Angle Seat Valve 7010

1/4“ up to 3“ 235 psi up to 580 psi

Pneumatically operated angle seat valve for the control of neutral and aggressive gases, liquids and steam.

- Compact design
- Unaffected by lightly contaminated media
- For temperatures from -22°F up to +392°F
- Working pressure up to 580 psi
- Versatile actuator options

Technical Information

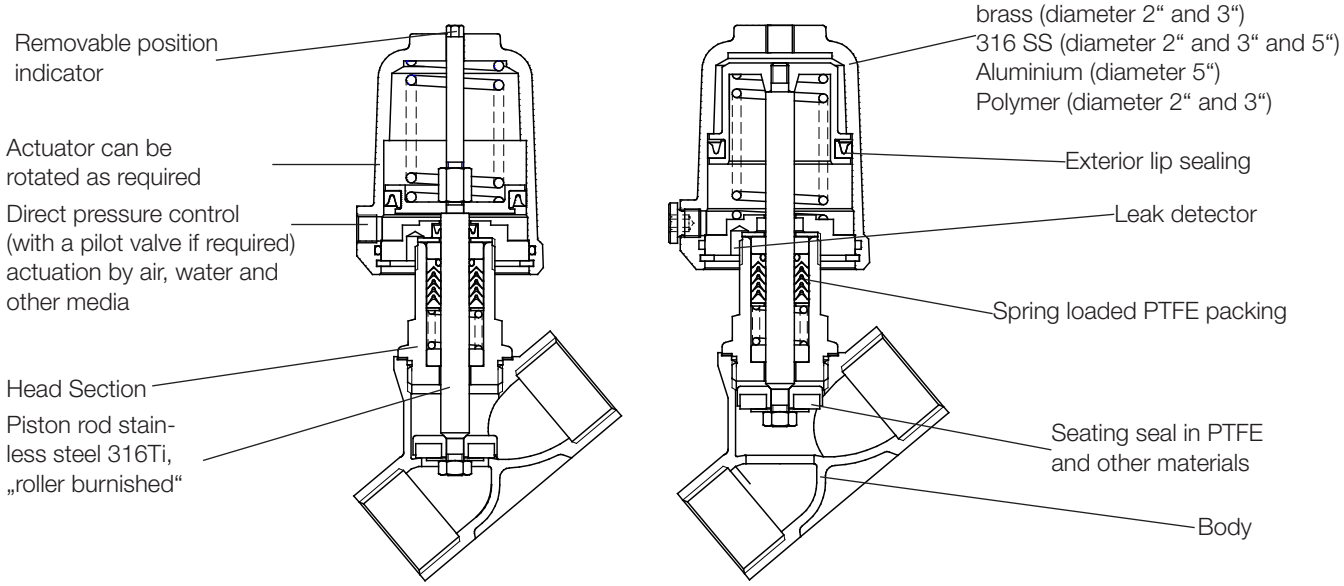
	Body material		
	Brass	Bronze	SST 316L
Nominal size	2 1/2" and 3"	1/2" - 2"	1/4" - 3"
Connections: NPT thread, Tri clamp Welding ends (ISO/SAE), Tube ends ANSI 150, ANSI 300	2 1/2" - 3"	1/2" - 2"	1/4" - 3"
Nominal pressure	235 psi	235 psi	580 psi
Max. fluid temperature*: with metal bonnet *optional with plastic bonnet diaphragm act.,stainless steel	-22°F up to 338°F -22°F up to 275°F	-22°F up to 338°F up to +392°F -22°F up to 275°F	-22°F up to 338°F up to +392°F -22°F up to 275°F -22°F up to 392°F
Ambient temperature*	-22°F up to +140°F		
Viscosity of the fluid	maximum 600cSt, 80°E (600 mm²/s)		
Vacuum	maximum 0.0295 mercury (Hg)		
Working pressure for inverted packing	maximum 175 psi		
Working pressure for Tri-Clamp connection	maximum 235 psi		

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

Options

- limit switches
  - inductive proximity switches
  - electrical limit switches
- solenoid valves
- AS-I control head
- manual override
- O2-cleaned version
- PTFE-free version (PEEK)

Normally closed **Normally open**



Schubert & Salzer Inc., 4601 Corporate Drive N.W., Suite 100 Concord, NC 28027, Ph.: (704) 789 0169, Fax: (704) 792 9783
info@schubertsalzerinc.com, www.schubertsalzerinc.com

Angle Seat Valve 7010, standard design

metall and stainless steel actuator

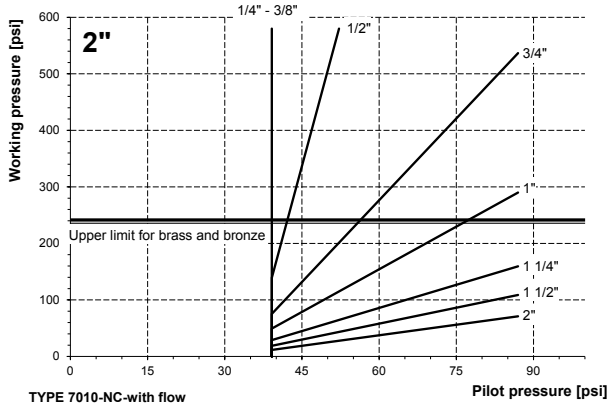
Spring closes NC (closing with flow)

Normally closed angle seat valves, closing with the flow. Operates better with gases, with liquids water hammer is possible.

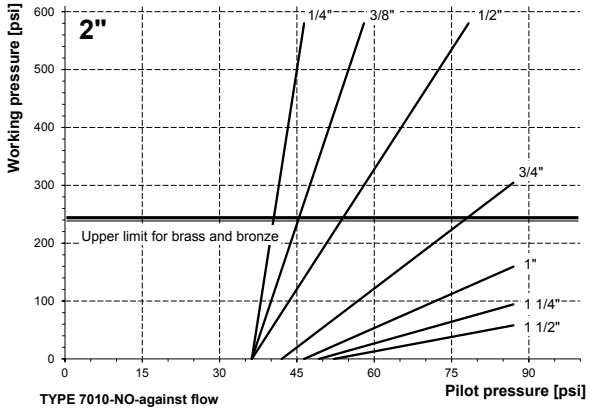
Spring opens NO (closing against flow)

Normally open angle seat valves, closing against the flow.

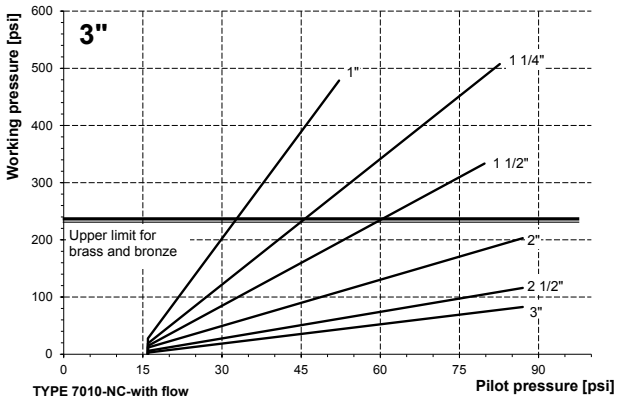
Actuator diameter 2“



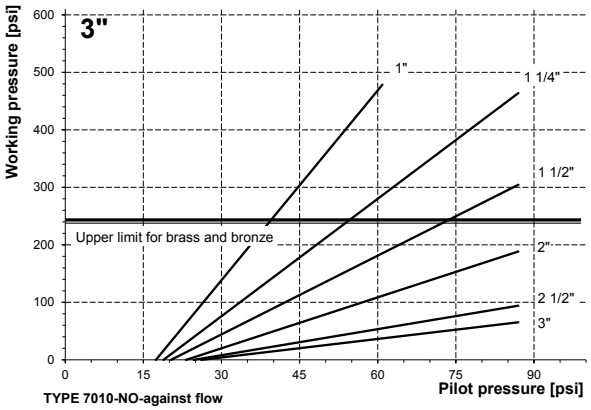
Actuator diameter 2“



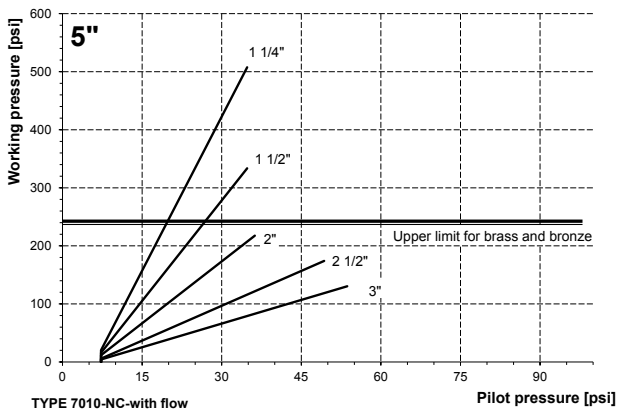
Actuator diameter 3“



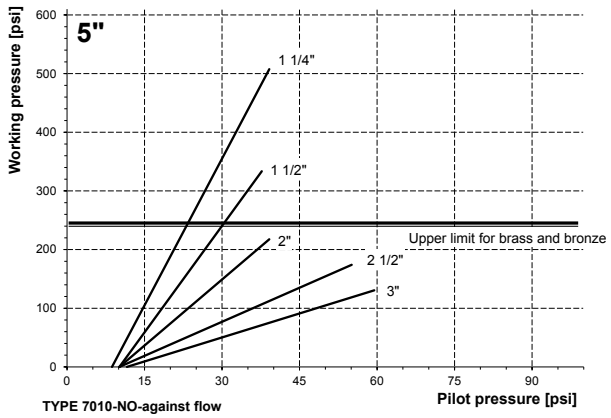
Actuator diameter 3“



Actuator diameter 5“



Actuator diameter 5“



Angle Seat Valve 7010, standard design

SCHUBERT SALZER INC.

Normally closed angle seat valves, closing against the flow (operating with fluids).
Metall and stainless steel actuator

Nominal size	Working pressure (i.e. Differential) psi		Pilot pressure psi	Piston Ø inch	Springs
	stainless steel	bronze			
1/4" (8)	580	-	50 - 145	2"	1
3/8" (10)	580	-	50 - 145	2"	1
1/2" (15)	320	230	50 - 145	2"	1
3/4" (20)	100	100	50 - 145	2"	1
3/4" (20)	190	190	65 - 145	2"	2
3/4" (20)	275	230	85 - 145	2"	3
1" (25)	35	35	50 - 145	2"	1
1" (25)	85	85	65 - 145	2"	2
1" (25)	130	130	85 - 145	2"	3
1" (25)	320	230	50 - 145	3"	1
1 1/4" (32)	15	15	50 - 145	2"	1
1 1/4" (32)	45	45	65 - 145	2"	2
1 1/4" (32)	75	75	85 - 145	2"	3
1 1/4" (32)	175	175	50 - 145	3"	1
1 1/4" (32)	245	230	65 - 145	3"	2
1 1/4" (32)	320	230	85 - 145	3"	3
1 1/4" (32)	160	160	20 - 145	5"	1
1 1/4" (32)	335	230	30 - 145	5"	2

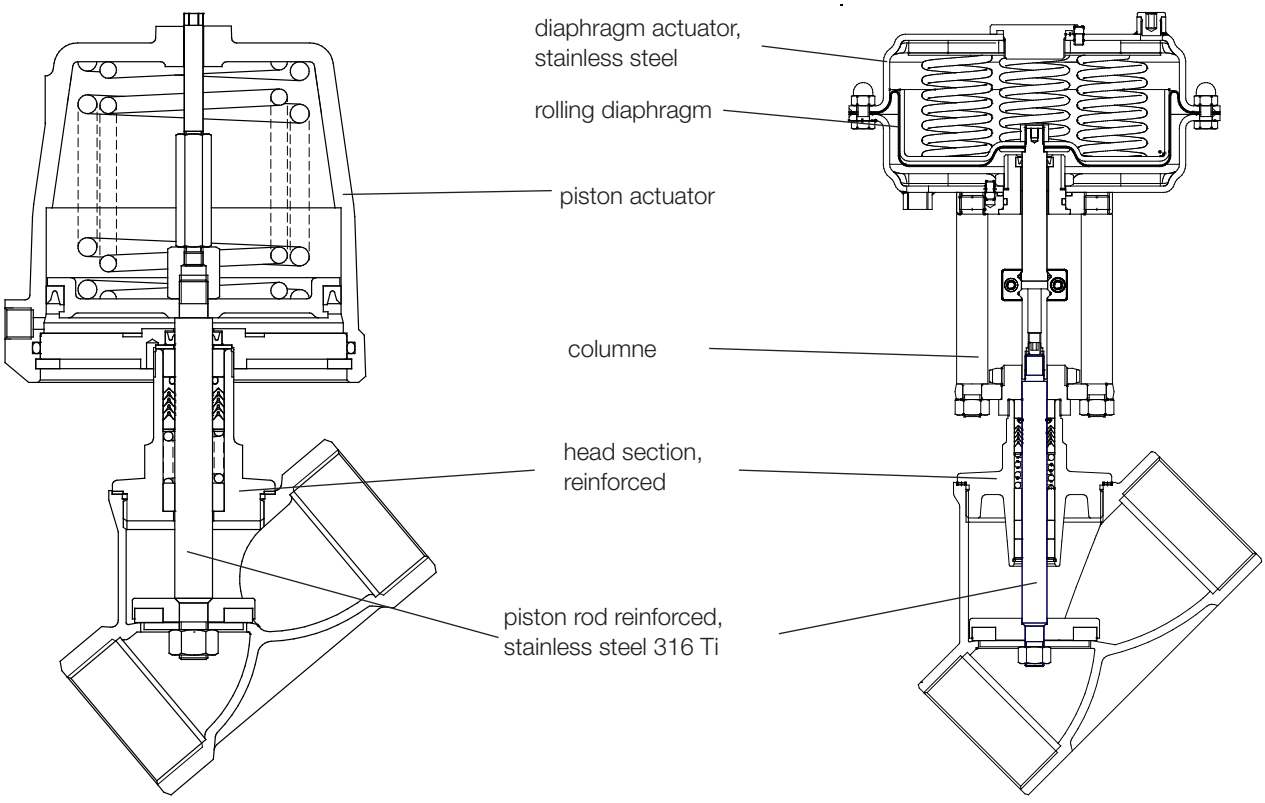
Nominal size	Working pressure (i.e. Differential) psi		Pilot pressure psi	Piston Ø inch	Springs
	stainless steel	bronze brass			
1 1/2" (40)	30	30	65 - 145	2"	2
1 1/2" (40)	50	50	80 - 145	2"	3
1 1/2" (40)	100	100	50 - 145	3"	1
1 1/2" (40)	145	145	65 - 145	3"	2
1 1/2" (40)	190	190	80 - 145	3"	3
1 1/2" (40)	100	100	20 - 145	5"	1
1 1/2" (40)	220	220	30 - 145	5"	2
1 1/2" (40)	305	230	45 - 145	5"	3
2" (50)	60	60	50 - 145	3"	1
2" (50)	85	85	65 - 145	3"	2
2" (50)	110	110	80 - 145	3"	3
2" (50)	125	125	30 - 145	5"	2
2" (50)	190	190	45 - 145	5"	3
2 1/2" (65)	60	55 *	80 - 145	3"	3
2 1/2" (65)	75	65 *	30 - 145	5"	2
2 1/2" (65)	100	90 *	45 - 145	5"	3
3" (80)	**	65 *	45 - 145	5"	3

* brass body
** reinforced design

Standard

Angle Seat Valve 7010, reinforced design

stainless steel 2“ up to 3“ 580 psi

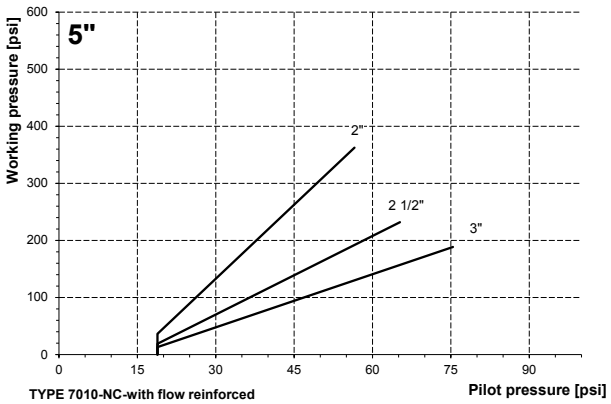


Angle Seat Valve 7010, reinforced design

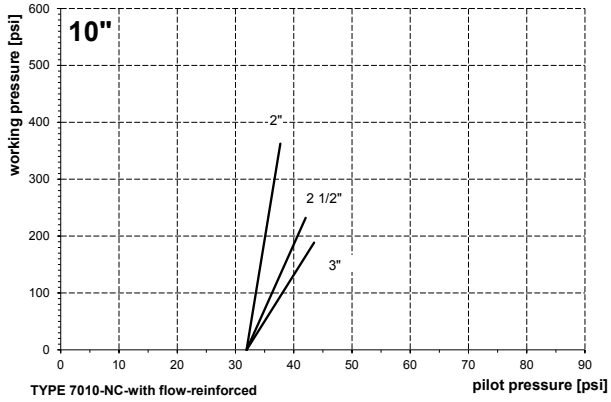
Spring closes NC (closing with flow)

Normally closed angle seat valves, closing with the flow. Operates better with gases, with liquids water hammer is possible.

Piston actuator diameter 5“ - a strong spring



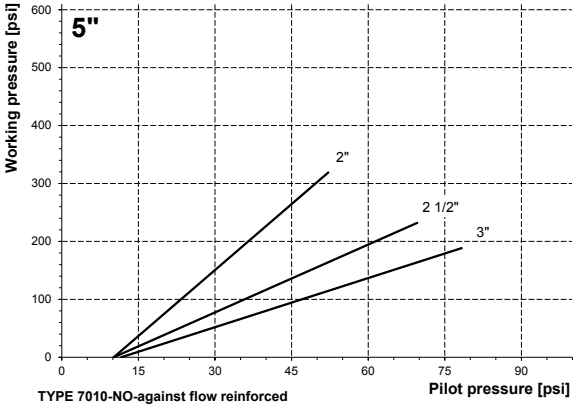
Diaphragm actuator diameter 10“



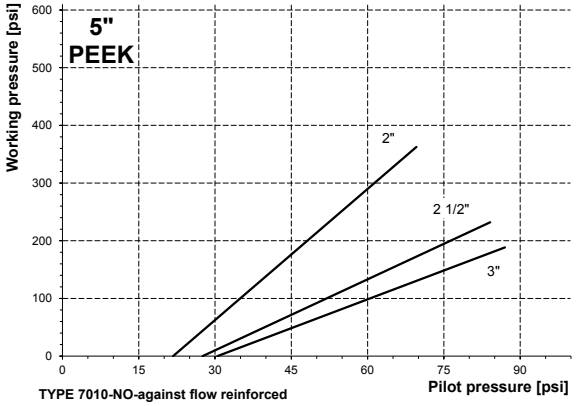
Spring opens NO (closing against flow)

Normally open angle seat valves, closing against the flow.

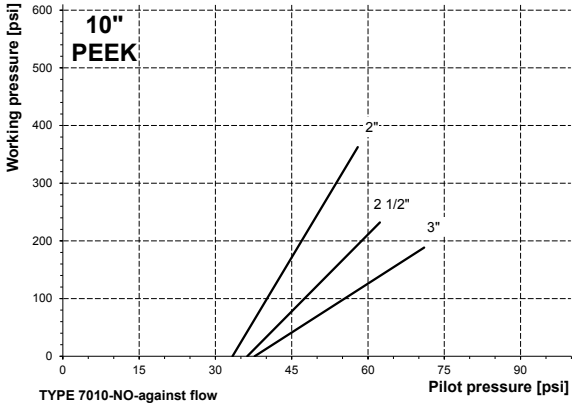
Piston actuator diameter 5“



Piston actuator diameter 5“ PEEK seating seal



Diaphragm actuator diameter 10“ PEEK seating seal



higher pressures on request

Angle Seat Valve 7010, reinforced design

SCHUBERT SALZER INC.

Spring closes NC (closing against flow)

Nominal size	max. Working pressure (differential pressure) psi stainless steel	Pilot pressure (psi)	Diaphragm area	Springs number
2"	175	45 - 145	5"	3
2"	275	40 - 90	10"	8
2"	365	55 - 90	10"	12
2 1/2"	85	45 - 145	5"	3
2 1/2"	145	40 - 90	10"	8
2 1/2"	205	55 - 90	10"	12
3"	60	45 - 145	5"	3
3"	100	40 - 90	10"	8
3"	145	55 - 90	10"	12
				Standard

Angle Seat Valve 7010

SCHUBERT SALZER INC.

Ordering Number System

									1	2	3	4	5	6	7	8	9	10	11	12			
7	0	1	0	/				V													S		

Type — Size — Symbol: "V": Valve; "A": Actuator (valve without body); "R": Repair kit (sealings)

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

1. Body type		2. Connection		3. Body material		4. Seating seal		5. Pilot function		6. Actuator		7. Springs		8. Head section material	
1	angle body	5	NPT-thread	0	brass	0	PTFE	0	NC (closing with flow)	7	piston 2" (NPT)	-	standard	-	standard
		H	welding ends acc. ISO	1	bronze	1	Viton			8	piston 3" (NPT)	1	1 spring		graphite, reinforced
		J	SAE (1/2")	2	stainless steel 316L	2	EPDM	1	NO (closing against flow)	9	piston 5" (NPT)	2	2 springs	K	reinforced design
		3	tube ends			3	Buna			P	plastic bonnet for piston 2" (NPT)	3	3 springs		design
		Z	Tri clamp inch (ASME 1998)			7	Peek	2	NC (closing against flow)	S	plastic bonnet for piston 3" (NPT)	T	6 springs (D 10")		
								3	universal double acting	D	diaphragm D 10" (NPT)	W	8 springs (D 10")		
											For stainless steel actuator choose size 7, 8, 9 For metric air-connection please consult factory	Y	12 springs (D 10")		
		*	other upon request												

9. Packing		10. Temperature version		11. Accessories		12. Special versions		13. Body		14. Head section		15. Piston and seat		16. Bonnet	
-	standard PTFE-Carbon filled	-	standard (338°F bronze, stainless steel)	-	no accessories	S	special versions	-	standard	-	standard	-	standard	-	standard
				1	electrical position indicator with single switch	M	position indicator with cable bushing							C	version completely in stainless steel
0	PTFE free temp.284°F	H	high temperature (392°F bronze, stainless steel)	2	electrical position indicator with double switches	N	bushing position indicator with plug connection								stainless steel (bonnet)
2	inverted vacuum	B	HT 220 Version 430°F, 1/2" - 1 1/4" (stainless steel only)	3	manual emergency oper.										
				4	manual override										
A	PTFE free (284°F) temp.392°F	V	viton exterior lip sealing	5	stroke limitation										
				6	pilot valve DN 2, 230V AC										
				7	pilot valve DN 2, 24V DC										
		U	low temperature version down to -58°F, fluid temperature	K	single mechanical switch compact										
				M	double proximity switch 10 - 36 V DC (PNP)										
		W	low temperature version down to -40°F, ambient temperature	P	single proximity switch 10 - 36 V DC (PNP)										
				T	single proximity switch compact 10 - 30 V DC (PNP)										

Special versions:

...S - - - - - - 3	closing cap for position indicator (actuator 2")
...S - - - - - - 2	closing cap for position indicator (actuator 3", 5")
...S - - - - - - - 1	silicone free
...S - - - - - - - 5	oxygen service
...S - - - - - - - -66	pilot valve 110/120V AC (already assembled)
...S - - - - - - - - 501	pilot valve 110/120V AC (assembled in the USA)

For other versions, please contact factory

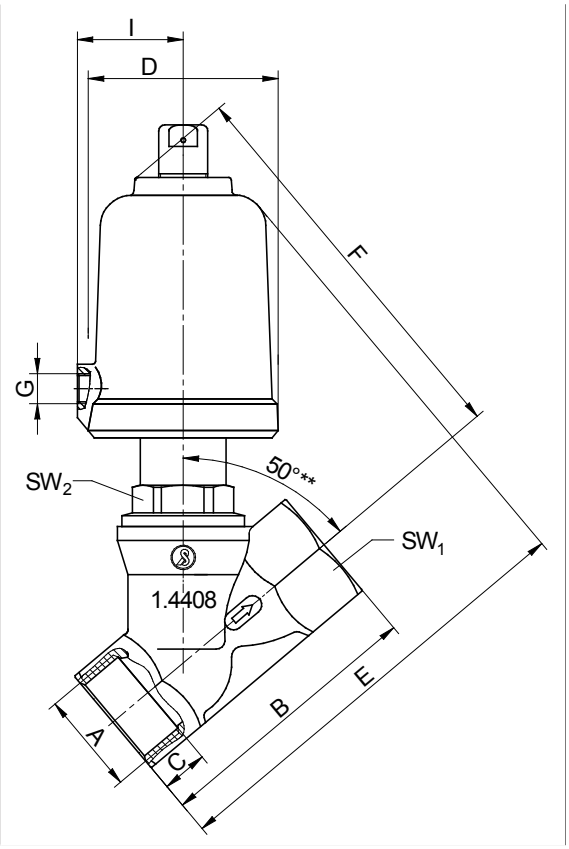
Ordering example:	7010/050V152028----5 2“ angle seat valve, NPT connection, stainless steel body, PTFE seat, N.C., actuator size 3“, stroke limitation.

For Angle Seat Valve with plastic actuator please see data sheet 7012.

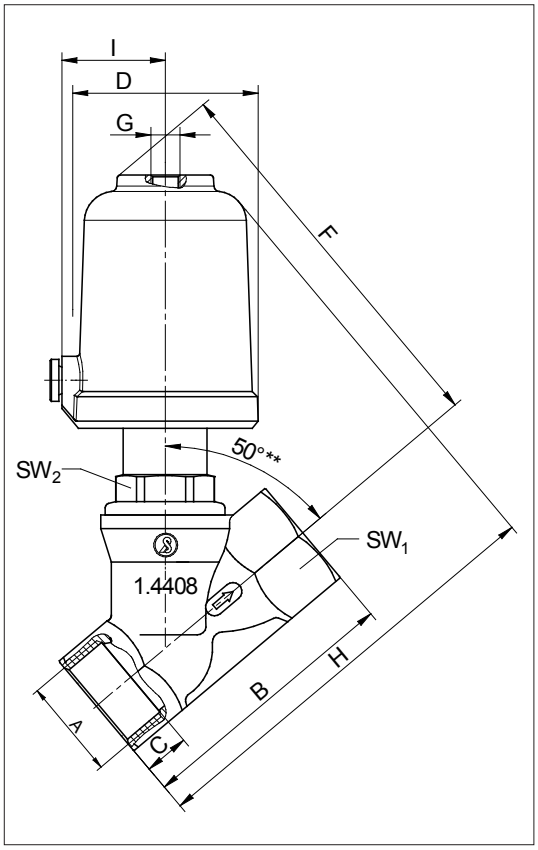
Angle Seat Valve 7010, standard design

SCHUBERT SALZER INC.

Dimensions and Weights



Normal closed



Normal open

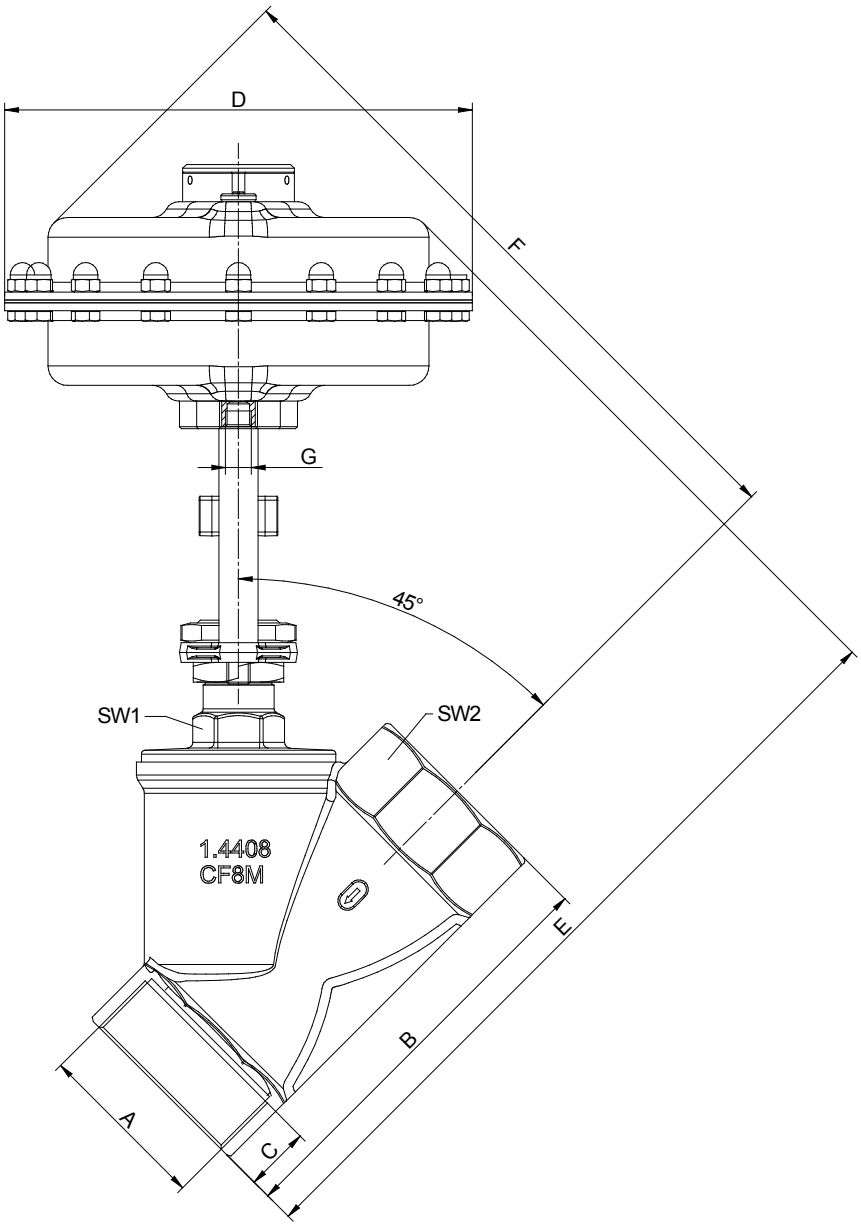
Size	actuator diameter	A Rp/NPT	B		C	D	E		F	G	H	I	SW1		SW2		Cv-values		weight (lbs)
			bronze SST	brass			bronze SST	brass			(stroke)		bronze SST	brass	stand.	reinfor.	bronze SST	brass	
1/4"	2"	1/4"	2.35	-	0.45	2.45	5.1	-	4.85	G1/8"	0.33	1.35	0.8	-	1.2	-	1.1	-	2.2
3/8"	2"	3/8"	2.35	-	0.45	2.45	5.1	-	4.85	G1/8"	0.35	1.35	0.9	-	1.2	-	1.9	-	2.31
1/2"	2"	1/2"	2.55	-	0.6	2.45	5.3	-	4.7	G1/8"	0.28	1.35	1	-	1.2	-	4.1	-	2.42
3/4"	2"	3/4"	2.95	-	0.65	2.45	5.3	-	4.9	G1/8"	0.47	1.35	1.2	-	1.2	-	9.3	-	2.64
1"	2"	1"	3.55	-	0.75	2.45	5.7	-	5.1	G1/8"	0.63	1.35	1.55	-	1.2	-	17.4	-	3.08
1"	3"	1"	3.55	-	0.75	3.8	7.3	-	6.7	G1/4"	0.63	2.15	1.55	-	1.2	-	18.6	-	6.6
1 1/4"	2"	1 1/4"	4.35	-	0.85	2.45	6.3	-	5.7	G1/8"	0.63	1.35	1.9	-	1.2	-	24.4	-	3.96
1 1/4"	3"	1 1/4"	4.35	-	0.85	3.8	7.85	-	7.5	G1/4"	0.79	2.15	1.9	-	1.2	-	27.8	-	7.26
1 1/4"	5"	1 1/4"	4.35	-	0.85	5.75	9.05	-	8.45	G1/4"	0.79	3.15	1.9	-	1.2	-	27.8	-	12.1
1 /2"	2"	1 1/2"	4.7	-	0.85	2.45	6.5	-	5.9	G1/8"	0.63	1.35	2.15	-	1.2	-	34.8	-	4.62
1 /2"	3"	1 1/2"	4.7	-	0.85	3.8	8.05	-	7.7	G1/4"	0.91	2.15	2.15	-	1.2	-	40.6	-	7.92
1 1/2"	5"	1 1/2"	4.7	-	0.85	5.75	9.25	-	8.65	G1/4"	0.91	3.15	2.15	-	1.2	-	40.6	-	12.76
2"	2"	2"	5.9	-	1	2.45	7.3	-	6.3	G1/8"	0.63	1.35	2.7	-	1.25	-	46.4	-	5.94
2"	3"	2"	5.9	-	1	3.8	8.85	-	7.85	G1/4"	1.14	2.15	2.7	-	1.25	1.4	63.8	-	9.24
2"	5"	2"	5.9	-	1	5.75	9.85	-	8.85	G1/4"	1.14	3.15	2.7	-	1.25	1.4	63.8	-	14.08
2 1/2"	3"	2 1/2"	7.1	7.1	1.2	3.8	10.25	10.25	8.65	G1/4"	1.14	2.15	3.35	3.35	1.4	1.6	92.8	107.9	13.64
2 1/2"	5"	2 1/2"	7.1	7.1	1.2	5.75	11.2	11.2	9.85	G1/4"	1.14	3.15	3.35	3.35	1.4	1.6	92.8	107.9	18.48
3"	3"	3"	-	8.25	1.3	3.8	-	11	8.85	G1/4"	1.14	2.15	-	3.95	1.6	1.6	-	133.4	18.26
3"	5"	3"	-	8.25	1.3	5.75	-	12	9.85	G1/4"	1.14	3.15	-	3.95	1.6	1.6	-	133.4	23.1

Dimension in inch

Angle Seat Valve 7010, reinforced design

SCHUBERT SALZER INC.

Dimensions and Weights



diaphragm actuator
spring to close

Size	Actuator	A Rp/NPT	B*	C	D	E	F	G	Stroke (inch)	SW1	SW2	α	cv-value	Weight (lbs)
2"	10"	2"	5.91	1.01	9.37	13.31	12.72	G1/4"	0.98	2.68	1.26	50°	63.8	32
2 1/2"	10"	2 1/2"	7.09	1.19	9.37	14.41	13.62	G1/4"	0.98	3.35	1.61	45°	92.8	34.5
3"	10"	3"	8.27	1.31	9.37	16.02	13.78	G1/4"	0.98	3.94	1.61	45°	-	39

Dimension in inch