

# Globe control valve 7027

## with integrated positioner DN 15 to DN 50 - PN 40



**Pneumatically actuated control valves in straight seat design for controlling neutral to highly aggressive media.**

- High Kvs values
- Good isolability
- Compact design
- All parts in contact with media made of stainless steel
- Temperature versions from -100°C to +220°C
- Operating pressures up to 40 bar
- Rotatable drive
- Integrated positioner



### Technical specifications

housing material	1.4408 stainless steel
nominal widths	DN 15 to DN 50
connection	Butt weld ends according to ISO 1127
nominal pressure	PN 40
media temperature*	- 30°C to +200°C, opt. -100°C to +220°C
ambient temperature	Digital controller -20(-10)°C to +75°C
	Analog controller -20°C to +60°C
Leakage according to IEC 60534-4	Class VI
leakage pack	ISO FE BH-CC3-SSA1-t(-30°C, +80°C) test pressure 40 bar

\* : Please note further temperature versions and temperature limits in information sheet 32

### Options:

e.g. B.

- optical position indicator
- external i/p converter type 8045
- electropneumatic positioner

- in Ex version

(Ex) G EEx ib IIC T6

### materials

Housing	1.4408 stainless steel
seat seal	PTFE
Hood	Chrome-plated brass (drive 50 mm, 80 mm) Aluminum corrosion-protected (drive 125 mm)
diaphragm drive	Stainless steel 1.4301/1.4305
drive springs	Stainless steel 1.4310 (drive 80 mm, membrane drive), spring steel wire C, plastic-coated (drive 125 mm)
pack	PTFE filled with carbon (spring 1.4310)
piston rod	Stainless steel 1.4571, roll polished DN15 - DN40: ø10mm DN50: ø16mm (reinforced version)
Housing position indicator	PA Trogamide (clear)

### positioner

For the technical data of the positioners, please refer to the corresponding data sheets.

## Standard version with integrated positioner

### Permissible differential pressures with positioner

#### Digital positioner

DN	drive diameter	spring unit number	Permissible diff. pressure	supply air Print
	mm		bar	bar
15	80	2	17	4 - 6
20	80	2	17	4 - 6
25	80	1	17	4 - 6
25	125	2	17	3 - 6
25	250	4	17	3 - 6
32	80	1	10	4 - 6
32	125	2	17	3 - 6
32	250	4	17	3 - 6
40	80	1	6	4 - 6
40	125	3	17	4 - 6
40	250	6	17	3 - 6

#### Strengthened construction:

50	80	1	3	4 - 6
50	125	3	11	4 - 6
50	250	6* (code T)	12	4 - 6
50	250	8th	17	4 - 6

\* Special spring assembly

#### Analog positioner

DN	drive diameter	spring unit number	Permissible diff. pressure	supply air Print
	mm		bar	bar
15	80	2	17	4 - 6
20	80	2	17	4 - 6
25	80	1	12	4 - 6
25	125	2	17	3 - 6
25	250	4	11	2.8 - 6
32	80	1	7	4 - 6
32	125	2	13	3 - 6
32	250	6	17	2.8 - 6
40	80	1	4	4 - 6
40	125	3	11	4 - 6
40	250	6* (code T)	9	2.8 - 6
40	250	8th	15	3.4 - 6

#### Strengthened construction:

50	80	1	2	4 - 6
50	125	3	6	4 - 6
50	250	6* (code T)	5	4 - 6
50	250	8* (code W)	9	4 - 6
50	250	10* (Code X)	13	4 - 6
50	250	12	16.9	4 - 6

\* Special spring assembly

### Permissible differential pressures direct pressure operated

DN	Permissible differential pressure (NC) in cash		Permissible differential pressure (NO) in cash		Required supply air pressure [bar]		membrane area area (cm <sup>2</sup> )
	spring range		spring range		0.2 - 1 bar	0.4 - 2 bars	
	0.2 - 1 bar	0.4 - 2 bars	0.2 - 1 bar	0.4 - 2 bars			
15	17	17	17	17	1.2	2.4	250
20	16	17	17	17	1.2	2.4	250
25	9	17	12	15	1.2	2.4	250
32	5	15	6	13	1.2	2.4	250
40	3	10	2	5	1.2	2.4	250
50	2	6	1	2	1.2	2.4	250

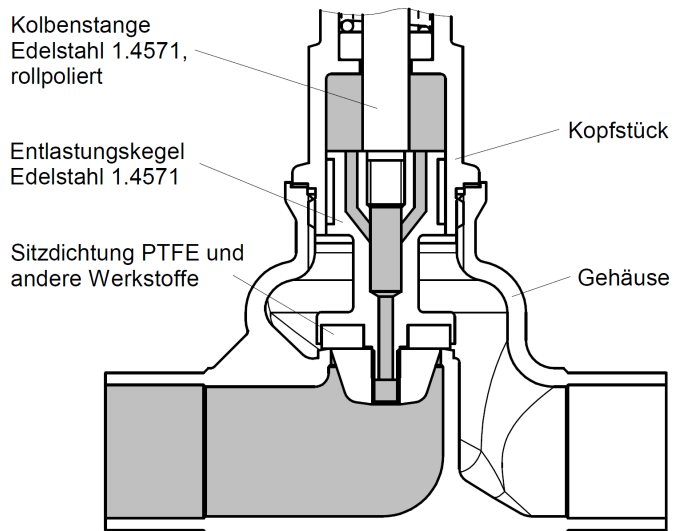
### Kvs values

DN	linear						equal percentage					
	15	20	25	32	40	50	15	20	25	32	40	50
100%	4.5	7.8	12	18.8	25.7	33.5	3.6	7	12.3	19.7	30	35
63%	-	-	-	-	-	26.5	-	-	-	-	-	22:4
40%	1.8	4.2	6.7	10.3	12.5	-	1.6	2.7	5.3	8.5	12.3	-
25%	1.1	2.9	3.8	-	-	-	1.2	1.8	4.9	-	-	-

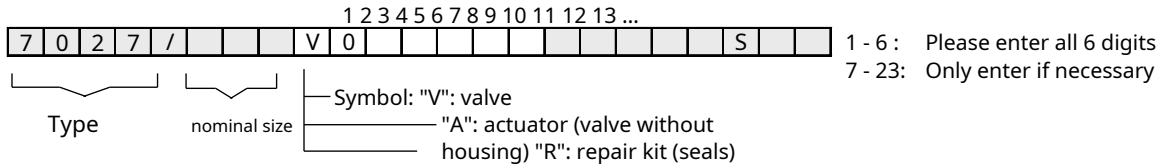
## Pressure balanced version with integrated positioner

### Permissible differential pressures with positioner

DN	drive diameter	spring unit	8049 digital positioner		Analog positioner 8047	
			permissible diff. pressure	supply air pressure area	permissible diff. pressure	supply air pressure area
			bar	bar	bar	bar
50	80	2	17	4 - 6	17	4 - 6



**order number system**



Reinforced design for DN50: "K" at position 22

1.	design	2.	connection	3.	Housing-material	4.	sit down tion	5.	positioner	6.	drive	7.	feathers
0	straight seat Valve	H	with welding send after ISO 1127	2	stainless steel 1.4408	0	PTFE (Te flon)	C	digital positioner Type 8049 4-wire	1	Pistons 80mm	-	default at feather closes
						5	PTFE with 25% glass fiber	R	digital positioner Type 8049 2-wire	2	Pistons 125mm	1	spring opens (only with dig. positional regulator)
						7	PEEK	T	digital positioner Type 8049 AS-i version	C	memb drive D250		
						8th	PEEK at application towards 160°C	W	digital positioner Type 8049 2-wire, Ex version			P	spring kit 0.2-1 bar (D250mm)
								6	p/p positioner, Type 8047			T	6 springs (D250mm)
								7	i/p positioner, Type 8047			W	8 springs (D250mm)
								8th	i/p positioner with connector M12x1, Type 8047			Y	12 feathers (D250mm)
								9	i/p positioner ex-proof (II 2G EEX ib II C T6) connector M12x1, type 8047				

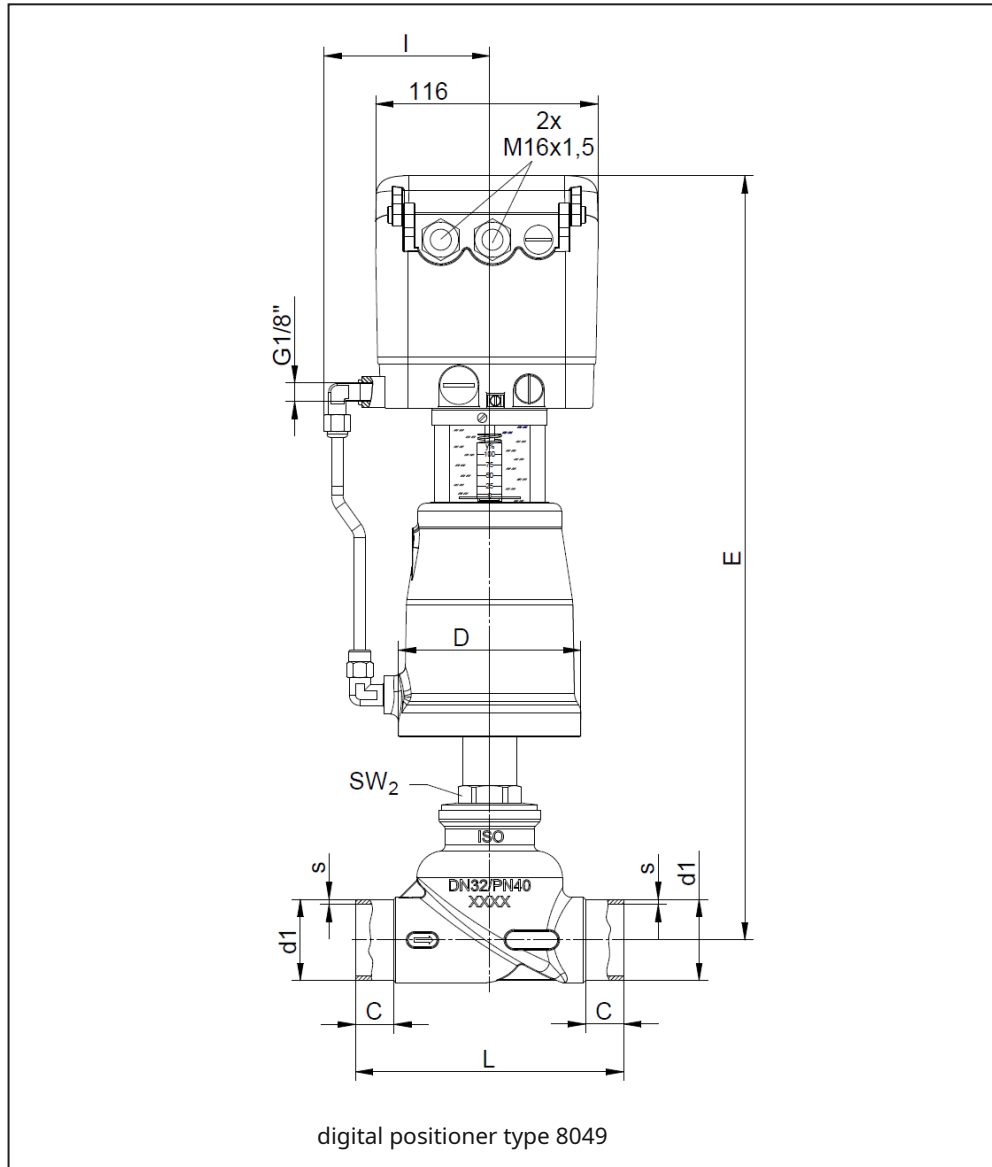
8th.	curve	9.	pack	10	Kvs values	11.	accessories	12.	Other special guides	Please state other variants and special requests in clear text.			
-	linear	-	default	-	100%	-	without	S	Specify for Sunday the executions				
1	equal pro- centig	2	free of dead space (Pack lies below)	1	red. on 40%	6	pilot valve DN2, 230 VAC						
				2	red. on 25%	7	pilot valve DN2, 24 vdc						
				3	red. on 15%								
				4	red. on 7.5%								
				5	red. on 22.5%								
				6	red. on 10%								

Order example: 7027/020V0H20C1  
 Globe control valve, DN20, welding ends to ISO 1127, stainless steel body, PTFE seat seal,  
 digital positioner 8049 4-wire with position indicator, actuator Ø80mm, linear characteristic,  
 Kvs value 8.8

# Globe control valve 7027

## with piston drive and integrated positioner

### mass and weight



DN	drive	d1	s	C	D	E	I	L	SW2	Weight (kg)
15	80	21.3	2	20	96	359	80	95	30	4.4
20	80	26.9	2.3	22	96	367	80	110	30	4.5
25	80	33.7	2.6	21	96	376	80	120	30	4.7
32	80	42.4	2.6	20	96	397	80	140	30	5.0
32	125	42.4	2.6	20	146	419	105	140	30	7.6
40	80	48.3	2.6	22	96	402	80	160	30	5.3
40	125	48.3	2.6	22	146	425	105	160	30	7.9

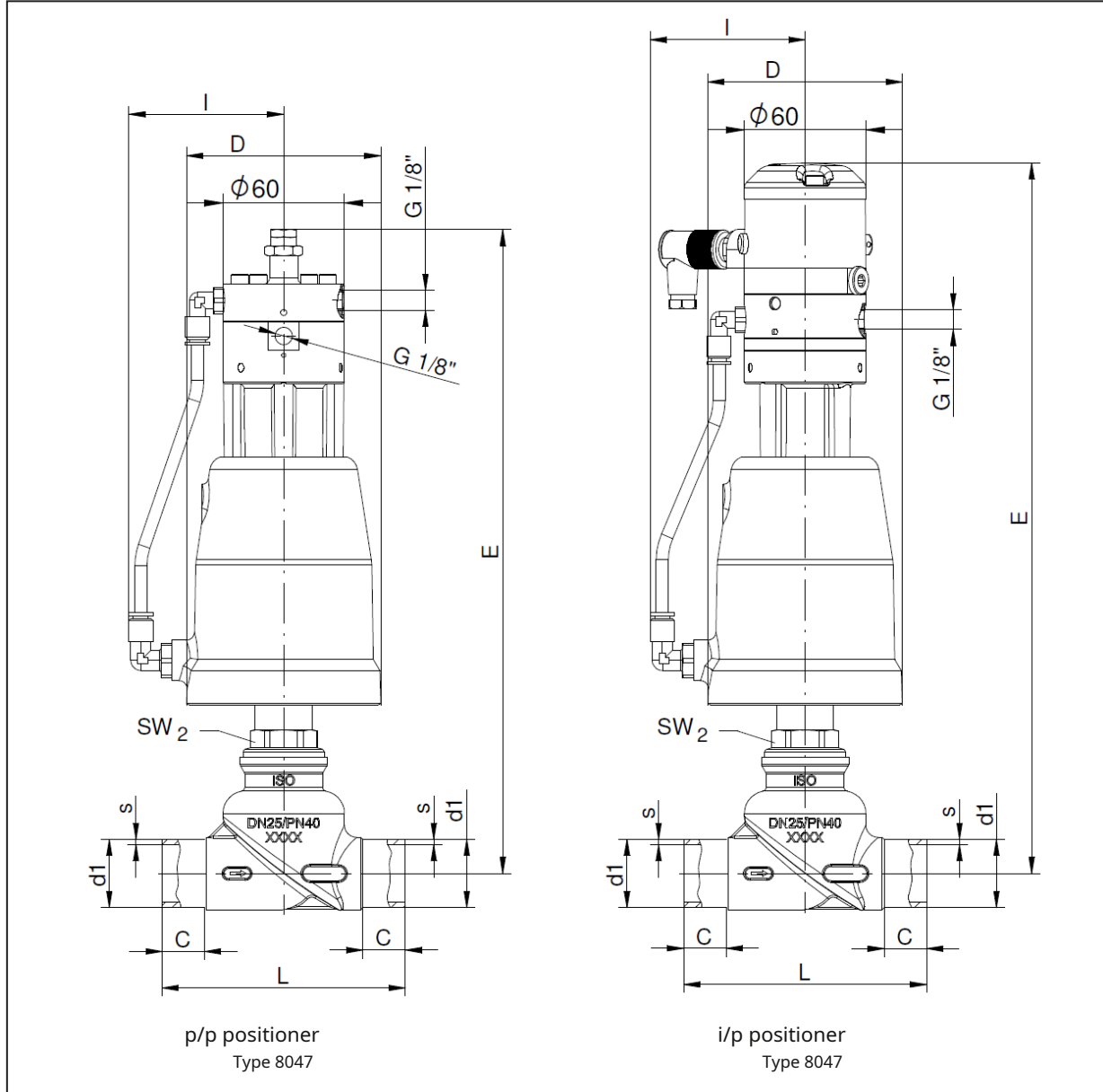
Strengthened construction:

50	80	60.3	2.9	28	96	429	80	190	32	5.9
50	125	60.3	2.9	28	146	450	105	190	32	8.5

# Globe control valve 7027

## with piston drive and integrated positioner

### mass and weight



DN	drive	d1	s	C	D	E		I	L	SW2	weight (kg)	
						p/p	i/p				p/p	i/p
15	80	21.3	2	20	96	301	334	77	95	30	3.7	4.0
20	80	26.9	2.3	22	96	309	342	77	110	30	3.8	4.1
25	80	33.7	2.6	21	96	318	351	77	120	30	4.0	4.3
32	80	42.4	2.6	20	96	339	372	77	140	30	4.3	4.6
32	125	42.4	2.6	20	146	363	394	104	140	30	6.9	7.2
40	80	48.3	2.6	22	96	346	379	77	160	30	4.6	4.9
40	125	48.3	2.6	22	146	369	400	104	160	30	7.2	7.5

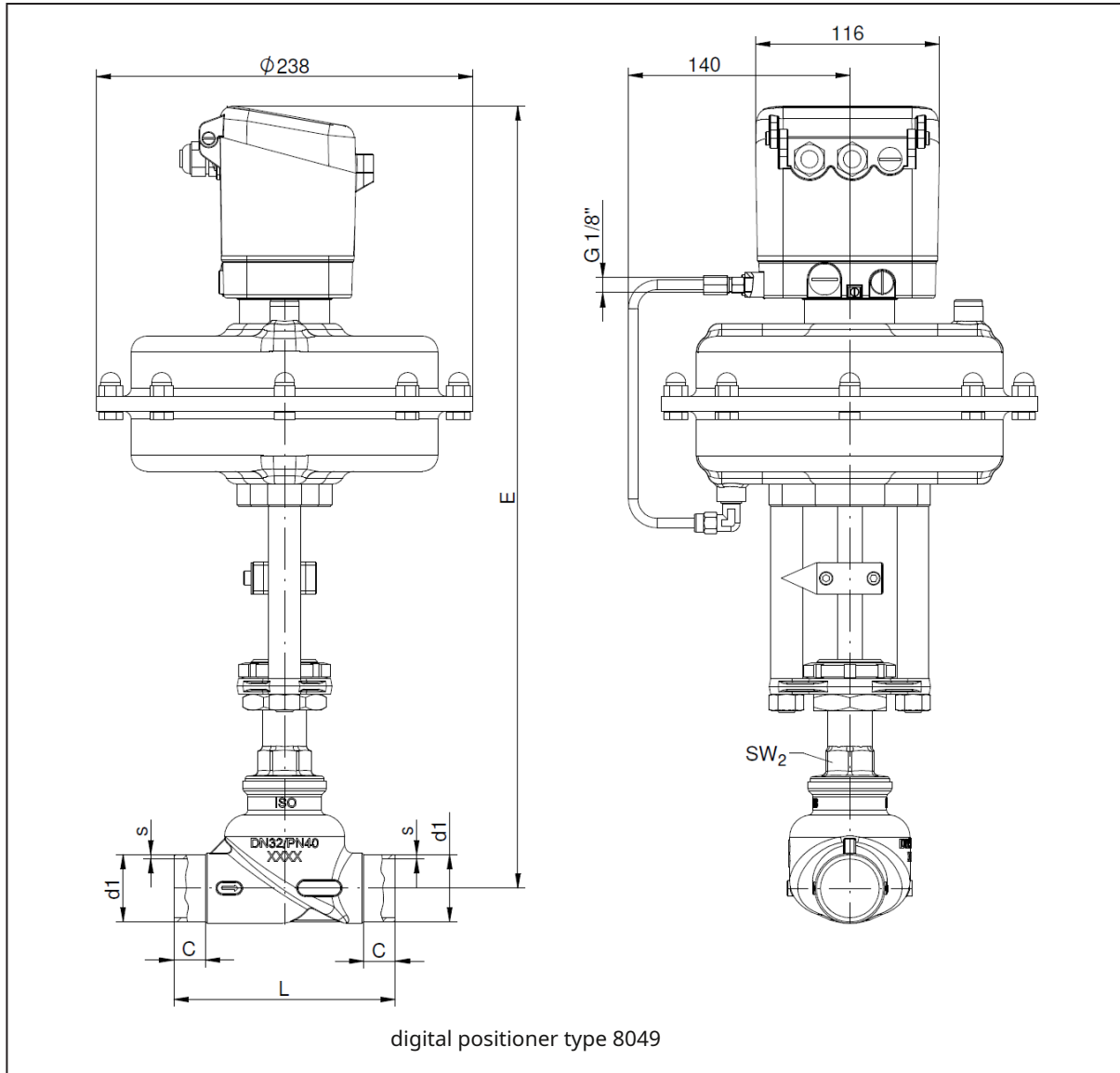
Strengthened construction:

50	80	60.3	2.9	28	96	371	404	77	190	32	5.3	5.5
50	125	60.3	2.9	28	146	394	452	104	190	32	7.8	8.1

# Globe control valve 7027

## with diaphragm actuator and integrated positioner

### mass and weight



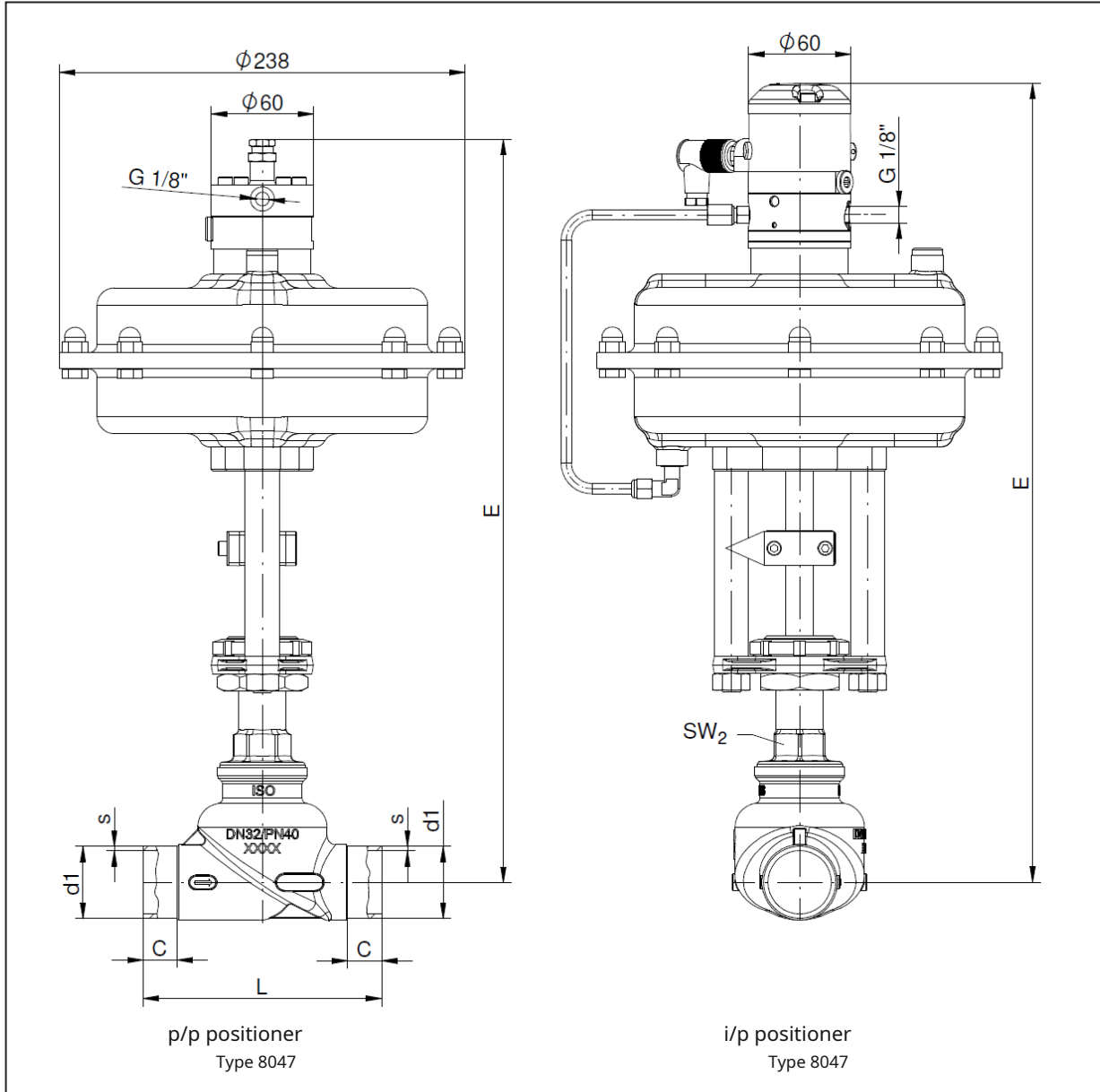
DN	d1	s	C	E	L	SW2	Weight (kg)
15	21.3	2	20	456	95	30	15.6
20	26.9	2.3	22	464	110	30	15.7
25	33.7	2.6	21	473	120	30	15.9
32	42.4	2.6	20	494	140	30	16.0
40	48.3	2.6	22	501	160	30	16.2

Strengthened construction:

50	60.3	2.9	28	526	190	32	16.5
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## with diaphragm actuator and integrated positioner

### mass and weight



DN	d1	s	C	E		L	SW2	weight (kg)	
				p/p	i/p			p/p	i/p
15	21.3	2	20	398	431	95	30	14.9	15.2
20	26.9	2.3	22	406	439	110	30	15.0	15.3
25	33.7	2.6	21	415	448	120	30	15.2	15.5
32	42.4	2.6	20	436	469	140	30	15.3	15.6
40	48.3	2.6	22	443	476	160	30	15.5	15.8

Strengthened construction:

50	60.3	2.9	28	468	501	190	32	15.8	16.1
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