

Right Angle Control Valve

1/2" up to 2"

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 from -148°F up to +428°F
- Operating pressures up to 580 psi

Technical Information

Nominal sizes	1/2" up to 2"
Body material	CF8M
Connection	1/2" - 2"
Pipe thread NPT	
Nominal pressure	580 psi
Media temperature*	-22°F up to +392°F opt.-148°F up to +428°F
Ambient temperature**	digital positioner +14°F up to +167°F analog positioner -5°F up to +140°F
Vacuum	> 0,0295 mercury (Hg)
Working pressure for version without cavities	maximum 175 psi

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



Positioners:

p/p-positioner body brass chrome plated

Type 8047

i/p-positioner body brass/aluminium

Type 8047

digital positioner body aluminium anodized

Type 8049

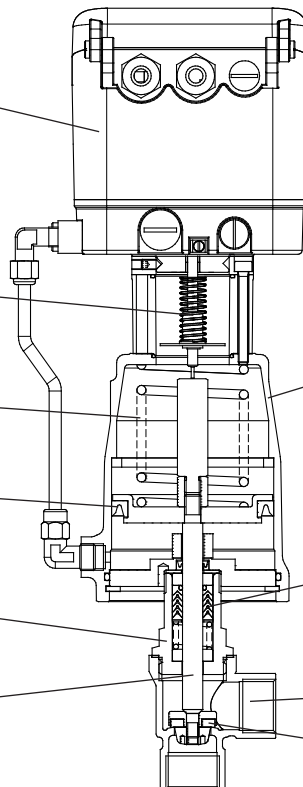
position indicator
PA Trogamid (clear)

actuator springs

outer lip

head section

piston rod
stainless steel 316
roller burnished



bonnet chrome plated brass
(actuators Ø 3")
aluminium, corrosion protected
(actuator Ø 5"),
option: reinforced plastic material
bonnets in stainless steel available,
if desired

packing from filled PTFE, special
version for reduced hollow
spaces

stainless steel body CF8M

seating seal

Options

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

Right Angle Control Valve 7051



with integrated positioner

Cv- Values

Size	Linear						Equal percentage					
	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
100 %	6	12.2	19.1	29	46.4	66.1	4.8	10.8	13.9	18.6	37.1	-
40 %	2.4	4.9	7.7	11.6	18.6	-	2	4.3	5.6	7.4	14.8	-
25 %	1.5	3.1	4.8	-	-	-	1.2	2.7	3.5	-	-	-

Admissible Pressures

digital positioner

Size	Pressure psi	Supply pressure range psi	Piston Ø inch	Spring configuration number
1/2"	250	60 - 90	3"	2
3/4"	250	60 - 90	3"	2
1"	250	60 - 90	3"	1
1 1/4"	145	60 - 90	3"	1
1 1/4"	250	45 - 90	5"	2
1 1/2"	85	60 - 90	3"	1
1 1/2"	250	60 - 90	5"	3

p/p-positioner i/p-positioner

Size	Pressure psi	Supply pressure range psi	Piston Ø inch	Spring configuration number
1/2"	250	60 - 90	3"	2
3/4"	250	60 - 90	3"	2
1"	175	60 - 90	3"	1
1 1/4"	100	60 - 90	3"	1
1 1/4"	190	45 - 90	5"	2
1 1/2"	60	60 - 90	3"	1
1 1/2"	160	60 - 90	5"	3

diaphragm actuator, direct pressure range

Size	Differential pressure (psi) spring range		Supply air (psi) spring range		Diaphragm area inch
	3 - 15 psi	6 - 29 psi	3 - 15 psi	6 - 29 psi	
1/2"	235	235	20	35	10"
3/4"	235	235	20	35	10"
1"	130	235	20	35	10"
1 1/4"	75	220	20	35	10"
1 1/2"	45	145	20	35	10"
2"	30	90	20	35	10"

Positioner

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

Right Angle Control Valve 7051, reinforced design

with integrated positioner 2" 580 psi

Admissible Pressures

digital positioner

Size	Max. pressure (psi)		Supply pressure range psi	Piston Ø inch	Spring configuration Number
	PTFE	PEEK			
2"	45	-	60 - 90	3"	1
2"	130	45	60 - 90	5"	3
2"	175	75	45 - 90	10"	6
2"	230	145	60 - 90	10"	8
2"	230	230	60 - 90	10"	12

p/p-positioner i/p-positioner

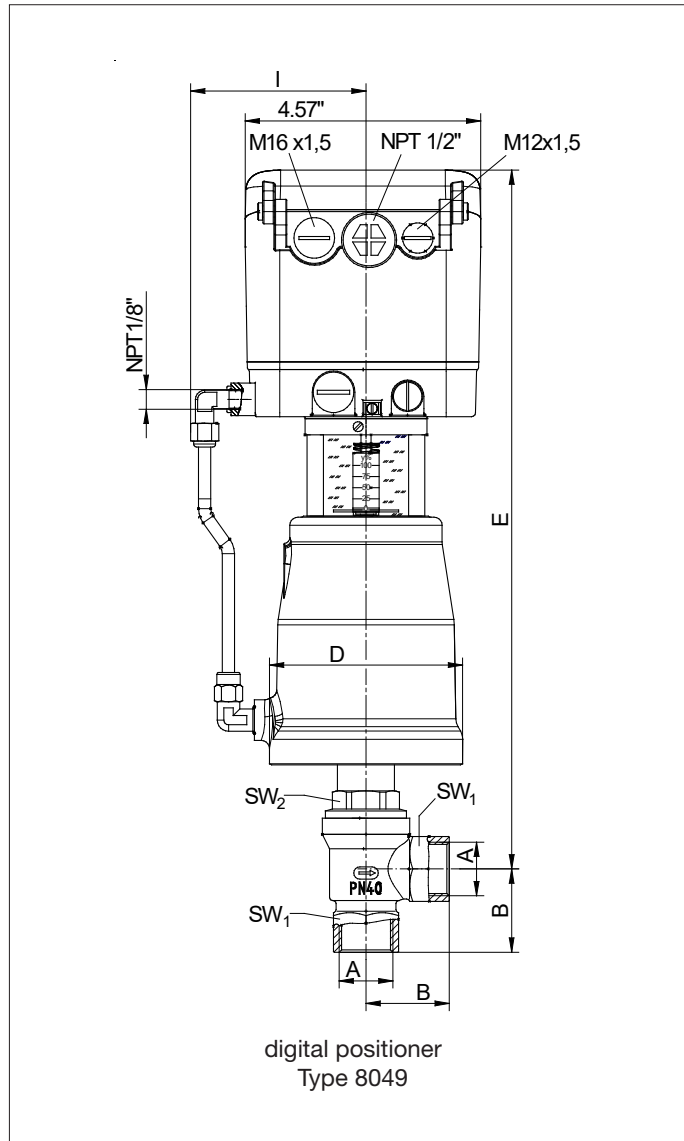
Size	Differential pressure (psi) PTFE	Supply pressure range psi	Piston Ø inch	Spring configuration number
2"	29	60 - 90	3"	1
2"	87	60 - 90	5"	3
2"	174	60 - 90	10"	10
2"	232	60 - 90	10"	12

Right Angle Control Valve 7051



piston actuator with integrated positioner

Dimensions and Weights



Size	Actuator	A	B	D	E	Stroke red.	I	SW1	SW2	Cv- value	Weight lbs
1/2"	3"	1/2"	1.61	3.78	13.5	0.35	3.54	0.98	1.18	6	9.7
3/4"	3"	3/4"	1.61	3.78	13.54	0.51	3.54	1.26	1.18	12.2	9.9
1"	3"	1"	1.61	3.78	14.06	0.57	3.54	1.61	2.36	19.1	10.3
1 1/4"	3"	1 1/4"	2.56	3.78	14.06	0.71	3.54	1.97	1.18	2.9	11
1 1/4"	5"	1 1/4"	2.56	5.75	14.88	0.71	4.13	1.97	1.18	2.9	16.7
1 1/2"	3"	1 1/2"	2.56	3.78	14.21	0.94	3.54	2.17	1.26	46.4	11.7
1 1/2"	5"	1 1/2"	2.56	5.75	15.04	0.94	4.13	2.17	1.26	46.4	17.4

reinforced design:

2"	3"	2"	2.56	3.78	14.88	0.87	3.54	2.68	1.42	54.1	13
2"	5"	2"	2.56	5.75	15.71	0.87	4.13	2.68	1.42	54.1	18.7

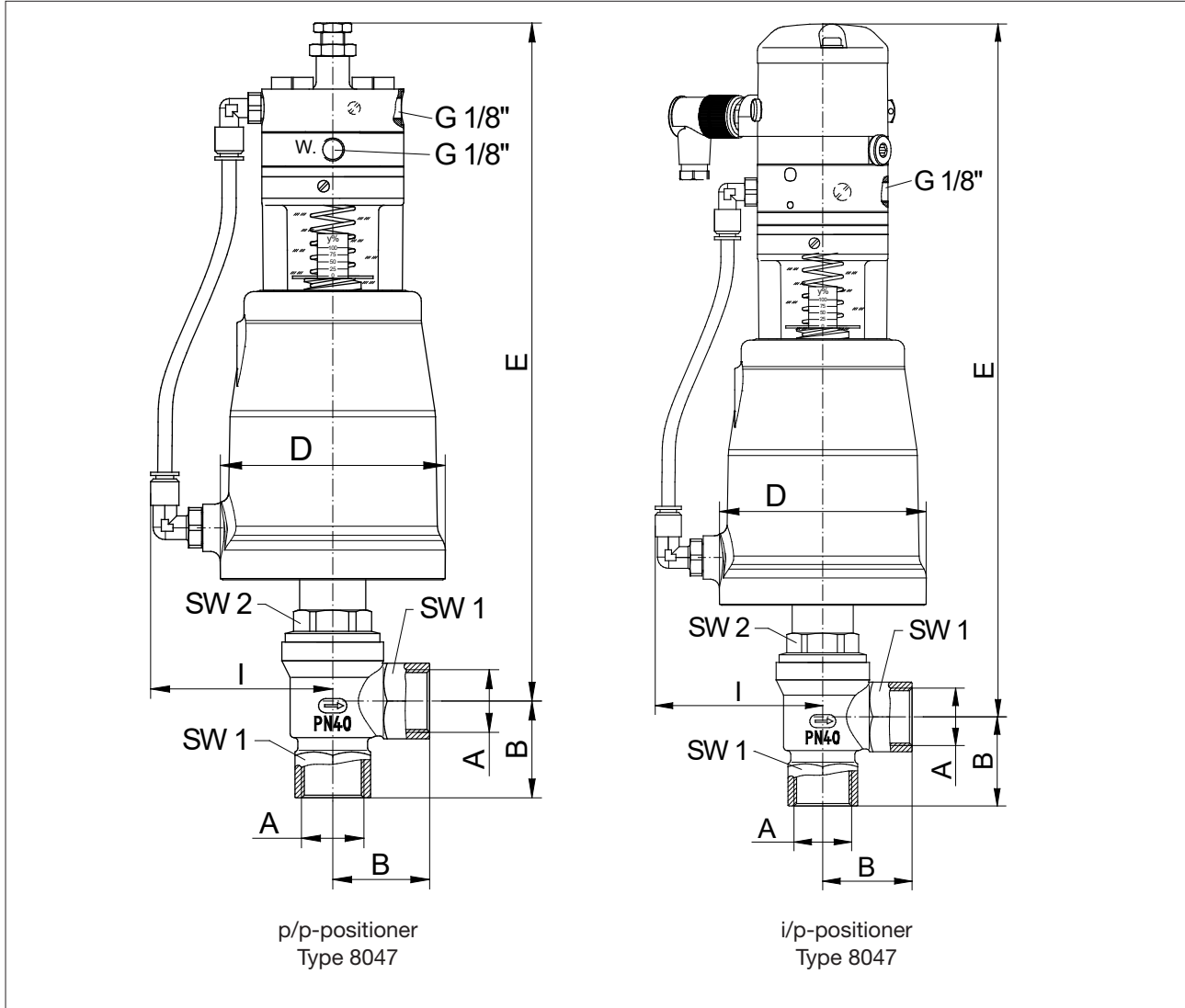
Dimensions in inch

Right Angle Control Valve 7051



piston actuator with integrated positioner

Dimensions and Weights



Size	Actuator	A	B	D	I	E		Weight (lbs)		Stroke
						p/p	i/p	p/p	i/p	
1/2"	3"	1/2"	1.6	3.8	3.15	11.05	12.5	8.1	8.8	0.39
3/4"	3"	3/4"	1.6	3.8	3.15	11.1	12.55	8.4	9	0.51
1"	3"	1"	1.6	3.8	3.15	11.6	13.05	8.8	9.5	0.59
1 1/4"	3"	1 1/4"	2.55	3.8	3.15	11.6	13.05	9.5	10.1	0.71
1 1/4"	5"	1 1/4"	2.55	5.75	4.15	12.4	13.85	15.2	15.8	0.71
1 1/2"	3"	1 1/2"	2.55	3.8	3.15	11.75	13.25	10.1	10.8	0.94
1 1/2"	5"	1 1/2"	2.55	5.75	4.15	12.55	14	0.3	0.3	0.94

reinforced design:

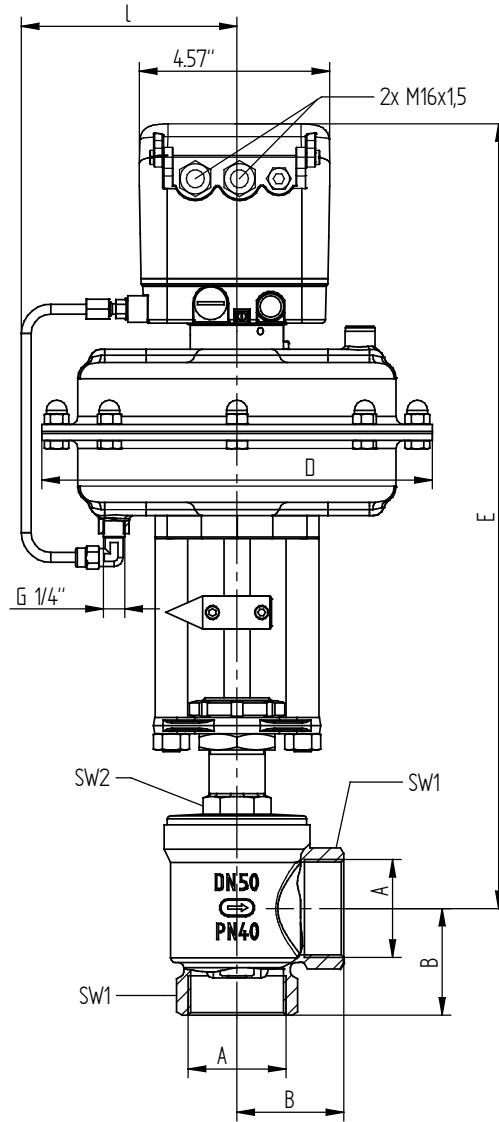
2"	3"	2"	2.55	3.8	3.15	12.45	13.9	0.2	0.2	0.87
2"	5"	2"	2.55	5.75	4.15	13.25	14.7	0.3	0.3	0.87

Dimensions in inch

Right Angle Control Valve 7051

diaphragm actuator with integrated positioner

Dimensions and Weights



diaphragm actuator
with digital positioner Type 8049

Size	Actuator	A	B	D	E	Stroke red.	I	SW1	SW2	Cv- value	Weight lbs
1/2"	10"	1/2"	1.61	9.37	16.54	0.39	5.31	0.98	1.18	5.8	28.2
3/4"	10"	3/4"	1.61	9.37	16.54	0.51	5.31	1.26	1.18	12.8	28.4
1"	10"	1"	1.61	9.37	17.13	0.59	5.31	1.61	1.18	19.7	28.8
1 1/4"	10"	1 1/4"	2.56	9.37	17.91	0.71	5.31	1.97	1.18	29	35.4
1 1/2"	10"	1 1/2"	2.56	9.37	18.11	0.94	5.31	2.17	1.26	46.4	36.1
2"	10"	2"	2.56	9.37	18.9	0.94	5.31	2.68	1.42	66.1	37.4

Dimensions in inch