

# Right Angle Control Valve 7051

DN 15 up to DN 50

PN 40



**Pneumatically operated valve for control loops with neutral up to highly aggressive media**

- Integrated positioner
- Compact design
- All parts in contact with medium made from stainless steel
- For temperatures up to +200°C
- Operating pressures up to 40 bar

## Technical Information

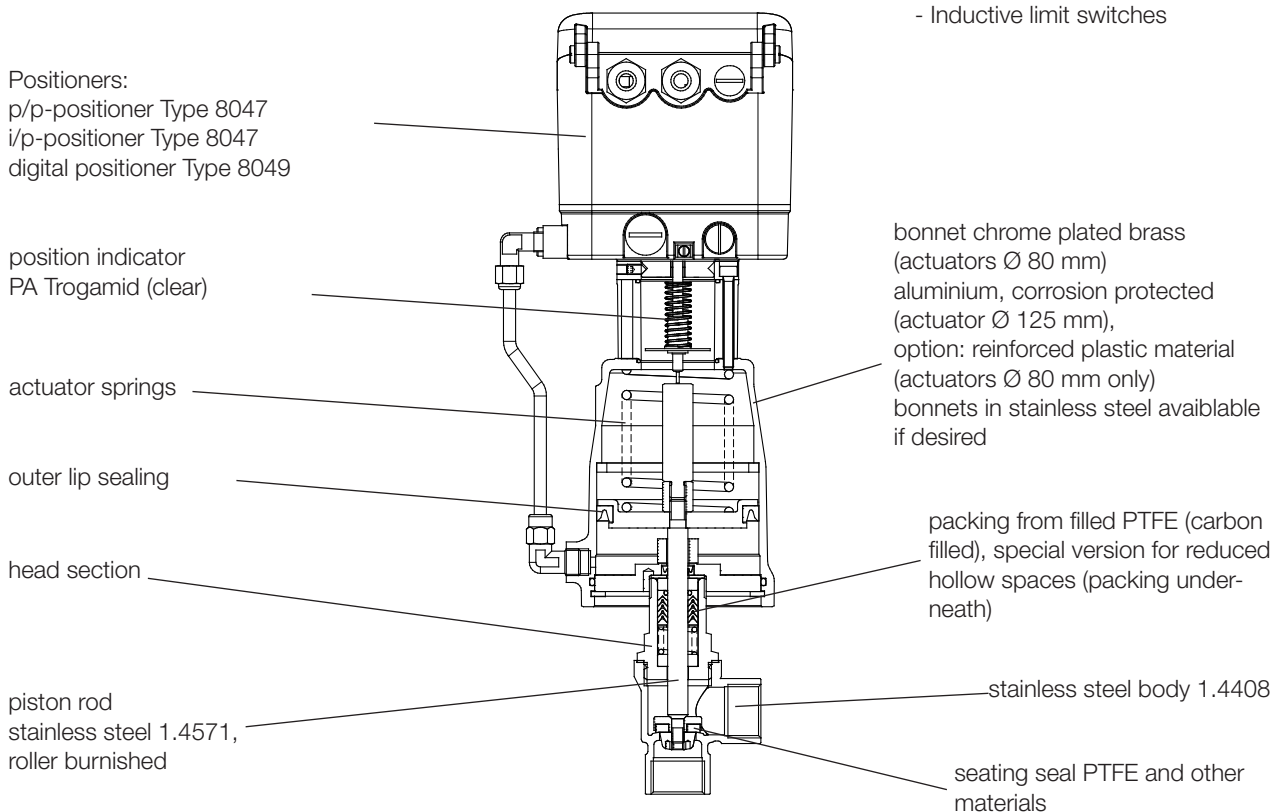
Nominal sizes	DN 15 up to DN 50
Body material	1.4408
Connection	
Pipe thread acc. ISO 228-1	1/2" - 2"
Nominal pressure	PN 40
Media temperature*	-30°C up to +200°C
Ambient temperature*	-30°C up to +60°C
Viscosity of media	maximal 600 mm <sup>2</sup> /s (600cSt, 80°E)
Vacuum	> 0,001 bar abs
Working pressure for version without cavities	maximum 12 bar

\*: Please consider further temperature versions and limits in technical bulletin 32



## Options

- Optical position indicator
- External i/p-converter 8045
- Ex-i/p-positioner (II 2G EEx ib IIC T6/T5)
- Inductive limit switches



# Right Angle Control Valve 7051

with integrated positioner



## Kvs- Values

DN	Linear						Equal Percentage					
	15	20	25	32	40	50	15	20	25	32	40	50
100 %	5,2	10,5	16,5	25	40	57	4,1	9,3	12	16	32	-
40 %	2,1	4,2	6,6	10	16	-	1,7	3,7	4,8	6,4	12,8	-
25 %	1,3	2,65	4,1	-	-	-	1	2,3	3	-	-	-

## Admissible Differential Pressures

digital positioner

DN	Differential pressure	Supply pressure range	Piston Ø	Springs
	bar	bar	mm	Number
15	16	4 - 6	80	2
20	16	4 - 6	80	2
25	16	4 - 6	80	1
32	10	4 - 6	80	1
32	16	3 - 6	125	2
40	6	4 - 6	80	1
40	16	4 - 6	125	3

p/p-positioner i/p-positioner

DN	Differential pressure	Supply pressure range	Piston Ø	Springs
	bar	bar	mm	number
15	16	4 - 6	80	2
20	16	4 - 6	80	2
25	12	4 - 6	80	1
32	7	4 - 6	80	1
32	13	3 - 6	125	2
40	4	4 - 6	80	1
40	11	4 - 6	125	3

diaphragm actuator, direct pressure

DN	Differential pressure (bar)		Supply air (bar)		Diaphragm area mm
	spring range		spring range		
	0,2 - 1 bar	0,4 - 2 bar	0,2 - 1 bar	0,4 - 2 bar	
15	16	16	1,2	2,4	250
20	15	16	1,2	2,4	250
25	8	16	1,2	2,4	250
32	5	15	1,2	2,4	250
40	3	10	1,2	2,4	250
50	2	6	1,2	2,4	250

## Positioner

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

# Right Angle Control Valve 7051, reinforced design with integrated positioner DN50 PN40

## Admissible Differential Pressures

digital positioner

DN	Differential pressure (bar)		Supply pressure range	Piston Ø	Springs
	PTFE	PEEK	bar	mm	number
50	3	-	4 - 6	80	1
50	9	3	4 - 6	125	3
50	12	5	3 - 6	250	6
50	16	10	4 - 6	250	8
50	16	16	4 - 6	250	12

p/p-positioner i/p-positioner

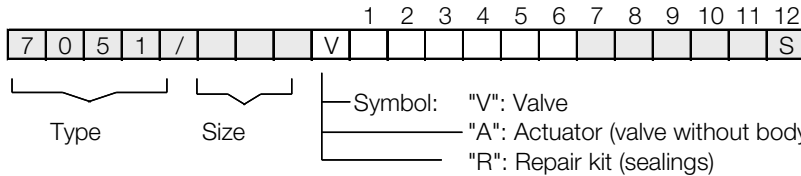
DN	Differential pressure (bar)	Supply pressure range	Piston Ø	Springs
	PTFE	bar	mm	number
50	2	4 - 6	80	1
50	6	4 - 6	125	3
50	12	4 - 6	250	10
50	16	4 - 6	250	12

# Right Angle Control Valve 7051

with integrated positioner



## Ordering Number System



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

1. Body type	2. Connection	3. Body material	4. Seat material	5. Pilot function	6. Actuator
7 right angle control valve Type 7051	0 pipe thread acc. ISO 228-1 5 NPT thread	2 stainless steel 1.4408	0 PTFE (Teflon)	6 p/p positioner + position indicator Type 8047 7 i/p positioner + position indicator Type 8047 8 i/p positioner + plug connec. M12x1 + position indicator Type 8047 9 as above, but for hazard. location use (II 2 G EEx ib IIC T6) plug connec. M12x1 Type 8047 C dig. positioner, type 8049 4 wire R dig. positioner, type 8049 2 wire T dig. positioner, type 8049 AS-i version W dig. positioner, type 8049 2 wire, ex-version	1 piston 80 mm 2 piston 125 mm C diaphragm, stainless steel D 250mm

7. Springs	8. Characteristic	9. Packing	10. Kvs-Values	11. Accessories	12. Special versions
- standard spring configuration 1 NO (only with digital positioner) P spring set 0,2-1bar T 6 springs Y 12 springs	- linear 1 equal percentage	- standard 2 packing underneath	- 100 % 1 red. 40% 2 red. 25%	6 without pilot-valve DN2 230V AC 7 pilot-valve DN2 24V DC	S to state if further sections are quoted

Ordering Example: 7051/020V7020C1  
 Right angle control valve 7051, DN 20, pipe thread, body material stainless steel, seating seal PTFE, digital positioner 4 wire, actuator 80 mm, linear flow characteristic, Kvs 100 %

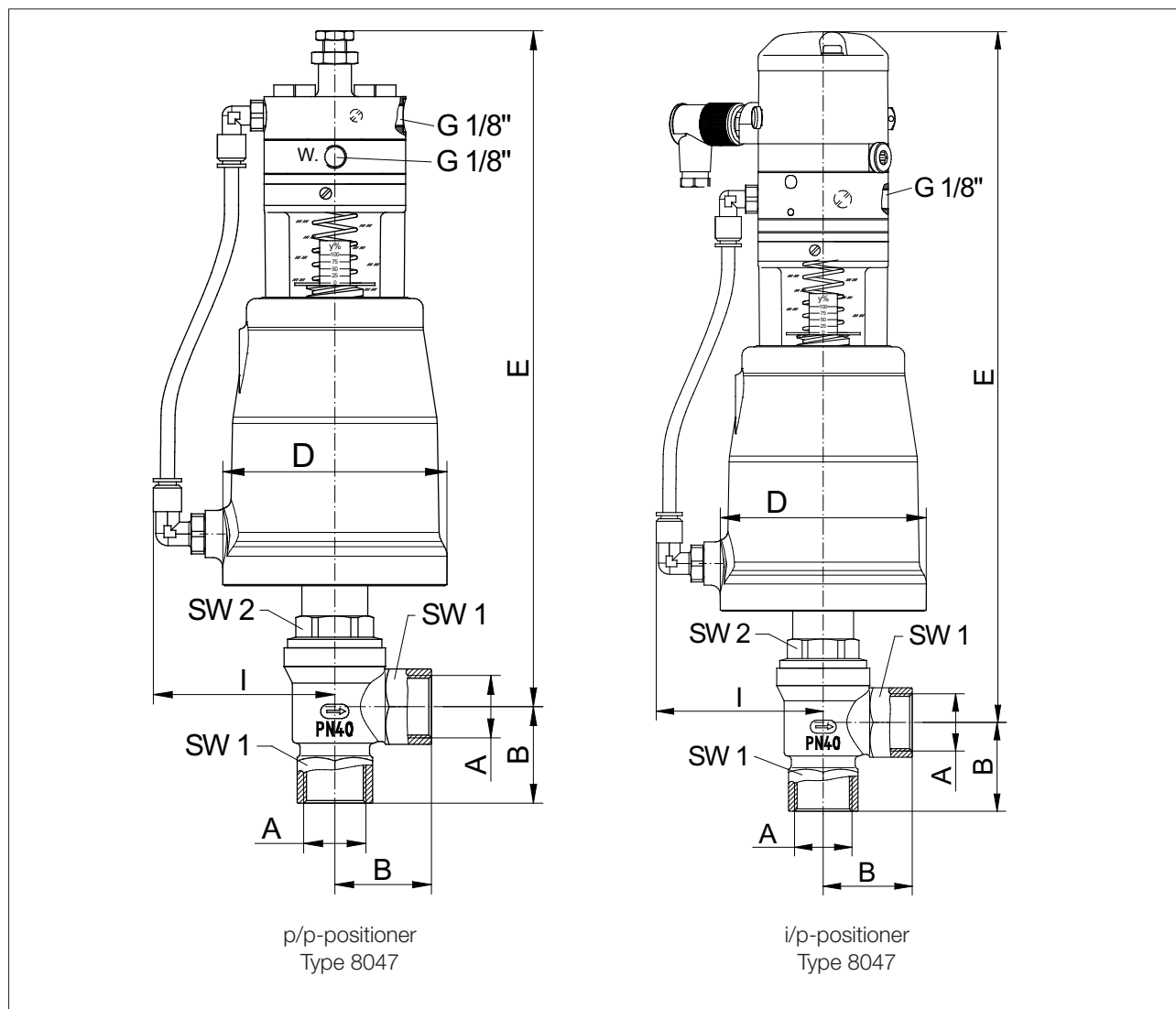
### reinforced design (from DN50):

Ordering Example: 7051/050V7020C1-----S-----K  
 Right angle control valve 7051, DN 50, pipe thread, body material stainless steel, seating seal PTFE, digital positioner 8049 4-wire, actuator 80 mm, linear flow characteristic, Kvs 100 %, Kvs-value 57, reinforced design

„K“ reinforced design

# Right Angle Control Valve 7051, piston actuator with integrated positioner

## Weights and Dimensions



DN	Actuator	A	B	D	I	E		Weight (kg)		Stroke
						p/p	i/p	p/p	i/p	
15	80	1/2"	41	96	80	281	318	3,7	4,0	10
20	80	3/4"	41	96	80	282	319	3,8	4,1	13
25	80	1"	41	96	80	295	332	4,0	4,3	15
32	80	1 1/4"	65	96	80	295	332	4,3	4,6	18
32	125	1 1/4"	65	146	105	315	352	6,9	7,2	18
40	80	1 1/2"	65	96	80	299	336	4,6	4,9	24
40	125	1 1/2"	65	146	105	319	356	7,2	7,5	24

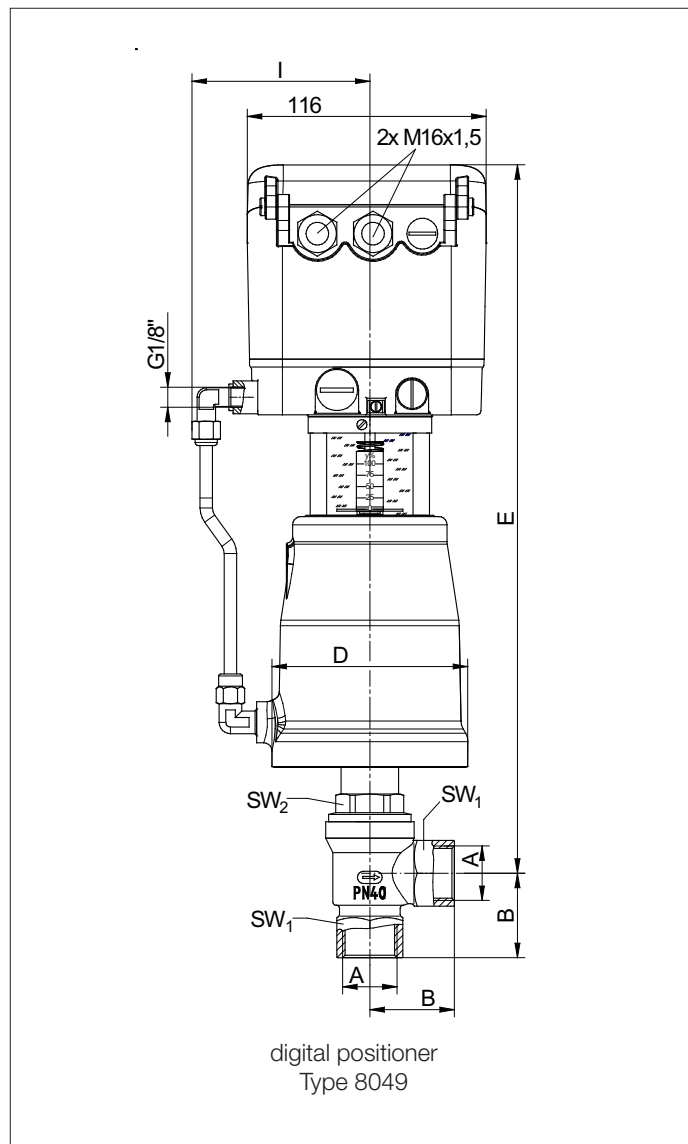
reinforced design:

50	80	2"	65	96	80	316	353	5,2	5,5	24
50	125	2"	65	146	105	336	373	7,8	8,1	24

Dimensions in mm

# Right Angle Control Valve 7051, piston actuator with integrated positioner

## Weights and Dimensions



DN	Actuator	A	B	D	E	Stroke red.	I	SW1	SW2	Kvs- value	Weight
15	80	1/2"	41	96	343	10	90	25	30	3,5	4,4
20	80	3/4"	41	96	344	13	90	32	30	8	4,5
25	80	1"	41	96	357	15	90	41	60	16	4,7
32	80	1 1/4"	65	96	357	18	90	50	30	24	5,0
32	125	1 1/4"	65	146	378	18	105	50	30	24	7,6
40	80	1 1/2"	65	96	361	24	90	55	32	35	5,3
40	125	1 1/2"	65	146	382	24	105	55	32	35	7,9

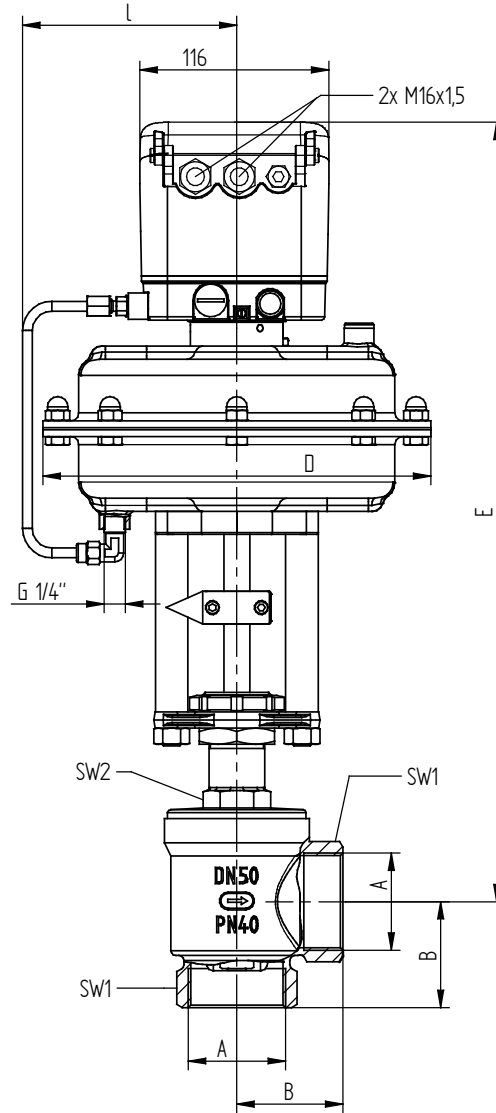
reinforced design:

50	80	2"	65	96	378	24	90	68	36	55	5,9
50	125	2"	65	146	399	24	105	68	36	55	8,5

Dimensions in mm

# Right Angle Control Valve 7051, diaphragm actuator with integrated positioner

## Weights and Dimensions



diaphragm actuator  
with digital positioner Type 8049

DN	Actuator	A	B	D	E	Stroke red.	I	SW1	SW2	Kvs- value	Weight kg
15	250	1/2"	41	238	420	10	135	25	30	5	12,8
20	250	3/4"	41	238	420	13	135	32	30	11	12,9
25	250	1"	41	238	435	15	135	41	30	17	13,1
32	250	1 1/4"	65	238	455	18	135	50	30	25	16,1
40	250	1 1/2"	65	238	460	24	135	55	32	40	16,4
50	250	2"	65	238	480	24	135	68	36	57	17

Dimensions in mm