

MODEL : 2-Way Control Valve V16/2s (Old model PV-25)

Connection : Flange PN16, PN40, ANSI150, ANSI300



TWO-WAY GLOBE CONTROL VALVES V16/2

DESCRIPTION

The ADCATrol V16/2 is a series of single seated, two-way globe control valves designed for simple process engineering and industrial applications with non-critical operating conditions. These valves can be assembled with pneumatic, hydraulic or electric actuators, for modulating and shut-off control tasks

MAIN FEATURES	
PN16, PN40 <ul style="list-style-type: none"> Compact and cost-effective design. Stem guided (up to DN 50) and post guided (from DN 65 to DN 100). Stainless steel bonnet and trim. 	ANSI 150, ANSI 300 <ul style="list-style-type: none"> Compact and cost-effective. Modular design to meet process requirements. Stem guided (up to 2") and post guided (from 2 1/2" to 4"). Parabolic plug design. Stainless steel trim.
OPTIONS AND ACCESSORIES:	
PN16, PN40 <ul style="list-style-type: none"> Stellited seat and plug. Various stem sealing options including sealed versions. Silencers. 	ANSI 150, ANSI 300 <ul style="list-style-type: none"> Bonnet extension for high and low temperatures Various stem sealing options including bellows sealing Soft or stellited valve sealing. Reduced bore trims. Silencers.
USE:	
PN16, PN40	ANSI 150, ANSI 300
Saturated and superheated steam. Hot and superheated water Air, gases and others.	
AVAILABLE MODELS:	
PN16, PN40 <ul style="list-style-type: none"> V16/2G – SG iron. V16/2S – carbon steel. V16/2I – stainless steel. 	ANSI 150, ANSI 300 <ul style="list-style-type: none"> V16/2S – carbon steel.
SIZE :	
PN16, PN40	ANSI 150, ANSI 300
DN 15 to DN 100.	
CONNECTION :	
PN16, PN40	ANSI 150, ANSI 300
<ul style="list-style-type: none"> V16/2G – Flanged EN 1092-2 PN 16. V16/2S and V16/2I – Flanged EN 1092-1 PN 16 or PN 40 Standard PN16 DN 65 flanges are supplied with 4 holes 8 holes, according to EN 1092-1/-2, on request.	<ul style="list-style-type: none"> Flanged ASME B16.5 Class 150 or 300.



BODY LIMITING CONDITIONS V16/2S			
CLASS 150		CLASS 300	
ALLOW. PRESSURE	RELATED TEMP.	ALLOW. PRESSURE	RELATED TEMP.
19,3 bar	-10 °C / 50 °C	50 bar	-10 °C / 50 °C
15,8 bar	150 °C	43,9 bar	200 °C
12,1 bar	250 °C	36,9 bar	350 °C
8,4 bar	350 °C	34,6 bar	400 °C

CE MARKING - GROUP 2 (PED - European Directive)				
ANSI 150	ANSI 300	PN16	PN40	Category
DN 15 to 50	DN 15 to 25	DN 15 to 50	DN 15 to 32	SEP
DN 65 to 100	DN 40 to 100	DN 65 to 100	DN 40 to 100	1 (CE marked)

* Rating according to EN 1759-1:2004.

BODY LIMITING CONDITIONS									
V16/2G **		V16/2S *				V16/2I *			
FLANGED PN 16		FLANGED PN 16		FLANGED PN 40		FLANGED PN 16		FLANGED PN 40	
ALLOW. PRESSURE	RELATED TEMP.	ALLOW. PRESSURE	RELATED TEMP.	ALLOW. PRESSURE	RELATED TEMP.	ALLOW. PRESSURE	RELATED TEMP.	ALLOW. PRESSURE	RELATED TEMP.
16 bar	-10 °C / 50 °C	16 bar	-10 °C / 50 °C	40 bar	-10 °C / 50 °C	16 bar	-10 °C / 50 °C	40 bar	-10 °C / 50 °C
14,7 bar	200 °C	16 bar	200 °C	40 bar	200 °C	13,4 bar	200 °C	33,7 bar	200 °C
13,9 bar	250 °C	15,6 bar	250 °C	35,2 bar	300 °C	12,7 bar	250 °C	29,7 bar	300 °C
12,8 bar	300 °C	14 bar	300 °C	32,3 bar	350 °C	11,8 bar	300 °C	28,5 bar	350 °C
11,2 bar	350 °C	12,9 bar	350 °C	29,5 bar	400 °C	11,4 bar	350 °C	27,4 bar	400 °C

* Rating according to EN 1092-1:2018; ** Rating according to EN 1092-2:2007.

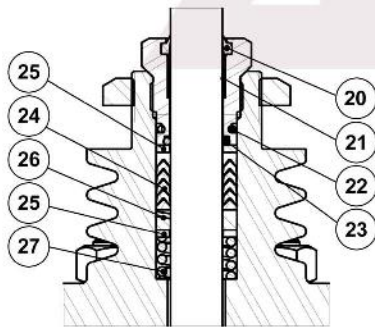
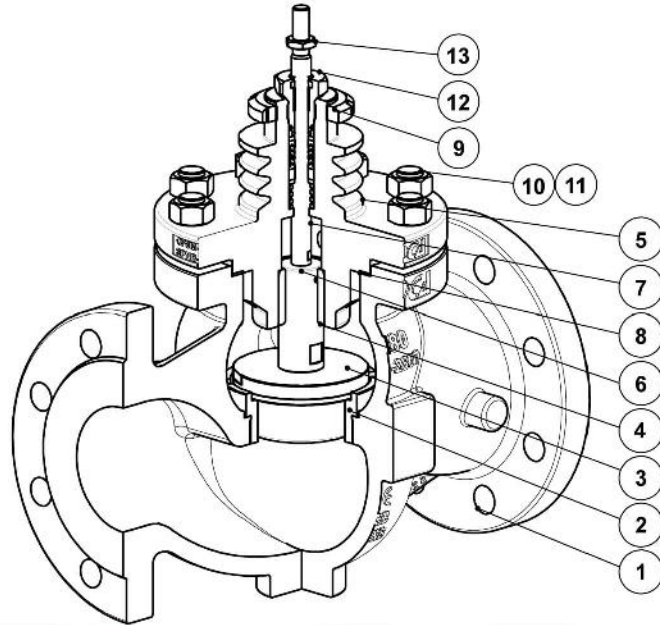
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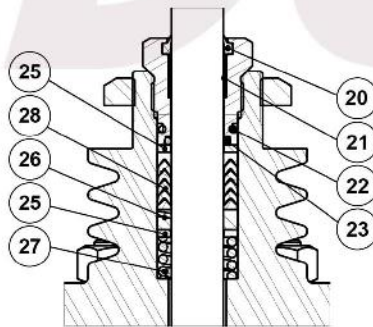
Connection : Flange PN16, PN40, ANSI150, ANSI300

MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Valve body (V16/2G)	GJS-400-15 / 0.7040
	Valve body (V16/2S)	A216 WCB / 1.0619
	Valve body (V16/2I)	A351 CF8M / 1.4408
	Valve body (ASME)	A216 WCB / 1.0619
2	* Seat	AISI 316L / 1.4404
3	* Valve plug	AISI 316L / 1.4404
4	Lower stem guide	Bronze CB1
5	Bonnet	A351 CF8M / 1.4408
	Bonnet (ASME)	A351 CF8M / 1.4408; A216 WCB / 1.0619
6	* Post stem (DN 65 to DN 100)	AISI 316L / 1.4404
7	* Stem	AISI 316L / 1.4404
8	* Gasket	Stainless steel / Graphite
9	Lock nut	A351 CF8 / 1.4308
10	Nuts (V16/2G and V16/2S)	Steel 8.8
	Nuts (V16/2I)	Stainless steel A2-70
	Nuts (ASME)	EN 10269 steel
11	Studs (V16/2G and V16/2S)	34CrNiMo6 / 1.6582
	Studs (V16/2I)	Stainless steel A2-70
	Studs (ASME)	EN 10269 steel
12	* Packing nut	AISI 303 / 1.4305
13	Lock nut	AISI 304 / 4.4301
20	* Scraper ring	Viton
	* Scraper ring (ASME)	Viton; NBR
21	* Plain bearing	Bronze / PTFE
22	* O-ring	EPDM
23	* O-ring	Viton
24	* Chevron packing set	PTFE ; Graphite filled PTFE
25	Washer	AISI 304 / 1.4301
26	* Stem guide	Stainless steel filled PTFE
27	* Spring	AISI 302 / 1.4310
28	* Chevron packing set	PTFE
29	O-ring guide	AISI 304 / 1.4301
30	* O-ring	EPDM
31	* O-ring	EPDM
32	* Packing set	Expanded graphite
33	Packing spacer	AISI 304 / 1.4301
34	* Safety packing set	Graphite filled PTFE
35	Bellows bonnet	AISI 316L / 1.4404
	Bellows bonnet (ASME)	A105 / 1.0432; AISI 316 / 1.4401
36	Bolts	Stainless steel A2-70
	Bolts or studs and nuts (ASME)	EN 10269 steel
37	Gasket	Copper
38	Compression fitting	AISI 316 / 1.4401
39	* Gasket	Stainless steel / Graphite
40	* Gasket	Stainless steel / Graphite
41	* Metal bellows	AISI 316Ti / 1.4571
42	* Locking pin	AISI 303 / 1.4305
43	* Safety packing set	Expanded graphite
44	Packing spacer	AISI 304 / 1.4301

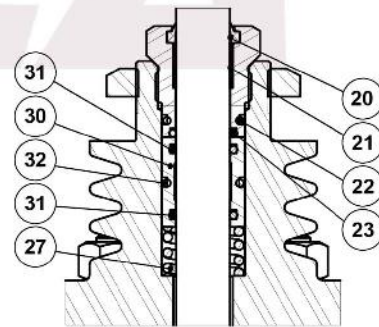
*Available spare parts



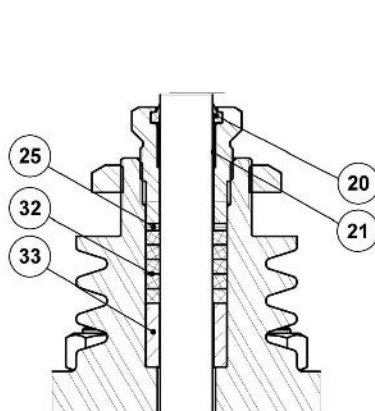
PTFE/GR V-RINGS (V1.2)



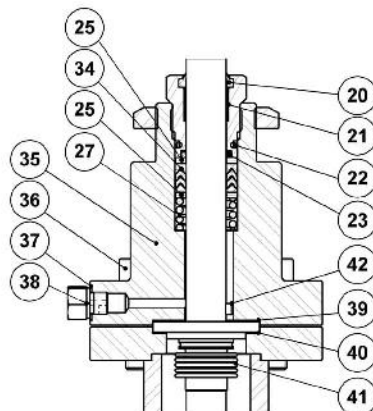
PTFE V-RINGS (V2.2)



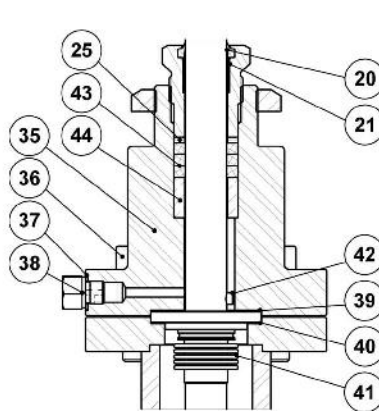
EPDM (EP1)



GRAPHITE (G1)



BELLOWS SEALING (BV1)

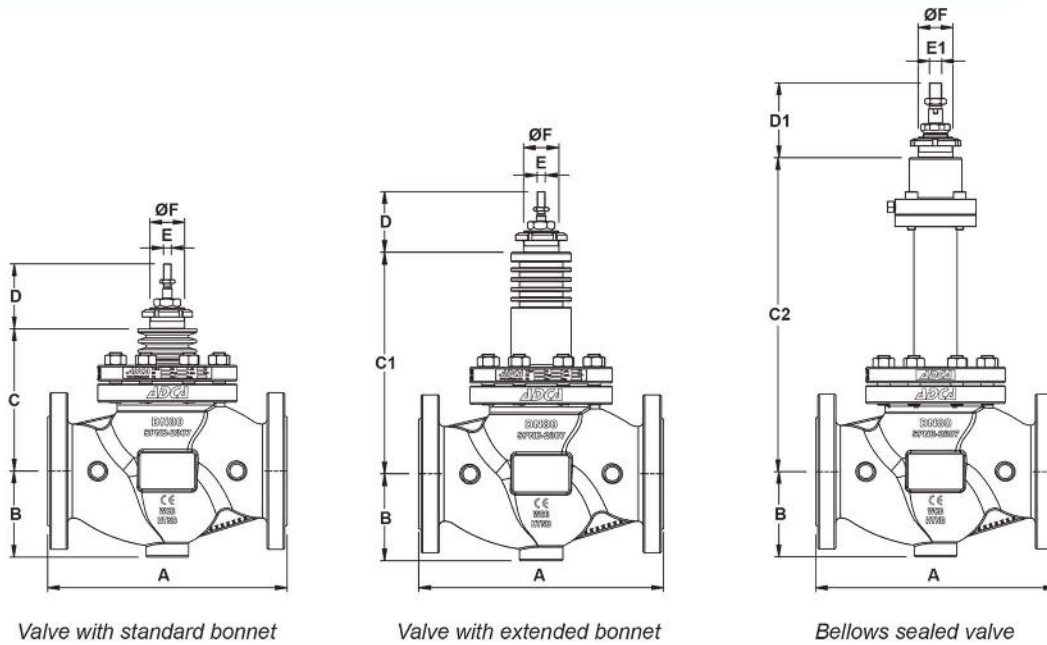


BELLOWS SEALING (BG1)

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Connection : Flange PN16, PN40, ANSI150, ANSI300



Valve with standard bonnet

Valve with extended bonnet

Bellows sealed valve

DIMENSIONS										
DIMENSION		DN 15	DN 20	DN 25	DN 32*	DN 40	DN 50	DN 65	DN 80	DN 100
A	PN16, PN40	130	150	160	180	200	230	290	310	350
	#150	184 a)	184 a)	184	-	222	254	276	298	352
	#300	190 a)	194 a)	197	-	235	267	292	318	368
B	PN16, PN40	48	53	58	70	75	83	93	100	118
	#150	44,5	49	54	-	65	85	100	110	130
	#300	47,5	58,5	62	-	78	85	100	110	130
C	PN16, PN40	104	104	109	109	113	125	176	182	194
	#150,#300	85	85	90	-	115	125	176	175	190
C1	PN16, PN40	169	169	189	189	193	215	276	282	314
	#150,#300	150	150	170	-	195	204	276	275	310
C2	PN16, PN40	271	271	271	271	271	275	365	371	373
	#150,#300	314	314	322	-	317	317	415	442	451
D	PN16, PN40	77								
	#150,#300	77			-	77			82	
D1	#150,#300	77			-	77			92	
E	PN16, PN40	M10 x 1								
	#150,#300	M10 x 1			-	M10 x 1			M16 x 5	
F		M40 x 1,5							M45 x 1,5	

Remark: Standard PN 16 DN 65 flanges are supplied with 4 holes. 8 holes, according to EN 1092-1/-2, on request.

a) With welded-on flanges. Remark: In the beginning of year 2022 new face to face dimensions have been defined for some Class 150 valves. Valves may still be supplied with the previous face to face dimensions under request. Consult the manufacturer.

WEIGHT (kg)										
		SIZE								
		DN 15	DN 20	DN 25	DN 32*	DN 40	DN 50	DN 65	DN 80	DN 100
STANDARD	PN16, PN40	5,1	6	6,9	10	12,6	16,4	31,8	38,2	50,6
	Class 150	4,5	5	6,1	-	11,1	15,2	29,4	35	50,6
	Class 300	4,9	6	7,5	-	13,9	17,5	32,5	40,3	58,5
EXTENDED	PN16, PN40	5,8	6,7	7,6	10,9	13,5	17,3	32,2	38,5	51,1
	Class 150	5,2	5,7	6,8	-	12,4	16,4	30,1	35,7	51,1
	Class 300	5,6	6,7	8,2	-	15,2	18,7	33,2	41	59
BELLOWS	PN16, PN40	7,8	8,7	9,5	12,6	15,3	18,8	32,6	38,7	51,6
	Class 150	8,7	9,2	10,2	-	15,1	19	33,2	38,7	53,5
	Class 300	9,1	10,2	11,6	-	17,9	21,3	36,3	44	61,4

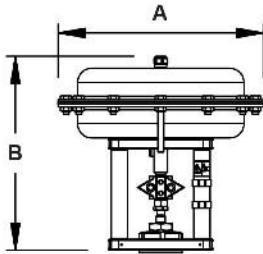
MAX. PERMISSIBLE ACTUATING FORCES/THRUST (kN)										
		SIZE								
		DN 15	DN 20	DN 25	DN 32*	DN 40	DN 50	DN 65	DN 80	DN 100
MAX FORCE/THRUST		12								

*Available only for PN16 & PN40

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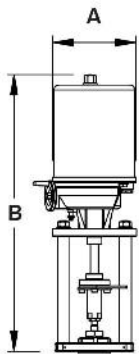
Connection : Flange PN16, PN40, ANSI150, ANSI300



PA SERIES PNEUMATIC ACTUATORS

DIMENSIONS-PA SERIES PNEUMATIC ACTUATORS (mm)									
DIMENSION	PA10	PA206	PA25 **	PA281	PA40 **	PA341	PA436 **	PA436	PA80
A	170	209	250	275	300	336	430	430	405
B	251	236	260	243	325	323	316 / 336 *	291 / 311 *	505
WEIGHT (kg)	6,3	6,2	10,1	9,6	18,7	14,3	24,4 / 28 *	24,4 / 28 *	50,4

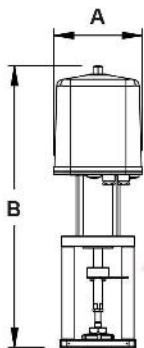
*For actuators with spring ranges 1 to 2 bar, 1,5 to 3 bar and 2 to 4 bar.
For more information, please consult IS 3.70 and IS 3.70A – PA Linear pneumatic actuators.
**Available only for PN16 & PN40



EL SERIES ELECTRIC ACTUATORS

DIMENSIONS – EL SERIES ELECTRIC ACTUATORS (mm)				
DIMENSION	EL12	EL20 - 45	EL80 - EL120	EL250
A	129	148	188	216
B	333	485	587	683
WEIGHT (kg)	2,1	8	13	19

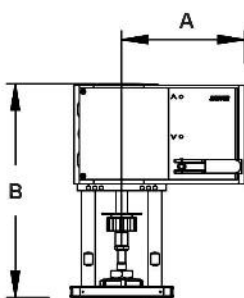
For more information, please consult IS 3.72 – EL Linear electric actuators.



ELR SERIES ELECTRIC ACTUATORS

DIMENSIONS – ELR SERIES ELECTRIC ACTUATORS (mm)			
DIMENSION	ELR2.1	ELR2.2	ELR2.3
A	162	162	162
B	518 / 555 *	536 / 573 *	557 / 593 *
WEIGHT (kg)	8,7	9,3	10

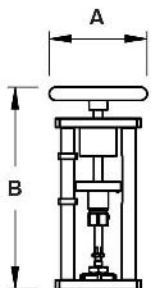
*With PEL electronic positioner.
For more information, please consult IS 3.73 – ELR Linear electric actuators fail safe.



AV SERIES ELECTRIC ACTUATORS

DIMENSIONS – AV SERIES ELECTRIC ACTUATORS (mm)			
DIMENSION	AVM234S	AVF234S	AVM234S - AVF234S *
A	166	166	166
B	314	314	289
WEIGHT (kg)	4,1	4,1	4,1

For more information, please consult IS 3.74 – AVM234S-AVF234S Linear electric actuators.
*Available only for PN16, PN40





MANUAL OPERATION HANDWHEEL

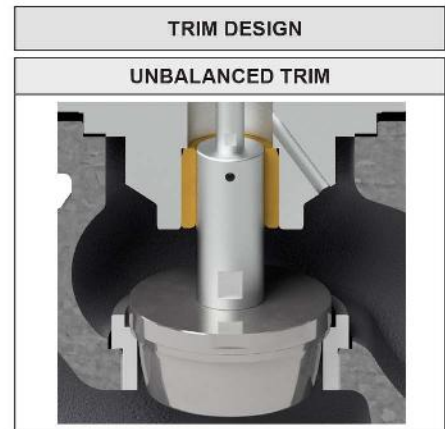
DIMENSIONS – MANUAL OPERATION HANDWHEEL (mm)	
DIMENSION	MAH
A	160
B	331
WEIGHT (kg)	5,6

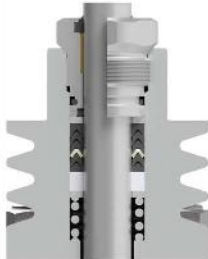




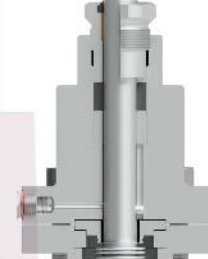
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Connection : Flange PN16, PN40, ANSI150, ANSI300

BONNET DESIGN	
STANDARD	EXTENDED
	
-10 °C to 250 °C	Above 250 °C



STEM SEALING					
PTFE/GR V-RINGS (V1.2)	PTFE V-RINGS (V2.2)	EPDM (EP1)	GRAPHITE (G1)	BELLOWS	
				(BV1)	(BG1)
					
-10 °C to 220 °C	-10 °C to 180 °C	-10 °C to 150 °C *	-10 °C to 400 °C	- 60 °C to 220 °C **	- 60 °C to 400 °C **

* Up to 180 °C in steam and hot water applications.** Maximum operating pressure: 25 bar.

PLUG DESIGN	
PARABOLIC	PARABOLIC (SOFT SEALING)
	
Sealing: Metal to metal Characteristic: Equal percentage (EQP), linear (PL) Flow direction: From below Rangeability: 50:1 (EQP), 30:1 (PL) Leakage: Class IV, acc. to IEC 60534-4	Sealing: PTFE/GR Characteristic: Equal percentage (EQP), linear (PL), Flow direction: From below Rangeability: 50:1 (EQP), 30:1 (PL) Leakage: Class VI, acc. to IEC 60534-4 Max. temp.: 200 °C

FLOW RATE COEFFICIENTS – PARABOLIC PL AND EQP PLUGS											
SIZE	Kvs (m³/h)										
	2,1	2,7	4	6,3	10	16	25	40	63	100	160
DN 15	•	•	•								
DN 20	•	•	•	•							
DN 25	•	•	•	•	•						
DN 32*			•	•	•	•					
DN 40				•	•	•	•				
DN 50					•	•	•	•			
DN 65						•	•	•	•		
DN 80							•	•	•	•	
DN 100								•	•	•	•
SEAT Ø (mm)	12		15	19,2	25	32	38	48	65	76	96
STROKE (mm)	20									30	

For conversion Kvs = Cv (US) x 0,865.
 *Available only for PN16, PN40

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