

Angle Seat Motor Valve 7110



1/2" up to 3", 235 psi - 580 psi

Motor valve for on/off- and control operation for neutral and aggressive media.

- Compact design
- For temperatures from -22°F up to +428°F
- Working pressure up to 580 psi
- Versatile actuators
- ANSI Class VI shut off
- Straight through flow path



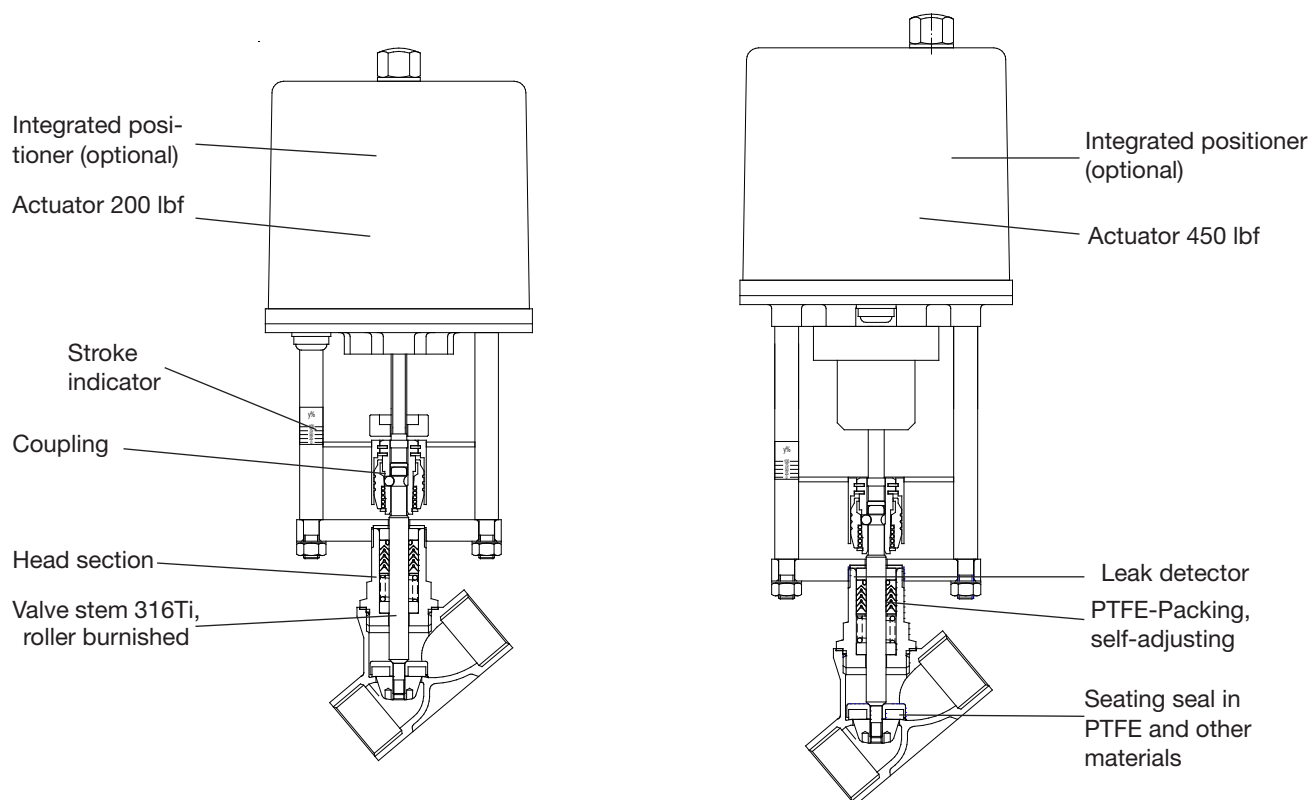
Technical Data Valve

Body material	Brass	Bronze	Stainless steel
Nominal sizes	2 1/2" - 3"	1/2" - 2"	1/2" - 3"
Connections:			
NPT thread	2 1/2" - 3"	1/2" - 2"	1/2" - 3"
Welding ends	-	-	1/2" - 3"
Clamp connections	-	-	1/2" - 3"
Pressure class	235 psi	235 psi	580 psi
Media temperature	-22°F to 338°F	-22°F to 392°F opt. -22°F up to 428°F	-22°F to 392°F opt. -148°F up to 428°F
Ambient temp.	+14°F up to 140°F		
Viscosity	maximum 600 cps		
Vacuum	maximum 0,0295 inches mercury (Hg)		
Operating pressure	maximum 175 psi		
packing underneath			
Working pressure for Tri-Clamp connection	maximum 235 psi		

Technical Data Motor Actuator

Actuator Force	200 lbf, 450 lbf
Type of Duty acc. VDE 0530	S1 - 100 % ED
Power	110/120 VAC, 50/60 Hz
Power Consumption	200 lbf: 4,8W; 450 lbf: 6.6W
Amb. Temperature	+32°F up to +140°F
Mounting Position	Motor not hanging downwards; (0.9 kN any)
Protection Class (DIN 40050)	IP65

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Admissible Differential Pressures

Nominal Size	max. psi						Actuator Force lbf
	Brass On/off	Bronze On/off	Stainless Steel On/off	Stainless Steel On/off pressure balanced	Stainless Steel Control	Stainless Steel Control pressure balanced	
1/2" (015)	-	232	580	-	232	-	200 lbf
3/4" (020)	-	232	333.5	-	232	-	200 lbf
3/4" (020)	-	232	580	-	232	-	450 lbf
1" (025)	-	188.5	188.5	-	188.5	-	200 lbf
1" (025)	-	232	507.5	-	232	-	450 lbf
1 1/4" (032)	-	109	109	580	109	232	200 lbf
1 1/4" (032)	-	232	304.5	580	232	232	450 lbf
1 1/2" (040)	-	65.5	65.5	580	65.5	232	200 lbf
1 1/2" (040)	-	188.5	188.5	580	188.5	232	450 lbf
2" (050)	-	43.5	43.5	580	43.5	232	200 lbf
2" (050)	-	130.5	130.5	580	130.5	232	450 lbf
2 1/2" (065)	22	-	22	362.5	22	362.5	200 lbf
2 1/2" (065)	65.5	-	65.5	362.5	65.5	362.5	450 lbf
3" (080)	-	-	13	362.5	13	362.5	200 lbf
3" (080)	-	-	46.5	362.5	46.5	362.5	450 lbf

Cv-Values (Control Valve Version)

Characteristic	linear								equal percentage							
	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
100 %	4.4	10.2	16.2	23.2	31.3	42.9	60.3	80	3.5	7	11.6	18.6	29	34.8	44.1	53.4
40 %	1.7	4.1	6.7	9.3	12.8	-	52.2	63.8	1.4	2.8	4.6	7	11.6	-	-	-
25 %	1.1	2.6	4.2	-	-	-	-	-	0.9	1.7	3	-	-	-	-	-
15%	-	-	-	-	-	-	-	-	0.5	-	-	-	-	-	-	-
10%	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7,5%	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-	-	-

On-Off	4.4	10.4	19.7	32.5	40.6	52.2	71.9	98.6
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Stroking Times

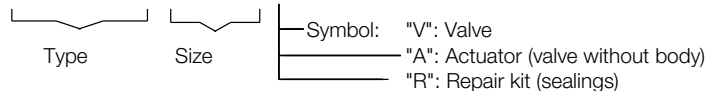
Actuator [lbf]	200	450	Stroke [inch]
Stroking speed inch/min	0.41	0.52	
Nominal size			
1/2"	40	32	0.28
3/4"	69	55	0.47
1"	91	73	0.63
1 1/4"	114	91	0.79
1 1/2"	131	105	0.91
2"	137	109	0.94
2"	166	132	1.14
2 1/2"	137	109	0.94
2 1/2"	166	132	1.14
3"	137	109	0.94
3"	166	132	1.14

Additional Stroking Times

Actuator [lbf]	200						450		Stroke [inch]
	0,53	0,31	0,20	0,11	0,60	0,30			
Stroking speed inch/min	Stroking time (sec) for full stroke								
Nominal size									
1/2"	31	53	82	145	28	56	0.28		
3/4"	53	90	141	248	47	96	0.47		
1"	71	120	188	331	63	128	0.63		
1 1/4"	89	150	235	414	79	160	0.79		
1 1/2"	102	173	271	476	91	184	0.91		
2"	107	180	282	497	95	192	0.94		
2"	129	218	341	600	114	232	1.14		
2 1/2"	107	180	282	497	95	192	0.94		
2 1/2"	129	218	341	600	114	232	1.14		
3"	107	180	282	497	95	192	0.94		
3"	129	218	341	600	114	232	1.14		

Ordering Number System

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

1. Design	2. Connection	3. Material	4. Seating seal	5. Function	6. Motor actuator
1 Angle body	5 NPT-thread H Welding ends similar ISO (drawing R0089) Z Tri clamp connection (inch)	1 Bronze (Rg 5) 2 Stainless steel CF8M	0 PTFE (Teflon)	A On/off R Control (only stainless steel valve)	4 200 lbf (0,9 kN) -IP65 1 450 lbf (2,0 kN) -IP65 7 100 lbf (0,45kN) -IP43

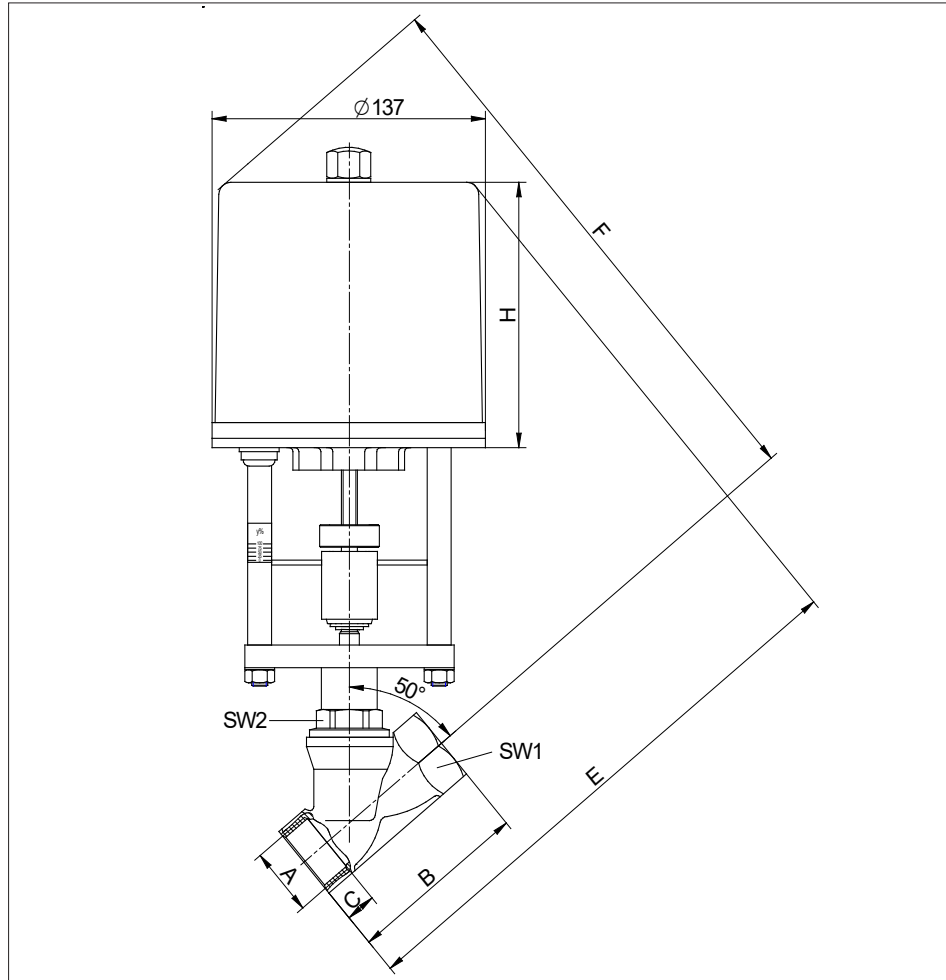
7. Voltage	8. Stroking speed	9. Positioner	10. Limit switches	11. Feedback	12. Special versions	13. Control plug
- 230VAC (Standard) 3 24 VDC 4 110/120 VAC	- Standard	- without 3 0 - 10 V M 0 - 20mA N 4 - 20mA	- without 1 1 stroke dependent limit switch 2 2 stroke dependent limit switches	- without 1 Potentiometer 1000 Ohm	S Quote for further special versions	- without 1 linear 100% 2 equal percentage 3 100% 4 linear 40% 5 equal percentage 40% 6 linear 25% equal percentage 25%

Ordering Example:

7110/025V1520R4--N1-S1

Angle seat motor valve, 1", NPT-thread, stainless steel body, seating seal PTFE, control function, actuator 200 lbf, 120 VAC, positioner 4-20 mA, one limit switch, linear flow characteristic, Cv-value 100 % (10).

Dimensions and Weights



Size	Actuator lbf	A G / NPT	B	C	E		F		Stroke	SW1	SW2	Cv- values	Weight lbs***	Running times sec.
					without positioner	with positioner	without positioner	with positioner						
1/2"	200	1/2"	2.55	0.45	9.95	11	10.3	11.5	0.37	1	1.2	4.1	5.5	54
3/4"	200	3/4"	2.95	0.5	10.35	11.4	10.4	11.6	0.55	1.2	1.2	9.3	6	80
1"	200	1"	3.55	0.6	10.5	11.5	10.55	11.75	0.75	1.55	1.2	17.4	6.5	109
1 1/4"	200	1 1/4"	4.35	0.65	11.65	12.65	10.7	11.9	0.83	1.9	1.2	27.8	7.5	120
1 1/2"	200	1 1/2"	4.7	0.75	11.75	12.75	11.1	12.3	0.94	2.15	1.2	40.6	8	137
2"	200	2"	5.9	0.85	12.3	13.3	11.65	12.85	1.14 (0.94)	2.7	1.25	63.8	9.5	166/137
2 1/2"	200	2 1/2"	7.1	1	13.05	14.05	12.35	13.55	1.14 (0.94)	3.35	1.4	107.9	13.5	166/137
3"	200	3"	8.45	1.3	14.8	15.85	12.15	13.35	1.14 (0.94)	3.95	1.6	129.9	0	166
3/4"	450	3/4"	2.95	0.5	11.05	12.1	11.25	12.45	0.55	1.2	1.2	9.3	6.5	62
1"	450	1"	3.55	0.6	11.25	12.3	11.25	12.5	0.75	1.55	1.2	17.4	7	84
1 1/4"	450	1 1/4"	4.35	0.65	12.2	13.25	11.85	13.05	0.83	1.9	1.2	27.8	8	93
1 1/2"	450	1 1/2"	4.7	0.75	12.55	13.6	12	13.2	0.94	2.15	1.2	40.6	8.5	107
2"	450	2"	5.9	0.85	13.15	14.15	12.2	13.4	1.14 (0.94)	2.7	1.25	63.8	10	129/107
2 1/2"	450	2 1/2"	7.1	1	13.65	14.7	13.1	14.3	1.14 (0.94)	3.35	1.4	107.9	14	129/107
3"	450	3"	8.45	1.3	15.45	16.45	12.9	14.1	1.14 (0.94)	3.95	1.6	129.9	0	129

Dimensions in inch

*** Weight with positioner: + 1.1 lbs
() Values with positioner

Text and pictures are not binding. We reserve the right to alter the equipment.