

# Aseptic Right Angle Valve 6051

## with EHEDG-Certification

### DN 15 up to DN 50

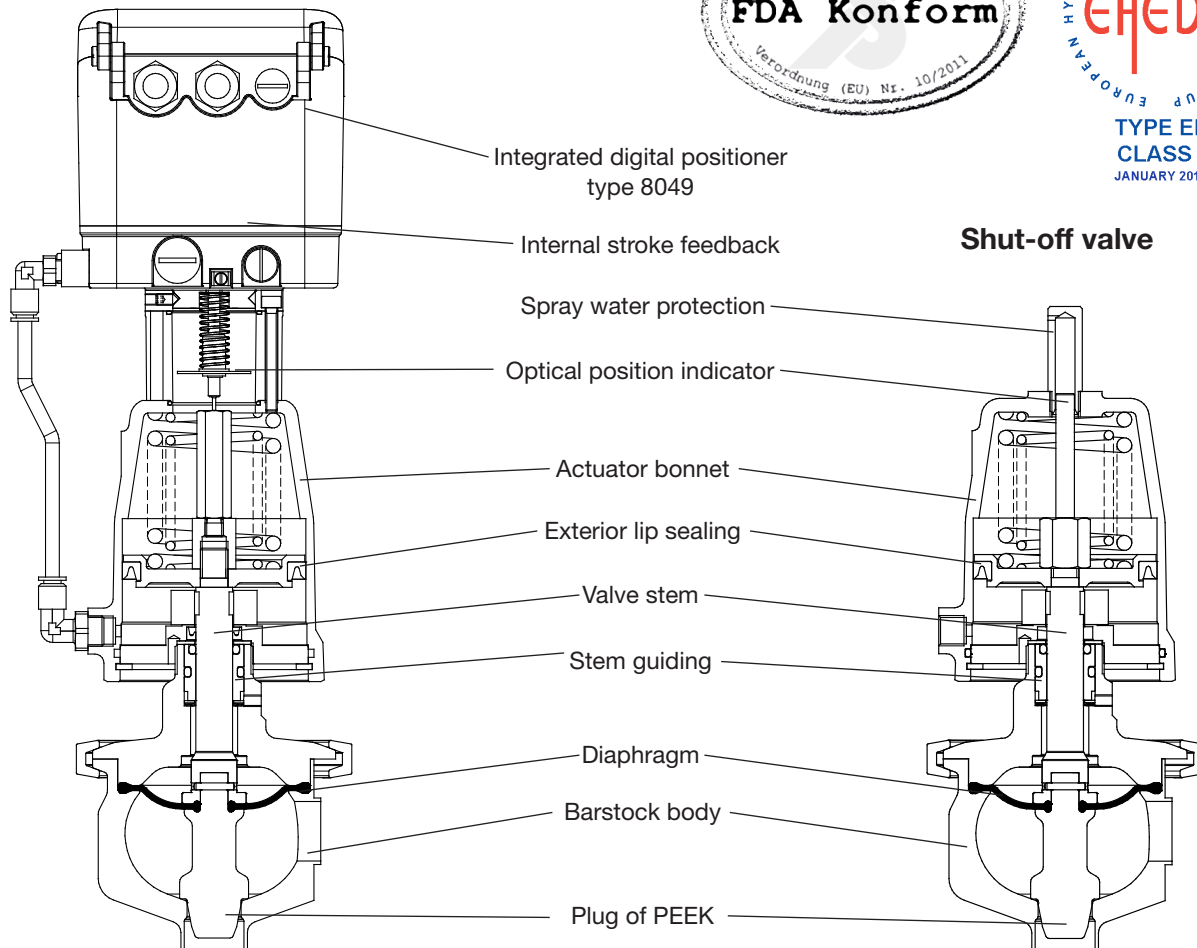


**Pneumatic control valve in right angle design with integrated micro-processor positioner type 8049 or as a shut-off valve for applications in pharmaceutical and food industry.**

- Perfect cleanability by optimised flow condition in relation to constant high wall shear stress
- EHEDG certified design for easy cleaning in place
- Body made from non-porous barstock material
- Medium is sealed by the diaphragm
- Solid design of the diaphragm for extreme variations in temperature
- High chemical resistance by a composite diaphragm made of PTFE and reinforced EPDM
- Simple and intelligent design
- Easy maintenance
- Parts are FDA conformant, comply with the USP class VI and Regulations (EG) 1935/2004 and (EU) 10/2011



### Control valve with positioner type 8049



# Aseptic Right Angle Control Valve 6051



with EHEDG-Certification

## Technical information valve

Body material	Stainless steel 1.4435
Nominal sizes	DN 15 up to DN 50
Connections	Welding ends DIN 11850 series 2 Welding ends ASME BPE Welding ends ISO 1127 Tri-clamp acc. Inch (DIN 32676-C)
Nominal pressure	PN 16
Diaphragm	Reinforced EPDM diaphragm with PTFE-foil (fluidside)
Fluid temperature	-20°C up to +140°C
Rangeability	50 : 1
Hysteresis	< 0,5 %
Surface finish inside	Ra < 0,6 µm electropolished, Ra < 0,4 µm (optional for body) electropolished, Ra < 0,25 µm (optional for body)
Surface finish outside	Ra < 1,2 µm

## Materials

Valve body	Stainless steel 1.4435
Actuator	Stainless steel 1.4408 (optional: polished)
Diaphragm actuator	Stainless steel 1.4301
Actuator springs	Stainless steel 1.4310
Valve stem	Stainless steel 1.4571
Control plug	PEEK
Clamp-connection	Stainless steel 1.4435
Body positioner	Aluminium, filled PA, optional: stainless steel 1.4305
Body position indicator	PA Polyamid (clear)

## Positioner

For technical information of our positioners, type 8049 or 8047, refer to the corresponding data sheets.

## Kvs- Values with EHEDG Certification

characteristic	linear					equal percentage				
	15	20	25	40	50	15	20	25	40	50
DN	15	20	25	40	50	15	20	25	40	50
100%	3,5	3,5	8,8	21,9	35	2,6	2,6	6,8	14,5	24,5
reduced (63 %)	2,2	2,2	5,5	14	-	1,6	1,6	4,4	9,9	-
reduced (40 %)	1,4	1,4	3,5	8,8	-	1,1	1,1	2,6	-	-
reduced (25 %)	0,88	0,88	2,2	-	-	-	-	1,6	-	-
reduced (16 %)	0,55	0,55	1,4	-	-	-	-	1,1	-	-
reduced (10 %)	0,35	0,35	0,88	-	-	-	-	-	-	-
reduced (6,3 %)	0,22	-	0,55	-	-	-	-	-	-	-
reduced (4 %)	-	-	0,35	-	-	-	-	-	-	-
reduced (2,5 %)	0,09	0,09	-	-	-	-	-	-	-	-
stroke (mm)	14					14				

## Kvs- Values without EHEDG Certification

characteristic	linear					equal percentage				
	15	20	25	40	50	15	20	25	40	50
DN	15	20	25	40	50	15	20	25	40	50
100%	4	4	10	25	40	4	4	10	20	32
reduced (63 %)	2,5	2,5	6,3	16	-	2,5	2,5	6,3	15	-
reduced (40 %)	1,6	1,6	4	10	-	1,6	1,6	4	-	-
reduced (25 %)	1	1	2,5	-	-	-	-	2,5	-	-
reduced (16 %)	0,63	0,63	1,6	-	-	-	-	1,6	-	-
reduced (10 %)	0,4	0,4	1	-	-	-	-	-	-	-
reduced (6,3 %)	0,25	-	0,63	-	-	-	-	-	-	-
reduced (4 %)	-	-	0,4	-	-	-	-	-	-	-
reduced (2,5 %)	0,1	0,1	-	-	-	-	-	-	-	-
stroke (mm)	16					16				

# Aseptic Right Angle Control Valve 6051



with EHEDG-Certification

## Admissible differential pressures for control valves with positioner type 8049

DN	Max. admissible diff. pressure in bar	Supply bar	Actuator size	Springs	Max. admissible back pressure in bar
15	6	4,5 to 6	80 mm	2	4,5
15	10	3,2 to 6	125 mm	3	8,5
20	6	4,5 to 6	80 mm	2	4,5
20	10	3,2 to 6	125 mm	3	8,5
25	3	4,5 to 6	80 mm	2	4,5
25	8,5	3,2 to 6	125 mm	3	8,5
25	10	1,6 to 6	250 mm	4	7
40	7,5	3,2 to 6	125 mm	3	8,5
40	10	2,3 to 6	250 mm	6	11
50	5	3,2 to 6	125 mm	3	8,5
50	7,5	2,3 to 6	250 mm	6	11

## Admissible differential pressures for shut-off valves (spring to close\*)

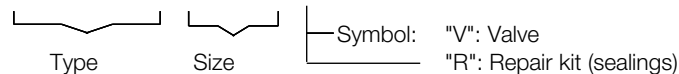
DN	Max. admissible diff. pressure in bar	Supply bar	Actuator size	Springs	Max. admissible back pressure in bar
DN15 to DN25	7	4,5 to 10	80 mm	2	4,5
DN15 to DN25	14	3,2 to 10	125 mm	3	8,5
DN40	8	3,2 to 10	125 mm	3	8,5
DN40	11	2,3 to 6	250 mm	6	11
DN50	5,5	3,2 to 10	125 mm	3	8,5
DN50	9	2,3 to 6	250 mm	6	11

\*Pressure values for ‚spring to open‘ on demand

## Ordering number system

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1 - 6 : Please note all 6 sections.  
7 - 12: Quote only if required.



1.	Design	2.	Connections	3.	Body material	4.	Control plug-/ Dia- phragmmaterial	5.	Positioner	6.	Actuator
A	Aseptic control valve with EHEDG-Certification	D	Welding ends acc. DIN 11850, series 2	7	stainless steel 1.4435 Ra <0,6 µm	P	Control plug of PEEK Ra <0,6 µm	-	without (stut-off valve)	1	piston Ø 80mm with stainless steel bonnest
B	Aseptic control valve without EHEDG-Certification	E	Welding ends acc. ASME BPE	9	stainless steel 1.4435 surface roughness inside Ra <0,4 µm electropolished		diaphragm of EPDM with PTFE-foil (fluid-side) Ra <0,6 µm	6	p/p-positioner type 8047	2	piston Ø 125mm with stainless steel bonnest
		F	Welding ends acc. ISO 1127	A	stainless steel 1.4435 surface roughness inside Ra <0,25 µm electropolished			8	i/p-positioner type 8047	M	piston Ø 80mm with plastic bonnest
		Z	Tri-clamp acc. Inch (DIN 32676-C)					C	digital positioner type 8049, 4-wire	C	diaphragm A250
								R	digital positioner type 8049, 2-wire		
								W	digital positioner type 8049, 2-wire, ex-version		

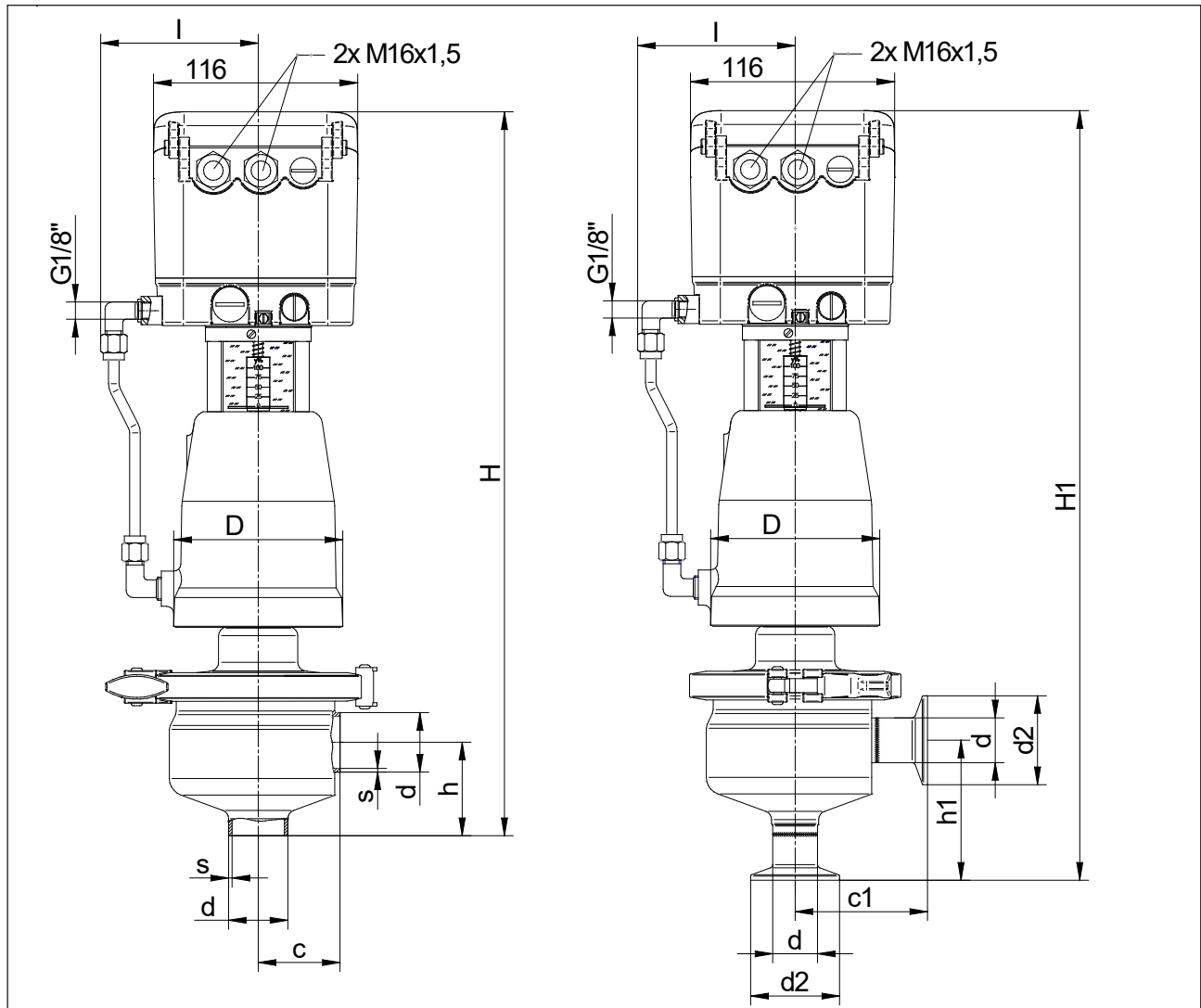
7.	Special version	8.	Springs	9.	Flow characteristic	10.	Kvs-value	11.	Accessories	12.	Special versions
M	see following positions	-	Standard spring configuration	-	linear	-	full (100%)	S	without	S	in case further specials are required
		1	Spring opens (for digital positioner or shut-off valve)	1	equal percentage	1	red. 40 %	1	1 limit switch (micro switch)	B	digital position indicator with bluetooth
		R	4 springs			2	red. 25 %	2	2 limit switches (micro switch)	C	digital position indicator
		W	8 springs			3	red. 16 %	K	1 limit switch compact	D	AS-I control head
						4	red. 10 %	M	2 inductive limit switches	M	el. Position indicator with cable bushing
						5	red. 6,3 %	P	1 inductive limit switch	N	el. Position indicator with plug connetion
						6	red. 4 %				
						7	red. 2,5 %				
						A	red. 63 %				

# Aseptic Right Angle Control Valve 6051



with integrated digital positioner type 8049

## Dimensions and weights



DN	Actuator $\phi$	D	DIN				ISO				ASME BPE				l	H	Weight (-kg)
			s	d	c	h	s	d	c	h	s	d	c	h			
15	80	96	1,5	19	46,5	53,5	1,6	21,3	46,5	53	1,65	12,7	46,5	61,5	90	414	7
20	80	96	1,5	23	46,5	53,5	1,6	26,9	46,5	53	1,65	19,05	46,5	53,5	90	409	7
25	80	96	1,5	29	46,5	53,5	2	33,7	46,5	53	1,65	25,4	46,5	53,5	90	412	7,1
25	125	146	1,5	29	46,5	53,5	2	33,7	46,5	53	1,65	25,4	46,5	53,5	105	432	9,8
40	80	96	1,5	41	49,5	48	2	48,3	49,5	47	1,65	38,1	49,5	54,5	90	417	7,6
40	125	146	1,5	41	49,5	48	2	48,3	49,5	47	1,65	38,1	49,5	54,5	105	437	10,3
50	80	96	1,5	53	51	52	2	60,3	51	52	1,65	50,8	51	59	90	427	8
50	125	146	1,5	53	51	52	2	60,3	51	52	1,65	50,8	51	59	105	447	10,7

DN	Actuator $\phi$	D	Tri-clamp ASME BPE				l	H1	Weight (-kg)
			d	d2	c1	h1			
15	80	96	12,7	25	71,5	85,5	90	438	7
20	80	96	19,05	25	71,5	83	90	438	7
25	80	96	25,4	50,5	75,2	79,5	90	438	7,2
25	125	146	25,4	50,5	75,2	79,5	105	458	9,9
40	80	96	38,1	50,5	87	99	90	462	8
40	125	146	38,1	50,5	87	99	105	482	10,7
50	80	96	50,8	64	88,9	88,9	90	458	8,2
50	125	146	50,8	64	88,9	88,9	105	478	11,3

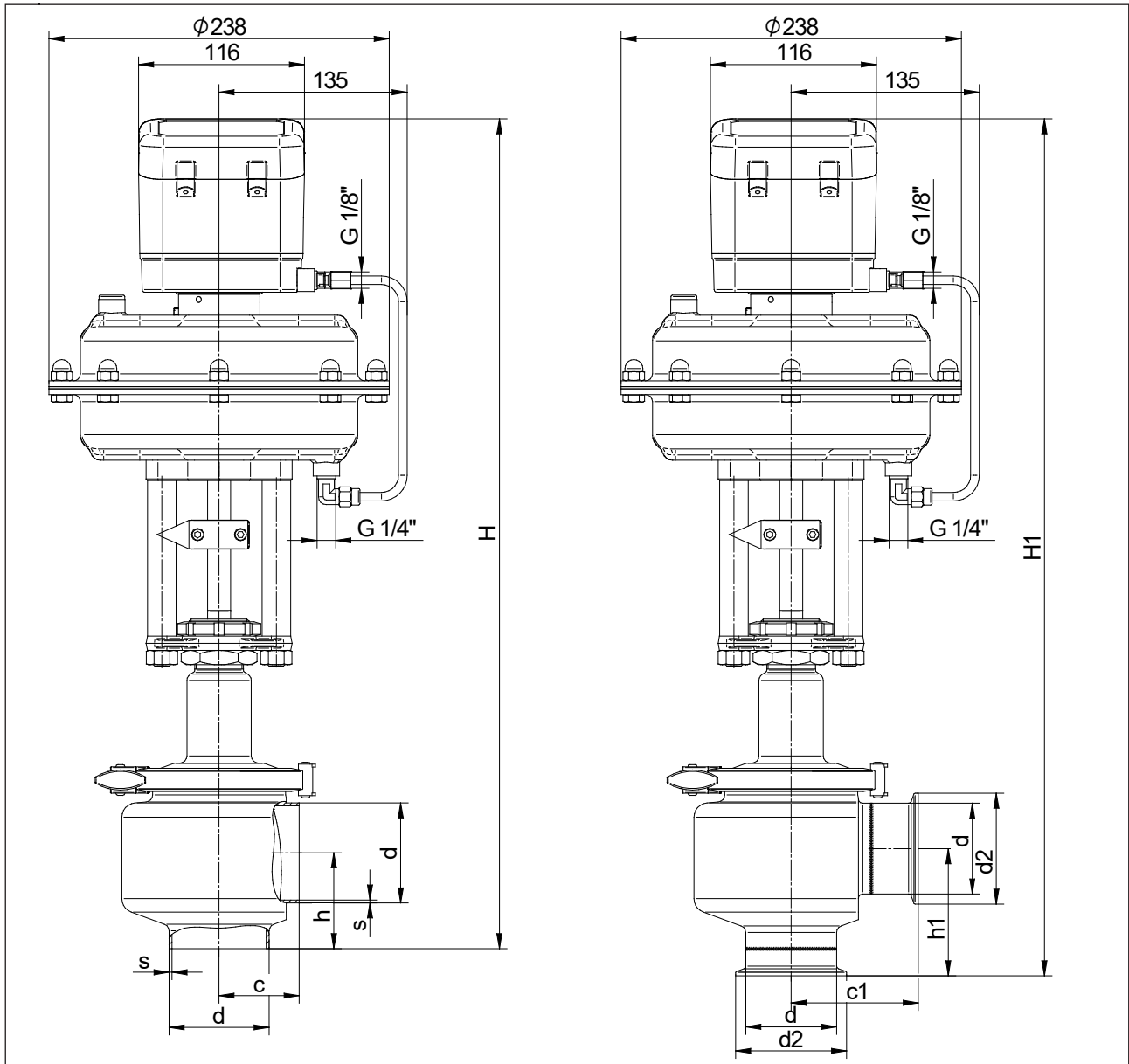
Dimensions in mm

# Aseptic Right Angle Control Valve 6051



with integrated digital positioner type 8049

## Dimensions and weights



DN	Actuator ø	DIN				ISO				ASME BPE				H	Weight (-kg)
		s	d	c	h	s	d	c	h	s	d	c	h		
15	250	1,5	19	46,5	53,5	1,6	21,3	46,5	53	1,65	12,7	46,5	61,5	510	15,5
20	250	1,5	23	46,5	53,5	1,6	26,9	46,5	53	1,65	19,05	46,5	53,5	505	15,5
25	250	1,5	29	46,5	53,5	2	33,7	46,5	53	1,65	25,4	46,5	53,5	508	15,7
40	250	1,5	41	49,5	48	2	48,3	49,5	47	1,65	38,1	49,5	54,5	513	16,5
50	250	1,5	53	51	52	2	60,3	51	52	1,65	50,8	51	59	523	16,7

DN	Actuator ø	Tri-Clamp ASME BPE				H1	Weight (-kg)
		d	d2	c1	h1		
15	250	12,7	25	71,5	85,5	533	15,5
20	250	19,05	25	71,5	83	533	15,7
25	250	25,4	50,5	75,2	79,5	533	16
40	250	38,1	50,5	87	99	557	16,5
50	250	50,8	64	88,9	88,9	553	16,7

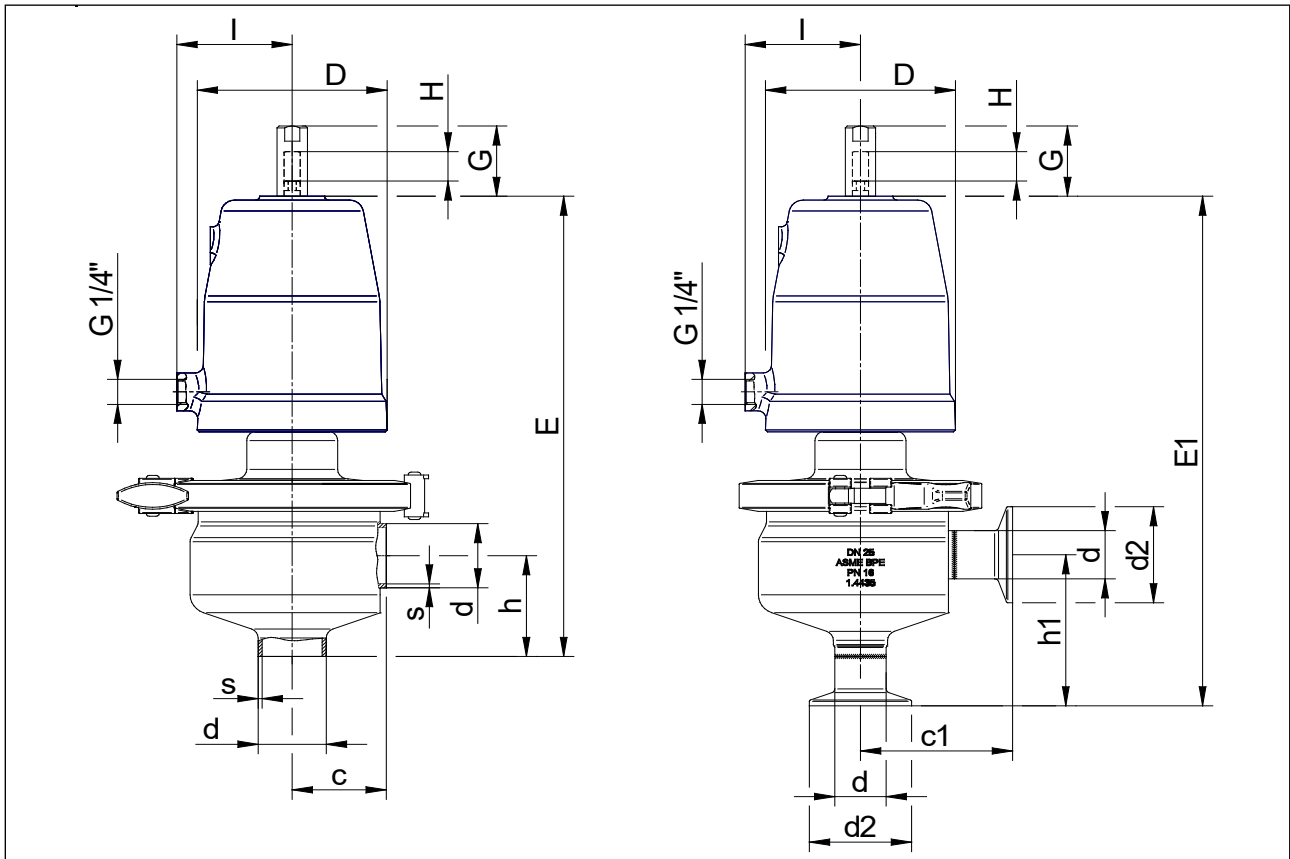
Dimensions in mm

# Aseptic Right Angle Control Valve 6051



shut-off valve with piston actuator

## Dimensions and weights



DN	Actuator ø	D	DIN				ISO				ASME BPE				I	H	E	G	Weight (~kg)
			s	d	c	h	s	d	c	h	s	d	c	h					
15	80	96	1,5	19	46,5	53,5	1,6	21,3	46,5	53	1,65	12,7	46,5	61,5	57	16	245	1,46	5,8
20	80	96	1,5	23	46,5	53,5	1,6	26,9	46,5	53	1,65	19,05	46,5	53,5	57	16	240	37	5,8
25	80	96	1,5	29	46,5	53,5	2	33,7	46,5	53	1,65	25,4	46,5	53,5	57	16	243	37	5,9
25	125	146	1,5	29	46,5	53,5	2	33,7	46,5	53	1,65	25,4	46,5	53,5	80	16	263	37	8,6
40	80	96	1,5	41	49,5	48	2	48,3	49,5	47	1,65	38,1	49,5	54,5	57	16	248	37	6,4
40	125	146	1,5	41	49,5	48	2	48,3	49,5	47	1,65	38,1	49,5	54,5	80	16	268	37	9,1
50	80	96	1,5	53	51	52	2	60,3	51	52	1,65	50,8	51	59	57	16	258	37	6,8
50	125	146	1,5	53	51	52	2	60,3	51	52	1,65	50,8	51	59	80	16	278	37	9,5

DN	Actuator ø	D	Tri-Clamp ASME BPE				I	H	E1	G	Weight (~kg)
			d	d2	c1	h1					
15	80	96	12,7	25	71,5	85,5	57	16	269	37	5,8
20	80	96	19,05	25	71,5	83	57	16	269	37	5,8
25	80	96	25,4	50,5	75,2	79,5	57	16	269	37	6
25	125	146	25,4	50,5	75,2	79,5	80	16	289	37	8,7
40	80	96	38,1	50,5	87	99	57	16	293	37	6,8
40	125	146	38,1	50,5	87	99	80	16	313	37	9,5
50	80	96	50,8	64	88,9	88,9	57	16	289	37	7
50	125	146	50,8	64	88,9	88,9	80	16	309	37	10,2

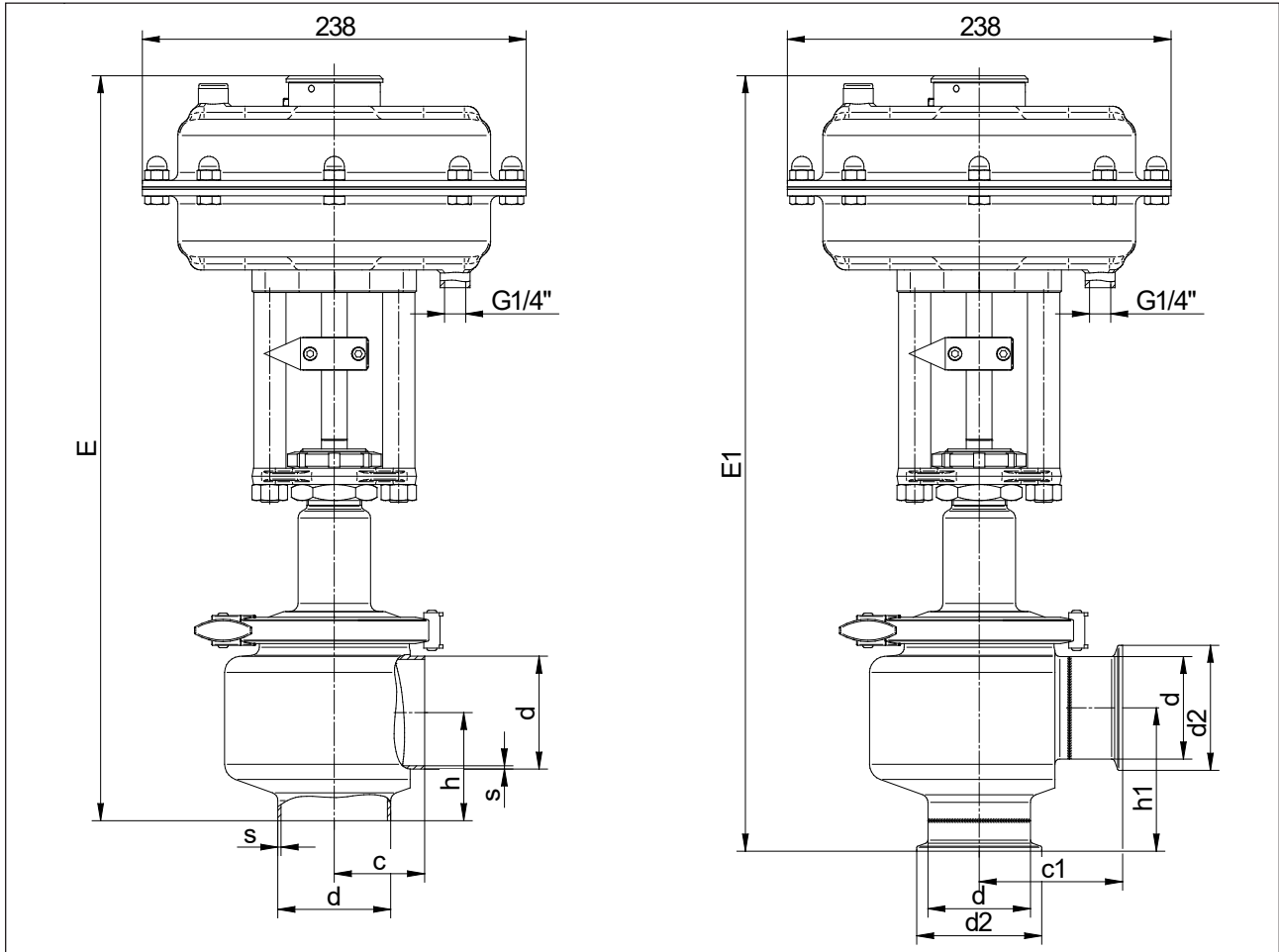
Dimensions in mm

# Aseptic Right Angle Control Valve 6051



shut-off valve with diaphragm actuator

## Dimensions and weights



DN	Actuator ø	DIN				ISO				ASME BPE				E	Weight (~kg)
		s	d	c	h	s	d	c	h	s	d	c	h		
15	250	1,5	19	46,5	53,5	1,6	21,3	46,5	53	1,65	12,7	46,5	61,5	392	14,3
20	250	1,5	23	46,5	53,5	1,6	26,9	46,5	53	1,65	19,05	46,5	53,5	387	14,3
25	250	1,5	29	46,5	53,5	2	33,7	46,5	53	1,65	25,4	46,5	53,5	390	14,5
40	250	1,5	41	49,5	48	2	48,3	49,5	47	1,65	38,1	49,5	54,5	395	15,3
50	250	1,5	53	51	52	2	60,3	51	52	1,65	50,8	51	59	405	15,5

DN	Actuator ø	Tri-Clamp ASME BPE				E1	Weight (~kg)
		d	d2	c1	h1		
15	250	12,7	25	71,5	85,5	415	14,3
20	250	19,05	25	71,5	83	415	14,5
25	250	25,4	50,5	75,2	79,5	415	14,8
40	250	38,1	50,5	87	99	439	15,3
50	250	50,8	64	88,9	88,9	435	15,5

Dimensions in mm

Text and pictures are not binding. We reserve the right to alter the equipment.