

Baumann™ 24000S Stainless Steel Control Valve

The Baumann 24000S versatile, pneumatic, control valve (figure 1) may be used for the control of pressure, temperature, level, and flow. NPS 1/2 through 2 valves are available with NPT end connections. NPS 3 is available as wafer style only. The CF8M stainless steel valve body will withstand mildly corrosive fluids, yet is economical enough to use in applications where carbon steel is normally specified.

Features

- Compact and light weight design reduces installed piping costs.
- End connection options are available to meet your piping standards.
- Dual stem and plug guiding provides increased stability during plug travel.
- High-quality S31600 stainless steel trim materials; S41600 stainless steel trim available.
- Multiple trim capacity reductions available to meet changing process requirements.
- Epoxy powder-coated actuator with stainless steel fasteners for corrosion resistance.
- Multi-spring field-reversible actuator with reduced deadband permits direct operation from remote signal devices.
- Actuator and yoke can be removed from the valve assembly while maintaining packing integrity.

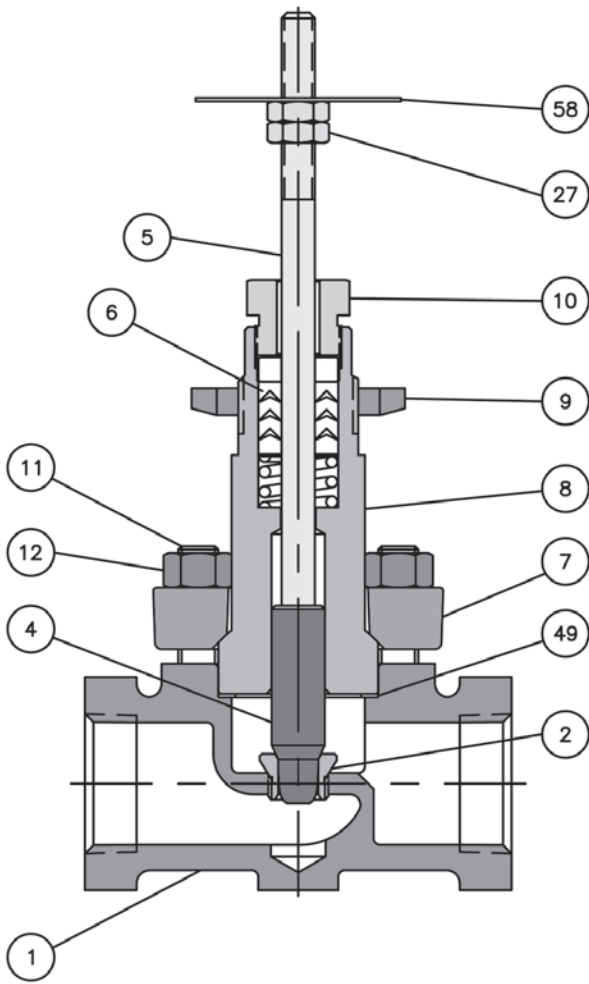


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Figure 1. Baumann 24000S NPT Control Valve

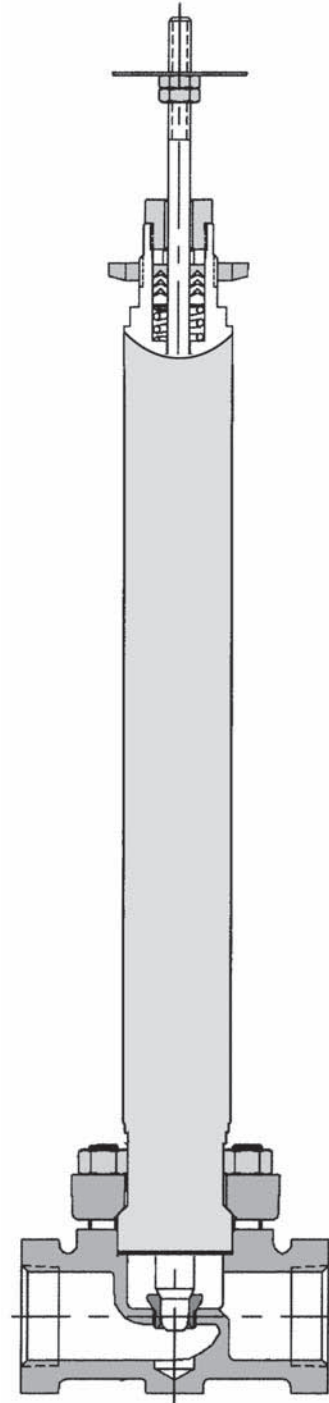
- Fisher® FIELDVUE™ digital valve controllers available for remote calibration and diagnostics in facilities utilizing the PlantWeb™ architecture.
- The FIELDVUE DVC2000 digital valve controller has a local user interface that includes a liquid crystal display and four push buttons for menu navigation.
- NOLEEK bellows bonnet and single through triple extension bonnets are available.





E1266

Figure 2. Baumann 24000S Valve Body Assembly

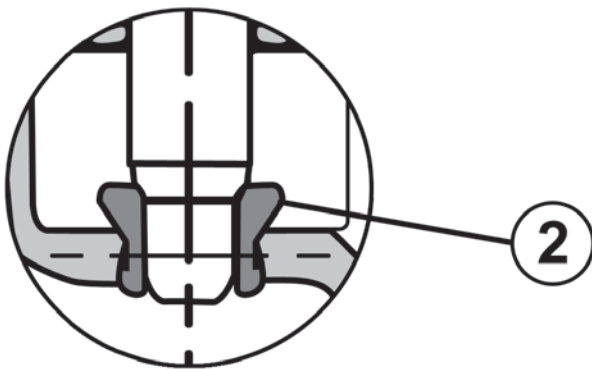


E1267

Figure 3. Baumann 24000S Valve with Extension Bonnet, available in Single, Double, and Triple Extension Lengths

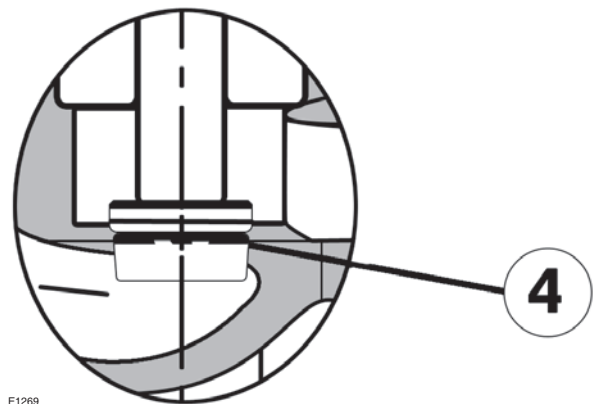
Table 1. Materials of Construction

Key No.	Description		Material
1	Valve Body		ASTM A351, CF8M
2	Seat Ring		ASTM A276 S31600 (used for 6.3 mm and 9.5 mm [1/4 inch and 3/8 inch] orifice diameters only)
4	Plug (Metal Seat) Cv < 2.5	Standard	ASTM A479 S21800 Annealed
		Optional	ASTM A582 S41600 Condition T
	Plug (Metal Seat) Cv > 4.0	Standard	ASTM A276 S31600 Condition A
		Optional	ASTM A582 S41600 Condition T
	Plug (Soft Seat)		ASTM A276 S31600 Condition A with PTFE (Polytetrafluoroethylene) Insert
5	Stem		ASTM A276 S31600 Condition A
6	Packing Set		(Refer to page 5)
7	Bonnet Flange	1/2 to 2 inch	ASTM A351 CF8M
		3 inch	ASTM A240 S31600
8	Bonnet	Standard	ASTM A479 S31600
		Extension	ASTM A479 S31600
		NOLEEK	ASTM A479 S31600
9	Drive Nut (Yoke)		S31600 (ASTM A194 Grade 8M)
10	Packing Follower		ASTM A276 S31600 Condition A
11	Bonnet Studs (Bolt)		ASTM A193 GRADE B8, CLASS 1 S30400
12	Bonnet Nuts		ASTM F594 ALLOY GROUP 1, Condition CW S30400
27	Locknuts		Stainless Steel (18-8 Stainless Steel)
49	Body Gasket		Graphite Grade GHR with S31600 Insert
58	Travel Indicator		ASTM A240 S30400



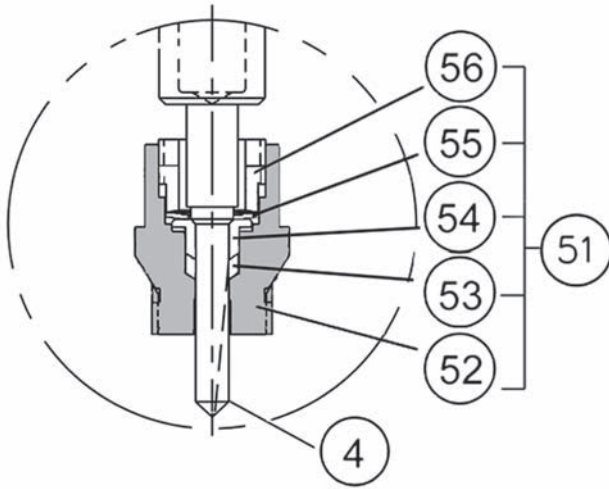
E1268

Figure 4. Screwed Seat, Cv ≤ 2.5



E1269

Figure 5. Integral Seat, Cv ≥ 4.0,
Seat is on Valve Body, Key 1

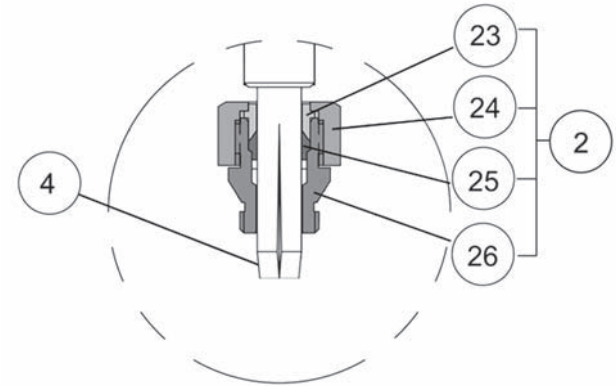


E1270

Figure 6. 24151S Low Flow Trim

Table 2. 24151S Low Flow Trim

Key Number	Description	Material	
4	Plug	ASTM A479 S21800	
51	Seat Sub-Assembly		
	52	Cage	ASTM A276 S31600
	53	Seat	PTFE
	54	Collar	ASTM A276 S31600
	55	Washer	ASTM A276 S31600
56	Insert	ASTM A276 S31600	



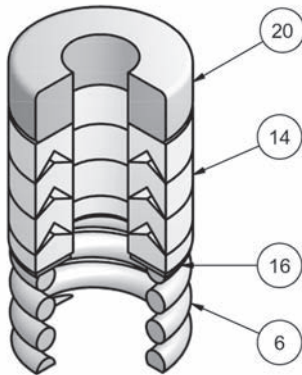
E1271

Figure 7. 24177S Low Flow Trim

Table 3. 24177S Low Flow Trim⁽¹⁾

Key Number	Description	Material	
2	Seat Sub-Assembly		
	23	Gland	ASTM A276 S31600
	24	Retainer Nut	ASTM A276 S31600
	25	Insert	Reinforced PTFE
26	Housing	ASTM A276 S31600	
4	Plug	ASTM A479 S21800	

1. For optional trim materials, consult your Emerson Process Management sales office for price and delivery. Baumann 32 actuator requires dual-stops with 177 trim series.

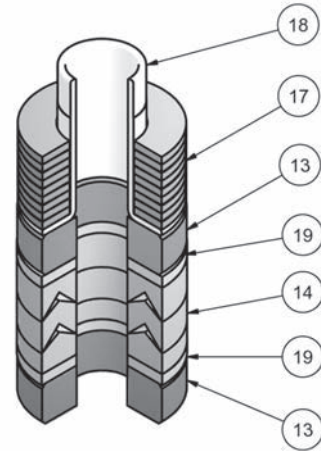


E1240

Figure 8. Standard Spring-Loaded PTFE V-Ring Packing Kit

Table 4. Standard Spring-Loaded PTFE V-Ring Packing Kit

Key Number	Description	Material
6	Spring	ASTM A313 S30200
14	Packing Set	PTFE (Polytetrafluoroethylene) / PTFE, 25% carbon filled
16	Washer	S31600 (ASTM A240 S31600)
20	Spacer	J-2000 (filled-Polytetrafluoroethylene)

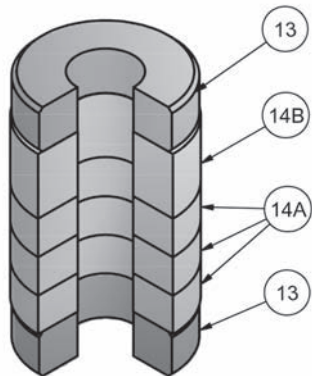


E1248

Figure 10. ENVIRO-SEAL™ Packing Kit (Optional)

Table 6. ENVIRO-SEAL Packing Kit (Optional)

Key Number	Description	Material
13	Bushings	Carbon-Graphite
14	Packing Rings	PTFE (Polytetrafluoroethylene) / PTFE, 25% carbon filled
17	Belleville Spring	N06600 Nickel Alloy (ASTM B637 N07718, 40 HRC max)
18	Bushing	PEEK (polyetheretherketone)
19	Washers	Modified PTFE



E1241

Figure 9. Molded Graphite (Flexible Graphite) Packing Kit (Optional)

Table 5. Molded Graphite (Flexible Graphite) Packing Kit (Optional)

Key Number	Description	Material
13	Bushings	Carbon-Graphite
14A	Packing Rings	Graphite
14B	Packing Ring	Graphite

Special ENVIRO-SEAL Packing Note

The ENVIRO-SEAL PTFE packing system is suitable for 100 ppm environmental applications on services up to 51.7 barg (750 psig) and process temperatures ranging from -46 to 232°C (-50 to 450°F).

For non-environmental applications, this packing system offers excellent performance at the same temperature range up to the maximum valve working pressure.

Temperature limits apply to packing arrangements only. Complete valve assembly temperature limits may differ, refer to appropriate pressure/temperature ratings.

(Reference Fisher Packing Selection Guidelines for Sliding-Stem Valves, Bulletin 59.1:062, D101986X012).

WARNING: The Baumann NOLEEK valve bonnet assembly is not intended for use in lethal service applications.

The NOLEEK Bellows Bonnet Assembly is reliable and user-friendly. Typical service life is in excess of 250,000 full cycles under 100 psi pressure. The bonnet adds only approximately 5 inches to the height of a standard valve. Operating temperature range is -195 to 399°C (-320 to 750°F).

Table 7. Baumann NOLEEK Bellow Bonnet Assembly

Key No.	Description	Material
4	Plug	See table 1
6	V-Ring Packing Kit (Standard)	See table 4
	ENVIRO-SEAL Packing Kit (Optional)	See table 6
8	Housing	S31600/S31603
	Bellows	S31603/1.4571 SST
	Bonnet	CF8M
21	Plug Retaining Pin	S30300
22	Hex Socket Pipe Plug, 1/8 NPT	S30400

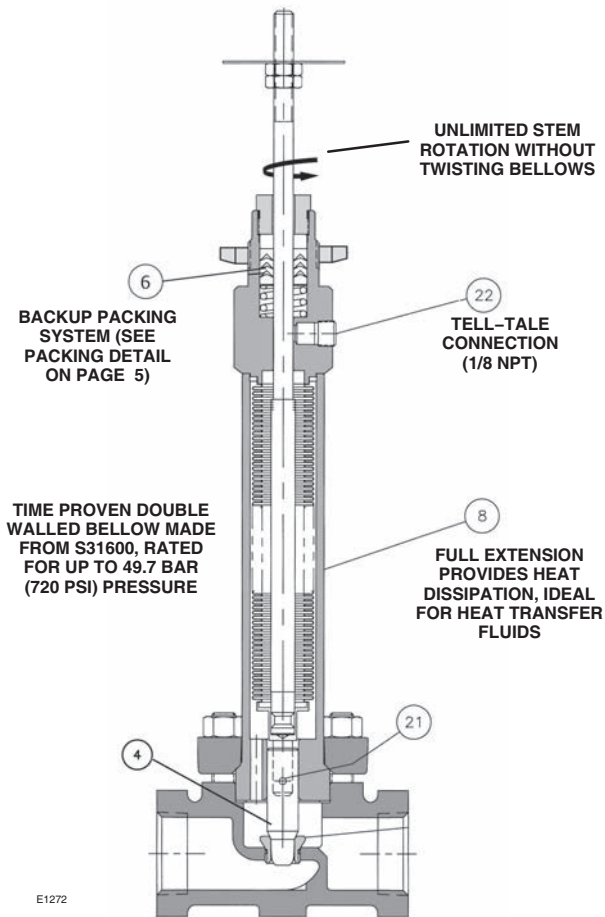


Figure 11. NOLEEK Bellows Bonnet Assembly

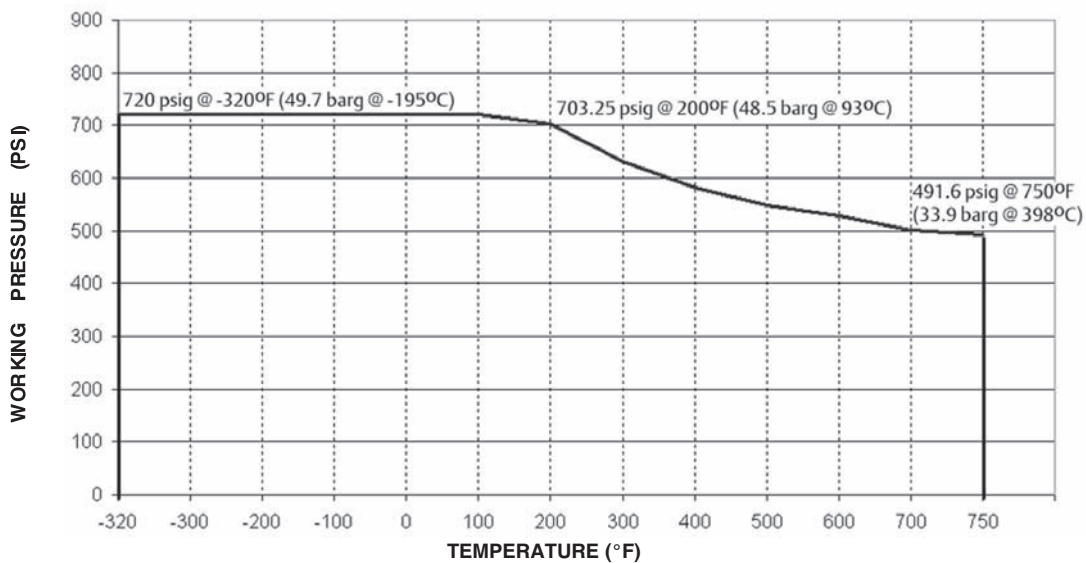


Figure 12. Bellows Pressure Temperature Curve

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Table 8. Cv Values at 100% Plug Opening ($K_v = 0.86 \times C_v$)

VALVE SIZE		ORIFICE DIAMETER		PLUG TRAVEL		PLUG SERIES						
DN	NPS	mm	inch	mm	inch	102 Cv	151 Cv	177 Cv	577 Cv	548 / 588 Cv	677 Cv	648 / 688 Cv
15 25	1/2 1	3.97	0.156	12.7	0.50	---	0.00013	---	---	---	---	---
							0.00025					
							0.0005					
							0.001					
0.002												
0.004												
0.008												
0.015												
0.03												
0.06												
0.10												
0.20												
0.45												
		6.3	0.25	12.7	0.50	0.02	---	---	---	0.22	---	0.5
						0.05				0.61		1.0
						0.10				1.0		
						0.20						
		7.9	0.3125	12.7	0.50	---	---	0.0005	---	---	---	---
								0.001,				
								0.002				
								0.005,				
								0.01				
								0.02,				
								0.05				
		9.5	0.375	12.7	0.50	---	---	---	1.0, 1.5	1.5, 2.5	0.1, 0.2,	1.5
									2.0		0.5 1.0,	2.0
											2.0	
20	1	20.6	0.8125	12.7	0.50	---	---	---	4, 8.5	4.7, 9.5	4	4, 9.5
40	1-1/2	31.8	1.25	19.1	0.75	---	---	---	17.5	9, 17.5	17.5	17.5
50	2	38.1	1.5	19.1	0.75	---	---	---	10, 18,	10, 17.5,	10, 17.5	10, 17.5,
									30.5	30.5		30.5
80	3	50.8	2.0	19.1	0.75	---	---	---	35	35, 52.3	35, 61	35, 61

102 Linear Low Flow Trim



W9747

151 Modified Equal % Low Flow Trim



W9751

177 Modified Equal % Low Flow Trim



W9748

548 / 577 / 588 Equal % Trim



W9749

648 / 677 / 688 Linear Trim



W9750

Figure 13. Baumann 24000S Trims

Table 9. ISA Sizing Coefficients

Series	Cv Rating	FL	Fd	XT	KC
102	0.02 0.05 0.10 0.20	0.95	0.06 0.09 0.013 0.18	0.76	0.86
151	0.00013 0.00025 0.0005 0.001 0.002 0.004 0.008 0.015 0.03 0.06 0.10 0.20 0.45	0.98	0.35 0.04 0.05 0.06 0.075 0.10 0.11 0.15 0.18 0.22 0.25 0.30 0.40	0.81	0.94
177	0.0005 0.001 0.002 0.005 0.01 0.02 0.05	0.95	0.70	0.76	0.76
548/588	0.22 0.61	0.98	0.28	0.81	0.94
	1 1.5 2.5 4.7 9	0.90	0.40 0.33 0.42	0.68	0.73
	9.5 10 17.5 30.5 35 52.3	0.90	0.46	0.68	0.73
577	1 1.5 2.5 4.0 8.5	0.90	0.40 0.33 0.42	0.68	0.73
	10 17.5 18 30.5 35	0.90	0.46	0.68	0.73

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Table 9. ISA Sizing Coefficients (continued)

Series	Cv Rating	FL	Fd	XT	KC
677	0.1 0.2 0.5 1 2 4	0.90	0.08 0.12 0.19 0.27	0.68	0.73
	10 17.5 35 61	0.90	0.46	0.68	0.73
648/688	0.5 1 1.5 2 4	0.90	0.40 0.33 0.42	0.68	0.73
	9.5 17.5 30.5 35 61	0.90	0.46	0.68	0.73

Table 10. Technical Specifications

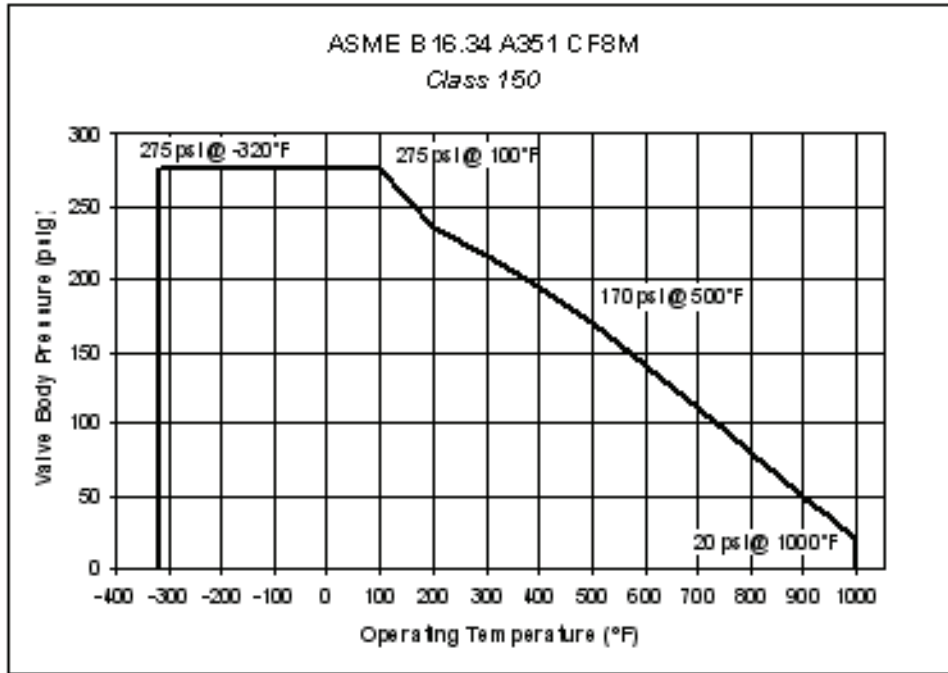
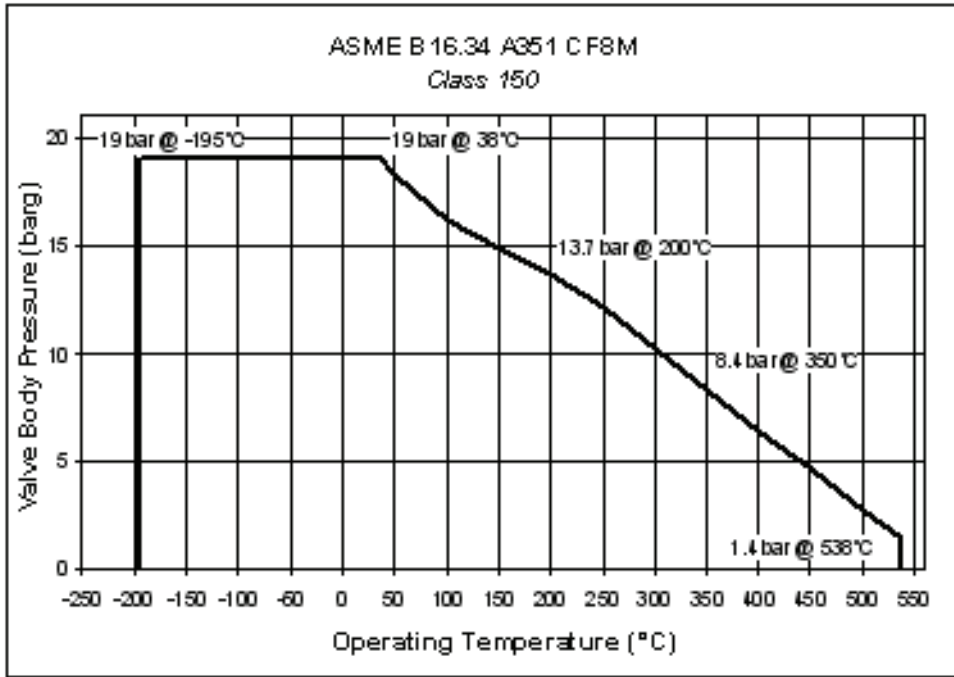
NOMINAL PIPE SIZE	DN 15, 25, 40, 50, and 80	NPS 1/2, 1, 1-1/2, 2, and 3
END CONNECTIONS	Screwed NPT (except for NPS 3, wafer style only) Wafer / Butt weld	
PRESSURE RATING	CL300 (CL150 for NPS 3 per ASME B16.34)	
VALVE BODY MATERIAL	CF8M ASTM A351	
CHARACTERISTIC	Equal Percentage or Linear	

Table 11. Temperature Ratings for Packing and Seat Material⁽¹⁾

SEATING MATERIAL	PTFE Soft Seat	151 Trim	-29 to 177°C (-20 to 350°F)
		577 & 677 Trim	-73 to 232°C (-100 to 450°F)
	Reinforced PTFE	177 Trim	-73 to 232°C (-100 to 450°F)
	Metal Seat	102, 548, 588, 648, 688 Trim	-195 to 537°C (-320 to 1000°F)
PACKING AND BONNET COMBINATIONS	BONNET STYLE	PACKING	TEMPERATURE LIMIT
	Standard Bonnet	Spring Loaded PTFE	-73 to 232°C (-100 to 450°F)
		ENVIRO-SEAL	-45 to 232°C (-50 to 450°F)
		Graphite	-73 to 232°C (-100 to 450°F)
	Extension Bonnet	Spring Loaded PTFE	-195 to 232°C (-320 to 450°F)
		ENVIRO-SEAL	-45 to 232°C (-50 to 450°F)
		Graphite	-195 to 537°C (-320 to 1000°F)
Bellows	NOLEEK Bellows	-195 to 399°C (-320 to 750°F)	
<small>1. Temperature limits apply to seating or packing arrangements only. Complete valve assembly temperature limits may differ, refer to appropriate pressure/temperature ratings. For more information on packing selection, reference Fisher Packing Selection Guidelines for Sliding-Stem Valves, Bulletin 59.1:062, D101986X012.</small>			

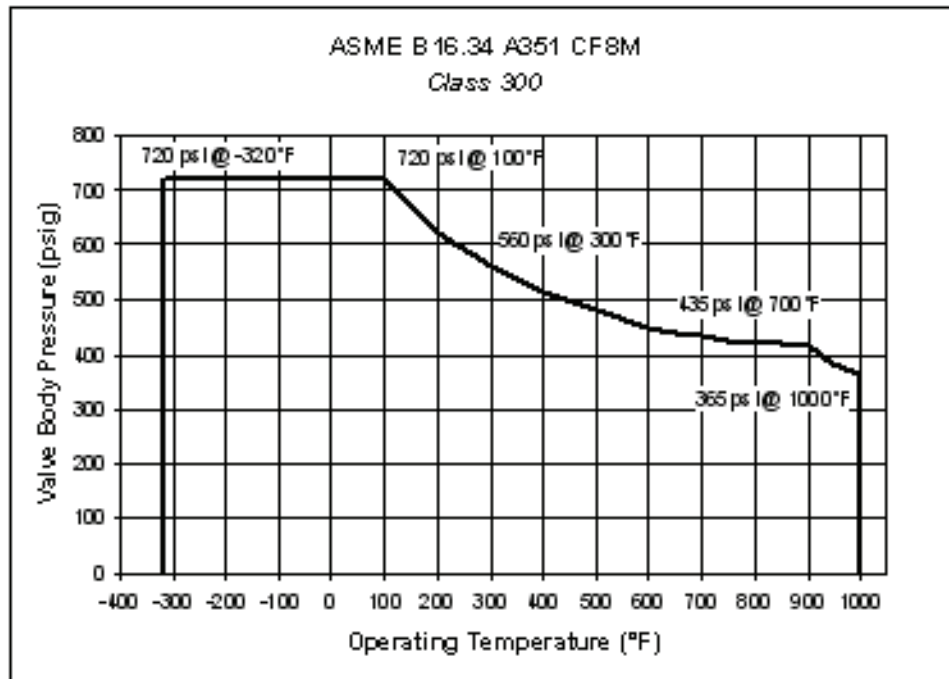
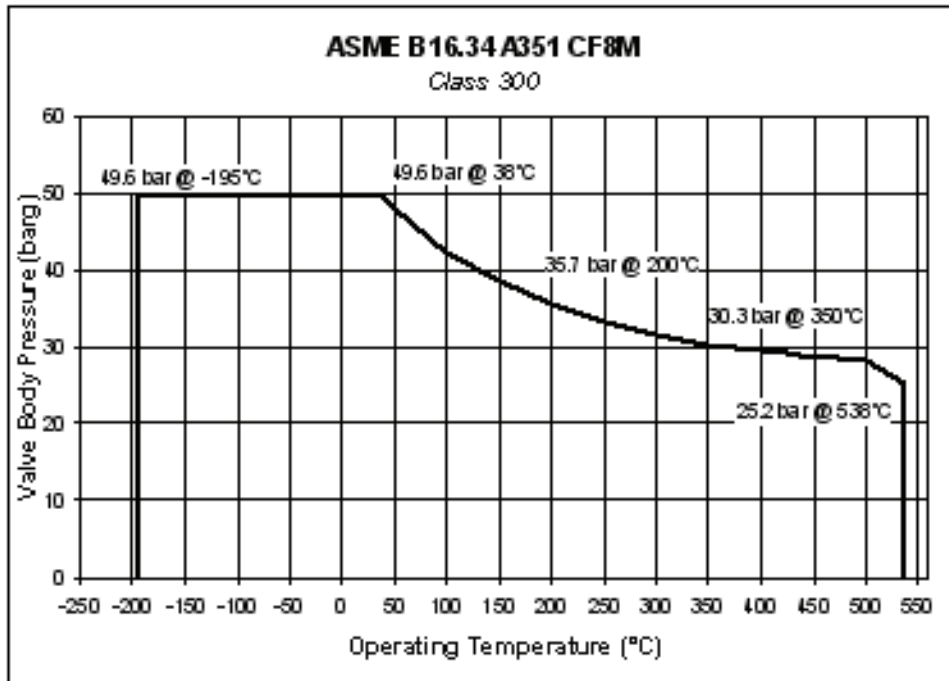
Table 12. Actuator Specifications

TYPE	32, 54, 70 Multi-Spring Diaphragm (Single Acting)
DIAPHRAGM AREA	210, 350, 450 cm ² / 32, 54, 70 in ²
AIR FAILURE	32 and 54 Fails Open or Closed (Field Reversible) / 70 Fails Closed ONLY
TRAVEL⁽¹⁾	12.7 or 19.1 mm / 0.50 or 0.75 inches
AMBIENT TEMPERATURE RANGE	-29°C to 71°C / -20°F to 160°F
MAXIMUM AIR PRESSURE	2.4 barg / 35 psig
DIAPHRAGM MATERIAL⁽²⁾	NBR (Nitrile) / TPES (Polyester Thermoplastic) Fabric
SPRING CASES	Steel, Powder Epoxy-Coated with Stainless Steel Fasteners
YOKE	Ductile Iron, Powder Epoxy-Coated
<small>1. Dual travel stops are available on Baumann 32 and 54 actuators ONLY. These are not field reversible. 2. Optional reinforced VMQ (Silicone) diaphragm with FKM (Fluorocarbon) O-ring actuator stem seal for high temperature conditions (-29°C to 121°C / -20°F to 250°F) is available with Baumann 32 and 54 actuators ONLY.</small>	



E1426

Figure 14. Valve Body Pressure / Temperature Ratings ASME CL150 Valves (Source: ASME B16.34)



E1427

Figure 15. Valve Body Pressure / Temperature Ratings ASME CL300 Valves (Source: ASME B16.34)
(Does not apply to 24000S NPS 3 valves)

Table 13. Allowable Pressure Drops (bar)⁽¹⁾

ORIFICE DIA. (mm)	PLUG TRAVEL (mm)	ACT TYPE	AIR-TO-OPEN ACTION						AIR-TO-CLOSE ACTION				
			BENCH RANGE (barg)	0.2-1.0 barg SIGNAL TO ACTUATOR		WITH POSITIONER 1.38 barg AIR SUPPLY		BENCH RANGE (barg)	0.2-1.0 barg SIGNAL TO ACTUATOR		WITH POSITIONER 1.38 barg AIR SUPPLY		
				Max CL IV Shutoff Press.	Max CL VI Shutoff Press.	Max CL IV Shutoff Press.	Max CL VI Shutoff Press.		Max CL IV Shutoff Press.	Max CL VI Shutoff Press.	Max CL IV Shutoff Press.	Max CL VI Shutoff Press.	
6.3	12.7	32	0.3-1.0	49.6	---	49.6	---	0.2-0.9	49.6	---	49.6	---	
7.9	12.7	32	0.3-1.0	---	28.8	---	49.6	0.2-0.9	---	28.8	---	49.6	
9.5	12.7	32	0.3-1.0	31.2	19.2	49.6	49.6	0.2-0.9	31.2	19.2	49.6	49.6	
20.6	12.7	32	0.3-1.0	7.79	1.31	15.6	9.10	0.2-0.9	7.79	1.31	27.3	20.8	
		32	0.5-1.0	15.6	9.10	23.4	16.9	0.2-0.7	19.5	13.0	39.0	32.5	
		54	0.3-1.0	5.93	---	17.7	11.2	0.2-0.9	11.8	5.30	41.4	34.8	
		54	0.5-1.0	23.6	17.0	35.4	28.9	0.2-0.7	29.5	23.0	49.6	49.6	
		54	0.6-1.0	35.4	28.9	47.2	40.7	---	---	---	---	---	
27.0	12.7	32	0.3-1.0	4.19	---	9.45	4.27	0.2-0.9	4.69	---	16.5	11.4	
		32	0.5-1.0	9.45	4.27	14.1	8.96	0.2-0.7	11.8	6.62	23.6	18.4	
		54	0.3-1.0	3.59	---	10.7	12.5	0.2-0.9	7.17	2.0	25.0	19.9	
		54	0.5-1.0	14.3	9.10	21.4	16.3	0.2-0.7	17.9	12.7	35.7	30.5	
		54	0.6-1.0	21.4	16.3	28.5	23.4	---	---	---	---	---	
31.8	19.1	32	0.3-1.0	3.45	---	6.96	2.48	0.2-0.9	3.45	---	12.1	7.65	
		32	---	---	---	---	---	0.2-0.7	8.69	4.20	17.3	12.9	
		54	0.3-1.0	5.24	---	10.5	6.07	0.2-0.9	5.24	---	18.3	13.9	
		54	0.5-0.9	10.9	6.07	15.7	11.3	0.2-0.7	13.1	8.69	26.3	21.8	
		54	0.7-1.0	18.3	13.9	23.6	19.2	---	---	---	---	---	
		70	0.7-1.0	24.9	20.5	32.1	27.6	---	---	---	---	---	
38.1	19.1	32	0.3-1.0	2.14	---	4.89	1.10	0.2-0.9	2.41	---	8.55	4.76	
		32	---	---	---	---	---	0.2-0.7	6.13	2.34	12.2	8.48	
		54	0.3-1.0	3.72	---	7.38	3.65	0.2-0.9	3.72	---	19.9	9.17	
		54	0.5-0.9	7.38	3.65	11.1	7.31	0.2-0.7	9.24	5.52	18.5	14.8	
		54	0.7-1.0	12.9	9.17	16.7	12.9	---	---	---	---	---	
		70	0.7-1.0	17.7	13.9	22.7	18.9	---	---	---	---	---	
		70	0.8-1.2	---	---	27.7	23.9	---	---	---	---	---	
50.8	19.1	32	0.3-1.0	1.38	---	2.83	---	0.2-0.9	1.38	---	4.89	2.0	
		32	---	---	---	---	---	0.2-0.7	3.52	---	7.03	4.14	
		54	0.3-1.0	2.14	---	4.27	1.38	0.2-0.9	2.14	---	7.44	4.55	
		54	0.5-0.9	4.27	1.38	6.34	3.52	0.2-0.7	5.31	2.41	10.6	7.72	
		54	0.7-1.0	7.45	4.55	9.58	6.69	---	---	---	---	---	
		70	0.7-1.0	10.1	7.24	13.0	8.07	---	---	---	---	---	
		70	0.8-1.2	---	---	15.9	13.0	---	---	---	---	---	

1. Do not exceed valve body temperature pressure ratings.

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Table 14. Allowable Pressure Drops (psi)⁽¹⁾

ORIFICE DIA. (in)	PLUG TRAVEL (in)	ACT TYPE	AIR-TO-OPEN ACTION						AIR-TO-CLOSE ACTION					
			BENCH RANGE (psig)	3-15 psig SIGNAL TO ACTUATOR		WITH POSITIONER 20 psig AIR SUPPLY		BENCH RANGE (psig)	3-15 psig SIGNAL TO ACTUATOR		WITH POSITIONER 20 psig AIR SUPPLY			
				Max CL IV Shutoff Press.	Max CL VI Shutoff Press.	Max CL IV Shutoff Press.	Max CL VI Shutoff Press.		Max CL IV Shutoff Press.	Max CL VI Shutoff Press.	Max CL IV Shutoff Press.	Max CL VI Shutoff Press.		
0.25	0.50	32	5-15	720	---	720	---	3-13	720	---	720	---		
0.3125	0.50	32	5-15	---	418	---	720	3-13	---	418	---	720		
0.375	0.50	32	5-15	452	278	720	720	3-13	452	278	720	720		
0.8125	0.50	32	5-15	113	19	226	132	3-13	113	10	396	301		
		32	7-15	226	132	339	245	3-10	283	188	565	471		
		54	4-15	86	---	257	162	3-13	171	77	600	505		
		54	7-15	343	248	514	419	3-10	428	334	720	720		
		54	9-15	514	419	685	591	---	---	---	---	---		
1.0625	0.50	32	5-15	68	---	137	62	3-13	68	---	239	165		
		32	7-15	137	62	205	130	3-10	171	96	342	267		
		54	4-15	52	---	155	81	3-13	104	29	363	288		
		54	7-15	207	132	311	236	3-10	259	184	518	443		
		54	9-15	311	236	414	340	---	---	---	---	---		
1.25	0.75	32	5-15	50	---	101	36	3-13	50	---	176	111		
		32	---	---	---	---	---	3-10	126	61	251	187		
		54	5-15	76	---	152	88	3-13	76	---	266	202		
		54	7-13	152	88	228	164	3-10	190	126	381	316		
		54	10-14	266	202	343	278	---	---	---	---	---		
		70	10-15	362	297	466	401	---	---	---	---	---		
1.5	0.75	32	5-15	35	---	71	16	3-13	35	---	124	69		
		32	---	---	---	---	---	3-10	89	34	177	123		
		54	5-15	54	---	107	53	3-13	54	---	188	133		
		54	7-13	107	53	161	106	3-10	134	80	269	214		
		54	10-14	188	133	242	187	---	---	---	---	---		
		70	10-15	256	201	329	274	---	---	---	---	---		
		70	12-18	---	---	402	347	---	---	---	---	---		
2.0	0.75	32	5-15	20	---	41	---	3-13	20	---	71	29		
		32	---	---	---	---	---	3-10	51	---	102	60		
		54	5-15	31	---	62	20	3-13	31	---	108	66		
		54	7-13	62	20	92	51	3-10	77	35	154	112		
		54	10-14	108	66	139	97	---	---	---	---	---		
		70	10-15	147	105	189	147	---	---	---	---	---		
		70	12-18	---	---	230	189	---	---	---	---	---		
		70	12-18	---	---	230	189	---	---	---	---	---		

1. Do not exceed valve body temperature pressure ratings.

Table 15. Valve Dimensions

VALVE SIZE		ASME CLASS	A						B							
			NPT		Wafer		Standard		Extension Bonnet						NOLEEK Bellows	
			mm	Inch	mm	Inch	mm	Inch	Single		Double		Triple			
mm	Inch	mm							Inch	mm	Inch	mm	Inch			
15	1/2	300	7.9	3.1	N/A	N/A	78.7	3.1	213.4	8.4	351	13.8	488	19.2	227.8	8.97
25	1	300	102	4.0	102	4.0	78.7	3.1	215.9	8.5	351	13.8	488	19.2	227.8	8.97
40	1-1/2	300	114	4.5	114	4.5	88.9	3.5	226	8.9	363	14.3	498	19.6	235.7	9.28
50	2	300	124	4.9	124	4.9	83.8	3.3	221	8.7	356	14	493	19.4	234.4	9.23
80	3	150	N/A	N/A	165	6.5	96.5	3.8	234	9.2	371	14.6	508	20	235.7	9.28

Table 16. Valve Assembly Weights

VALVE SIZE		WEIGHT	
DN	NPS	kg	lb
15	1/2	2.3	5
25	1	2.7	6
40	1-1/2	4.1	9
50	2	5.0	11
80	3	9.1	20

Table 17. Actuator Weights

ACTUATOR TYPE	WEIGHTS	
	kg	lb
32	4.5	10
54	11.3	25
70	15.4	34
MV1020 ⁽¹⁾	10	22
VA1020 ⁽¹⁾	14	30
NV24-MFT (non spring return) ⁽¹⁾	1.5	3.3
NVF24-MFT or NVF24-MFT-E (spring return) ⁽¹⁾	1.8	4

1. Electric actuators, reference Baumann bulletin 52.1:NVACT, D103326X012.

Table 18. Baumann 24000S Wafer Style⁽¹⁾

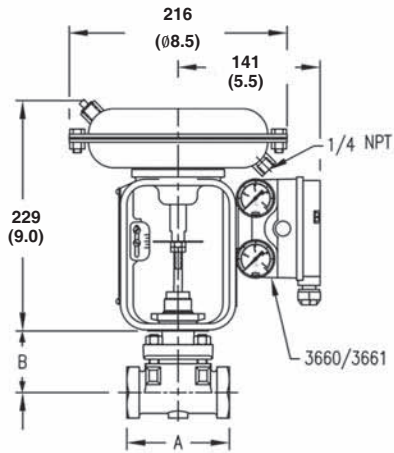
Valve Size	DN 15 / NPS 1/2	DN 25 / NPS 1	DN 40 / NPS 1-1/2	DN 50 / NPS 2	DN 80 / NPS 3
ASME Flange	None	CL150	CL150	CL150	CL150
DN Flange	None	PN 16	PN 16	PN 16	PN 16
NPT	Yes	Yes	Yes	Yes	None

1. The Baumann 24000S valve is available as NPT and wafer style (fits between RF line flanges). Not all sizes are available as wafer. This table outlines available constructions.

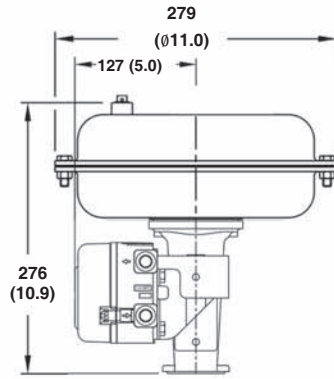
Product Bulletin

52.1:24SS
May 2011

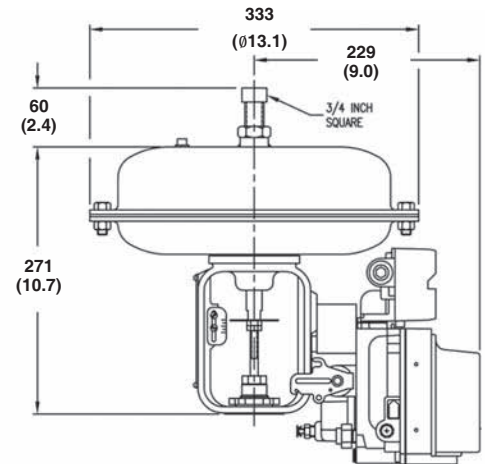
24000S Valve



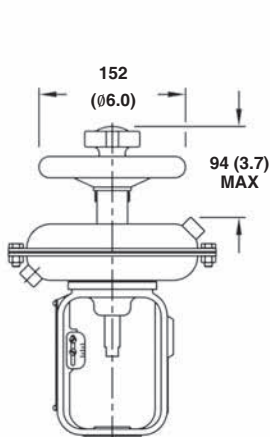
24000S w/ BAUMANN 32 ATO ACTUATOR



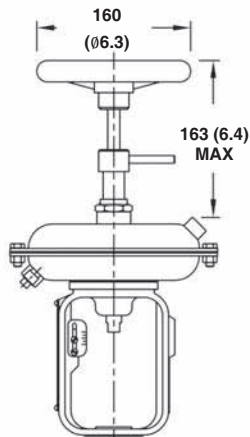
**BAUMANN 54 ATO ACTUATOR w/
FIELDVUE DVC2000 DIGITAL VALVE
CONTROLLER**



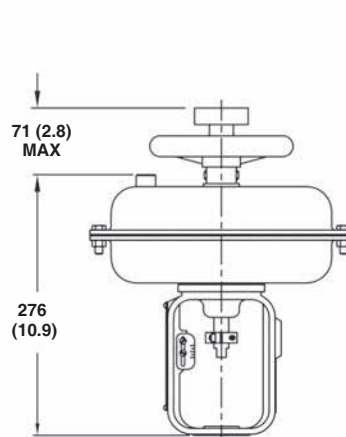
**BAUMANN 70 ATO ACTUATOR w/ FIELDVUE
DVC6000 DIGITAL VALVE CONTROLLER**



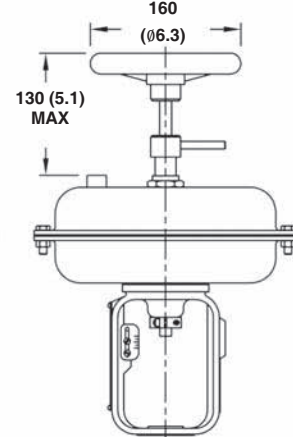
**BAUMANN 32 ATO/FAIL CLOSE
ACTUATOR WITH HANDWHEEL**



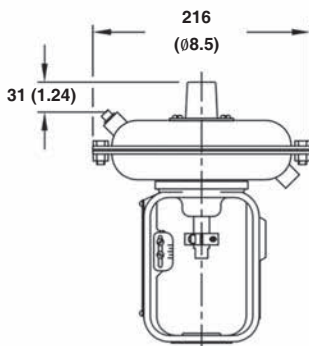
**BAUMANN 32 ATC/FAIL
OPEN ACTUATOR
WITH HANDWHEEL**



**BAUMANN 54 ATO/FAIL CLOSE
ACTUATOR WITH HANDWHEEL**

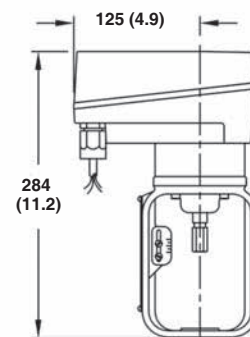


**BAUMANN 54 ATC / FAIL
OPEN ACTUATOR WITH
HANDWHEEL**



**BAUMANN 32 ACTUATOR WITH ADJUSTABLE
OPEN/CLOSE DUAL TRAVEL STOPS**

E1277



NV ELECTRIC ACTUATOR

mm
(inch)

**NOTE: ACTUATOR REMOVAL REQUIRES 115 mm (4.5 INCHES) VERTICAL CLEARANCE.
NOTE: ELECTRIC ACTUATORS ARE AVAILABLE. CONTACT YOUR EMERSON PROCESS MANAGEMENT SALES OFFICE FOR DETAILS.**

Figure 16. Dimensional Drawings

Table 19. Pneumatic Actuators

Actuator Type
32 ⁽¹⁾
54
70
1. Baumann 32 actuator requires dual-stops with 177 trim series.

Table 20. Electric Actuators⁽¹⁾

Actuator Type	Travel
MV1020	N/A
VA1020	N/A
NV ⁽²⁾	50
NVF ⁽³⁾	75
NVFE ⁽⁴⁾	
1. Refer to Baumann bulletin 52.1:NVACT, D103326X012. 2. NV24-MFT = Non spring return. 3. NVF24-MFT = Spring return - fail open. 4. NVF24-MFT-E = Spring return - fail closed.	

Table 21. Model Numbering System

Actuator Type ⁽¹⁾	24				S		Bonnet Style	
	Valve Body Series	Plug Series	Characteristic	Seat Leakage	Valve Body Material			
		102	Linear / Metal Seat	IV	S	NPT	Omit	Standard
		151	Modified Equal % / PTFE Seat	VI			E	Extension
		177	Modified Equal % / Reinforced PTFE	VI			EB	NOLEEK
		577	Equal % / PTFE Seat	VI				
		548	Equal % / Metal Seat (S41600)	IV				
		588	Equal % / Metal Seat (S31600)	IV				
		648	Linear / Metal Seat (S41600)	IV				
		677	Linear / PTFE Seat	VI				
		688	Linear / Metal Seat	IV				
1. Choose from tables 19 and 20.								

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