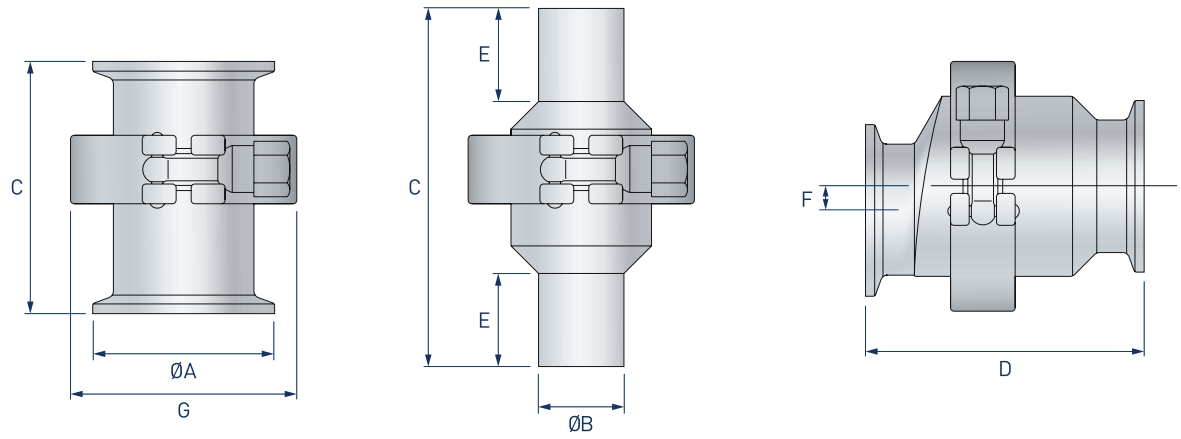
ASME BPE part number ordering key

Product		Size		Connection		Seat seal		Spring		Options
	-				-		-		-	
Concentric		1/2" ASME BPE	**050**	Clamp **C**		EPDM - black **EBKU**		8 mbar **08**		Electropolishing **EP**
HCV02		3/4" ASME BPE	**075**	Weld **W**		Viton - black **VBKU**		35 mbar **35**		
Eccentric		1" ASME BPE	**100**			Silicone - white **SW**				
HCV02E		1-1/2" ASME BPE	**150**			FEP-Silicone **FEPS**				
		2" ASME BPE	**200**			Perlast **PLW**				
		2-1/2" ASME BPE	**250**							
		3" ASME BPE	**300**							
		4" ASME BPE	**400**							
Example										
HCV02	**-**	**050C**			**-**	**EBKU**	**-**	**08**	**-**	**EP**

Specification text

Staitech **HCV02 check valve** manufactured in 316L stainless steel with **EPDM FDA and USP Class VI compliant** body and seat seals. **1/2" ASME BPE concentric clamp** connections. **8 mbar spring.** 2-piece body clamp with hex nut closure. Wetted sufaces finished to 0.5 microns Ra. External surfaces finished to 0.8 microns Ra. (HCV02-050C-EBKU-08). For electropolished finish add suffix '-EP' (HCV02-050C-EBKU-08-EP).

HCV02 CHECK VALVE



Size DIN	Dimensions (mm) ØA	ØB	C (clamp)	C (weld)	D (clamp)	D (weld)	E	F	G	Kv(m³/h)	Weight (kg)
DN8	34 25	8 8	80 80	118 118	- -	- -	28 28	- -	60	8 8	0.5 0.5
DN10	34 25	10 10	80 80	111 111	85 85	115 115	28 28	9.5 9.5	60	8 8	0.5 0.5
DN15	34 25	15 15	80 80	113 113	70 70	107 107	28 28	6.3 6.3	60	8 8	0.6 0.6
DN20	34	20	80	110	82	110	28	7.0	78	17	0.9
DN25	50.5	25	70	120	90	120	28	7.0	90	17	1.2
DN32	50.5	32	70	122	110	137	28	14.3	120	27	1.6
DN40	50.5	38	70	145	140	160	28	14.3	135	27	2.4
DN50	64	50	80	160	170	175	28	21.0	180	40	3.8

Size ISO	Dimensions (mm) ØA	ØB	C (clamp)	C (weld)	D (clamp)	D (weld)	E	F	G	Kv(m³/h)	Weight (kg)
DN8	25	8	80	118	-	-	28	-	60	8	0.5
DN10	25	10	80	111	85	115	28	9.5	60	8	0.5
DN15	34 50.5	15 15	80 80	113 113	70 70	107 107	28 28	6.3 6.3	60 60	14 14	0.6 0.6
DN20	50.5	20	80	110	82	110	28	7.0	78	17	0.9
DN25	50.5	25	70	120	90	120	28	7.0	90	23	1.2
DN32	50.5	32	70	122	110	137	28	14.3	120	27	1.6
DN50	64	38	70	145	140	160	28	14.3	135	40	2.4

DIN part number ordering key

Product		Connection		Size		Seat seal		Spring		Options
	-		-		-		-		-	
Concentric		Clamp **C**		DIN DN8 **25.0-8.0**		EPDM - black **EBKU**		8 mbar **08**		Electropolishing **EP**
HCV02				**34.0-8.0**		Viton - black **VBKU**		35 mbar **35**		
Eccentric				DIN DN10 **25.0-10.0**		Silicone - white **SW**				
HCV02E				**34.0-10.0**		FEP-Silicone **FEPS**				
				DIN DN15 **25.0-15.0**		Perlast **PLW**				
				34.0-15.0						
				DIN DN20 **34.0-20.0**						
				DIN DN25 **50.5-25.0**						
				DIN DN32 **50.5-32.0**						
				DIN DN40 **50.5-38.0**						
				DIN DN50 **64.0-50.0**						
Concentric		Weld **W**		DIN DN8 **10.0-8.0**		EPDM - black **EBKU**		8 mbar **08**		
HCV02				DIN DN10 **12.0-10.0**		Viton - black **VBKU**		35 mbar **35**		
Eccentric				**13.0-10.0**		Silicone - white **SW**				
HCV02E				DIN DN15 **18.0-15.0**		FEP-Silicone **FEPS**				
				19.0-16.0		Perlast **PLW**				
				DIN DN20 **23.0-20.0**						
				DIN DN25 **28.0-25.0**						
				29.0-26.0						
				DIN DN32 **35.0-32.0**						
				DIN DN40 **41.0-38.0**						
				DIN DN50 **53.0-50.0**						

Example

HCV02	-	**C**	-	**34.0-8.0**	-	**EBKU**	-	**08**	-	**EP**

Specification text

Staitech **HCV02 check valve** manufactured in 316L stainless steel with **EPDM FDA and USP Class VI compliant** body and seat seals. **DIN DN8 concentric clamp** connections. **8 mbar spring.** 2-piece body clamp with hex nut closure. Wetted sufaces finished to 0.5 microns Ra. External surfaces finished to 0.8 microns Ra. (HCV02-C-34.0-8.0-EBKU-08). For electropolished finish add suffix '-EP' (HCV02-C-34.0-8.0-EBKU-08-EP).

Staitech **HCV02 check valve** manufactured in 316L stainless steel with **EPDM FDA and USP Class VI compliant** body and seat seals. **DIN DN8 concentric weld** connections. **8 mbar spring.** 2-piece body clamp with hex nut closure. Wetted sufaces finished to 0.5 microns Ra. External surfaces finished to 0.8 microns Ra. (HCV02-C-34.0-8.0-EBKU-08). For electropolished finish add suffix '-EP' (HCV02-W-12.0-10.0-EBKU-08-EP).

HCV02 CHECK VALVE

ISO part number ordering key

Product		Connection		Size		Seat seal		Spring		Options
	-		-		-		-			
Concentric		Clamp **C**		ISO DN8	**25.0-10.3**	EPDM - black	**EBKU**	8 mbar	**08**	Electropolishing **EP**
HCV02				ISO DN10	**25.0-14.0**	Viton - black	**VBKU**	35 mbar	**35**	
Eccentric				ISO DN15	**34.0-18.1**	Silicone - white	**VBK**			
HCV02E					**50.5-18.1**	FEP-Silicone	**SW**			
				ISO DN20	**50.5-23.7**	Perlast	**PLW**			
				ISO DN25	**50.5-29.7**					
				ISO DN32	**64.0-38.4**					
				ISO DN40	**64.0-44.3**					
Concentric		Weld **W**		ISO DN8	**13.4-10.3**	EPDM - black	**EBKU**	8 mbar	**08**	
HCV02				ISO DN10	**17.2-14.0**	Viton - black	**VBKU**	35 mbar	**35**	
Eccentric				ISO DN15	**21.3-18.1**	Silicone - white	**SW**			
HCV02E				ISO DN20	**26.9-23.7**	FEP-Silicone	**FEPS**			
				ISO DN25	**33.7-29.7**	Perlast	**PLW**			
				ISO DN32	**42.4-38.4**					
				ISO DN40	**48.3-44.3**					
				ISO DN50	**60.3-56.3**					

Example

HCV02	-	**C**	-	**25.0-10.3**	-	**EBKU**	-	**08**	-	**EP**

Specification text

Staitech **HCV02 check valve** manufactured in 316L stainless steel with **EPDM FDA and USP Class VI compliant** body and seat seals. **DIN DN8 concentric clamp** connections. **8 mbar spring.** 2-piece body clamp with hex nut closure. Wetted sufaces finished to 0.5 microns Ra. External surfaces finished to 0.8 microns Ra. (HCV02-C-34.0-8.0-EBKU-08). For electropolished finish add suffix '-EP' (HCV02-C-34.0-8.0-EBKU-08-EP).

Staitech **HCV02 check valve** manufactured in 316L stainless steel with **EPDM FDA and USP Class VI compliant** body and seat seals. **DIN DN8 concentric weld** connections. **8 mbar spring.** 2-piece body clamp with hex nut closure. Wetted sufaces finished to 0.5 microns Ra. External surfaces finished to 0.8 microns Ra. (HCV02-C-34.0-8.0-EBKU-08). For electropolished finish add suffix '-EP' (HCV02-W-12.0-10.0-EBKU-08-EP).