

# 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
- "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

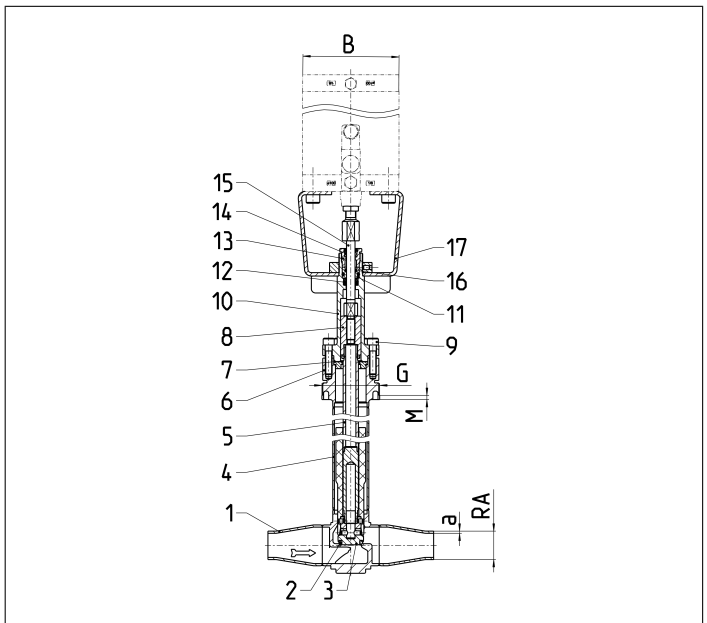


### Applications:

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 Bracket	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						

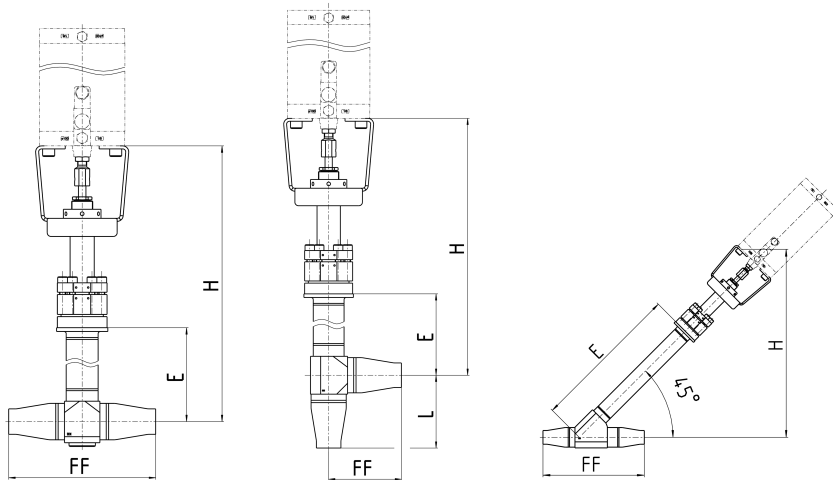
Dimensions in mm.

# 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	567	567	567	567	dependent on actuator		
Length	E	325	325	325	325	445	445	525
Kvs-value	m <sup>3</sup> /h	3.4	4.4	9.8	12.3	25.8	28.3	44.0
Kvs-value*	m <sup>3</sup> /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	4.95	4.97	5.72	5.77	11.50	11.53	15.33

\* 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	567	567	567	567	dependent on actuator		
Length	E	325	325	325	325	445	445	525
Length	L	80	80	100	100	120	120	140
Kvs-value	m <sup>3</sup> /h	4.7	5.7	19.8	22.3	41.1	43.6	80.0
Kvs-value*	m <sup>3</sup> /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	4.91	4.93	5.64	5.68	11.11	11.14	14.53

\* 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 <sup>3</sup> /h	4.2	5.2	11.9	14.4	34.4	36.9	69.8
Kvs-value*	m <sup>3</sup> /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	5.24	5.26	6.37	6.42	12.53	12.56	17.50

\* 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
- "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

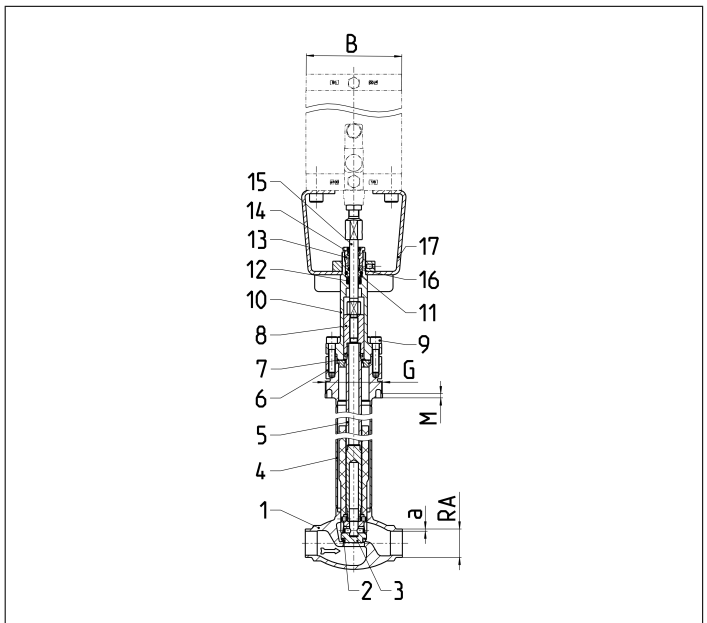


### Applications:

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 Bracket	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						

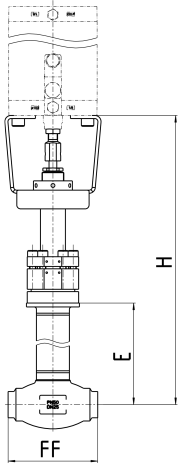
Dimensions in mm.

# 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 <sup>3</sup> /h	2.4	3.8	10.0	13.3	16.0	25.0	46.0
Kvs-value*	m <sup>3</sup> /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	4.93	4.94	5.62	5.65	11.42	11.38	14.82

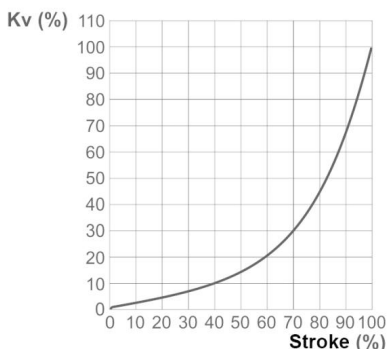
\* with bellow, \*\* without actuator

**Flow coefficient for Control Valves - Control characteristic equal percentage Kvs-Value in m<sup>3</sup>/h, Cv-Value in gal/min. These figures refer to measurements for the flow direction.**

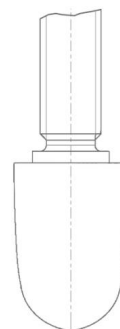
### Type 11C01 with actuator and control function - A001 and A002 series

DN	Kvs [m <sup>3</sup> /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



# Actuated Valves and Actuators

## 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-YWF-CBG-DDP
1	2	3	4 up to 8

Selection of the type			Type
1	Type	Product group	11C01
		Globe Valve FullX	

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

6	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

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

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