

Actuated Valves and Actuators

Type 11C01 - Globe Valve FullX with actuator



**Top-Entry pneumatic actuated Cryogenic-Globe Valves, forged steel body, up to PN63
A009 series**

Stainless steel body and topwork,
actuator - **spring to close**, air to open and **spring to open**, air to close
"live loaded" gland packing
"cleaned and degreased for oxygen service"
- the actuator is not cleaned and degreased für oxygen

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

Available accessories/options:

- Solenoid valve · Limit switch · Electropneumatic positioner etc.
- Actuator - cleaned and degreased for oxygen service
- Bellow, top position
- Bellow monitoring
- Check function
- Control function
- Throttle function
- Purge port
- On request only:
- Further connection types

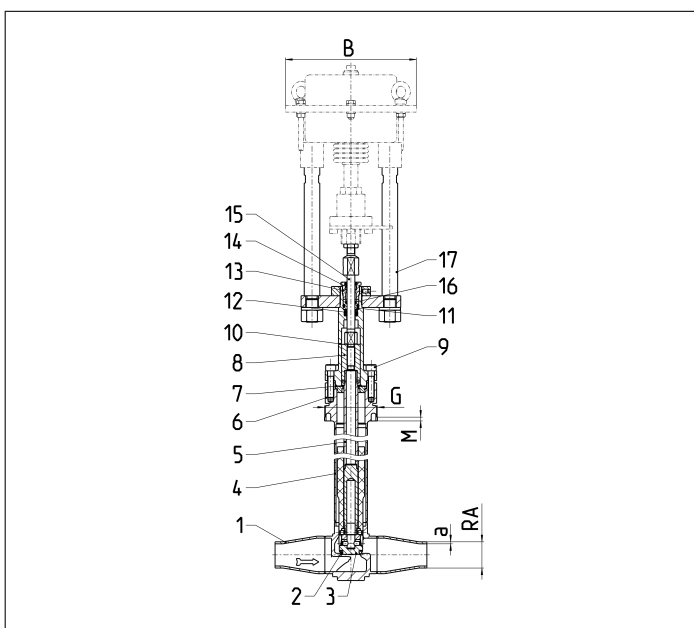


Applications:

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 Head Peace	1.4404	A 276 Grade 316L
11 Sliding bushing	CW452K	B 159 UNS C51900
12 Gasket	PTFE / Elektrocarbon (25%)	
13 Gland bolt	1.4404	A 276 Grade 316L
14 Wiper	PEEK	B 159 UNS C51900
15 Stem	1.4404	A 276 Grade 316L
16 O-ring	FPM (VITON)	
17 Pillars	1.4404	A 276 Grade 316L



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
Actuator-Ø	B	dependent on actuator						
Outside pipe-Ø ISO	Ra	17.2	21.3	26.9	33.7	42.4	48.3	60.3
Wall thickness pipe ISO	a	1.8	2.0	2.3	2.6	2.6	2.6	2.9
Pipe-Ø ASTM A312		S10						

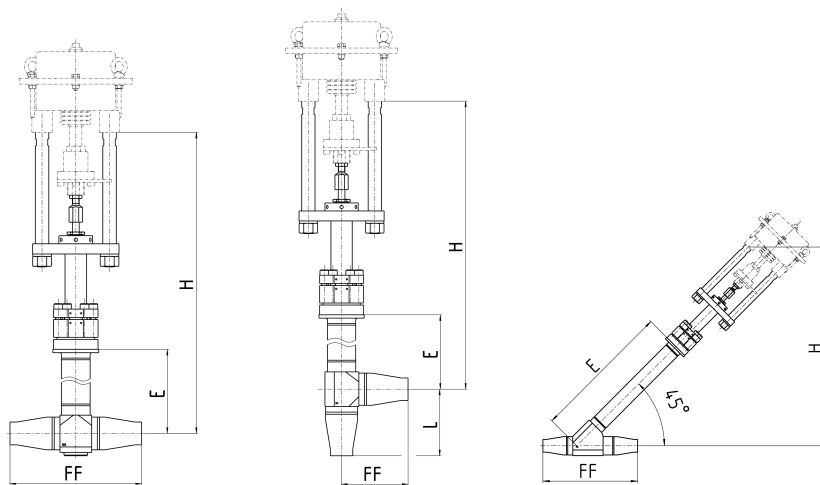
Dimensions in mm.

Actuated Valves and Actuators

Type 11C01 - Globe Valve FullX with actuator



Body types



Straight body

Nominal size	DN	10	15	20	25	32	40	50
Face-to-face dim.	FF	150	150	195	195	235	235	280
Height	H	647	647	647	647	dependent on actuator		
Length	E	325	325	325	325	445	445	535
Kvs-value	m ³ /h	3.4	4.4	9.8	12.3	25.8	28.3	44.0
Kvs-value*	m ³ /h	3.4	4.4	9.5	12.0	25.8	28.3	44.0
Cv-value	gal/min	4.0	5.1	11.4	14.3	30.0	32.9	51.2
Cv-value*	gal/min	4.0	5.1	11.0	14.0	30.0	32.9	51.2
Weight**	ca. kg	5.29	5.31	6.06	6.11	11.16	11.19	14.99

* with bellow, ** without actuator

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	647	647	647	647	dependent on actuator		
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	5.26	5.27	5.98	6.02	10.77	10.81	14.19

* with bellow, ** without actuator

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	521	521	524	524	dependent on actuator		
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	5.58	5.60	6.72	6.76	12.20	12.23	17.16

* with bellow, ** without actuator

Actuated Valves and Actuators

Type 11C01 - Globe Valve FullX with actuator



**Top-Entry pneumatic actuated Cryogenic-Globe Valves, casted body, up to PN50
A010 series**

Stainless steel body and topwork,
actuator - **spring to close**, air to open and **spring to open**, air to close
"live loaded" gland packing
"cleaned and degreased for oxygen service"
- the actuator is not cleaned and degreased für oxygen

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

Available accessories/options:

- Solenoid valve · Limit switch · Electropneumatic positioner etc.
- Actuator - cleaned and degreased for oxygen service
- Bellow, top position
- Bellow monitoring
- Check function
- Control function
- Throttle function
- Purge port
- On request only:
- Further connection types

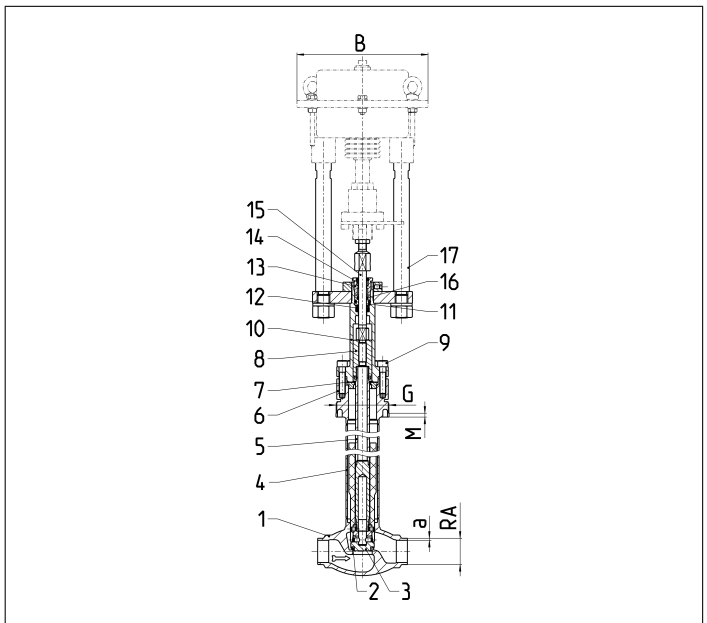


Applications:

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 Head piece	1.4404	A 276 Grade 316L
11 Sliding bushing	CW452K	B 159 UNS C51900
12 Gasket	PTFE / Elektrocarbon (25%)	
13 Gland bolt	1.4404	A 276 Grade 316L
14 Wiper	PEEK	B 159 UNS C51900
15 Stem	1.4404	A 276 Grade 316L
16 O-ring	FPM (VITON)	
17 Pillars	1.4404	A 276 Grade 316L



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
Actuator-Ø	B	dependent on actuator						
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						

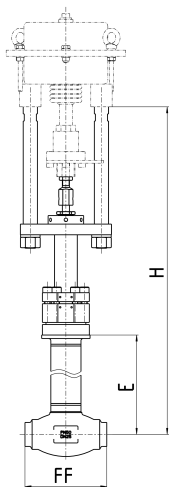
Dimensions in mm.

Actuated Valves and Actuators

Type 11C01 - Globe Valve FullX with actuator



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	647	647	647	647	dependent on actuator		
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	5.27	5.28	5.97	6.00	11.08	11.04	14.48

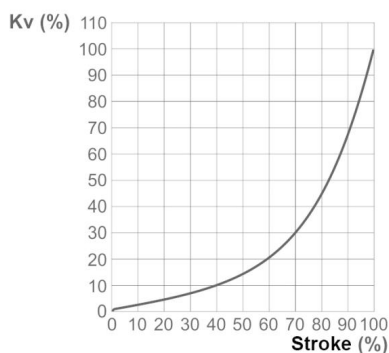
* with bellow, ** without actuator

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.

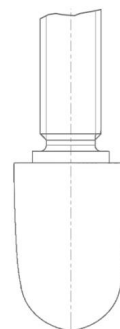
Type 11C01 with actuator and control function - A001 and A002 series

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



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Type 11C01 - Globe Valve FullX with actuator



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

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	-	-

Actuated Valves and Actuators

Type 11C01 - Globe Valve FullX with actuator



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

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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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