

Actuated Valves and Actuators

Type 11C01 - Globe Valve FullX with actuator



Top-Entry pneumatic actuated Cryogenic-Globe Valves, forged steel body, up to PN63
A001 series

- Stainless steel body and topwork,
- actuator - **spring to close**, air to open
- "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, bottom position
 - Bellow monitoring
 - Check function
 - Control function
 - Throttle function
 - Purge port
- On request only:
- Further connection types

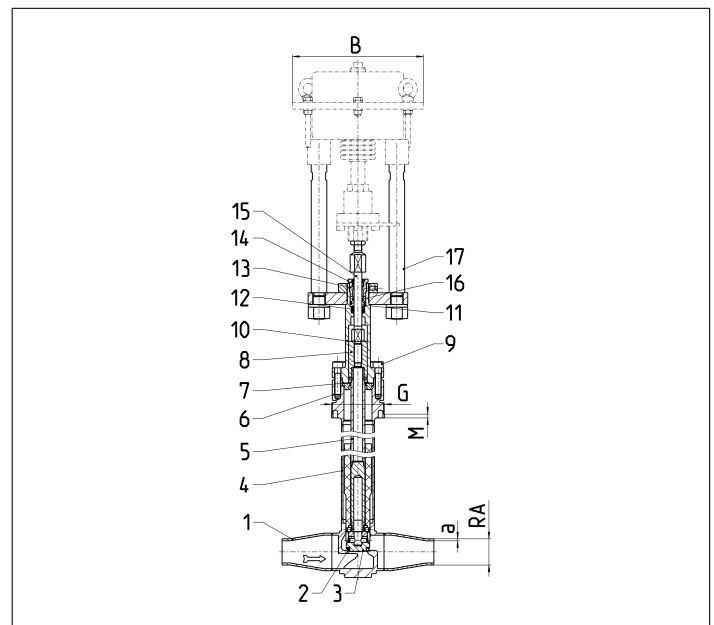


Applications:

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						

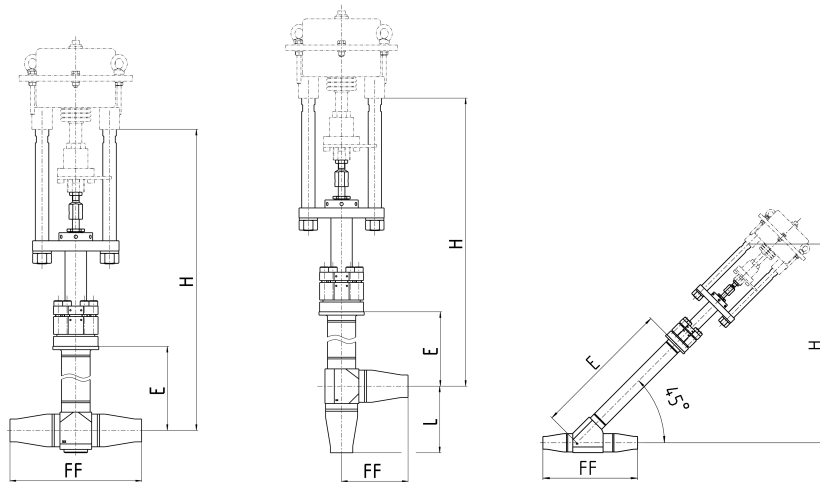
Dimensions in mm.

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	4.45	4.47	5.07	5.11	9.53	9.56	12.62

* 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	4.43	4.45	5.02	5.07	9.31	9.34	14.23

* 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	4.76	4.77	5.76	5.79	10.73	10.76	17.20

* 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
A002 series

- Stainless steel body and topwork,
- actuator - **spring to close**, air to open
- "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, bottom position
- Bellow monitoring
- Check function
- Control function
- Throttle function
- Purge port
- On request only:
- Further connection types

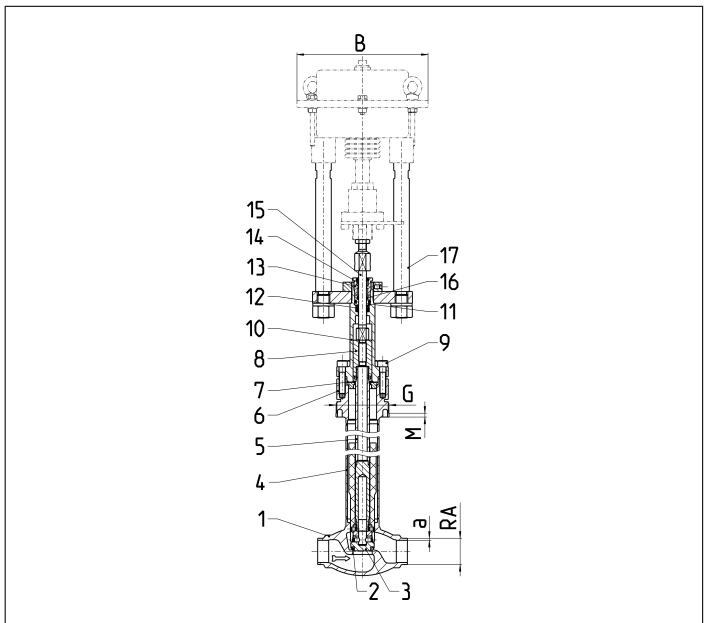


Applications:

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

Working temperature: -255°C / -427°F (18K) up to +80°C / +176°F (353K)

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	2.9
Pipe-Ø ASTM A312		S10						

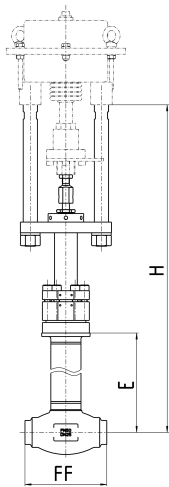
Dimensions in mm.

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	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	2.8	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	4.45	4.47	5.07	5.11	9.53	9.56	12.62

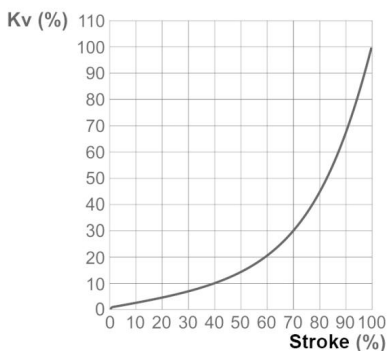
* with bellow, ** without actuator

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.

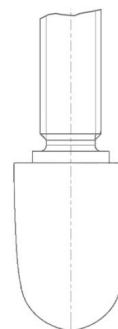
Type 11C01 with actuator and control function - A001 and A002 series

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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Configurable options

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

Type	Series	Dimension code	Option codes
11C01.	A001.	0250.	ESR-MYJ-CBQ-QXY-KCZ-JRB-LYV-SNP-HTW-GCX
1	2	3	4 up to 13

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	increased external tightness	medium pressure rating	A001
		normal external tightness	medium pressure rating	A002

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

Selection of options			Option codes
4	Pressure rating		
	PN50		JAT
	PN63		ESR

5	Approvals		MYJ
	PED		
	DIN EN 1626		

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

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

8	Operation		
	manual		YFW
	actuated 'diaphragm actuator'		RQZ
	actuated 'piston actuator'		CEA

9	Handwheel options	Material 1.4409	silver (natural)	JRB
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10	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	bottom	not selected	not selected	FYX
		selected	top	selected	DIN EN ISO 8434-1-WDS-S6	GXD
		selected	bottom	selected	DIN EN ISO 8434-1-WDS-S6	XHA

11	Collar options	Nominal size	Body type	Collar diameter Ø [mm]	Collar height (M) [mm]	Collar position (E) [mm]	
		DN10-25	Body angle type/ Straight body	68.0	5.0	325.0	YWF
		DN10/15	Body Y type	68.0	5.0	365.0	YTU
		DN20/25	Body Y type	68.0	5.0	370.0	XCX
		DN32/40	Body angle type/ Straight body	84.4	5.0	445.0	RBD
		DN32/40	Body Y type	84.4	5.0	505.0	DML
		DN50	Body angle type/ Straight body	100.0	5.0	525.0	UAC
		DN50	Body Y type	100.0	5.0	600.0	WQA

12	Purge port		
		w/o purge port	CBG
		with NPT 1/8"	EPH
with VCR 1/4"	ANK		

13	Valve height	Nominal size	Body type	Bonnet extension	Valve height (H) [mm]	
		DN10/15	Body angle type/ Straight body	with	535.0	GCX
		DN10/15	Body Y type	with	430.0	HDP
		DN20/25	Body angle type/ Straight body	with	535.0	GCX
		DN20/25	Body Y type	with	440.0	VCG
		DN32/40	Body angle type/ Straight body	with	690.0	AKQ
		DN32/40	Body Y type	with	570.0	WAM
		DN50	Body angle type/ Straight body	with	775.0	QJN
		DN50	Body Y type	with	640.0	FTP