

Control Valve compact 8028



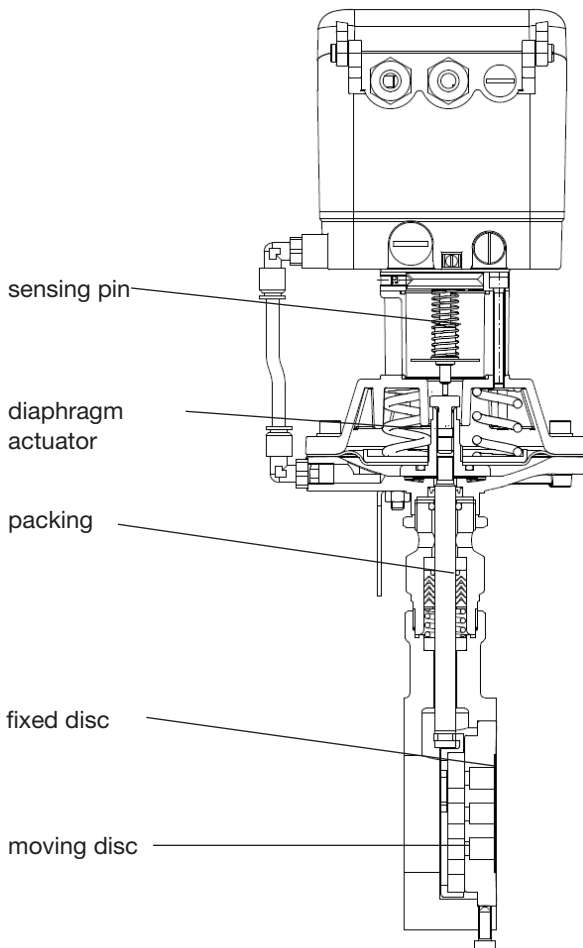
With integrated positioner
GS1 Series - DN15 up to DN150

Pneumatic manual control valve for the control of neutral through to highly aggressive media in process engineering, chemical industries and for plant equipment.

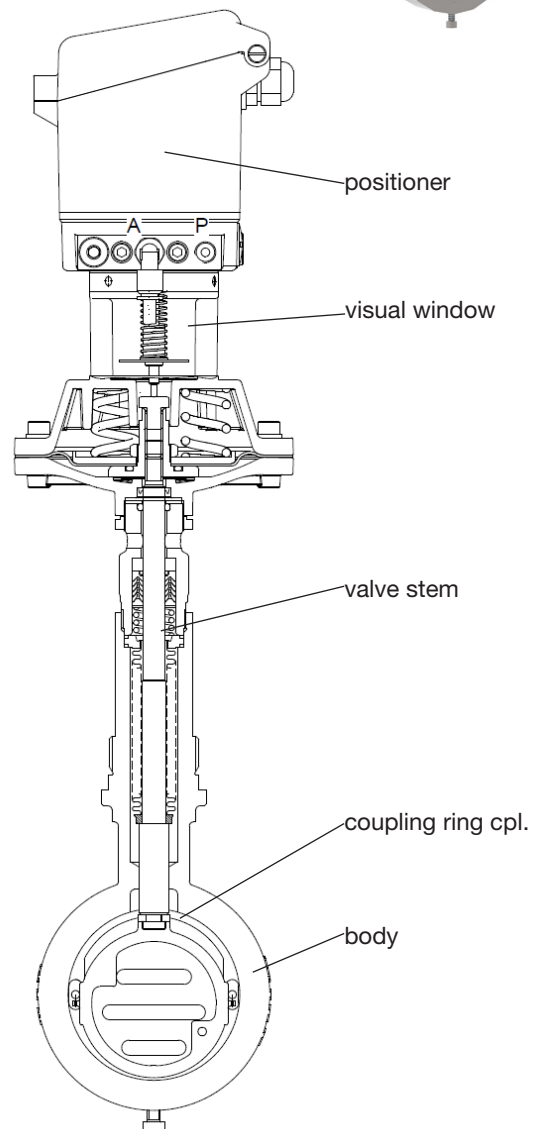
- Excellent control precision due to less friction at the actuator
- High rangeability of 40:1 linear / 80:1 equal percentage
- Control of high differential pressures with small actuators
- Without positioner also suitable for on/off applications
- Space saving wafer type construction
- Integrated positioner
- Lowest possible weight
- Quiet operation
- Fast response time
- Greatly reduced energy consumption rates due to short strokes and low actuating forces on the throttle elements



short version



long version



Technical information

Body design	flangeless, wafer-type construction dimensions acc. DIN EN 558-1 series 20 for flanges acc. DIN EN 1092-1, form B more versions see data-sheet 8028-GS3		
Nominal size	DN 15 to DN 150		
Nominal pressure	PN 40 acc. DIN 2401 (also for flanges PN 10 to PN 25)		
Fluid temperature	carbon steel body stainless steel body body (short version)	-10°C to +350°C -60°C to +350°C up to max. +230°C	
Ambient temperature*	-30°C up to +100°C		
Rangeability / Characteristic digital positioner	40 : 1 linear / 80 : 1 equal percentage		
Leakage** % of Kvs IEC 60534-4 EN 12266-1	Disc Pair Carbon-stainless steel <0,0001 IV-S1 D	Disc Pair SFC <0,0005 IV-S1 E	Disc Pair STN2 <0,001 IV E
Specific leakage rate shaft and body sealing	ISO FE-BH-CC3-SSA0-t(-40°C/+350°C)-PN40-ISO 15848-1		

* Please consider the limitation of use of the positioner!

** With DN15 with reduction of less than 25%, different leakage rates possible.

Materials

Body	Carbon steel 1.0619	Stainless steel 1.4581 or 1.4408	
Diaphragm housing	Aluminium, KTL- coated		
Actuator springs	Stainless steel 1.4310		
Packing	PTFE carbon filled (spring 1.4310)		
Actuating stem	Stainless steel 1.4571, roller burnished		
Bellows (optional)	Stainless steel 1.4571		
Fixed disc	Stainless steel 1.4571 coated	STN2 - disc	
Sliding disc	Special carbon material	SFC - disc (max. 300°C)	STN2 - disc
Coupling ring for disc	Stainless steel 1.4581		
Positioner Housing	Aluminium anodized, synthetic		

Admissible Differential Pressure

DN	Disc pair carbon/SFC-stainless steel coatet	
	max. working pressure (bar)	required pilot pressure (bar)
15	40	3,5
20	40	3,5
25	40	3,5
32	40	3,6
40	35	4,0
50	23	4,8
65	19,5	4,9
80	12	5,1
100	7,9	5,3
125	5,3	5,4
150	4	5,4

DN	STN2-disc pair	
	max. working pressure (bar)	required pilot pressure (bar)
15	40	3,5
20	40	3,7
25	32	4
32	23	4,3
40	16	4,5
50	9,7	5,2
65	8	5,2
80	4,8	5,3
100	3	5,5
125	2	5,5
150	1,4	5,5

Applications limits for GS1-Valves

PN 40	Sliding unit: carbon/SFC - stainless steel, coated max. admissible pressures for GS1-valves						Sliding unit: carbon - STN2 max. admissible pressures for GS1-valves					
	100°C	150°C	200°C	250°C	300°C	350°C	100°C	150°C	200°C	250°C	300°C	350°C
15 - 25	40	36	31	28	26	24	40	36	31	28	26	24
32	40	36	31	28	26	24	40	36	31	28	25	22
40	40	36	31	28	26	24	27	26	24	19,5	16	14
50	40	36	31	28	26	24	40	36	31	28	26	24
65	40	36	31	28	26	24	38	36	31	28	23	19,5
80	40	36	31	28	26	24	22	21	20	16	13	11,5
100	25	24	22	19	16	14,5	13,5	12,5	12,0	9,8	8,1	7,0
125	16,5	15,5	15	12,5	10,5	9,5	8,9	8,4	8,0	6,5	5,3	4,6
150	16	16	16	16	13	11,5	11	10,5	9,8	7,9	6,5	5,6

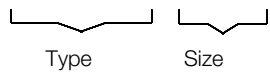
Limitation for SFC-sliding discs: 300°C

Control Valve compact - GS1



Ordering Number system

8 0 2 8 / 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
 V M Z S



Symbol: "V": Valve
 "R": Repair kit (sealings)

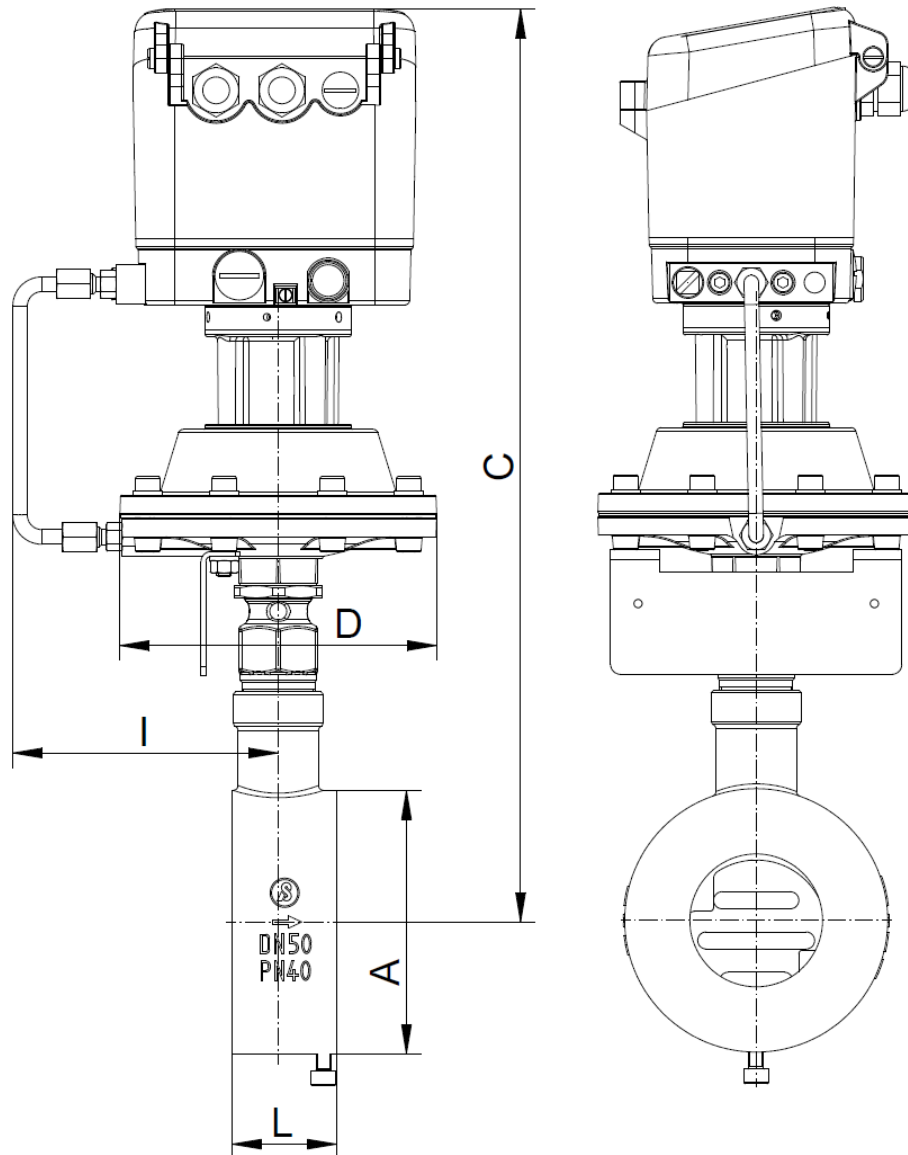
1 - 5 : Please quote all 5 sections.
 6 - 12: Quote only if required.

1. Type		2. Connection		3. Body material		4. Safety position		5. Actuator			
C	Control Valve compact 8028, short version	0	GS1-flangeless design PN10-PN40 (for flanges acc. DIN EN 1092-1, form B)	0	carbon steel 1.0570 / 1.0619	0	spring closes 1 spring opens	1	diaphragm D80		
D	Control Valve compact 8028, long version			1	stainless steel 1.4581/1.4408			2	diaphragm D80 with NPT-thread		
6. Special versions		7. Springs		8. Stem sealing		9. Moving disc		10. Fixed disc			
M	state, if further sections are quoted	-	Standard	-	Standard additional metal bellow	-	carbon material S Stainless steel, SFC 9 STN2/STN3	-	standard coating, stainless steel 1.4571		
								1	STN2		
								3	STN3		
11. KVs-values		12. Characteristic		13. Accessories		14. Positioner		15. Signal equipment		16. Special versions	
-	100% (Stand.)	-	linear equal%	Z	see following positions	-	without positioner, prepared for 8049	-	without	S	Quote for further special versions
A	red. auf 63%	1		N	el. position indicator with plug connection; ingress protection of the body IP65	C	digital positioner type 8049, 4-wire	1	1 inductive limit switch		
A	red. to 63%					R	digital positioner type 8049, 2-wire	2	2 inductive limit switch		
1	red. to 40%			M	el. position indicator with cable bushing; ingress protection of the body IP65	W	digital positioner type 8049 ExPro, II 2G Ex ia IIC T4 Gb	M	2 Inductive Limit Switches 10-36V DC		
B	red. to 25%					A	without positioner, for on/off operation	N	feedback module RM2 for positioner type 8049 with 2 integrated limit switches		
2	red. to 16%			F	feedback-unit for proximity switch M12			P	1 Inductive Limit Switches 10-36V DC		
C	red. to 10%							Y	Feedback module RM4 for positioner type 8049 with 2 integrated limit switches acc. NAMUR (EN60947-5-6)		
3	red. to 6,3%										
4	red. to 2,5%										
5	red. to 1%										
6	red. to 20%										
7	red. to 12%										
8	red. to 2%										
9	red. to 0,4%										

Ordering example: 8028/015VC0001M----A-ZCN

Control valve compact type 8028, DN 15 (Kvs 2,6; Cv 3), short version, GS1-flangeless design acc. DIN 2632-2635 (PN10-PN40), body material carbon steel, safety position spring closes, diaphragm D80, moving disc carbon steel, fixed disc stainless steel 1.4571, coated, Kvs-/Cv-values red. to 63%, characteristic linear, digital positioner type 8049 4-wire, feedback modul RM2 for positioner type 8049 with two limiting value encoders

Dimensions and weight - short version with digital positioner 8049

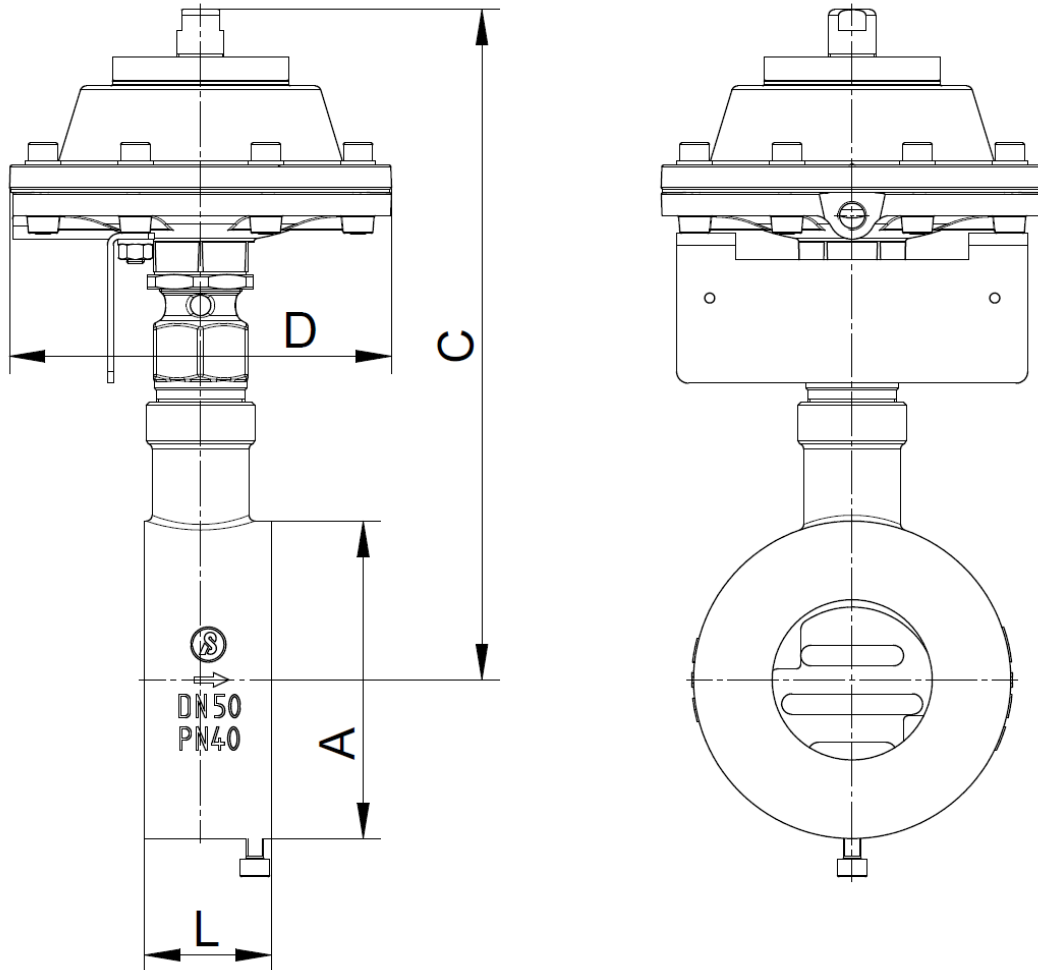


DN	A	C carbon steel body	C stainless steel body	D	I	L	Stroke H	Weight (kg)
15	53	356	359	130	114	33	6	3,7
20	62	361	364	130	114	33	6	3,8
25	72	366	369	130	114	33	6	3,9
32	82	369	372	130	114	33	6	3,9
40	92	374	377	130	114	33	6	4,1
50	108	375	400	130	114	43	8	5,2
65	126	384	410	130	114	46	8	5,7
80	142	392	418	130	114	46	8	6,4
100	164	405	430	130	114	52	8,5	7,6
125	194	418	443	130	114	56	8,5	11,3
150	219	439	465	130	114	56	8,5	13,2

dimensions in mm

Control Valve compact - GS1

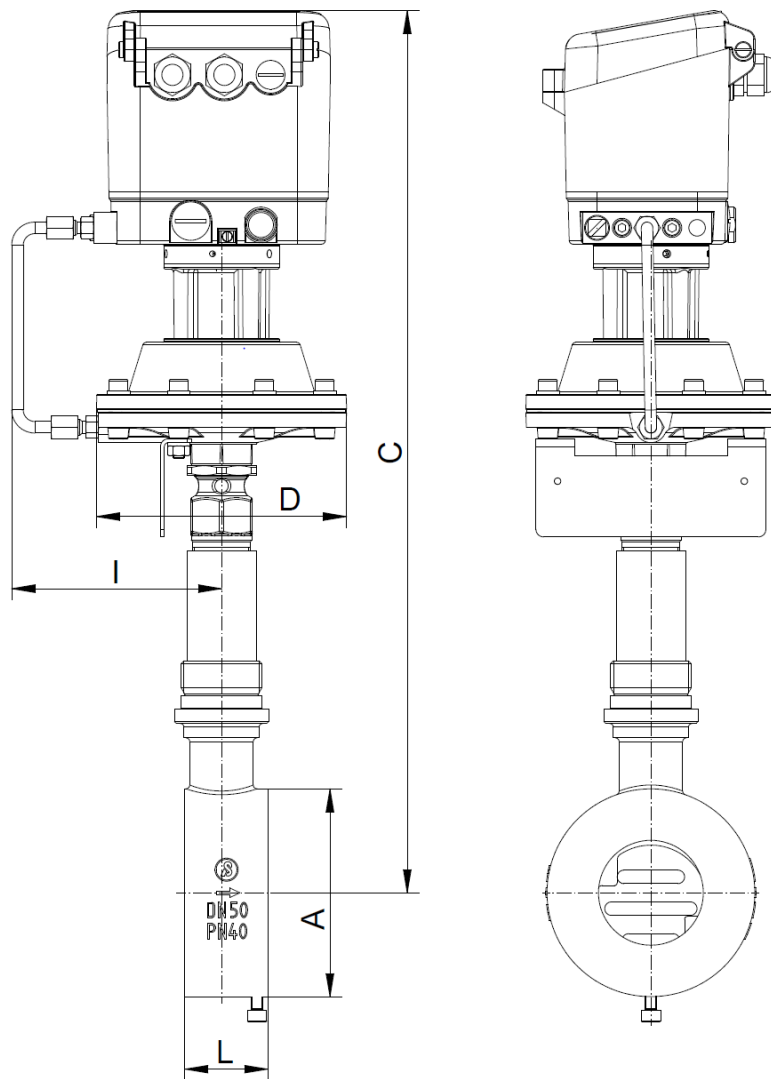
Dimensions and weight - short version, On- / Off- Valve



DN	A	C carbon steel body	C stainless steel body	D	L	Stroke H	Weight (kg)
15	53	209	212	130	33	6	3,7
20	62	214	217	130	33	6	3,8
25	72	219	222	130	33	6	3,9
32	82	222	372	130	33	6	3,9
40	92	227	225	130	33	6	4,1
50	108	228	253	130	43	8	5,2
65	126	237	263	130	46	8	5,7
80	142	245	271	130	46	8	6,4
100	164	258	283	130	52	8,5	7,6
125	194	271	296	130	56	8,5	11,3
150	219	192	318	130	56	8,5	13,2

dimensions in mm

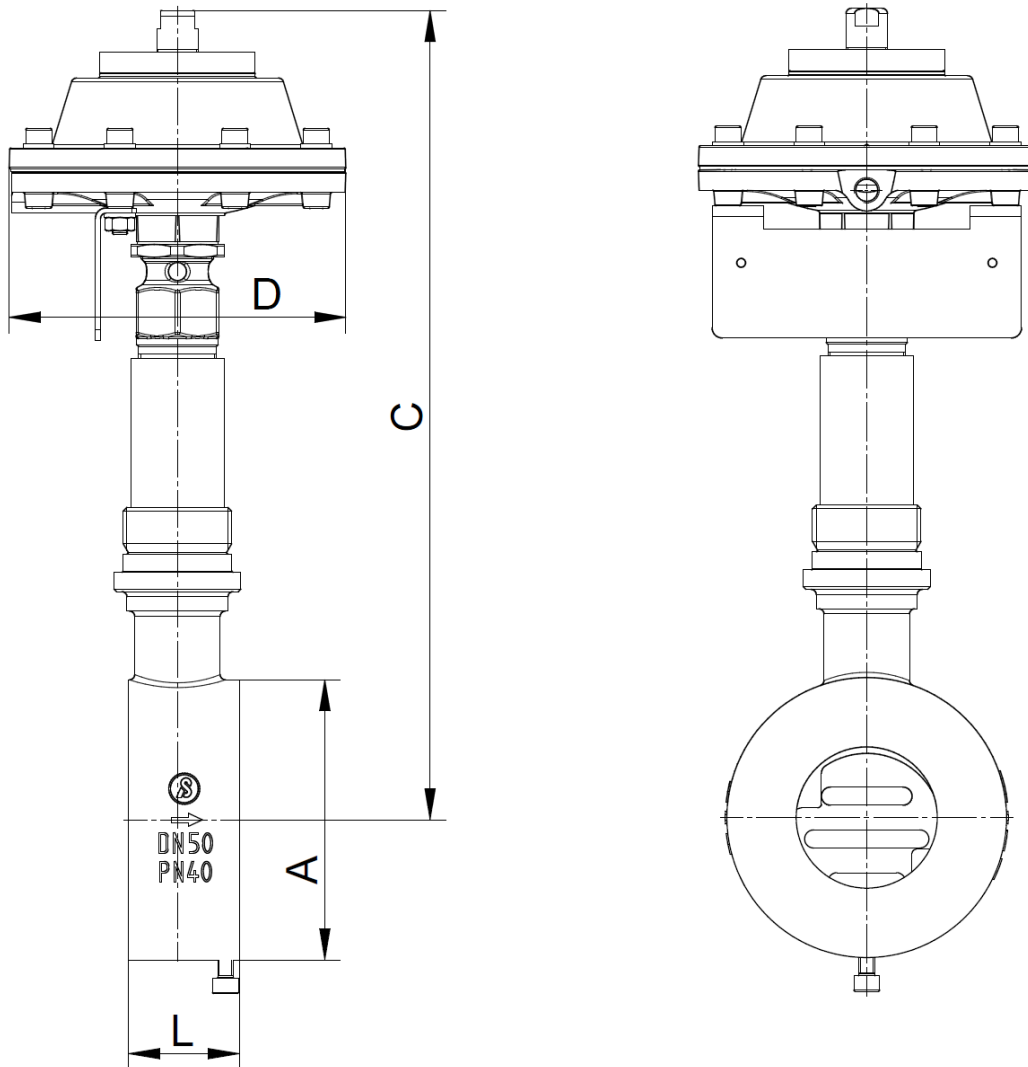
Dimensions and weight - long version with digital positioner 8049



DN	A	C	D	I	L	Stroke H	Weight (kg)
15	53	430	130	114	33	6	3,7
20	62	437	130	114	33	6	3,8
25	72	440	130	114	33	6	3,9
32	82	445	130	114	33	6	3,9
40	92	450	130	114	33	6	4,1
50	108	459	130	114	43	8	5,2
65	126	468	130	114	46	8	5,7
80	142	477	130	114	46	8	6,4
100	164	490	130	114	52	8,5	7,6
125	194	502	130	114	56	8,5	11,3
150	219	520	130	114	56	8,5	13,2

dimensions in mm

Dimensions and weight - long version, On- / Off- Valve



DN	A	C	D	L	Stroke H	Weight (kg)
15	53	283	130	33	6	2,7
20	62	290	130	33	6	2,8
25	72	293	130	33	6	2,9
32	82	298	130	33	6	2,9
40	92	303	130	33	6	3,1
50	108	312	130	43	8	4,2
65	126	321	130	46	8	4,7
80	142	330	130	46	8	5,4
100	164	343	130	52	8,5	6,6
125	194	355	130	56	8,5	10,3
150	219	373	130	56	8,5	12,2

dimensions in mm