

TWO-WAY GLOBE CONTROL VALVES V25/2 (EN)

DESCRIPTION

The ADCATrol V25/2 is a series of single seated, two-way globe valves designed for process engineering and industrial applications, where events such as erosion, cavitation or flashing may occur. These valves can be assembled with pneumatic, hydraulic or electric actuators, for modulating and shut-off control tasks.

MAIN FEATURES

Robust construction.
Modular design to meet process requirements.
Stainless steel trim.

OPTIONS AND

ACCESSORIES: Bonnet extension for high and low temperatures.
Various stem sealing options including bellows sealing.
Soft, stellite and high-performance metal valve sealing.
V-port guided and perforated plugs.
Low noise, anti-cavitation single and multi-stage trims.
Reduced bore trims including microflow.
Pressure balancing trims.
Silencers.

USE: Saturated and superheated steam.
Hot and superheated water.
Air, gases and others.

AVAILABLE MODELS:

V25/2G – SG iron.
V25/2S – carbon steel.
V25/2i – stainless steel (only available from DN 15 to DN 100).

VALVE SIZES: DN 15 to DN 200.

CONNECTIONS: V25/2G – Flanged EN 1092-2 PN 16.
V25/2S and V25/2i – Flanged EN 1092-1 PN 16 or PN 40.
Standard PN 16 DN 65 flanges are supplied with 4 holes. 8 holes, according to EN 1092-1/-2, on request.



CE MARKING – GROUP 2 (PED – European Directive)



PN 16	PN 40	Category
DN 15 to 50	DN 15 to 32	SEP
DN 65 to 200	DN 40 to 100	1 (CE marked)
–	DN 125 to 200	2 (CE marked)

BODY LIMITING CONDITIONS


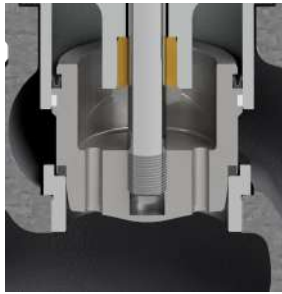
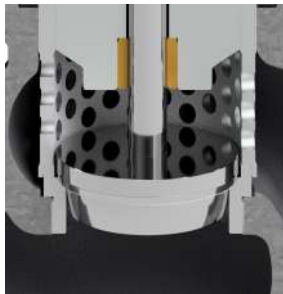
V25/2G **		V25/2S *				V25/2i *			
FLANGED PN 16		FLANGED PN 16		FLANGED PN 40		FLANGED PN 16		FLANGED PN 40	
ALLOW. PRESSURE	RELATED TEMP.	ALLOW. PRESSURE	RELATED TEMP.	ALLOW. PRESSURE	RELATED TEMP.	ALLOW. PRESSURE	RELATED TEMP.	ALLOW. PRESSURE	RELATED TEMP.
16 bar	-10 °C / 50 °C	16 bar	-10 °C / 50 °C	40 bar	-10 °C / 50 °C	16 bar	-10 °C / 50 °C	40 bar	-10 °C / 50 °C
14,7 bar	200 °C	13,3 bar	200 °C	33,3 bar	200 °C	13,4 bar	200 °C	33,7 bar	200 °C
13,9 bar	250 °C	12,1 bar	250 °C	27,6 bar	300 °C	12,7 bar	250 °C	29,7 bar	300 °C
12,8 bar	300 °C	11 bar	300 °C	25,7 bar	350 °C	11,8 bar	300 °C	28,5 bar	350 °C
11,2 bar	350 °C	10,2 bar	350 °C	23,8 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.

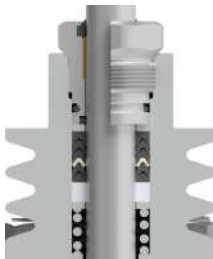




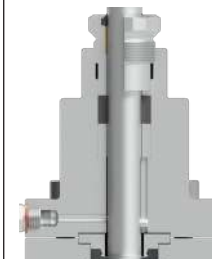
BONNET DESIGN

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

TRIM DESIGN

UNBALANCED TRIM	BALANCED TRIM	LOW NOISE (FD1)
		

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



Sealing: Metal to metal
Characteristic: Equal percentage (EQP) or linear (PL)
Flow direction: From below
Rangeability: 50:1 (EQP) or 30:1 (PL)
Leakage: Class IV or Class V, acc. to IEC 60534-4

PARABOLIC (SOFT SEALING)



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

PERFORATED



Sealing: Metal to metal
Characteristic: Equal percentage (EQP) or linear (PL)
Flow direction: From above (liquids) or from below (gases)
Rangeability: 40:1 (EQP) or 30:1 (PL)
Leakage: Class IV, acc. to IEC 60534-4

PARABOLIC MICROFLOW



Sealing: Metal to metal
Characteristic: Linear (PL)
Flow direction: From below
Rangeability: 30:1
Leakage: Class IV or Class V, acc. to IEC 60534-4

V-PORT GUIDED



Sealing: Metal to metal
Characteristic: Equal percentage (EQP) or linear (PL)
Flow direction: From below
Rangeability: 30:1
Leakage: Class IV or Class V, acc. to IEC 60534-4

V-PORT GUIDED (SOFT SEALING)



Sealing: PTFE/GR *
Characteristic: Equal percentage (EQP) or linear (PL)
Flow direction: From below
Rangeability: 30:1
Leakage: Class VI, acc. to IEC 60534-4

* In soft sealing valves with seat Ø125 mm to Ø200 mm the PTFE/GR insert is placed on the seat rather than on the valve plug.

FLOW RATE COEFFICIENTS – PARABOLIC AND V-PORT GUIDED PL AND EQP PLUGS

SIZE	Kvs (m³/h)																				
	0,1 *	0,16 *	0,25 *	0,5 *	1	1,7	2,1	2,7	4	6,3	10	16	25	40	63	100	160	240	370	630	
DN 15	•	•	•	•	•	•	•	•	•												
DN 20	•	•	•	•	•	•	•	•	•	•											
DN 25	•	•	•	•	•	•	•	•	•	•	•										
DN 32									•	•	•	•									
DN 40										•	•	•	•								
DN 50											•	•	•	•							
DN 65												•	•	•	•						
DN 80													•	•	•	•					
DN 100														•	•	•	•				
DN 125															•	•	•	•			
DN 150																•	•	•	•		
DN 200																		•	•	•	
SEAT Ø (mm)	4			8			12			15	19,2	25	32	38	48	65	76	96	125	150	200
STROKE (mm)	20												30			50			60		

* Microflow only available with linear characteristic.

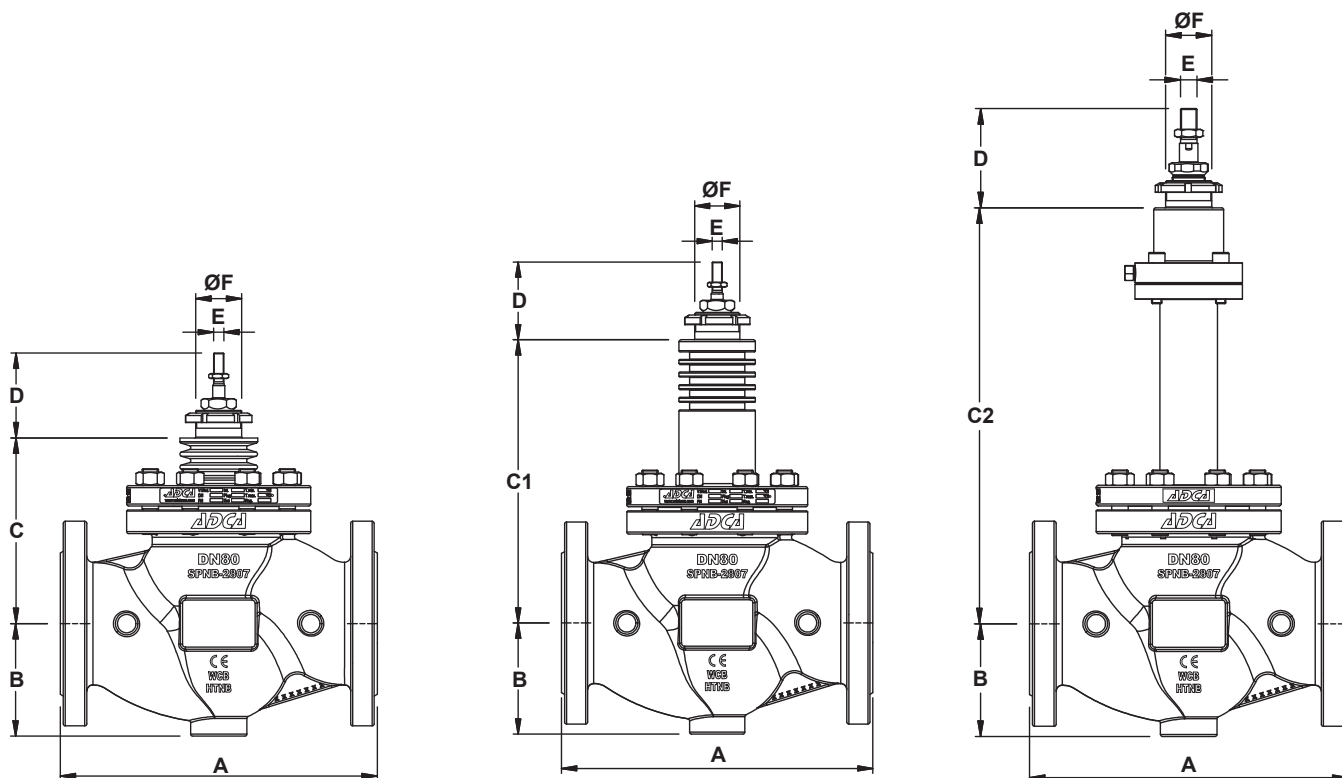
FLOW RATE COEFFICIENTS – PERFORATED PL PLUGS

SIZE	Kvs (m³/h)												
	2,5	4	6,3	10	25	36	50	63	120	180	300	450	
DN 15	•												
DN 20	•	•											
DN 25	•	•	•										
DN 32	•	•	•	•									
DN 40		•	•	•	•								
DN 50			•	•	•	•							
DN 65				•	•	•	•						
DN 80					•	•	•	•					
DN 100						•	•	•	•				
DN 125							•	•	•	•			
DN 150								•	•	•	•		
DN 200										•	•	•	
SEAT Ø (mm)	15	19,2	25	32	38	48	65	76	96	125	150	200	
STROKE (mm)	20						30			50			60

FLOW RATE COEFFICIENTS – PERFORATED EQP PLUGS

SIZE	Kvs (m³/h)												
	2,5	4	6,3	10	16	25	36	50	80	120	250	360	
DN 15	•												
DN 20	•	•											
DN 25	•	•	•										
DN 32	•	•	•	•									
DN 40		•	•	•	•								
DN 50			•	•	•	•							
DN 65				•	•	•	•						
DN 80					•	•	•	•					
DN 100						•	•	•	•				
DN 125							•	•	•	•			
DN 150								•	•	•	•		
DN 200										•	•	•	
SEAT Ø (mm)	15	19,2	25	32	38	48	65	76	96	125	150	200	
STROKE (mm)	20						30			50			60

For conversion Kvs = Cv (US) x 0,865.



Valve with standard bonnet

Valve with extended bonnet

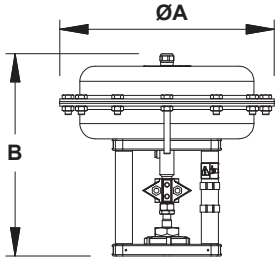
Bellows sealed valve

DIMENSIONS (mm)													
DIMENSION	SIZE												
	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100	DN 125	DN 150	DN 200	
A	130	150	160	180	200	230	290	310	350	400	480	600	
B	52	53	58	70	75	85	100	110	130	160	180	225	
C	104	104	109	109	113	125	176	182	194	210	216	277	
C1	169	169	189	189	193	204	276	282	314	315	320	400	
C2	295	295	298	298	303	303	415	421	424	590	590	–	
D	77						92			110	110	135	
E	M10 x 1						M16 x 1,5					M27 x 1,5	
ØF	M40 x 1,5						M45 x 1,5			M65 x 2		M80 x 2	

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

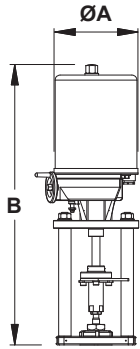
WEIGHTS (kg)												
	SIZE											
	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100	DN 125	DN 150	DN 200
STANDARD	5,1	6	6,9	10	12,6	16,4	31,8	38,2	48,9	79,1	105,5	232,3
EXTENDED	5,8	6,7	7,6	10,9	13,9	17,6	32,5	38,9	49,4	81,5	107,3	237,6
BELLOWS	9,3	10,2	10,9	14,1	16,6	20,2	35,6	41,9	53,5	85,9	112,3	–

MAX. PERMISSIBLE ACTUATING THRUSTS (kN)													
	SIZE												
	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100	125	150	200	
MAX. THRUST	12						32,5			40,1		89,7	



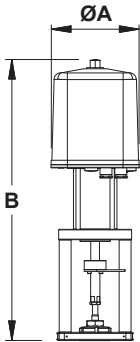
DIMENSIONS – PA SERIES PNEUMATIC ACTUATORS (mm)										
DIMENSION	PA10	PA206	PA25	PA281	PA40	PA341	PA436	PA80	PA80D	PA80T
ØA	170	209	250	275	300	336	430	405	405	405
B	251	236	260	243	325 / 360	323	351 / 371 *	505 / 515 / 545	741 / 771	967
WEIGHT (kg)	6,3	6,2	10,1	9,6	18,7	14,3	24,4 / 28 *	50,4 / 55,4 / 60	108 / 112	166

* 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.



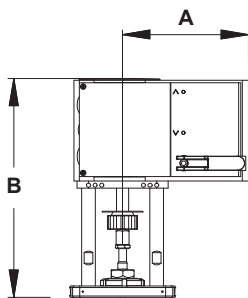
DIMENSIONS – EL SERIES ELECTRIC ACTUATORS (mm)						
DIMENSION	EL12	EL20	EL45	EL80	EL120	EL250
ØA	129	148	148	188	188	216
B	333	485	485	587	587	683
WEIGHT (kg)	2,1	8	8	13	13	19

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



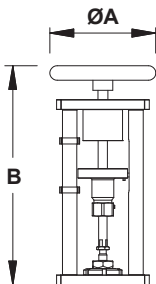
DIMENSIONS – ELR SERIES ELECTRIC ACTUATORS (mm)			
DIMENSION	ELR2.1	ELR2.2	ELR2.3
ØA	162	162	162
B	518 / 555 *	536 / 573 *	557 / 593 *
WEIGHT (kg)	8,7	9,3	10

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



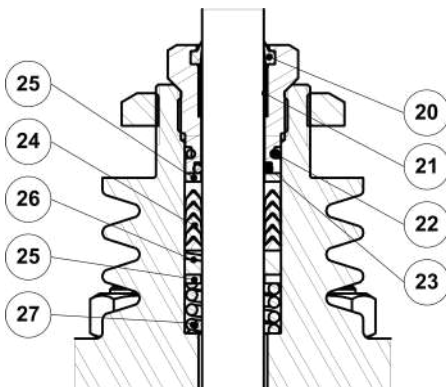
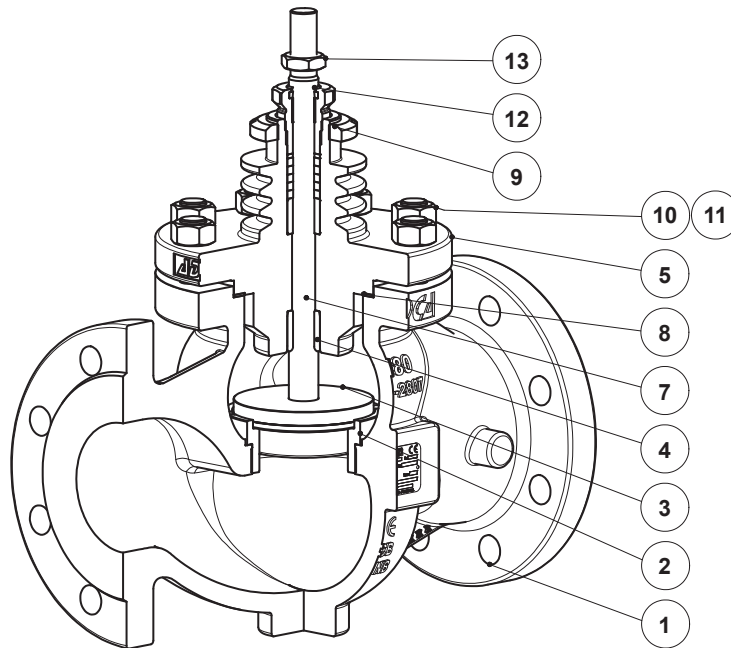
DIMENSIONS – AV SERIES ELECTRIC ACTUATORS (mm)		
DIMENSION	AVM234S	AVF234S
A	166	166
B	314	314
WEIGHT (kg)	4,1	4,1

For more information, please consult IS 3.74 – AVM234S-AVF234S Linear electric actuators.

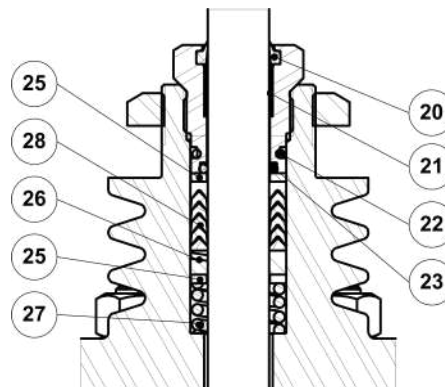


DIMENSIONS – MANUAL OPERATION HANDWHEEL (mm)	
DIMENSION	MAH
ØA	160
B	331
WEIGHT (kg)	5,6

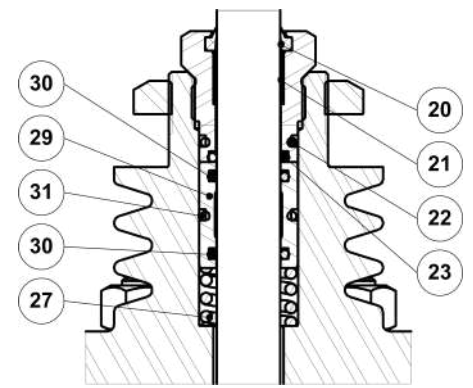
MATERIALS



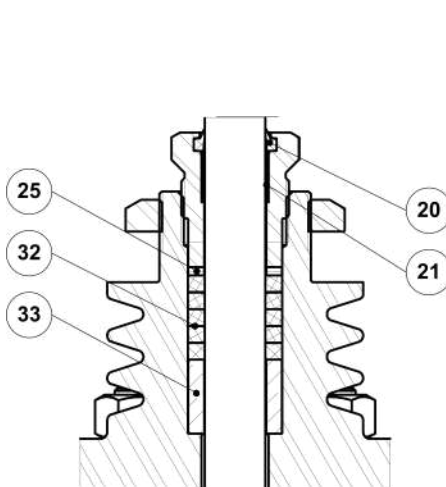
*PTFE/GR V-Rings
(V1.2)*



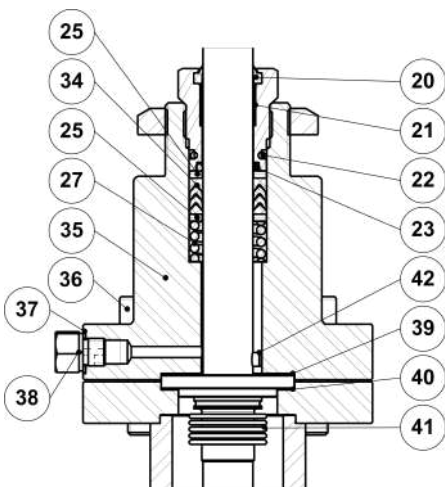
*PTFE V-Rings
(V2.2)*



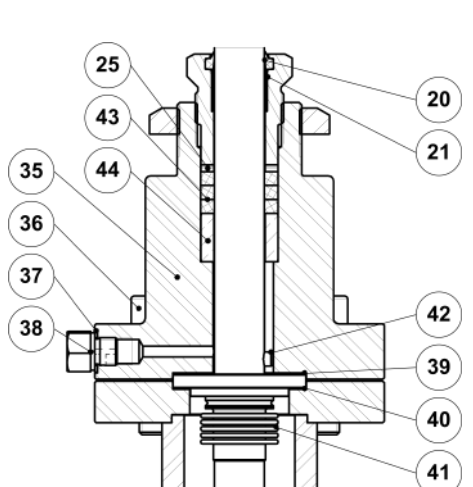
*EPDM
(EP1)*



*Graphite
(G1)*



*Bellows sealing
(BV1)*



*Bellows sealing
(BG1)*

MATERIALS		
POS. N°	DESIGNATION	MATERIAL
1	Valve body (V25/2G)	GJS-400-15 / 0.7040
	Valve body (V25/2S)	A216 WCB / 1.0619
	Valve body (V25/2i)	A351 CF8M / 1.4408
2	* Seat	AISI 316L / 1.4404
3	* Valve plug	AISI 316L / 1.4404
4	Stem guide	Bronze CB1
5	Bonnet (V25/2G and V25/2S)	A351 CF8M / 1.4408; A216 WCB / 1.0619
	Bonnet (V25/2i)	A351 CF8M / 1.4408
7	* Stem	AISI 316 / 1.4401
8	* Gasket	Stainless steel / Graphite
9	Lock nut	A351 CF8 / 1.4308
10	Nuts (V25/2G and V25/2S)	EN 10269 steel
	Nuts (V25/2i)	Stainless steel A2-70
11	Studs (V25/2G and V25/2S)	EN 10269 steel
	Studs (V25/2i)	Stainless steel A2-70
12	* Packing nut	AISI 303 / 1.4305
13	Lock nut	AISI 302 / 1.4310
20	* Scraper ring	Viton; NBR
21	* Plain bearing	Bronze / PTFE
22	* O-ring	EPDM
23	* O-ring	Viton
24	* Chevron packing set	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; Graphite filled 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 (V16/2G and V16/2S)	A105 / 1.0432; AISI 316 / 1.4401
	Bellows bonnet (V16/2i)	AISI 316 / 1.4401
36	Bolts or studs and nuts (V16/2G and V16/2S)	EN 10269 steel
	Bolts or studs and nuts (V16/2i)	Stainless steel A2-70
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.

ORDERING CODES V25/2 a)																
Valve model	V2	2	G	S	1	U	1	1	1	E	FD	L	015			
Globe control valve, two-way, straight body	V2															
Valve series																
Series 2	2															
Body material																
GJS-400-15 / 0.7040 SG iron																G
A216 WCB / 1.0619 carbon steel																S
A351 CF8M / 1.4408 stainless steel																I
Bonnet design																
Standard																S
Extended																E
Trim design																
Unbalanced trim																1
Balanced trim																2
Unbalanced trim with FD1 low noise cage																3
Balanced trim with FD1 low noise cage																4
Flow direction																
Flow under the plug																U
Flow over the plug																O
Stem sealing																
PTFE/GR V-Rings (V1.2)																1
Virgin PTFE V-Rings (V2.2)																2
Graphite (G1)																3
EPDM (EP1)																4
Stainless steel bellows with PTFE/GR safety packing (BV1)																8
Stainless steel bellows with graphite safety packing (BG1)																9
Plug design																
Parabolic																1
V-port guided (standard for sizes DN 125 to DN 200)																2
Perforated																3
Valve sealing																
Metal to metal (class IV)																1
Metal to metal (class V)																2
Soft sealed with PTFE/GR (class VI)																3
Stellited (class IV)																4
Characteristic																
Equal percentage (EQP)																E
Linear (PL)																L
Flow rate coefficient																
Kvs 4																FD
See table below for other Kvs value codes																
Pipe connection																
Flanged EN 1092-1/-2 PN 16																L
Flanged EN 1092-1 PN 40																N
Size																
DN 15																015
DN 20																020
...																
Special valves / Extras																
Full description or additional codes have to be added in case of a non-standard combination																E

a) Codification for valve only. For actuator codes, refer to the appropriate information sheet.

FLOW RATE COEFFICIENT CODES																
Kvs	0,1	0,16	0,25	0,5	1	1,7	2,1	2,5 *	2,7	4	6,3	10	16	25	36 *	40
Code	M4	M3	M2	M1	R4	R3	R2	PA	R1	FD	FE	FF	FG	FH	PB	FI
Kvs	50 *	63	80 *	100	120 *	160	180 *	240	250 *	300 *	360 *	370	450 *	630	-	-
Code	PC	FJ	PD	FL	PE	FM	PF	FN	PG	PH	PI	FO	PJ	FP	-	-

* Only available with perforated plug design.