

Globe Valves

Type 11C01 - Globe Valve FullX



**Top-Entry Cryogenic-Globe Valves, solid bar stock body, up to PN63
A001 series**

Stainless steel body and topwork,
"live loaded" gland packing
"cleaned and degreased for oxygen service"

Butt weld connection for stainless steel pipes acc. to ISO 1127 or ASTM A312

Available options:

- Bellow, top position
- Bellow monitoring
- Check function
- Control function
- Throttle function
- Purge port

- on request only:
- Further connection types

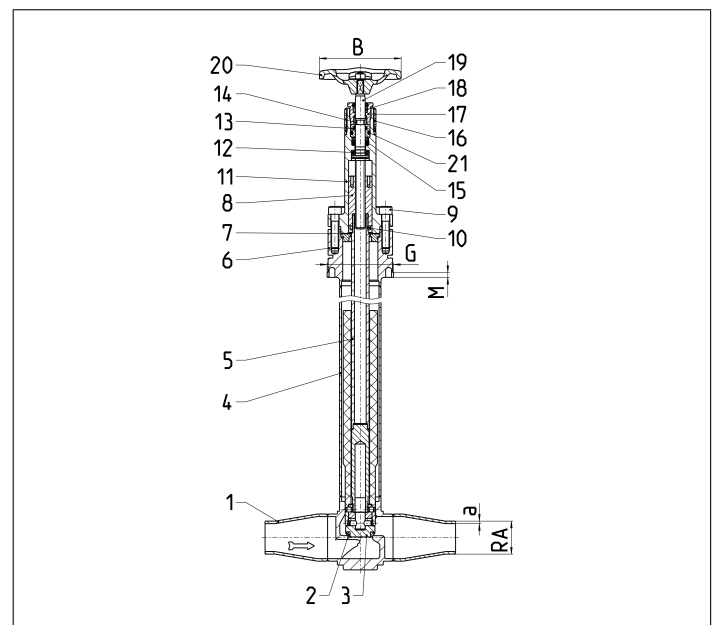
Applications:

Approved for hydrogen, air gases, vapours and cryogenic liquefied gases incl. LNG.

Working temperature: -269°C / -452°F (4K) up to +80°C / +176°F (353K)



Materials	DIN EN	ASTM
1 Body	1.4571	A 313 Grade 316TI
2 Valve seal	PCTFE	
3 Disc	1.4571	A 313 Grade 316TI
4 Tube	1.4571	A 313 Grade 316TI
5 Hollow stem	1.4571	A 313 Grade 316TI
6 Flange	1.4404	A 276 Grade 316L
7 Bonnet gasket	PTFE / Elektrocarbon (25%)	
8 Bushing	CW452K	B 159 UNS C51900
9 Bolt	A4-70	A 194 B8M
10 Nut	1.4404	A 276 Grade 316L
11 Head piece	1.4404	A 276 Grade 316L
12 Ball bearing	1.4125	440C
13 Sliding bushing	CW452K	B 159 UNS C51900
14 Stem ring	CW452K	B 159 UNS C51900
15 Gasket	PTFE / Elektrocarbon (25%)	
16 Cap	PVC	
17 Gland bold	1.4404	A 276 Grade 316L
18 Wiper	PEEK	
19 Stem	1.4404	A 276 Grade 316L
20 Handwheel	1.4409	A 351 CF3M
21 O-ring	FPM (VITON)	

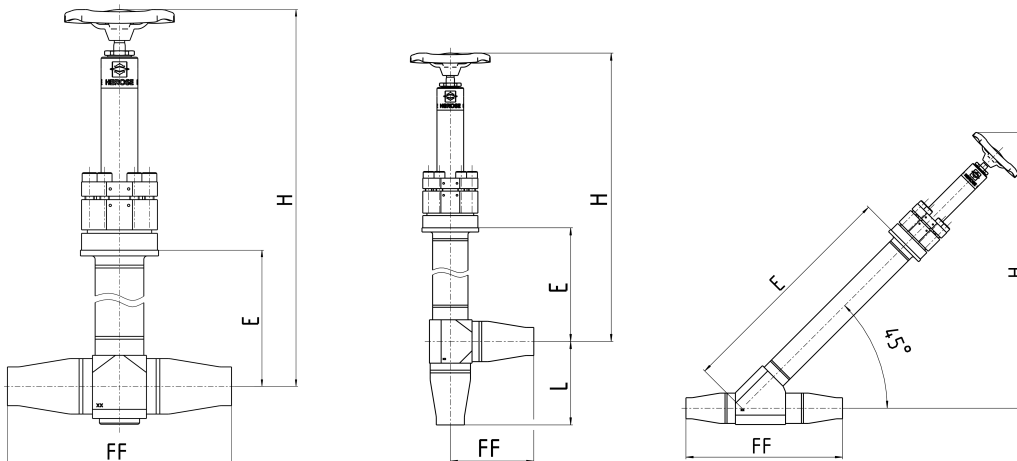


Nominal size	DN	10	15	20	25	32	40	50	80
Collar-Ø	G	68.0	68.0	68.0	68.0	84.4	84.4	100	134
Length	M	5	5	5	5	5	5	5	5
Handwheel-Ø	B	100	100	100	100	125	125	125	150
Outside pipe-Ø ISO	Ra	17.2	21.3	26.9	33.7	42.4	48.3	60.3	88.9
Wall thickness pipe ISO	a	1.8	2.0	2.3	2.6	2.6	2.6	2.9	3.2
Pipe-Ø ASTM A312		S10							

Dimensions in mm.



Body types



Straight body

Nominal size	DN	10	15	20	25	32	40	50	80
Face-to-face dim.	FF	150	150	195	195	235	235	280	345
Height	H	535	535	535	535	690	690	775	1127
Length	E	325	325	325	325	445	445	525	875
Kvs-value	m ³ /h	3.4	4.4	9.8	12.3	25.8	28.3	44.0	100.0
Kvs-value*	m ³ /h	3.4	4.4	9.5	12.0	25.8	28.3	44.0	100.0
Cv-value	gal/min	4.0	5.1	11.4	14.3	30.0	32.9	51.2	115.6
Cv-value*	gal/min	4.0	5.1	11.0	14.0	30.0	32.9	51.2	115.6
Weight	ca. kg	3.71	3.73	4.49	4.53	9.30	9.33	13.13	34.50

* with bellow

Body angle type

Nominal size	DN	10	15	20	25	32	40	50
Face-to-face dim.	FF	80	80	100	100	120	120	140
Height	H	535	535	535	535	690	690	775
Length	E	325	325	325	325	445	445	525
Length	L	80	80	100	100	120	120	140
Kvs-value	m ³ /h	4.7	5.7	19.8	22.3	41.1	43.6	80.0
Kvs-value*	m ³ /h	4.7	5.7	16.5	19.0	33.3	35.8	63.0
Cv-value	gal/min	5.5	6.6	23.0	25.9	47.8	50.7	93.0
Cv-value*	gal/min	5.5	6.6	19.2	22.1	38.7	41.6	73.3
Weight	ca. kg	3.69	3.70	4.41	4.45	8.91	8.94	12.73

* with bellow

Body Y type

Nominal size	DN	10	15	20	25	32	40	50
Face-to-face dim.	FF	185	185	250	250	285	285	340
Height	H	430	430	440	440	570	570	640
Length	E	365	365	370	370	505	505	600
Kvs-value	m ³ /h	4.2	5.2	11.9	14.4	34.4	36.9	69.8
Kvs-value*	m ³ /h	4.2	5.2	7.7	10.2	28.6	31.1	35.0
Cv-value	gal/min	4.9	6.0	13.8	16.7	40.0	42.9	81.2
Cv-value*	gal/min	4.9	6.0	9.0	11.9	33.3	36.2	40.7
Weight	ca. kg	3.70	3.71	4.39	4.42	9.22	9.18	12.62

* with bellow

Globe Valves

Type 11C01 - Globe Valve FullX



Top-Entry Cryogenic-Globe Valves, casted body, up to PN50 A002 series

Stainless steel body and topwork,
"live loaded" gland packing
"cleaned and degreased for oxygen service"

Butt weld connection for stainless steel pipes acc. to ISO 1127 or ASTM A312

Available options:

- Bellow, top position
- Bellow monitoring
- Check function
- Control function
- Throttle function
- Purge port

- on request only:
- Further connection types

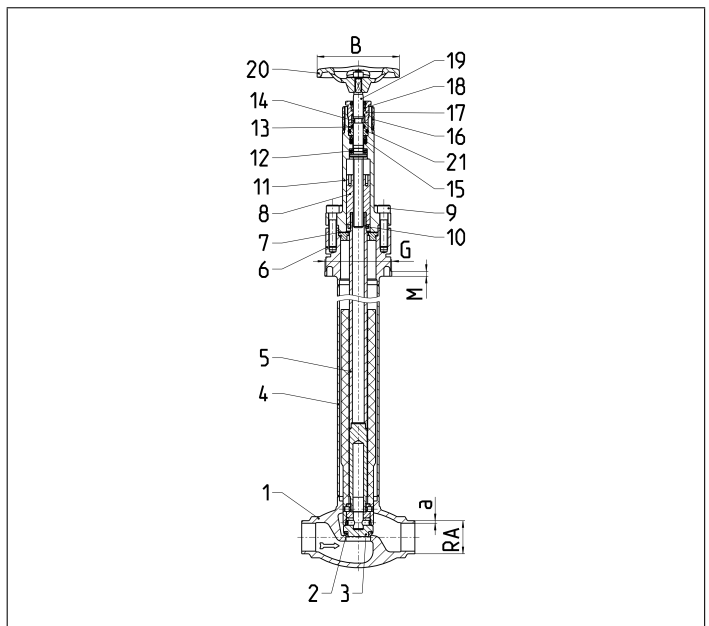


Applications:

Approved for hydrogen, air gases, vapours and cryogenic liquefied gases incl. LNG.

Working temperature: -255°C / -427°F (18K) up to +120°C / +248°F (393K)

Materials	DIN EN	ASTM
1 Body	1.4409	A 351 CF3M
2 Valve Seal	PCTFE	
3 Disc	1.4571	A 313 Grade 316TI
4 Tube	1.4571	A 313 Grade 316TI
5 Hollow stem	1.4571	A 313 Grade 316TI
6 Flange	1.4404	A 276 Grade 316L
7 Bonnet gasket	PTFE / Elektrocarbon (25%)	
8 Bushing	CW452K	B 159 UNS C51900
9 Bolt	A4-70	A 194 B8M
10 Nut	1.4404	A 276 Grade 316L
11 Head piece	1.4404	A 276 Grade 316L
12 Ball bearing	1.4125	440C
13 Sliding bushing	CW452K	B 159 UNS C51900
14 Stem ring	CW452K	B 159 UNS C51900
15 Gasket	PTFE / Elektrocarbon (25%)	
16 Cap	PVC	
17 Gland bolt	1.4404	A 276 Grade 316L
18 Wiper	PEEK	
19 Stem	1.4404	A 276 Grade 316L
20 Handwheel	1.4409	A 351 CF3M
21 O-ring	FPM (VITON)	

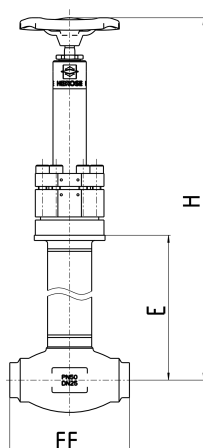


Nominal size	DN	10	15	20	25	32	40	50
Collar-Ø	G	68.0	68.0	68.0	68.0	84.4	84.4	100
Length	M	5	5	5	5	5	5	5
Handwheel-Ø	B	100	100	100	100	125	125	125
Outside pipe-Ø ISO	Ra	13.5	21.3	26.9	33.7	42.4	48.3	60.3
Wall thickness pipe ISO	a	1.6	2.0	2.0	2.6	2.6	2.6	2.6
Pipe-Ø ASTM A312		S10						

Dimensions in mm.



Body types



Straight body

Nominal size	DN	10	15	20	25	32	40	50
Face-to-face dim.	FF	85	85	115	115	130	130	155
Height	H	535	535	535	535	690	690	775
Length	E	325	325	325	325	445	445	525
Kvs-value	m ³ /h	2.4	3.8	10.0	13.3	16.0	25.0	46.0
Kvs-value*	m ³ /h	3.4	4.4	9.5	12.0	25.8	28.3	44.0
Cv-value	gal/min	2.8	4.4	11.6	15.4	18.5	28.9	53.2
Cv-value*	gal/min	4.0	5.1	11.0	14.0	30.0	32.9	51.2
Weight	ca. kg	3.70	3.71	4.39	4.42	9.22	9.18	12.62

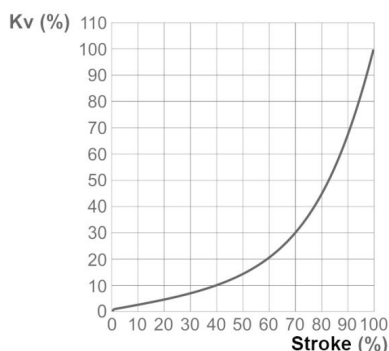
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Flow coefficient for Control Valves - Control characteristic equal percentage Kvs-Value in m³/h, Cv-Value in gal/min. These figures refer to measurements for the flow direction.

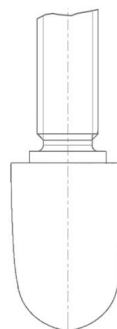
Type 11C01 control function - A001 and A002 series

DN	Kvs [m ³ /h]	Cv [gal/min]	Stroke [mm]
10	1.0	1.2	10
15	3.5	4.1	10
20	4.0	4.7	10
25	6.3	7.3	10
32	10.0	11.6	20
40	19.0	22.1	20
50	30.0	34.9	20

Ideal inherent equal percentage characteristic curve acc. to DIN IEC 60534 Part 2-4



Sample drawing cone, control characteristic equal percentage





Configurable options

For configurable types, the HEROSE part number consists as follows:

Type	Series	Dimension code	Option codes
11C01.	A001.	0250.	CBQ-KCZ-XZE-LYV-CBG-DDP
1	2	3	4 up to 11

Selection of the type					Type
1	Type	Product group	Market segment	Valve design	Product approval
		Globe Valve FullX	Cryogenic	Top Entry	PED
					11C01

Selection of the series					Series
2	Series				
		forged steel body	PN63	manual (handwheel)	A001
		casted body	PN50	manual (handwheel)	A002
		forged steel body	PN63	actuated (diaphragm / piston)	A009
		casted body	PN50	actuated (diaphragm / piston)	A010

Selection of the nominal size					Dimension code
3	Nominal sizes				
		DN10			0100
		DN15			0150
		DN20			0200
		DN25			0250
		DN32			0320
		DN40			0400
		DN50			0500
		DN80			0800

4	Body types		
		Body angle type	CBQ
		Straight body	HJC
		Body Y type	PYU

5	Disc function		
		lockable function	KCZ
		lockable check function	JDA
		lockable control function	SWX
		lockable throttle function	WVV

Choose of connection

Series A001 + A009

6

Connection

DIN / ASTM	Nominal sizes	Outer pipe-Ø	Wall thickness (a) [mm]	Connection type In / Out	Connection extension In / Out	Body type straight	Body type angle	Body type Y
DIN	DN10	17.2	1.8	Butt weld	w/o	KSP	QXY	PKL
DIN	DN15	21.3	2.0	Butt weld	w/o	MZE	CVP	FYB
DIN	DN20	26.9	2.3	Butt weld	w/o	DPN	BNN	WHZ
DIN	DN25	33.7	2.3	Butt weld	w/o	PKY	XZE	CXP
DIN	DN32	42.4	2.6	Butt weld	w/o	GLU	ZKC	HHY
DIN	DN40	48.3	2.6	Butt weld	w/o	RJE	WUW	JBM
DIN	DN50	60.3	2.9	Butt weld	w/o	WPW	BGA	UXB
DIN	DN80	88.9	3.2	Butt weld	w/o	NNG	-	-
ASTM	DN10	1/4"	S10	Butt weld	w/o	-	-	-
ASTM	DN15	1/2"	S10	Butt weld	w/o	TPE	RDZ	GFG
ASTM	DN20	3/4"	S10	Butt weld	w/o	-	-	-
ASTM	DN25	1"	S10	Butt weld	w/o	XSG	QTU	UWU
ASTM	DN32	1 1/4"	S10	Butt weld	w/o	WHA	LRP	JKY
ASTM	DN40	1 1/2"	S10	Butt weld	w/o	VFZ	KMC	WLQ
ASTM	DN50	2"	S10	Butt weld	w/o	-	-	-
ASTM	DN80	3"	S10	Butt weld	w/o	PBZ	-	-



Choose of connection

Series A002 + A010

6	Connection	DIN / ASTM	Nominal sizes	Outer pipe-Ø	Wall thickness (a) [mm]	Connection type In / Out	Connection extension In / Out	Body type straight	Body type angle	Body type Y
		DIN	DN10	13.5	1.6	Butt weld	w/o	FKR	-	-
		DIN	DN15	21.3	2.0	Butt weld	w/o	WQC	-	-
		DIN	DN20	26.9	2.0	Butt weld	w/o	SEE	-	-
		DIN	DN25	33.7	2.6	Butt weld	w/o	PKY	-	-
		DIN	DN32	42.4	2.6	Butt weld	w/o	GLU	-	-
		DIN	DN40	48.3	2.6	Butt weld	w/o	RJE	-	-
		DIN	DN50	60.3	2.6	Butt weld	w/o	JYS	-	-
		ASTM	DN10	1/4"	S10	Butt weld	w/o	MBS	-	-
		ASTM	DN15	1/2"	S10	Butt weld	w/o	FWH	-	-
		ASTM	DN20	3/4"	S10	Butt weld	w/o	LDK	-	-
		ASTM	DN25	1"	S10	Butt weld	w/o	XSG	-	-
		ASTM	DN32	1 1/4"	S10	Butt weld	w/o	WHA	-	-
		ASTM	DN40	1 1/2"	S10	Butt weld	w/o	VFZ	-	-
		ASTM	DN50	2"	S10	Butt weld	w/o	XVN	-	-

7

Vacuum jacketing

w/o Vacuum jacketing	DDP
Vacuum jacketing with MLI (Multi Layer Insulation)	RVA
Vacuum jacketing w/o MLI	MMA

Choose of connection with vacuum jacketing

Serie A001 + A009

8	Connection with extensions	DIN/ ASTM	Nominal size DN/outer pipe-Ø ASTM	Outer pipe-Ø DIN	Vacuum-jacketing-Ø DIN/ASTM	Connection type In-/Out	Connection extensions In-/Out	Body type straight	Body type angle	Body type Y
		DIN/ASTM	DN10 / 3/8" S10	17.2 x 1.8	88.9 x 2 / 3"S5	Butt weld	Vacuum jacketing	WUJ	-	-
		DIN/ASTM	DN15 / 1/2" S10	21.3 x 2	88.9 x 2 / 3"S5	Butt weld	Vacuum jacketing	NAH	-	-
		DIN/ASTM	DN20 / 3/4" S10	26.9 x 2.3	114.3 x 2 / 4"S5	Butt weld	Vacuum jacketing	AFX	-	-
		DIN/ASTM	DN25 / 1" S10	33.7 x 2.6	114.3 x 2 / 4"S5	Butt weld	Vacuum jacketing	ZGJ	-	-
		DIN/ASTM	DN32 / 1 1/4" S10	42.4 x 2.6	- / 5"S5	Butt weld	Vacuum jacketing	LBC	-	-
		DIN/ASTM	DN40 / 1 1/2" S10	48.3 x 2.6	- / 5"S5	Butt weld	Vacuum jacketing	UDG	-	-
		DIN/ASTM	DN50 / 2" S10	60.3 x 2.6	168.3 x 2.6 / 6"S5	Butt weld	Vacuum jacketing	LPA	-	-

Choose of connection with vacuum jacketing

Serie A002 + A010

8	Connection with extensions	DIN/ ASTM	Nominal size DN/outer pipe-Ø ASTM	Outer pipe-Ø DIN	Vacuum-jacketing-Ø DIN/ASTM	Connection type In-/Out	Connection extensions In-/Out	Body type straight	Body type angle	Body type Y
		DIN/ASTM	DN10 / 1/4" S10	13.5 x 1.6	88.9 x 2 / 3"S5	Butt weld	Vacuum jacketing	HQS	-	-
		DIN/ASTM	DN15 / 1/2" S10	21.3 x 2	88.9 x 2 / 3"S5	Butt weld	Vacuum jacketing	JGG	-	-
		DIN/ASTM	DN20 / 3/4" S10	26.9 x 2.3	114.3 x 2 / 4"S5	Butt weld	Vacuum jacketing	BXD	-	-
		DIN/ASTM	DN25 / 1" S10	33.7 x 2.6	114.3 x 2 / 4"S5	Butt weld	Vacuum jacketing	HUX	-	-
		DIN/ASTM	DN32 / 1 1/4" S10	42.4 x 2.6	- / 5"S5	Butt weld	Vacuum jacketing	EGQ	-	-
		DIN/ASTM	DN40 / 1 1/2" S10	48.3 x 2.6	- / 5"S5	Butt weld	Vacuum jacketing	AHS	-	-
		DIN/ASTM	DN50 / 2" S10	60.3 x 2.6	168.3 x 2.6 / 6"S5	Butt weld	Vacuum jacketing	WQT	-	-

9

Bellow options

Bellow	Bellow position	Bellow monitoring	Dimension bellow monitoring	
not selected	not selected	not selected	not selected	LYV
selected	top	not selected	not selected	MUR
selected	top	selected	DIN EN ISO 8434-1-WDS-S6	GXD



10	Purge port	w/o purge port	CBG
		with NPT 1/8" (female)	EPH
		with VCR 1/4" (male)	ANK

11	Actuator selection	See data sheets for pneumatic actuators for type 11C01
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