

# Control Valve

# 8043/44

## with integrated positioner

### GS 1 series

### DN 15 up to DN 100

SCHUBERT & SALZER  
**CONTROL SYSTEMS**

**Pneumatic control valve with integrated p/p- or i/p- positioner and pneumatic control valve with integrated microprocessor positioner for control of neutral and aggressive fluids in process engineering, chemical industry and for plant equipment.**

- Space saving design and low weight
- Fast response due to short strokes
- High  $K_{vs}$  - (Cv)- values
- Tight shut- off even at higher temperatures
- No exposed moving parts
- No steady- state air consumption
- Operation independent of mounting position and supply pressure variations
- Not sensitive to vibration
- Instrument grade air not essential
- Software configurable flow characteristics
- Protection Class IP65



**Type 8043/44  
with i/p-positioner  
Type 8047**

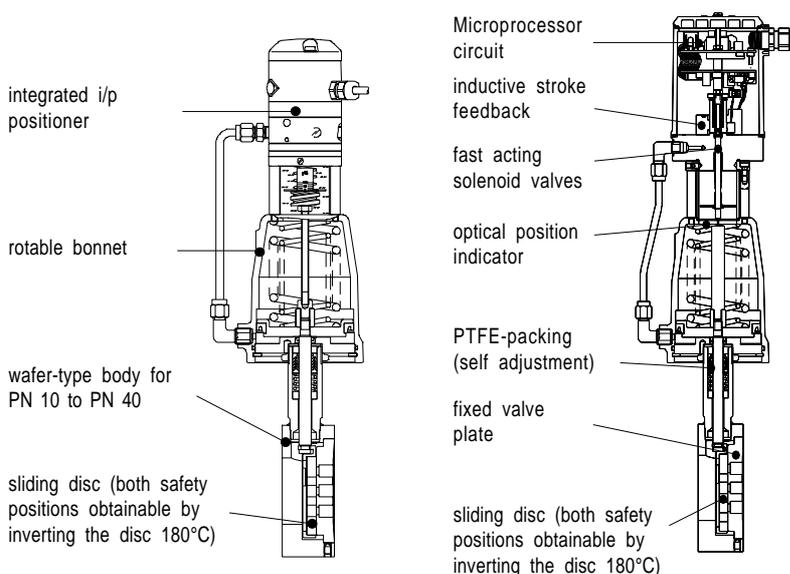
## Technical Information

Body design	Wafer-type Dimensions to DIN EN 558-1 series 20	
Nominal sizes	DN 15 to DN 100	
Nominal pressure	PN 40 according DIN 2401, also for flanges PN 10 - PN 25	
Fluid temperature	Body 1.0570	-10°C to +300°C
	Body 1.4571	-60°C to +350°C
	Short body	up to 230°C
Leakage (% of $K_{vs}$ )	Disc pair Carbon-stainless steel < 0,0001	Disc pair STN 2 < 0,001

$K_{vs}$ -values see data sheet 8001.



**Type 8043/44  
with digital positioner  
Type 8048**



**Type 8044 with  
i/p-positioner Typ 8047**

**Type 8044 with  
digital positioner Typ 8048**

### Options:

- bellows (stainless steel, only for Type 8043)
- position indicator
- external i/p-converter Type 8045
- i/p-positioner, ex-proofed (Eex ibII CT6)

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# Control Valve 8043/44-GS1

## mit integrated positioner



**Admissible differential pressure**  
(For temperatures of up to 120°C)

**For temperatures of 120°C and above:  
obey application limits !**

### p/p- and i/p-positioner

Disc-pair: Carbon - stainless steel coated

DN	actuator	max. differential pressures		pilot pressures
		control	on/off	
15	80	40	40	3,0 - 6
20	80	37	37	3,5 - 6
25	80	29	31	3,5 - 6
32	80	21	25	4,0 - 6
40	80	14	19	4,0 - 6
50	80	8	12	4,5 - 6
65	80	7	10	4,5 - 6
80	80	4	6	4,5 - 6
100	80	2,5	4	4,5 - 6

15	125	40	40	3,0 - 6
20	125	40	40	3,0 - 6
25	125	40	40	3,0 - 6
32	125	40	40	3,0 - 6
40	125	34	40	3,0 - 6
50	125	20	27	3,5 - 6
65	125	16	23	3,5 - 6
80	125	10	14	3,5 - 6
100	125	6	9	3,5 - 6

Disc pair: STN2

DN	actuator	max. differential pressures		pilot pressures
		control	on/off	
15	80	28	30	3,5 - 6
20	80	19	23	4,0 - 6
25	80	13	17	4,0 - 6
32	80	9	13	4,0 - 6
40	80	5,5	8	4,0 - 6
50	80	3	5	4,5 - 6
65	80	2,5	4	4,5 - 6
80	80	-	-	-
100	80	-	-	-

15	125	40	40	3,0 - 6
20	125	40	40	3,0 - 6
25	125	30	38	3,0 - 6
32	125	21	28	3,0 - 6
40	125	13	19	3,0 - 6
50	125	7	11	3,5 - 6
65	125	6	9	3,5 - 6
80	125	3,5	5	3,5 - 6
100	125	2	3	3,5 - 6

### digital positioner

Disc-pair: Carbon - stainless steel coated

DN	actuator	max. differential pressures		pilot pressures
		control, on/off		
15	80	40		3,5 - 6
20	80	40		3,5 - 6
25	80	40		3,5 - 6
32	80	40		4,0 - 6
40	80	30		4,0 - 6
50	80	19		4,5 - 6
65	80	16		4,5 - 6
80	80	10		5,0 - 6
100	80	6		5,0 - 6

15	125	40		3,0 - 6
20	125	40		3,0 - 6
25	125	40		3,0 - 6
32	125	40		3,0 - 6
40	125	40		3,0 - 6
50	125	40		3,5 - 6
65	125	37		3,5 - 6
80	125	23		4,0 - 6
100	125	14		4,0 - 6

Disc pair: STN2

DN	actuator	max. differential pressures		pilot pressures
		control, on/off		
15	80	40		3,5 - 6
20	80	37		4,0 - 6
25	80	27		4,0 - 6
32	80	20		4,5 - 6
40	80	13		4,5 - 6
50	80	8		5,0 - 6
65	80	6		5,0 - 6
80	80	3,5		5,0 - 6
100	80	2		5,0 - 6

15	125	40		3,0 - 6
20	125	40		3,0 - 6
25	125	40		3,0 - 6
32	125	40		3,5 - 6
40	125	27		3,5 - 6
50	125	18		4,0 - 6
65	125	15		4,0 - 6
80	125	9		4,0 - 6
100	125	5,5		4,0 - 6

# Control Valve 8043/44-GS1

mit integrated positioner

## Applications limits for GS1-Valves made of stainless steel PN 40

DN	Sliding unit: carbon - stainless steel, coated						Sliding unit: carbon - STN2					
	max. admissible diff. pressures for GS1-valves						max. admissible diff. 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	38	34	33	31	29	40	38	34	33	31	29
32	40	38	34	33	31	29	40	38	34	31	25	22
40	40	38	34	33	31	29	27	25	24	19	16	14
50	40	38	34	33	31	29	40	38	34	33	28	24
65	40	38	34	33	31	29	37	35	33	27	22	19
80	40	38	34	31	26	23	22	21	20	16	13	11
100	24	23	22	19	16	14	13	12	12	10	8,0	7,0
125	16	15	14	12	10	9,0	8,8	8,4	8,0	6,5	5,3	4,6
150	16	15	14	13	12	12	11	10	9,8	7,9	6,5	5,6

Limitation for valves in carbon steel: 300°C

## Positioner

	Digital positioner Type 8048	i/p-positioner Type 8047	p/p-positioner Type 8047
Input signal range	0/4 - 20 mA, 0/2 - 10 V	0/4 - 20 mA, 0/2 - 10 V	0,2 - 1 bar
Supply voltage, electrical	24 V DC, maximum 10 W	none	none
Supply air pressure	max. 6 bar	max. 6 bar	max. 6 bar
Hysteresis	< 0,5 %	< 1 %	< 1 %
Rangeability	40 : 1	30 : 1	30 : 1
Characteristics	linear, equal percentage, user-defined, process optimized*	Characteristics of function unit	Characteristics of function unit
Adjustment (Stroke, zero point)	self-adapting	mechanical	mechanical
Ambient temperature	-20°C up to + 75°C	-20°C up to +60°C	-20°C up to +80°C
Protection class acc. DIN 40050	IP65	IP 54	IP 54
Ex-proof (Optional)	-	 II 2 G EEx ib IIC T6 up to 45°C  II 2 G EEx ib IIC T5 up to 60°C	-

\*Produces a linear process flow characteristic for optimal control. After entering a few process data points (e.g. upstream and downstream pressures) the optimised flow characteristic is calculated by the positioner configuration software and stored in the positioner memory.

## Digital Positioner Type 8049

Version	4-wire	2-wire	AS-I
Set point signal	0/4 - 20 mA	4 - 20 mA	Single Slave, Slave Profil S - 7.3.4
Burden voltage	1,2 V	14 V	-
Supply energy, electrical	24 VDC	none	supply with AS-I
Adaption to range and zero	self-learning		
Configuration	with PC-Software		
Air delivery*	50 NI/min.	according the version	50 NI/min.
System air consumption	none		
Ambient temperature limits	-20 up to +75°C	-10 up to +75°C	-20 up to +75°C
Supply connection	G 1/8"		
Class of protection acc. DIN 40050	IP 65		
Accessories	Analogue feedback module RM-1 2 wire design, feedback signal 4 - 20 mA		

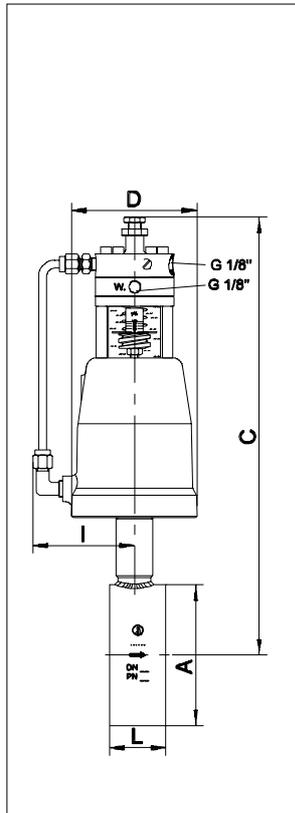
\* 6 bar supply air



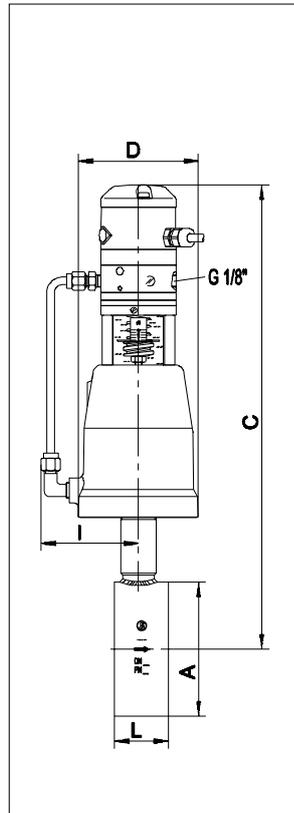
# Control Valve 8043/44-GS1

mit integrated p/p- and i/p-positioner, Type 8047

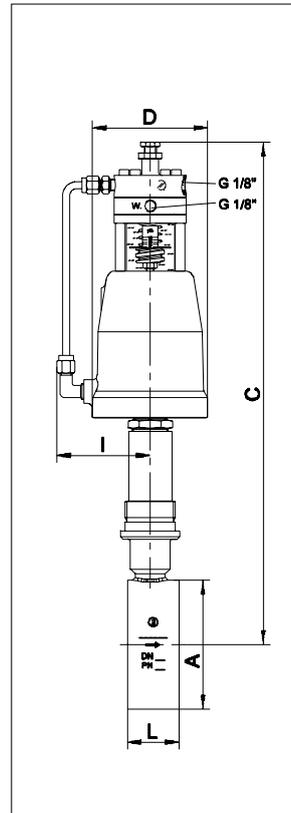
## Dimensions and Weights



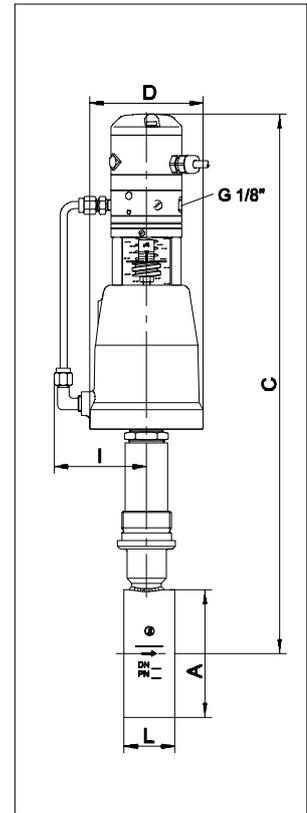
**Type 8044 with p/p-positioner Type 8047 with position indicator**



**Type 8044 with i/p-positioner Type 8047 with position indicator**



**Type 8043 with p/p-positioner Type 8047 with position indicator**



**Type 8043 with i/p-positioner Type 8047 with position indicator**

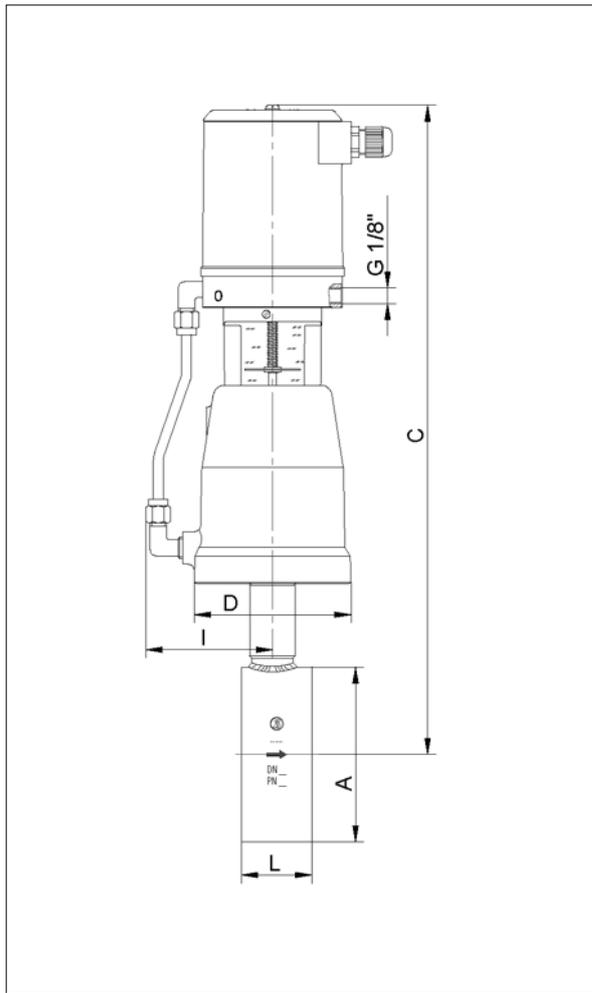
DN	Actator Ø	A	L	D	C				I	Weight kg Type 8044	Weight kg Type 8043
					Type 8044		Type 8043				
					p/p	i/p	p/p	i/p			
15	80	53	33	98	296	330	391	425	80	4,7	5,4
20	80	62	33	98	301	335	396	430	80	4,8	5,5
25	80	72	33	98	307	340	402	435	80	4,9	5,6
32	80	82	33	98	311	344	406	439	80	4,9	5,6
40	80	92	33	98	316	349	411	444	80	5,1	5,8
50	80	108	43	98	336	372	421	457	80	6,2	6,9
50	125	108	43	146	366	402	451	487	105	8	8,7
65	80	127	46	98	346	381	431	466	80	6,7	7,4
65	125	127	46	146	376	411	461	496	105	8,5	9,2
80	80	142	46	98	354	389	439	474	80	7,4	8,1
80	125	142	46	146	384	419	469	504	105	9,2	9,9
100	80	164	52	98	367	402	452	487	80	8,6	9,3
100	125	164	52	146	397	432	482	517	105	10,4	11,1

Dimensions in mm

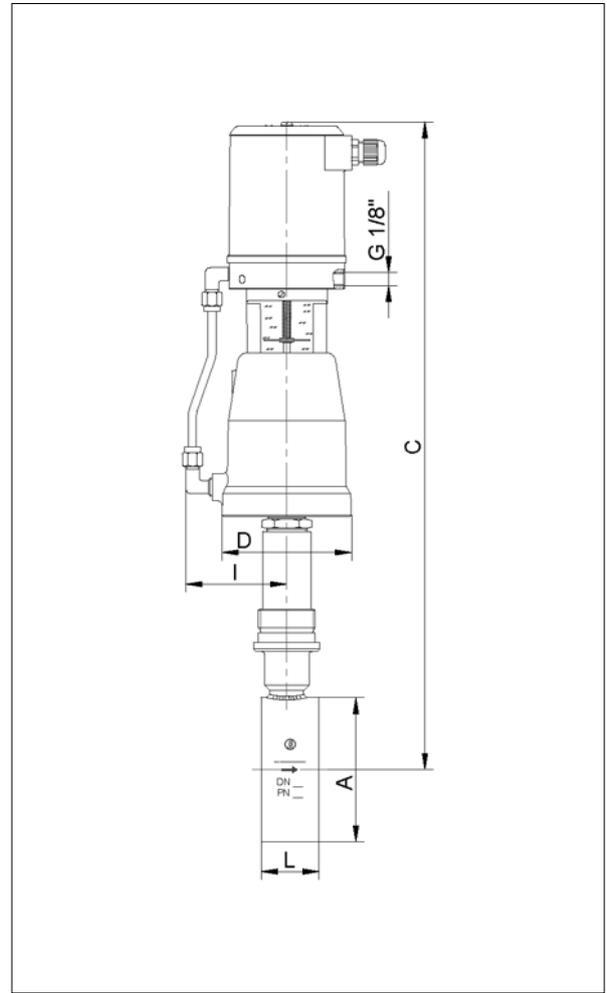
# Control Valve 8043/44-GS1

mit integrated digital positioner, Type 8048

## Dimensions and Weights



**Type 8044**



**Type 8043**

DN	Actuator Ø	A	L	D	C		I	Weight kg Type 8044	Weight kg Type 8043
					Type 8044	Type 8043			
15	80	53	33	96	360	445	80	4,4	5,1
20	80	62	33	96	365	450	80	4,5	5,2
25	80	72	33	96	370	455	80	4,6	5,3
32	80	82	33	96	375	460	80	4,6	5,3
40	80	92	33	96	380	465	80	4,8	5,5
50	80	108	43	96	400	485	80	5,9	6,6
50	125	108	43	146	420	505	105	7,7	8,4
65	80	127	46	96	410	495	80	6,4	7,1
65	125	127	46	146	430	515	105	8,2	8,9
80	80	142	46	96	420	505	80	7,1	7,8
80	125	142	46	146	440	525	105	8,9	9,6
100	80	164	52	96	435	520	80	8,3	9
100	125	164	52	146	455	540	105	10,1	10,8

Dimensions in mm