



ENGLISH



SBS

PNEUMATIC CONTROL VALVES

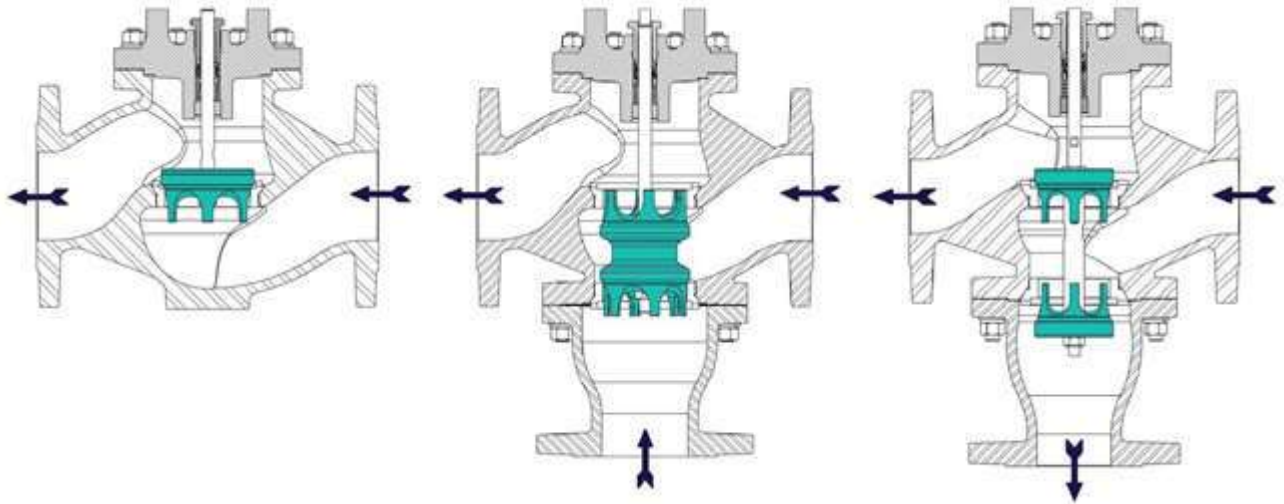
SBS DN 15+80 – GLOBE CONTROL VALVE

Multi-spring diaphragm control valve with body in GJL, GJS, WCB, CF8M, CF3M

DN:	from DN 15 (1/2") to DN80 (3")
Connections:	DIN Flanges – PN 16/25/40 ANSI Flanges cl.150 / 300 BW - SW BSPP - NPT
Packing:	PTFE / PTFE-GR
Plug Seal:	PEEK Metallic Stellite
Leakage Class:	IV (metal-metal) VI (soft)
Min Fluid T:	down to -40°C -40°F
Max Fluid T:	up to +350°C +662°F
Max P:	up to 50 bar 725 psi
Characteristic:	Linear - Eq%
Function:	2-Way 3-Way Mixing 3-Way Diverting
Actuator Material:	Polyurethane-painted Fe-P04 Stainless Steel S30400
Actuator Function:	Normally Closed Normally Open
Feeding Pressure:	3÷15 psi 6÷18 psi 6÷30 psi 9÷32 psi 3÷9 psi 9÷15 psi 20÷40 psi
Optionals:	Anti-cavitation trim Noise Reducer Extended Bonnet Bellow Seals Micro-Flow Plug
Instrumentation:	I/P Converter Electro-pneumatic Positioner Digital Positioner Solenoid Valve Lock-Up Valve Filter-Regulator
Certification:	PED 2014/68/EU ATEX 2014/34/EU



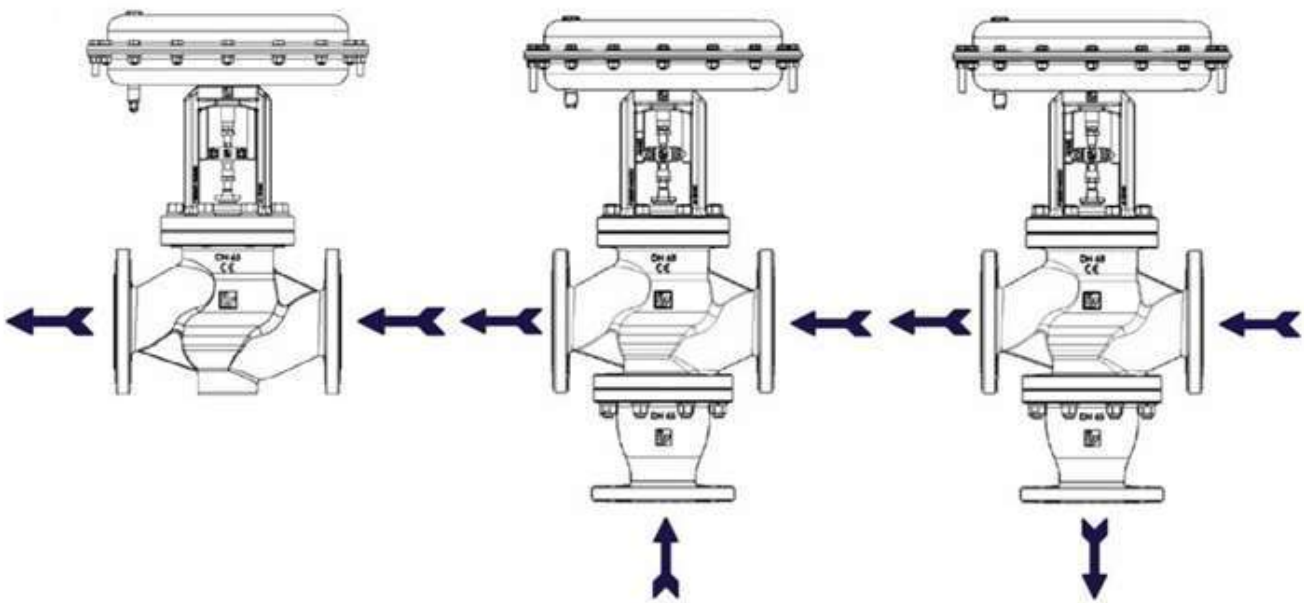
Functions:



2 WAY

3 WAY - MIXING

3 WAY - DIVERTING

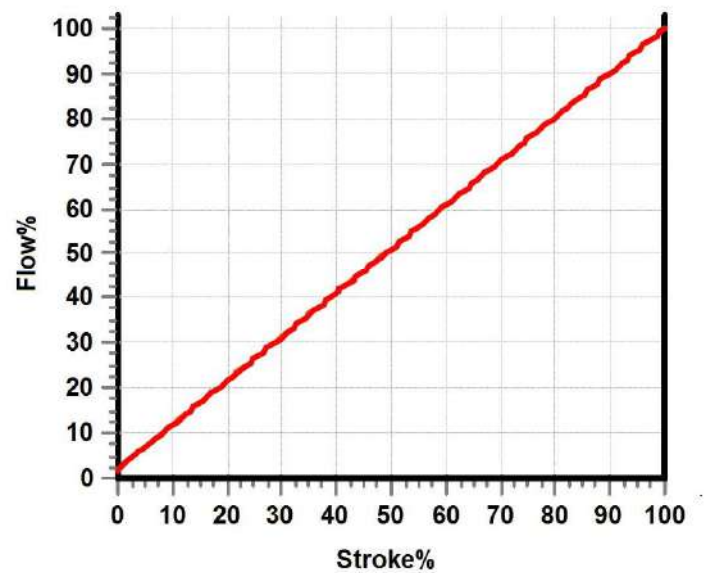
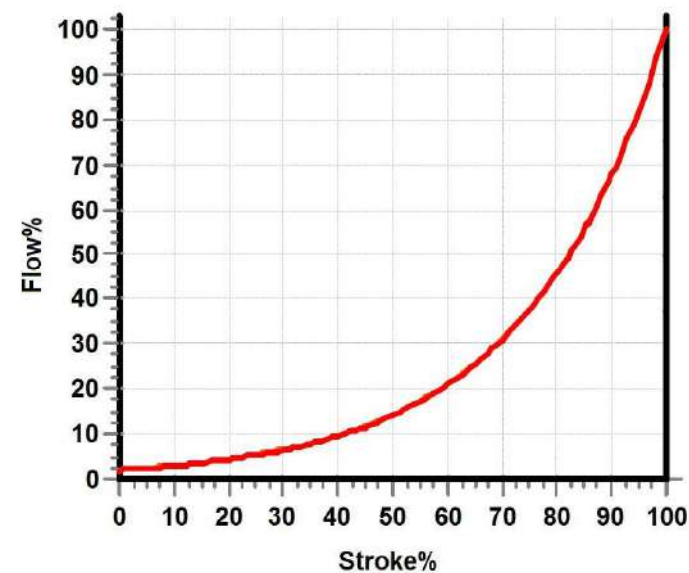


Flow Characteristics

Characteristic Curve:

EQUAL PERCENTAGE

LINEAR



Kv / ΔP* Table – SBS DN 15+80

DN		Kv				Signal [psi] →	Max Differential Pressure Δp [bar]							←+ ↓		
		Cv		Eq%			Signal [barg] →	3÷15	6÷18	6÷30	9÷32	3÷9	9÷15		20÷40	
		Linear	Eq%					Max Control P [barg] →	0,2÷1	0,42÷1,26	0,4÷2,1	0,6÷2,24	0,2÷0,6		0,6÷1,0	1,4÷2,8
		Stroke [mm]							1	1,26	2,21	2,4	0,8		1,2	2,9
Seat Ø [mm]	15	20	15	20	Serv. Ø _e [mm] ↓	A	B	C	D	R	S	T				
15	3	UR	UR	UR	UR	200	40	40	40	40	40	40	-	1		
	6	UR	UR	UR	UR	200	40	40	40	40	40	40	-	3		
						275	40	40	40	40	40	40	-	4		
	15	4,3 5,0	N/A	4,5 5,2	N/A	N/A	200	15	30	30	39	13	39	-	5	
							275	35	40	40	40	32	40	-	6	
		20	5,0 5,8	N/A	5,0 5,8	N/A	N/A	200	8	16	16	21	7	21	-	101
275								20	40	40	40	18	40	-	102	
360	37	40	40	40	36	40	-	103								
20	8	UR	UR	UR	UR	200	40	40	40	40	40	40	-	7		
						275	40	40	40	40	40	40	-	8		
	15	6,0 7,1	N/A	4,8 5,6	N/A	N/A	200	15	30	30	39	13	39	-	9	
							275	35	40	40	40	32	40	-	10	
		20	8,0 9,3	N/A	7,5 8,7	N/A	N/A	200	8	16	16	21	7	21	-	13
								275	20	40	40	40	18	40	-	14
360	37	40	40	40	36	40	-	15								
25	15	5,4 6,3	N/A	5,3 6,2	N/A	N/A	200	15	30	30	39	13	39	-	17	
							275	35	40	40	40	32	40	-	18	
	20	9,3 10,8	N/A	9,1 10,6	N/A	N/A	200	8	16	16	21	7	21	-	21	
							275	20	40	40	40	18	40	-	22	
		360	37	40	40	40	40	36	40	-	-	-	-	23		
															200	5
32	20	9,6 11,2	10,2 11,9	9,5 11,0	10,5 12,2	N/A	200	8	16	16	21	7	21	-	29	
							275	20	40	40	40	18	40	-	30	
		360	37	40	40	40	40	36	40	-	-	-	-	31		
															200	5
	26	14,5 16,9	14,9 17,3	13,5 15,7	15,4 17,9	N/A	200	13	26	26	34	12	34	-	34	
							275	25	40	40	40	24	40	-	35	
430		28	40	40	40	40	28	-	-	-	-	-	36			
														200	4	8
31	20,0 23,3	22,3 25,9	15,2 17,7	18,9 22,0	N/A	200	10	20	20	30	10	30	-	38		
						275	21	40	40	40	20	40	-	39		
	430	23	40	40	40	40	23	-	-	-	-	-	40			
														200	5	10
40	26	16,5 19,2	18,1 21,1	15,6 18,1	18,5 21,5	N/A	200	13	26	26	34	12	34	-	42	
							275	25	40	40	40	24	40	-	43	
		430	28	40	40	40	40	28	-	-	-	-	-	44		
															200	4
	31	21,9 25,5	24,5 28,5	19,0 22,1	24,7 28,7	N/A	200	10	20	20	30	10	30	-	46	
							275	21	40	40	40	20	40	-	47	
430		23	40	40	40	40	23	-	-	-	-	-	48			
														200	2,8	5,5
38	26,0 30,2	29,3 34,1	22,3 25,9	28,3 32,9	N/A	200	7	14	14	20	7	20	-	50		
						275	14	28	28	40	14	40	-	51		
	430	15	30	30	30	30	15	-	-	-	-	-	52			
														200	4	8

* Limited by rating of the body

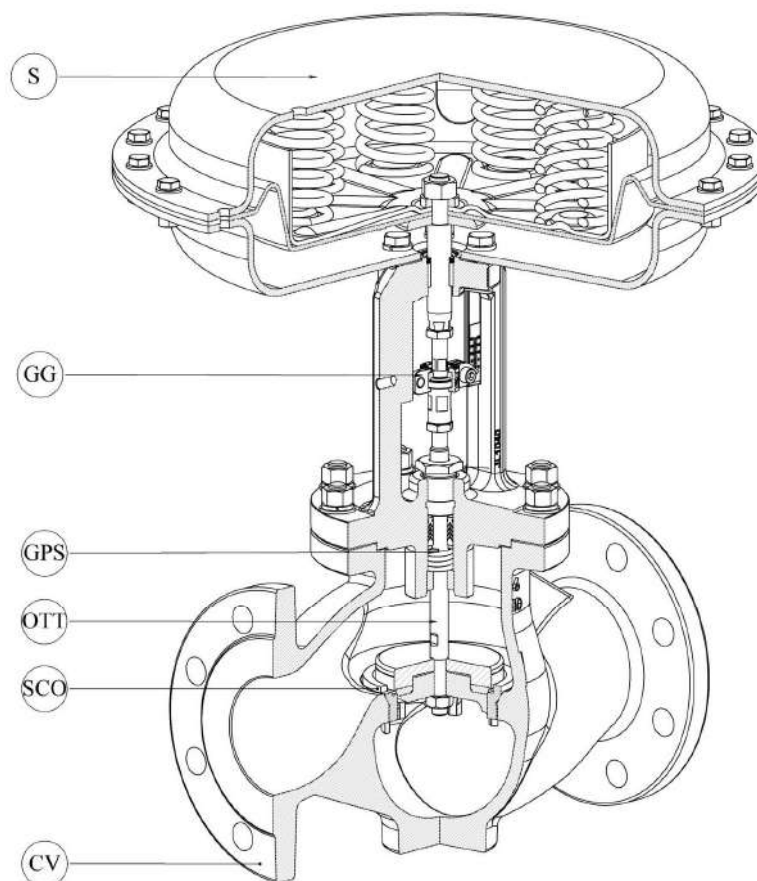


Kv / ΔP* Table – SBS DN 15+80

		Kv Cv				Signal [psi] →	Max Differential Pressure Δp [bar]							
		Linear		Eq%		Signal [barg] →	3÷15	6÷18	6÷30	9÷32	3÷9	9÷15	20÷40	
		Stroke [mm]				Max Control P [barg] →	1	1,26	2,21	2,4	0,8	1,2	2,9	
DN	Seat Ø [mm]	15	20	15	20	Serv. Ø _e [mm] ↓	A	B	C	D	R	S	T	←+ ↓
50	31	22,1	25,1	19,1	25,1	200	4	8	8	12	4	12	-	53
		25,7	29,2	22,2	29,2	275	10	20	20	30	10	30	-	54
						360	21	40	40	40	20	40	-	55
						430	23	40	40	40	23	-	-	-
	38	27,6	33,3	23,0	32,0	200	2,8	5,5	5,5	8	2,8	8	-	57
		32,1	39,3	26,7	37,2	275	7	14	14	20	7	20	-	58
						360	14	28	28	40	14	40	-	59
						430	15	30	30	40	15	-	-	-
	48	38,4	42,4	34,6	44,7	200	1,6	3,2	3,2	4,5	1,6	4,5	-	61
		44,7	49,3	40,2	52,0	275	4	8	8	10,5	4	10,5	-	62
						360	8	16	16	21	8	21	-	63
						430	9,3	16,8	16,8	24	9,3	-	-	-
65	38	27,9	34,1	24,0	33,0	200	2,8	5,5	5,5	8	2,8	8	-	65
		32,4	39,7	27,9	38,4	275	7	14	14	20	7	20	-	66
						360	14	28	28	40	14	40	-	67
						430	15	30	30	40	15	-	-	-
	48	45,5	56,9	42,0	55,0	200	1,6	3,2	3,2	4,5	1,6	4,5	-	70
		52,9	66,2	48,8	64,0	275	4	8	8	10,5	4	10,5	-	71
						360	8	16	16	21	8	21	-	72
						430	9,3	16,8	16,8	24	9,3	-	-	-
	63	61,0	74,8	51,5	63,1	200	1	2	2	2,5	1	2,5	-	75
		70,9	87,0	59,9	73,4	275	2,5	5	5	6,5	2,5	6,5	-	76
						360	5	10	10	13	5	13	-	77
						430	5,5	11	11	16	5,5	-	-	-
80	48	43,2	55,5	41,6	53,5	200	1,6	3,2	3,2	4,5	1,6	4,5	-	80
		50,2	64,5	48,4	62,2	275	4	8	8	10,5	4	10,5	-	81
						360	8	16	16	21	8	21	-	82
						430	9,3	16,8	16,8	24	9,3	-	-	-
	63	62,2	76,6	59,9	62,2	200	1	2	2	2,5	1	2,5	-	85
		72,3	89,1	69,5	72,3	275	2,5	5	5	6,5	2,5	6,5	-	86
						360	5	10	10	13	5	13	-	87
						430	5,5	11	11	16	5,5	-	-	-
	78	61,9	85,8	59,6	77,9	530	7,4	29,5	29,5	21	-	-	40	89
		72,0	99,8	69,2	90,6	275	1,5	3	3	4	1,5	4	-	91
						360	3	6	6	8,5	3	8,5	-	92
						430	3,5	7	7	10,5	3,5	-	-	-
				530	4,8	14,2	14,2	13,7	-	-	29,8	94		

* Limited by rating of the body

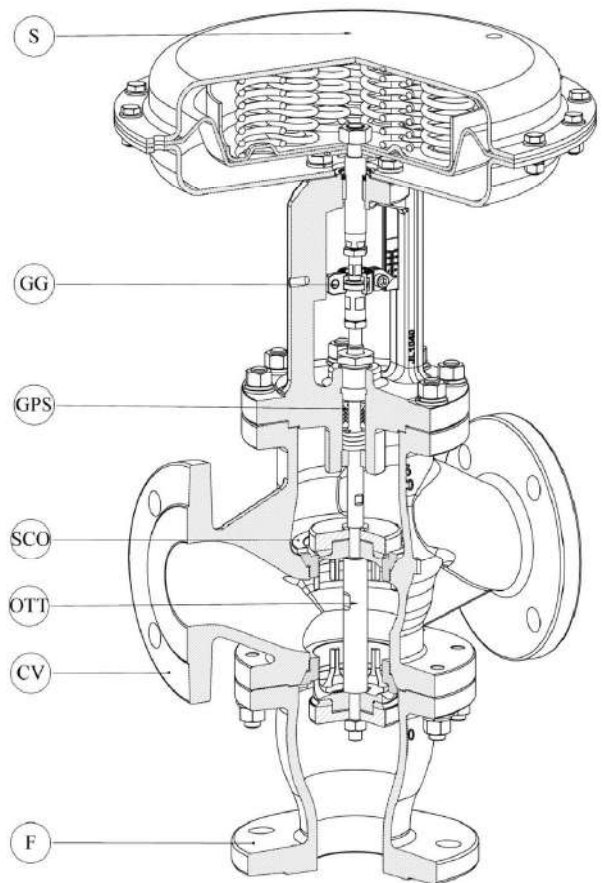
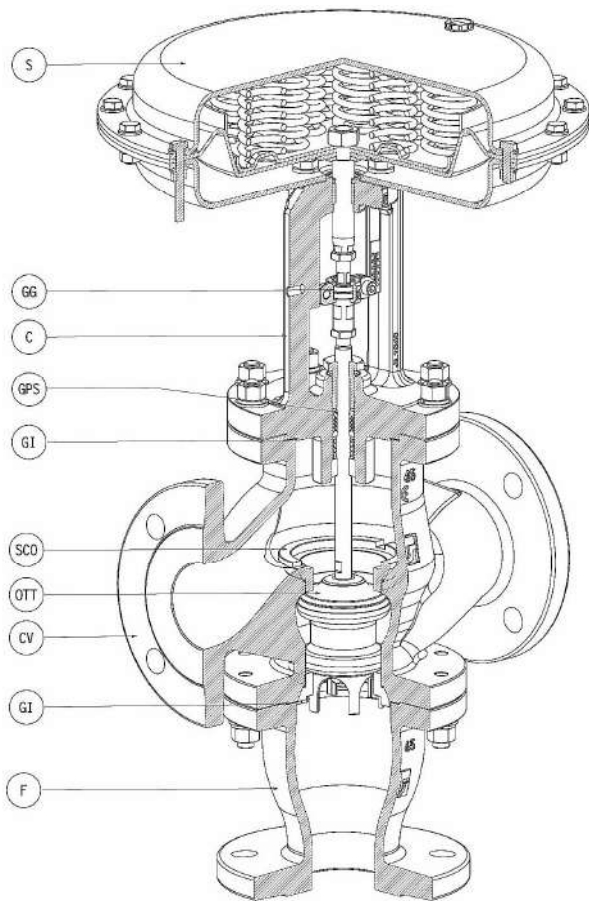




		MATERIAL				
		GJL 250	GJS 500	WCB	CF8M	
S	ACTUATOR	S1	Upper Cover		Painted Steel Painted Steel*	
		M	Membrane			
		PPM	Spring Plate			
		S2	Spring			
		S3	Lower Cover			
		S4	Actuator Gasket			
		BA	Gasket			
		BG	Self-Lubricating Bushing			
		S6	Washer			
		D	Junction Flange			
		ST	Actuator Stem			
		C	Yoke			
		GG	JUNCTION	G	Coupler	
G1	Spacer Washer					
G2	Adjusting Screw					
G4	Indicator					
G5	Lower Adjusting Screw					
GPS	PACKING	O1	Plug Stem			
		P1	Spacer Washer			
		PV	Packing Nut			
		PPS	Packing			
		PM	Packing Spring			
OTT	PLUG PEEK-METALLIC	PI	Upper Plug			
		IK	Ketron Insert			
		IO	Metallic Insert			
		OD	Lower Stem			
		O2	Guide			
		O3	Self-Locking Nut			
BODY		CV	Body			
		GI	Gasket			
		SCO	Conic Seat			
		P	Extension			
		SF	Bellows			
		F	Bottom Flange			
		GSM	Spiral Seal			
		Screws				



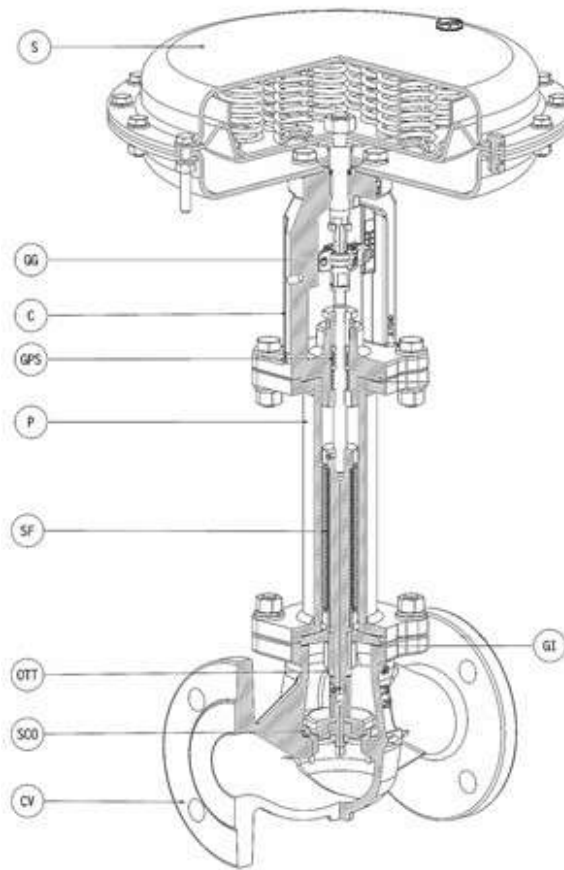
Materials – SBS DN 15+80 – 3-Way:



		MATERIAL				
		GJL 250	GJS 500	WCB	CF8M	
S	ACTUATOR	S1 Upper Cover	Painted Steel		S30400 Painted Steel*	
		M Membrane	Fabric-Rubber NBR			
		PPM Spring Plate	Fe-P04 (actuator d.200-275-360-430) Anodised Aluminium (actuator d.530)			
		S2 Spring	Harmonic Steel			
		S3 Lower Cover	Painted Steel		S30400	Painted Steel*
		S4 Actuator Gasket	Expanded Graphite			
		BA Gasket	NBR			
		BG Self-Lubricating Bushing	Bronze			
		S6 Washer	Zn-Plated Steel			AISI 304
		D Junction Flange	A105			AISI 304
		ST Actuator Stem	S30400			
		C Yoke	GJL 250		WCB	A351 CF8M
		GG	JUNCTION	G Coupler	A351 CF8	
G1 Spacer Washer	S30400					
G2 Adjusting Screw	S30400					
G4 Indicator	Aluminium					
G5 Lower Adjusting Screw	S30400					
GPS	PACKING	O1 Plug Stem	S30400		S31600	
		P1 Spacer Washer	AISI 304			
		PV Packing Nut	Zn-Plated Steel			
			AISI 304*			
		PPS Packing	PTFE + PTFE/GRAPHITE + FPM			
	PM Packing Spring	Harmonic Steel				
OTT	PLUG PEEK-METALLIC	PI Upper Plug	S30400		S31600	
		IK Ketron Insert	KETRON PEEK 1000			
		IO Metallic Insert	S30400		S31600	
		OD Lower Stem	S30400		S31600	
		O2 Guide	A305 (CF8 1.4308)		A351 CF8M	
		O3 Self-Locking Nut	AISI 304		AISI 316	
		CV Body	GJL250	GJL500	WCB	A351 CF8M
BODY		GI Gasket	FASIT400/Reinforced Graphite			
		SCO Conic Seat	S30400		S31600	
		P Extension	Painted Steel			
			AISI 304*			
		SF Bellows	S30400 / S31600			
		F Bottom Flange	GJL250	GJL500	WCB	CF8M
		GSM Spiral Seal	Graphite + AISI 316			
Screws		Zn-Plated Steel			AISI 304	
		AISI 304*				



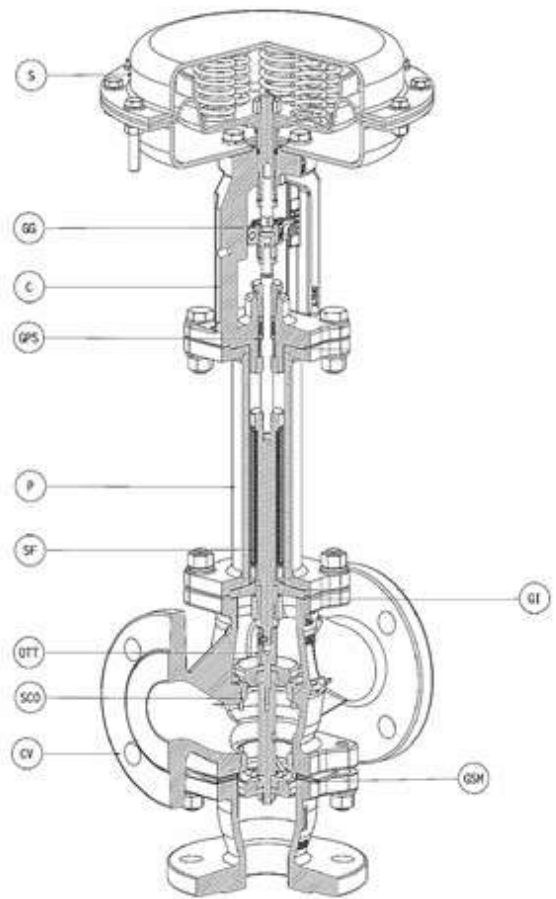
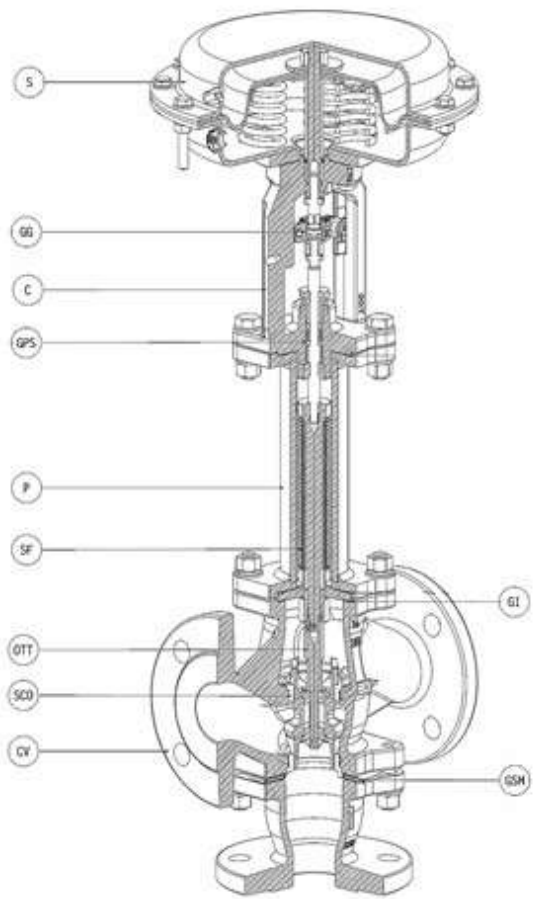
Materials – SBS DN 15+80 – 2-Way w/ bellows:



				MATERIAL			
				GJL 250	GJS 500	WCB	CF8M
S	ACTUATOR	S1	Upper Cover	Painted Steel			S30400 Painted Steel*
		M	Membrane	Fabric-Rubber NBR			
		PPM	Spring Plate	Fe-P04 (actuator d.200-275-360-430) Anodised Aluminium (actuator d.530)			
		S2	Spring	Harmonic Steel			
		S3	Lower Cover	Painted Steel			S30400 Painted Steel*
		S4	Actuator Gasket	Expanded Graphite			
		BA	Gasket	NBR			
		BG	Self-Lubricating Bushing	Bronze			
		S6	Washer	Zn-Plated Steel			AISI 304
		D	Junction Flange	A105			AISI 304
		ST	Actuator Stem	S30400			
		C	Yoke	GJL 250		WCB	A351 CF8M
		GG	JUNCTION	G	Coupler	A351 CF8	
G1	Spacer Washer			S30400			
G2	Adjusting Screw			S30400			
G4	Indicator			Aluminium			
G5	Lower Adjusting Screw			S30400			
GPS	PACKING	O1	Plug Stem	S30400		S31600	
		P1	Spacer Washer	AISI 304			
		PV	Packing Nut	Zn-Plated Steel AISI 304*			
		PPS	Packing	PTFE + PTFE/GRAPHITE + FPM			
		PM	Packing Spring	Harmonic Steel			
OTT	PLUG-METALLIC PEEK-METALLIC	P1	Upper Plug	S30400		S31600	
		IK	Ketron Insert	KETRON PEEK 1000			
		IO	Metallic Insert	S30400		S31600	
		OD	Lower Stem	S30400		S31600	
		O2	Guide	A305 (CF8 1.4308)			A351 CF8M
		O3	Self-Locking Nut	AISI 304		AISI 316	
BODY		CV	Body	GJL250	GJL500	WCB	A351 CF8M
		GI	Gasket	FASIT400/Reinforced Graphite			
		SCO	Conic Seat	S30400			S31600
		P	Extension	Painted Steel AISI 304*			
		SF	Bellows	S30400 / S31600			
		F	Bottom Flange	GJL250	GJL500	WCB	CF8M
		GSM	Spiral Seal	Graphite + AISI 316			
			Screws	Zn-Plated Steel AISI 304*			AISI 304



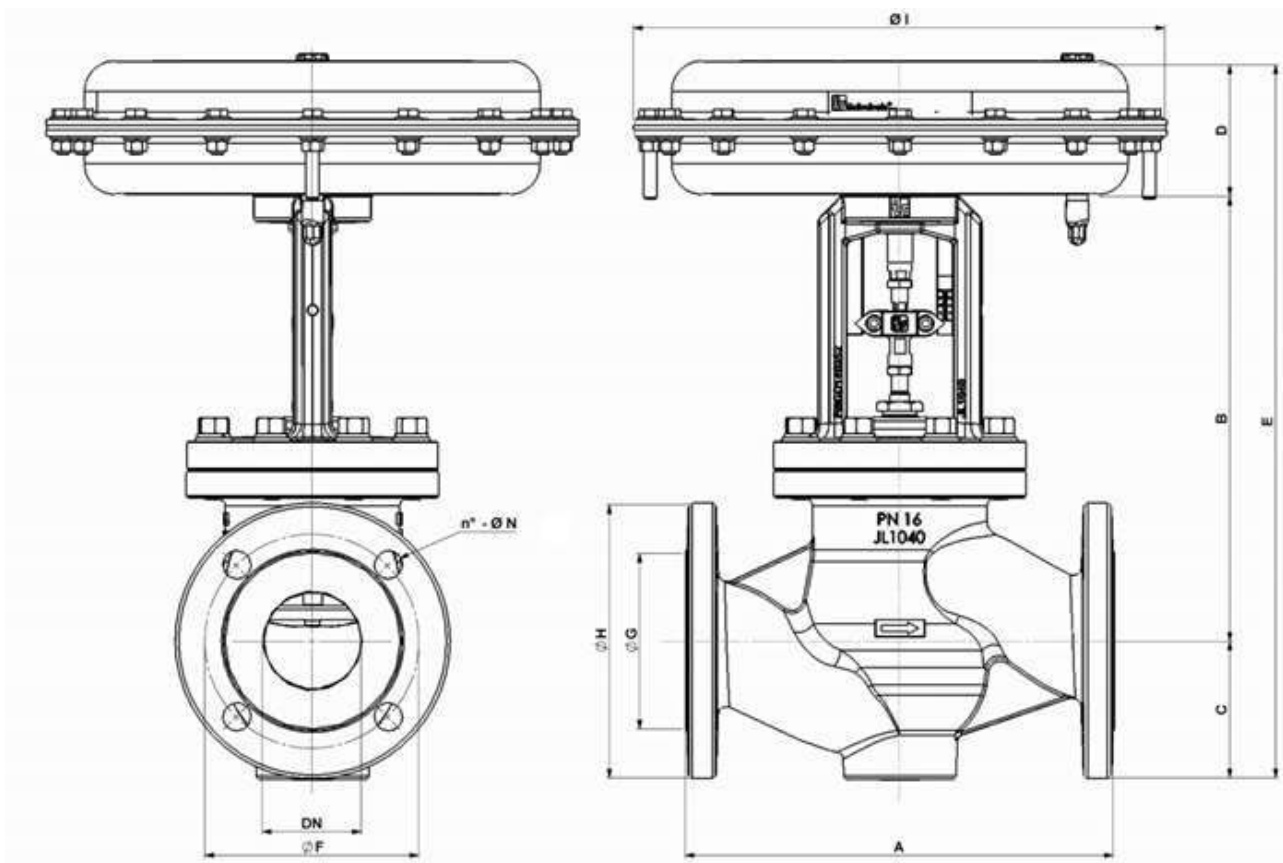
Materials – SBS DN 15+80 – 3-Way w/ bellows:



		MATERIAL						
		GJL 250	GJS 500	WCB	CF8M			
S	ACTUATOR	S1	Upper Cover	Painted Steel		S30400 Painted Steel*		
		M	Membrane	Fabric-Rubber NBR				
		PPM	Spring Plate	Fe-P04 (actuator d.200-275-360-430)				
		S2	Spring	Anodised Aluminium (actuator d.530)				
		S3	Lower Cover	Painted Steel		S30400 Painted Steel*		
		S4	Actuator Gasket	Expanded Graphite				
		BA	Gasket	NBR				
		BG	Self-Lubricating Bushing	Bronze				
		S6	Washer	Zn-Plated Steel		AISI 304		
		D	Junction Flange	A105		AISI 304		
		ST	Actuator Stem	S30400				
		C	Yoke	GJL 250	WCB	A351 CF8M		
		GG	JUNCTION	G	Coupler	A351 CF8		
G1	Spacer Washer			S30400				
G2	Adjusting Screw			S30400				
G4	Indicator			Aluminium				
G5	Lower Adjusting Screw			S30400				
GPS	PACKING	O1	Plug Stem	S30400		S31600		
		P1	Spacer Washer	AISI 304				
		PV	Packing Nut	Zn-Plated Steel AISI 304*				
		PPS	Packing	PTFE + PTFE/GRAPHITE + FPM				
		PM	Packing Spring	Harmonic Steel				
OTT	PLUG PEEK-METALLIC	PI	Upper Plug	S30400		S31600		
		IK	Ketron Insert	KETRON PEEK 1000				
		IO	Metallic Insert	S30400		S31600		
		OD	Lower Stem	S30400				
		O2	Guide	A305 (CF8 1.4308)		A351 CF8M		
		O3	Self-Locking Nut	AISI 304		AISI 316		
BODY		CV	Body	GJL250	GJL500	WCB	A351 CF8M	
		GI	Gasket	FASIT400/Reinforced Graphite				
		SCO	Conic Seat	S30400		S31600		
		P	Extension	Painted Steel AISI 304*				
		SF	Bellows	S30400 / S31600				
		F	Bottom Flange	GJL250	GJL500	WCB	CF8M	
		GSM	Spiral Seal	Graphite + AISI 316				
			Screws	Zn-Plated Steel AISI 304*			AISI 304	



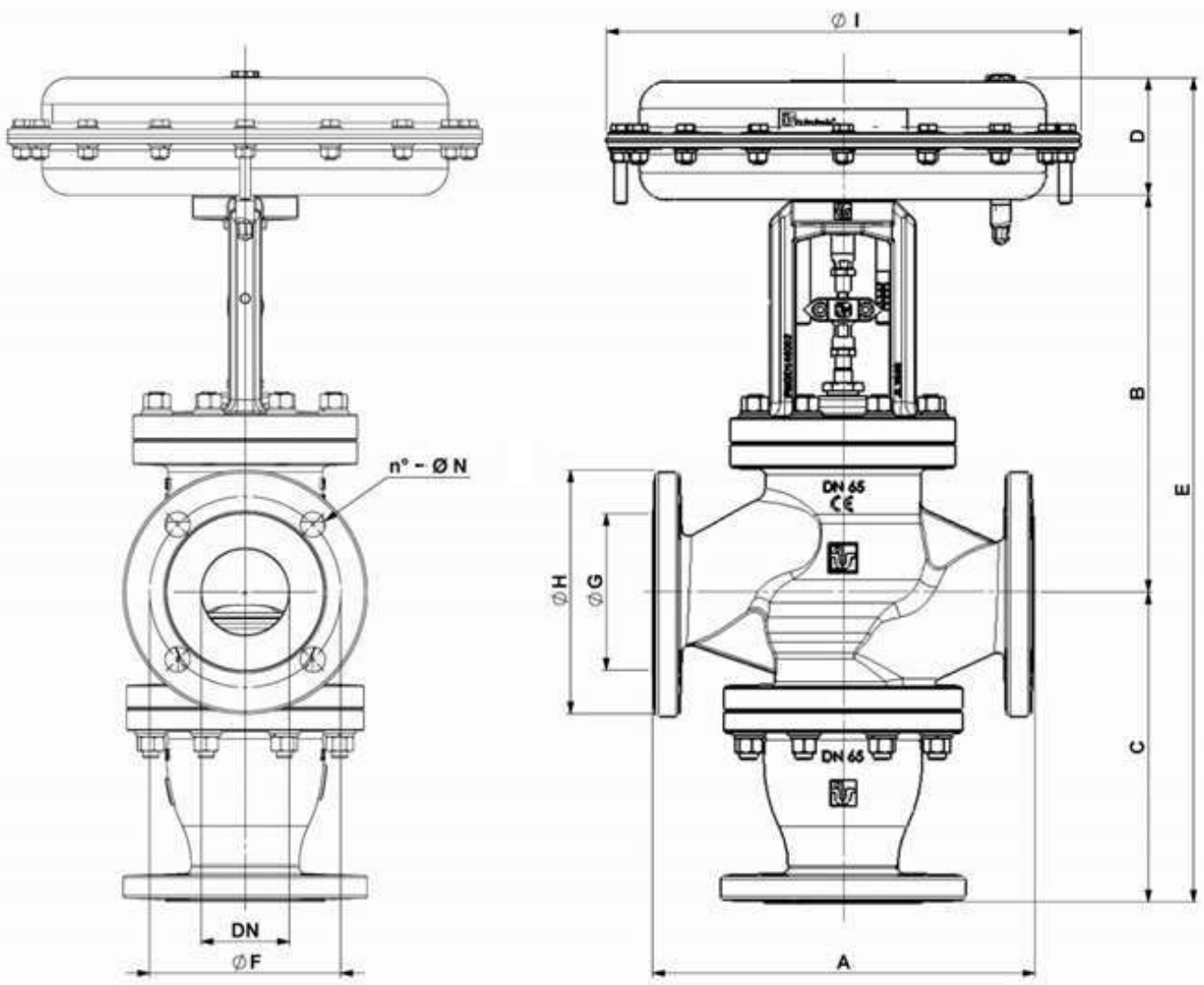
Dimensions – SBS DN 15+80 – 2-Way - DIN:



DN	A	B		C	D				E								Ø F	Ø G	Ø H	Ø I	Ø N	n° holes		
		N.C.	N.O.		200	275 360	430	530	Ø servocomando															
									200		275 360		430		530									
15	130	228	238	48	77	89	123	205	N.C.	N.O.	N.C.	N.O.	N.C.	N.O.	N.C.	N.O.	N.C.	N.O.	65	45	95	Depending on required Δp (200-275-360-430-530)	14	4
20	150	228	238	53					353	363	364	374	/	/	/	/	75	58	105					
25	160	228	238	58					358	368	369	379	/	/	/	/	85	65	115					
32	180	251	261	70					363	373	374	384	/	/	/	/	100	76	140					
40	200	249	259	75					398	408	410	420	444	454	526	536	110	84	150					
50	230	247	257	83					401	411	412	422	447	457	529	539	125	99	165					
65	290	302	312	93					407	417	418	428	453	463	535	545	145	118	185					
80	310	299	309	100					468	478	484	494	517	527	599	609	19	145	118	185	4* / 8			
									476	486	488	498	522	532	604	614	160	132	200	8				



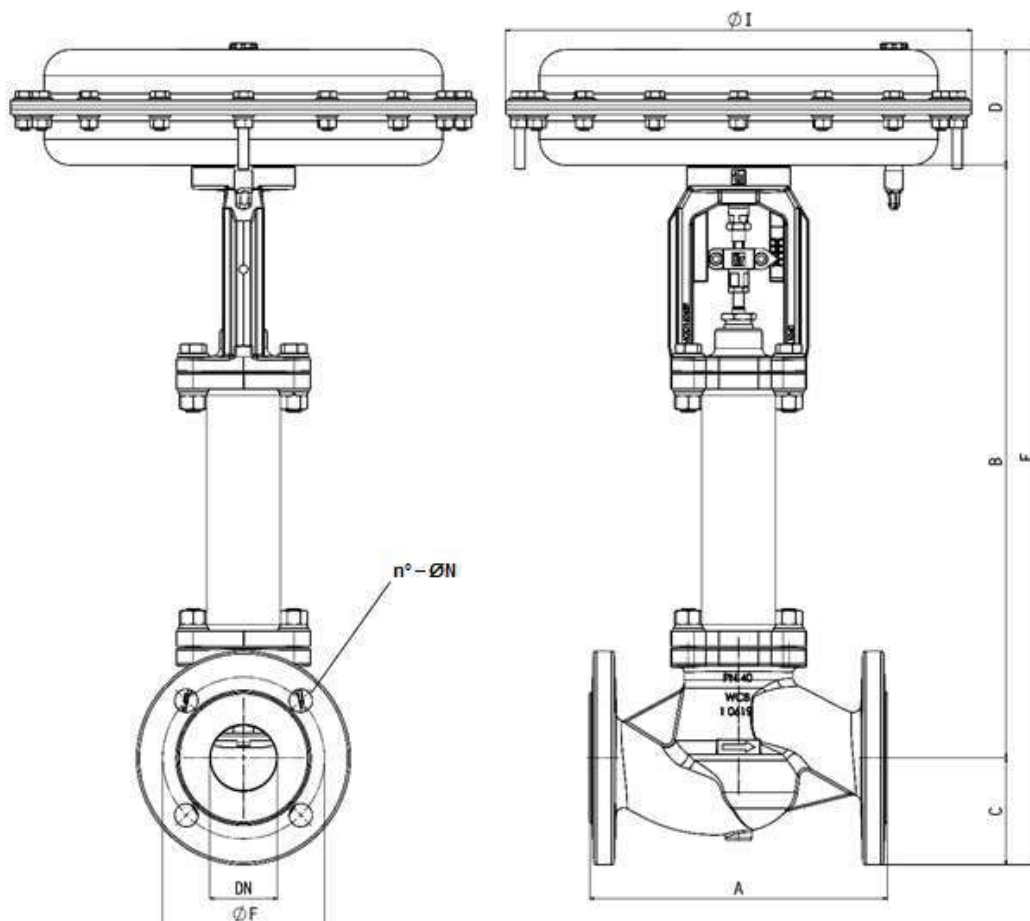
Dimensions – SBS DN 15+80 – 3-Way - DIN:



	DN	A	B		C	D				E				Ø F	Ø G	Ø H	Ø I	Ø N	n° holes				
			N.C	N.O.		Ø Actuator				200	275 360	430	530										
						200		275 360												430		530	
						N.C	N.O.	N.C	N.O.											N.C	N.O.	N.C	N.O.
NORM. CLOSED (MIX.) NORM. OPEN (DIVERT.)	15	130	225	235	111	77	89	123	250	413	423	424	434	/	/	/	/	65	45	95	Depending on required Δp (200-275-360-430-530)	14	4
	20	150	225	235	111					413	423	424	434	/	/	/	/	75	58	105			
	25	160	225	235	125					427	437	439	449	/	/	/	/	85	65	115			
	32	180	248	258	143					468	478	480	490	514	524	526	536	100	76	140			
	40	200	246	256	144					466	476	478	488	512	522	529	539	110	84	150			
	50	230	244	254	161					482	492	493	503	528	538	535	545	125	99	165			
	65	290	301	311	236					614	624	626	636	660	670	599	609	145	118	185			
	80	310	299	309	238					614	624	626	636	660	670	604	614	160	132	200			



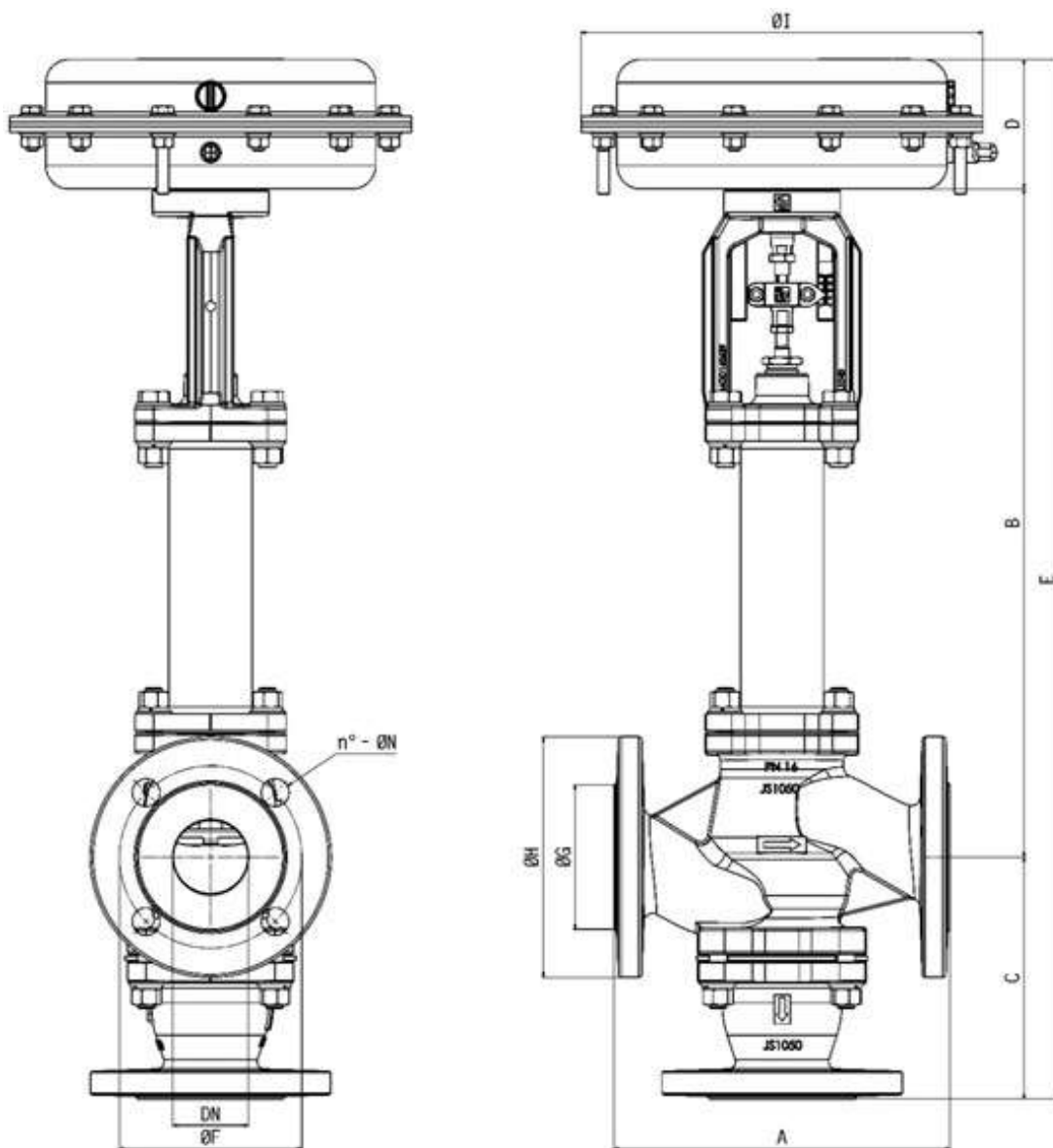
Dimensions – SBS DN 15÷80 – 2-Way with bellows - DIN:



DN	A	B		C	D				E								Ø F	Ø G	Ø H	Ø I	Ø N	n° holes			
		N.C.	N.O.		200	275 360	430	530	Ø Actuator																
									200		275 360		430		530										
N.C.	N.O.	N.C.	N.O.	N.C.	N.O.	N.C.	N.O.	N.C.	N.O.	N.C.	N.O.	N.C.	N.O.												
15	130	443	453	48	77	89	123	205	568	578	580	590	/	/	/	/	65	45	95	Depending on required ΔP (200-275-360-430-530)	14	4			
20	150	443	453	53					573	583	585	595	/	/	/	/	75	58	105						
25	160	442	452	58					577	587	589	599	/	/	/	/	85	65	115						
32	180	462	472	70					609	619	621	631	655	665	737	747	100	76	140						
40	200	460	470	75					612	622	624	634	658	668	740	750	110	84	150						
50	230	458	468	83					618	628	630	640	664	674	746	756	125	99	165						
65	290	490	500	93					660	670	672	682	706	716	788	798	145	118	185						
80	310	489	499	100					666	676	678	682	712	722	794	804	160	132	200						
																							19	4* / 8	8

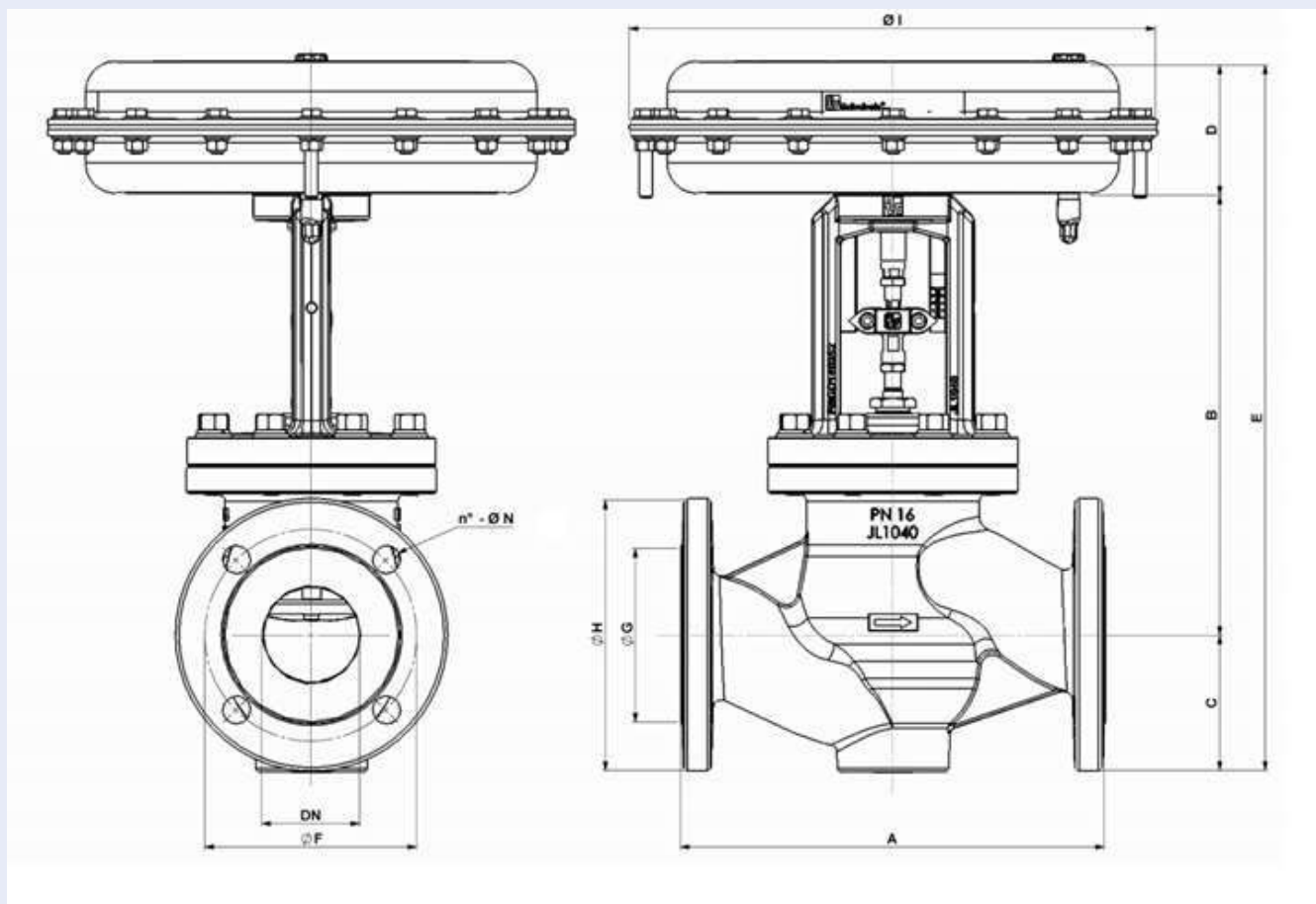


Dimensions – SBS DN 15÷80 – 3-Way with bellows - DIN:



	DN	A	B		C	D				E								Ø F	Ø G	Ø H	Ø I	Ø N	n° holes
			N.C.	N.O.		200	275 360	430	530	Ø Actuator													
										200		275 360		430		530							
			N.C.	N.O.		N.C.	N.O.	N.C.	N.O.	N.C.	N.O.	N.C.	N.O.	N.C.	N.O.	N.C.	N.O.						
NORM. CLOSED (MIX.) NORM. OPEN (DIVERT.)	15	130	443	453	116	77	89	123	205	636	646	648	658	/	/	/	/	65	45	95	Depending on required ΔP (200-275-360-430-530)	14	4
	20	150	443	453	116					636	646	648	658	/	/	/	/	75	58	105			
	25	160	442	452	130					649	659	661	671	/	/	/	/	85	65	115			
	32	180	462	472	147					686	696	698	708	732	742	814	824	100	76	140			
	40	200	460	470	149					686	696	698	708	732	742	814	824	110	84	150			
	50	230	458	468	166					701	711	713	723	747	757	829	839	125	99	165			
	65	290	490	500	241					808	818	820	830	854	864	936	846	145	118	185			
	80	310	489	499	243					809	819	821	831	855	865	937	947	160	132	200			
																					8		

Dimensions – SBS DN 15+80 – 2-Way - ANSI:



ANSI cl.150:

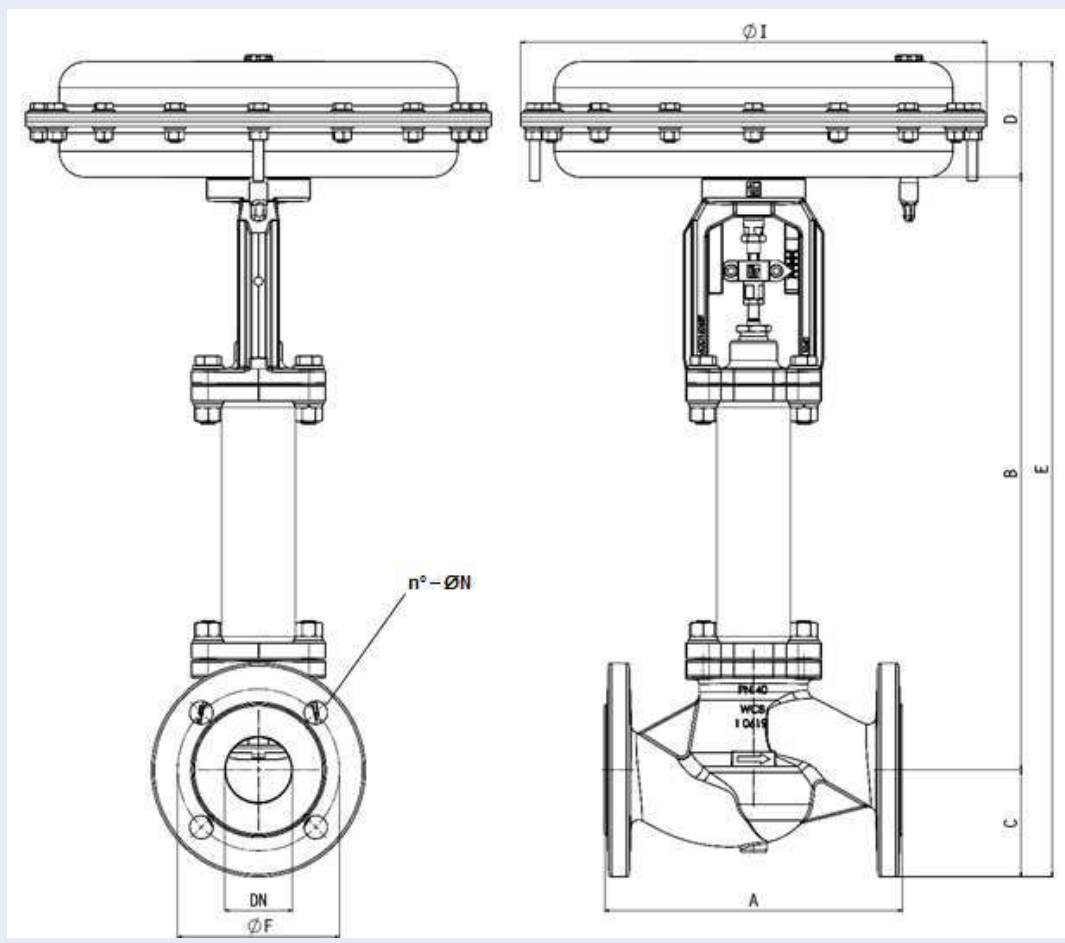
DN	A	B		C	D				E								Ø F	Ø G	Ø H	Ø I	Ø N	n° holes
		N.C	N.O.		200	275 360	430	530	Actuator Ø													
									200		275 360		430		530							
15	184	228	238	44,5	77 3,03	89 3,50	123 4,84	205 8,07	353	363	364	374	/	/	/	/	60,3	35	88,9	Depending on required ΔP (200-275-360-430-530)	15,9 0,625	4
1/2"	7,25	8,98	9,37	1,75					13,90	14,29	14,33	14,72					2,37	1,38	3,50			
20	184	228	238	49,2					358	368	369	379	69,8	42,9	98,4							
3/4"	7,25	8,98	9,37	1,94					14,09	14,49	14,53	14,92	2,75	1,69	3,87							
25	184	228	238	54					363	373	374	384	79,4	50,8	107,9							
1"	7,25	8,98	9,37	2,13					14,29	14,69	14,72	15,12	3,13	2,00	4,25							
40	222	249	259	63,5					401	411	412	422	447	457	529	539	98,4	73	127			
1 1/2"	8,75	9,80	10,20	2,50					15,79	16,18	16,22	16,61	17,60	17,99	20,83	21,22	3,87	2,87	5,00			
50	254	247	257	76,2					407	417	418	428	453	463	535	545	120,6	92	152,4			
2"	10,00	9,72	10,12	3,00					16,02	16,42	16,46	16,85	17,83	18,23	21,06	21,46	4,75	3,62	6,00			
65	276	302	312	88,9	468	478	484	494	517	527	599	609	139,7	104,7	177,8							
2 1/2"	10,88	11,89	12,28	3,50	18,43	18,82	19,06	19,45	20,35	20,75	23,58	23,98	5,50	4,12	7,00							
80	298	299	309	95,3	476	486	488	498	522	532	604	614	152,4	127	190,5							
3"	11,75	11,77	12,17	3,75	18,74	19,13	19,21	19,61	20,55	20,94	23,78	24,17	6,00	5,00	7,50							

ANSI cl.300:

DN	A	B		C	D				E								Ø F	Ø G	Ø H	Ø I	Ø N	n° holes
		N.C	N.O.		200	275 360	430	530	Actuator Ø													
									200		275 360		430		530							
15	190	228	238	47,8	77 3,03	89 3,50	123 4,84	205 8,07	353	363	364	374	/	/	/	/	66,7	35	95,6	Depending on required ΔP (200-275-360-430-530)	15,9 0,625	4
1/2"	7,50	8,98	9,37	1,88					13,90	14,29	14,33	14,72					2,63	1,38	3,76			
20	194	228	238	58,75					358	368	369	379	82,5	42,9	117,5							
3/4"	7,62	8,98	9,37	2,32					14,09	14,49	14,53	14,92	3,25	1,69	4,63							
25	197	228	238	61,9					363	373	374	384	88,9	50,8	123,8							
1"	7,75	8,98	9,37	2,44					14,29	14,69	14,72	15,12	3,50	2,00	4,87							
40	235	249	259	77,8					401	411	412	422	447	457	529	539	114,3	73	155,6			
1 1/2"	9,25	9,80	10,20	3,07					15,79	16,18	16,22	16,61	17,60	17,99	20,83	21,22	4,50	2,87	6,13			
50	267	247	257	82,6					407	417	418	428	453	463	535	545	127	92	165,1			
2"	10,50	9,72	10,12	3,25					16,02	16,42	16,46	16,85	17,83	18,23	21,06	21,46	5,00	3,62	6,50			
65	292	302	312	95,3	468	478	484	494	517	527	599	609	149,2	104,7	190,5							
2 1/2"	11,50	11,89	12,28	3,75	18,43	18,82	19,06	19,45	20,35	20,75	23,58	23,98	5,87	4,12	7,50							
80	318	299	309	104,8	476	486	488	498	522	532	604	614	168,3	127	209,5							
3"	12,50	11,77	12,17	4,13	18,74	19,13	19,21	19,61	20,55	20,94	23,78	24,17	6,63	5,00	8,25							



Dimensions – SBS DN 15+80 – 2-Way with bellows - ANSI:



ANSI cl.150:

DN	A	B		C	D				E								Ø F	Ø G	Ø H	Ø I	Ø N	n° holes
		N.C	N.O.		200	275 360	430	530	Actuator Ø													
									200		275 360		430		530							
15	184	443	453	44,5	77 3,03	89 3,50	123 4,84	205 8,07	568	578	580	590	/	/	/	/	60,3	35	88,9	Depending on required ΔP (200-275-360-430-530)	15,9 0,625	4
1/2"	7,25	17,44	17,83	1,75					22,36	22,76	22,83	23,23	/	/	/	/	2,37	1,38	3,50			
20	184	443	453	49,2					573	583	585	595	/	/	/	/	69,8	42,9	98,4			
3/4"	7,25	17,44	17,83	1,94					22,56	22,95	23,03	23,43	/	/	/	/	2,75	1,69	3,87			
25	184	442	452	54					577	587	589	599	/	/	/	/	79,4	50,8	107,9			
1"	7,25	17,40	17,80	2,13					22,72	23,11	23,19	23,58	/	/	/	/	3,13	2,00	4,25			
40	222	460	470	63,5					612	622	624	634	658	668	740	750	98,4	73	127			
1 1/2"	8,75	18,11	18,50	2,50					24,09	24,49	24,57	24,96	25,91	26,30	29,13	29,53	3,87	2,87	5,00			
50	254	458	468	76,2					618	628	630	640	664	674	746	756	120,6	92	152,4			
2"	10,00	18,03	18,43	3,00					24,33	24,72	24,80	25,20	26,14	26,54	29,37	29,76	4,75	3,62	6,00			
65	276	490	500	88,9	660	670	672	682	706	716	788	798	139,7	104,7	177,8							
2 1/2"	10,88	19,29	19,69	3,50	25,98	26,38	26,46	26,85	27,80	28,19	31,02	31,42	5,50	4,12	7,00							
80	298	489	499	95,3	666	676	678	682	712	722	794	804	152,4	127	190,5							
3"	11,75	19,25	19,65	3,75	26,22	26,61	26,69	26,85	28,03	28,43	31,26	31,65	6,00	5,00	7,50							

ANSI cl.300:

DN	A	B		C	D				E								Ø F	Ø G	Ø H	Ø I	Ø N	n° holes
		N.C	N.O.		200	275 360	430	530	Actuator Ø													
									200		275 360		430		530							
15	190	443	453	47,8	77 3,03	89 3,50	123 4,84	205 8,07	568	578	580	590	/	/	/	/	66,7	35	95,6	Depending on required ΔP (200-275-360-430-530)	15,9 0,625	4
1/2"	7,50	443,00	453,00	1,88					568,00	578,00	580,00	590,00	/	/	/	/	2,63	1,38	3,76			
20	194	443	453	58,75					573	583	585	595	/	/	/	/	82,5	42,9	117,5			
3/4"	7,62	443,00	453,00	2,32					573,00	583,00	585,00	595,00	/	/	/	/	3,25	1,69	4,63			
25	197	442	452	61,9					577	587	589	599	/	/	/	/	88,9	50,8	123,8			
1"	7,75	442,00	452,00	2,44					577,00	587,00	589,00	599,00	/	/	/	/	3,50	2,00	4,87			
40	235	460	470	77,8					612	622	624	634	658	668	740	750	114,3	73	155,6			
1 1/2"	9,25	460,00	470,00	3,07					612,00	622,00	624,00	634,00	658,00	668,00	740,00	750,00	4,50	2,87	6,13			
50	267	458	468	82,6					618	628	630	640	664	674	746	756	127	92	165,1			
2"	10,50	458,00	468,00	3,25					618,00	628,00	630,00	640,00	664,00	674,00	746,00	756,00	5,00	3,62	6,50			
65	292	490	500	95,3	660	670	672	682	706	716	788	798	149,2	104,7	190,5							
2 1/2"	11,50	490,00	500,00	3,75	660,00	670,00	672,00	682,00	706,00	716,00	788,00	798,00	5,87	4,12	7,50							
80	318	489	499	104,8	666	676	678	682	712	722	794	804	168,3	127	209,5							
3"	12,50	489,00	499,00	4,13	666,00	676,00	678,00	682,00	712,00	722,00	794,00	804,00	6,63	5,00	8,25							



SBS DN 100÷200 – GLOBE CONTROL VALVE

Multi-spring diaphragm control valve with body in GJS, WCB, CF3M

DN: from DN 100 (4") to DN250 (10")
Connections: DIN Flanges – PN 16/25/40
ANSI Flanges cl.150 / 300
BW - SW
BSPP - NPT

Packing: PTFE / PTFE-GR

Plug Seal: PEEK
Metallic
Stellite

Leakage Class: IV (metal-metal)
VI (soft)

Min Fluid T: down to -40 °C -40 °F

Max Fluid T: up to +350 °C +662 °F

Max P: up to 50 bar 725 psi

Characteristic: Linear - Eq%

Actuator Material: Epoxy-Painted FE P04

Function: 2-Way
3-Way Mixing
3-Way Diverting

Feeding Pressure: 3÷15 psi
6÷18 psi
6÷30 psi
9÷32 psi
20÷40 psi

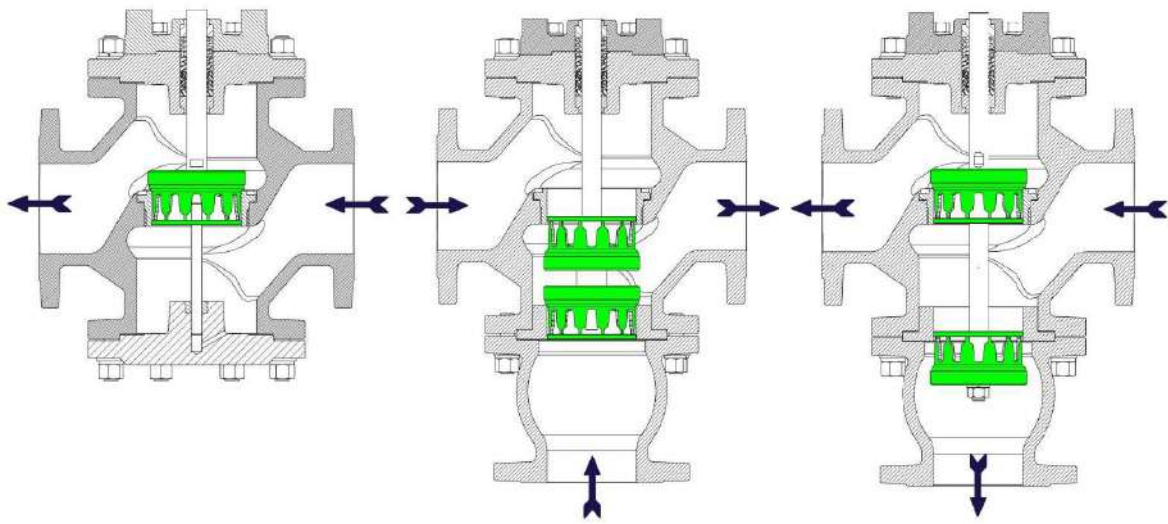
Optionals: Anti-cavitation trim
Noise Reducer
Extended Bonnet
Bellow Seals

Instrumentation: I/P Converter
Electro-pneumatic Positioner
Digital Positioner
Solenoid Valve
Lock-Up Valve
Filter-Regulator

Certification: PED 2014/68/EU
ATEX 2014/34/EU



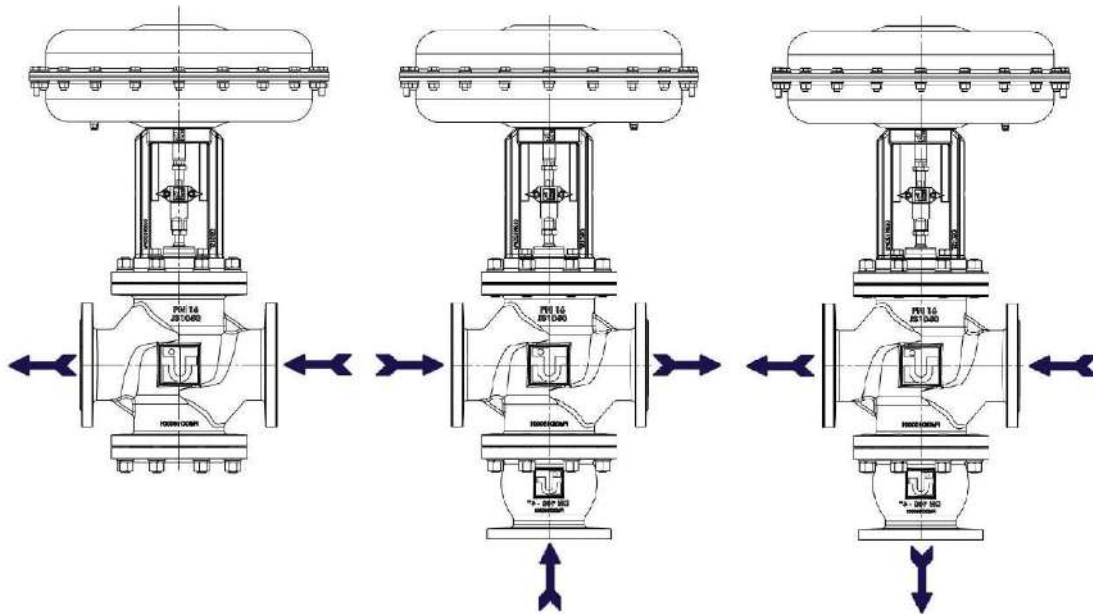
Functions:



2 WAY

3 WAY - MIXING

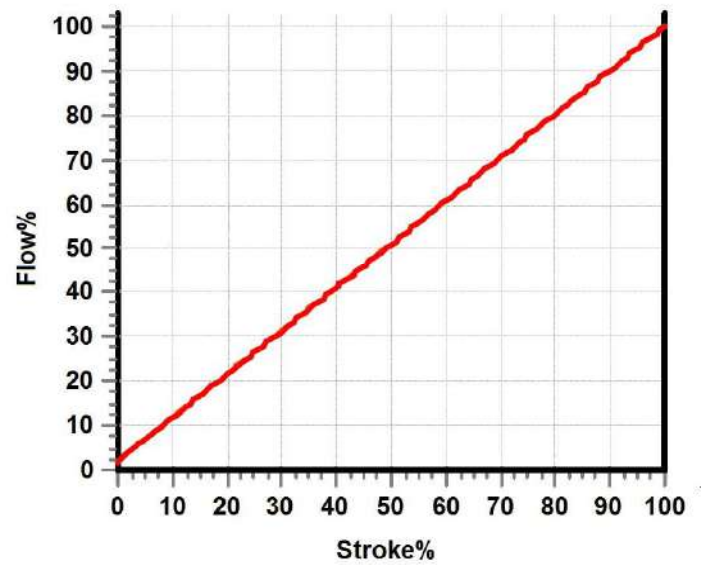
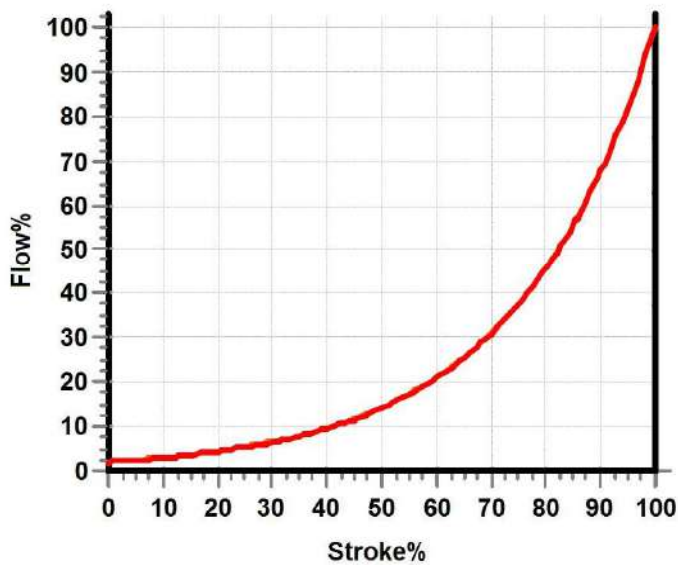
3 WAY - DIVERTING



Characteristic Curve:

EQUAL PERCENTAGE

LINEAR

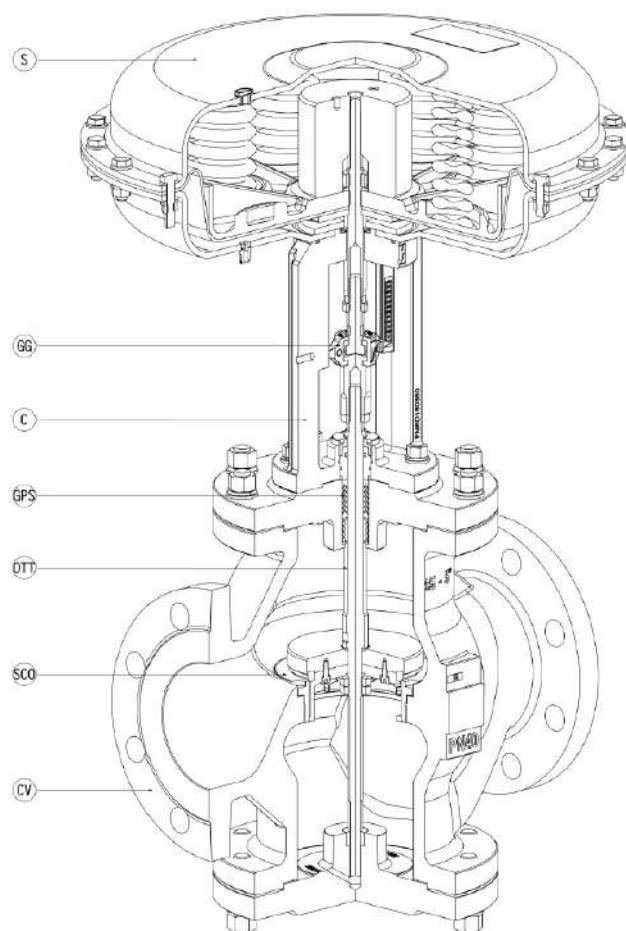


Kv / ΔP* Table – SBS DN 100÷200 :

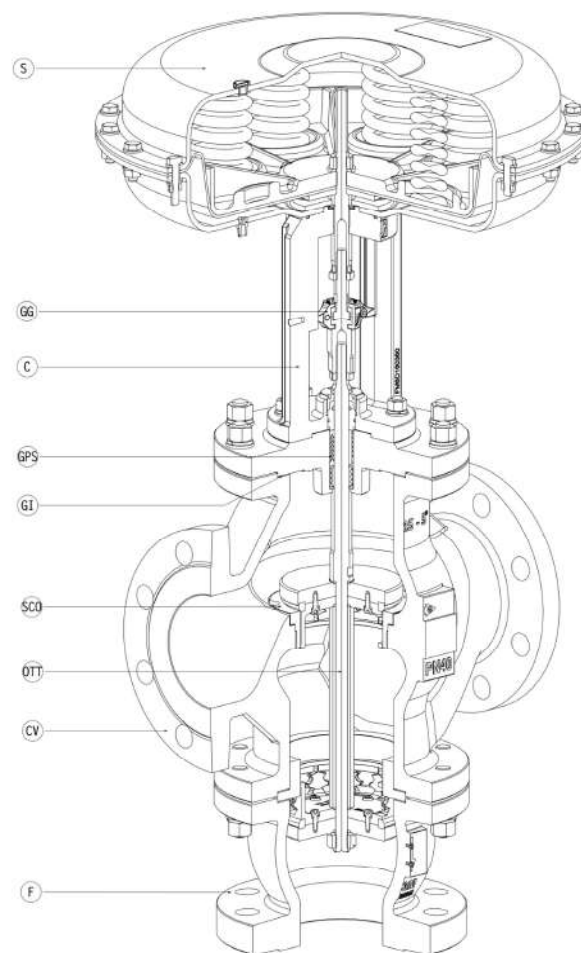
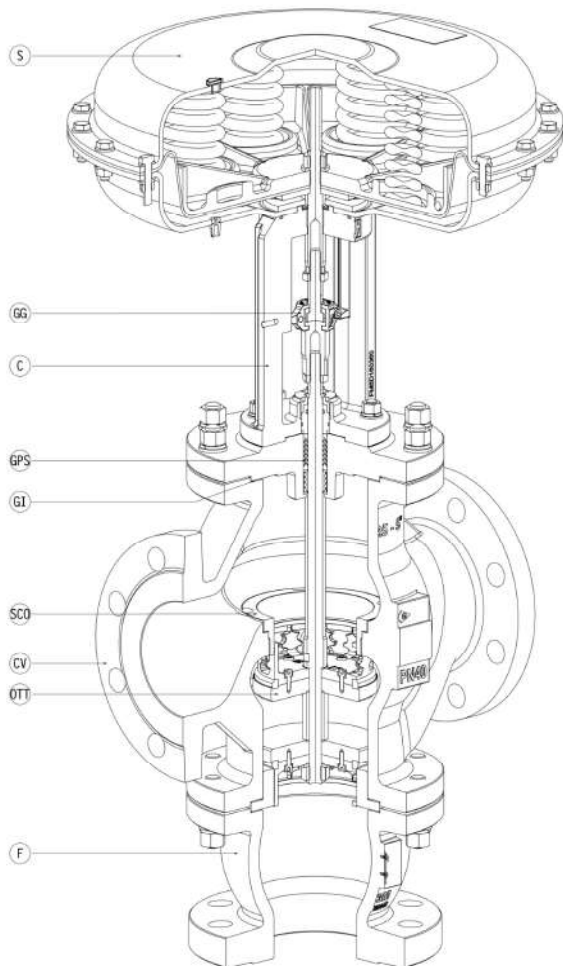
		Kv Cv				Control Signal [psi] →	Max Differential Pressure Δp					
		Linear		Eq%		Control Signal [barg] →	3÷15	6÷18	6÷30	9÷32	20÷40	
		Stroke [mm]				Max Control P [barg] →	1	1,26	2,21	2,4	2,9	
DN	Seat Ø [mm]	30	60	30	60	Serv. Ø_e [mm] ↓	X	Y	Z	K	J	← + ↓
100	63					530	7,4	14,8	14,8	21	40	1
	78						4,8	9,6	9,6	13,7	29,8	2
	100	125 143	155 177	118 135	146 167		2,9	5,9	5,9	6,6	18,1	3
125	78					530	4,8	9,6	9,6	13,7	29,8	4
	100						2,9	5,9	5,9	6,6	18,1	5
	125	215 246	235 268	188 214	221 253		1,9	3,8	3,8	4,2	11,6	6
150	100					530	2,9	5,9	5,9	6,6	18,1	7
	125						1,9	3,8	3,8	4,2	11,6	8
	150	280 321	335 383	262 299	315 360		1,3	2,6	2,6	2,9	8,1	9
200	125					530	1,9	3,8	3,8	4,2	11,6	10
	150						1,3	2,6	2,6	2,9	8,1	11
	200	500 571	610 697	470 537	574 656		0,7	2,6	1,5	1,6	4,5	12
250	150					530	1,3	2,6	2,6	2,9	8,1	13
	200						0,7	1,5	1,5	1,6	4,5	14
	250						0,5	0,9	0,9	1,1	2,9	15

* Limited by rating of the body





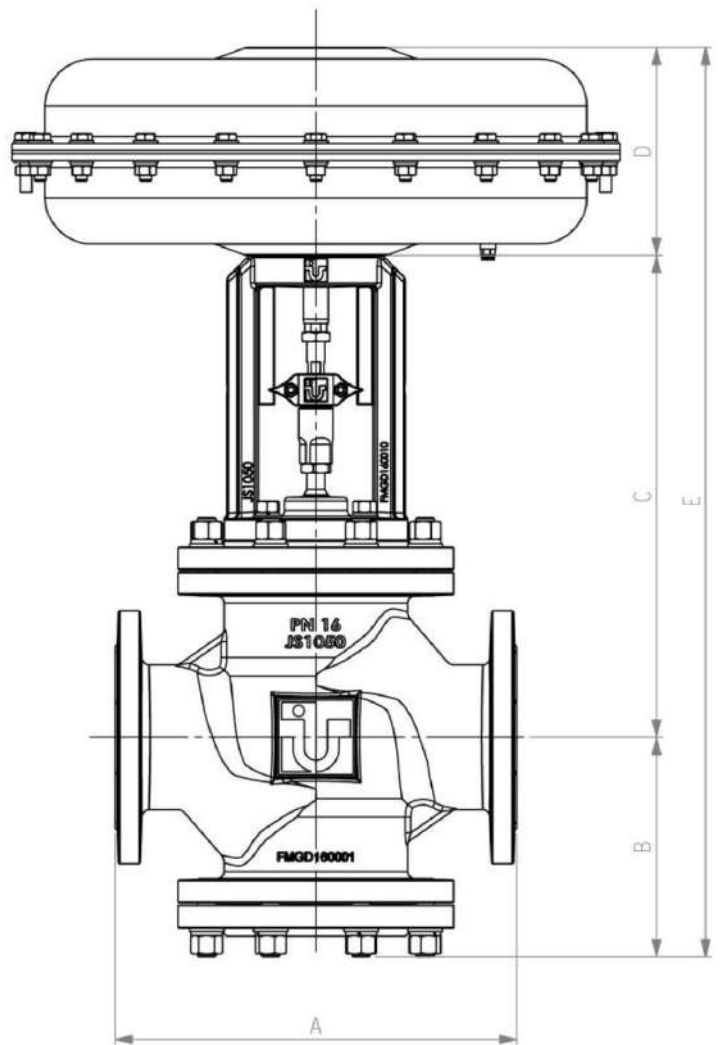
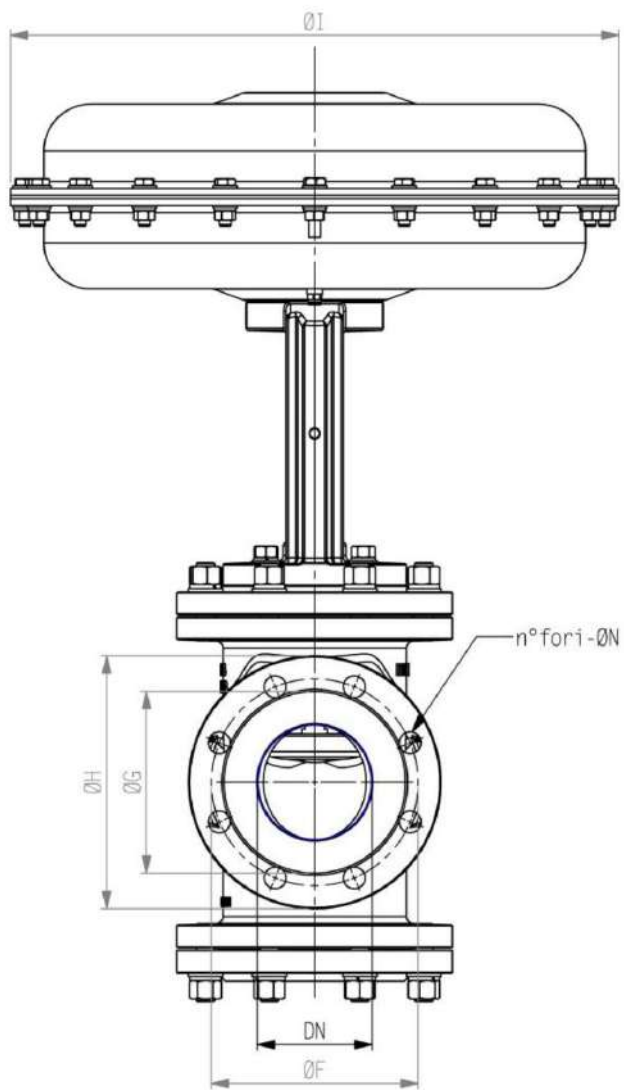
		Valve-Body Material						
		GJS 500	WCB	CF3M				
S	ACTUATOR	1.1	Upper Cover			Painted Steel		
		1.2	Spring			Harmonic Steel		
		1.3	Lower Cover			Painted Steel		
		1.4	Gasket			NBR		
		1.5	Self-Lubricating Bushing			Polymer		
		1.6	Guiding Bushing			Brass		
		1.7	Diaphragm Counter-Disc			Zn-Plated Steel		
		1.8	End Stroke			ERTALON PA 6-G		
		1.9	Junction Flange			Zn-Plated Steel		
		1.10	Actuator Gasket			VITON		
		1.11	Actuator Stem			S31600L		
		M	Membrane			Fabric-Rubber NBR		
		PPM	Spring Plate			Aluminium (d.530)		
RA	Air Port			Technopolymer				
C	Yoke			GJS 500	WCB	CF3M		
GG	JUNCTION	2.1	Coupler			A351 CF3M		
		2.2	Spacer Washer			S31600L		
		2.3	Lower Adjusting Screw			S31600L		
		2.5	Adjusting Screw			S31600L		
		D	Nut M16			AISI 304	AISI 316	
GPS	PACKING	3.1	Guiding Bushing			Anti-Corrosion Bronze		
		3.2	Spring			Harmonic Stainless Steel		
		3.3	Spacer Washer			S31600L		
		3.4	Packing			PTFE / Graphite		
		3.5	Packing Screw			S31600L		
		3.6	OR 536			VITON		
		3.7	OR 3150			VITON		
OTT	PLUG	ST	Stem			S31600L		
		GU	Guide			A351 CF3M		
		IK	Ketron Insert			KETRON PEEK 1000		
		PI	Insert Holder			S31600L		
		DO	Spacer Washer			S31600L		
		OG	Metallic Insert			S31600L		
		DA	Self-Locking Nut			S31600L		
Body		CI	Intermediate Body			-	-	-
		GI	Gasket			FLEXIGRAF FGS3		
		SCO	Conic Seat			A351 CF3M		
		CV	Body			GJS 500	WCB	A351 CF3M
		F	Bottom Flange			-	-	-
		-	Screws			Zn-Plated Steel		S31600L



		Valve-Body Material			
		GJS 500	WCB	CF3M	
S	ACTUATOR	1.1	Upper Cover		
		1.2	Spring		
		1.3	Lower Cover		
		1.4	Gasket		
		1.5	Self-Lubricating Bushing		
		1.6	Guiding Bushing		
		1.7	Diaphragm Counter-Disc		
		1.8	End Stroke		
		1.9	Junction Flange		
		1.10	Actuator Gasket		
		1.11	Actuator Stem		
		M	Membrane		
		PPM	Spring Plate		
RA	Air Port				
C	Yoke	GJS 500	WCB	CF3M	
GG	JUNCTION	2.1	Coupler		
		2.2	Spacer Washer		
		2.3	Lower Adjusting Screw		
		2.5	Adjusting Screw		
D	Nut M16	AISI 304		AISI 316	
GPS	PACKING	3.1	Guiding Bushing		
		3.2	Spring		
		3.3	Spacer Washer		
		3.4	Packing		
		3.5	Packing Screw		
		3.6	OR 536		
		3.7	OR 3150		
OTT	PLUG	ST	Stem		
		GU	Guide		
		IK	Ketron Insert		
		PI	Insert Holder		
		DO	Spacer Washer		
		OG	Metallic Insert		
DA	Self-Locking Nut				
Body	CI	Intermediate Body			
	GI	Gasket			
	SCO	Conic Seat			
	CV	Body			
	F	Bottom Flange			
	-	Screws			

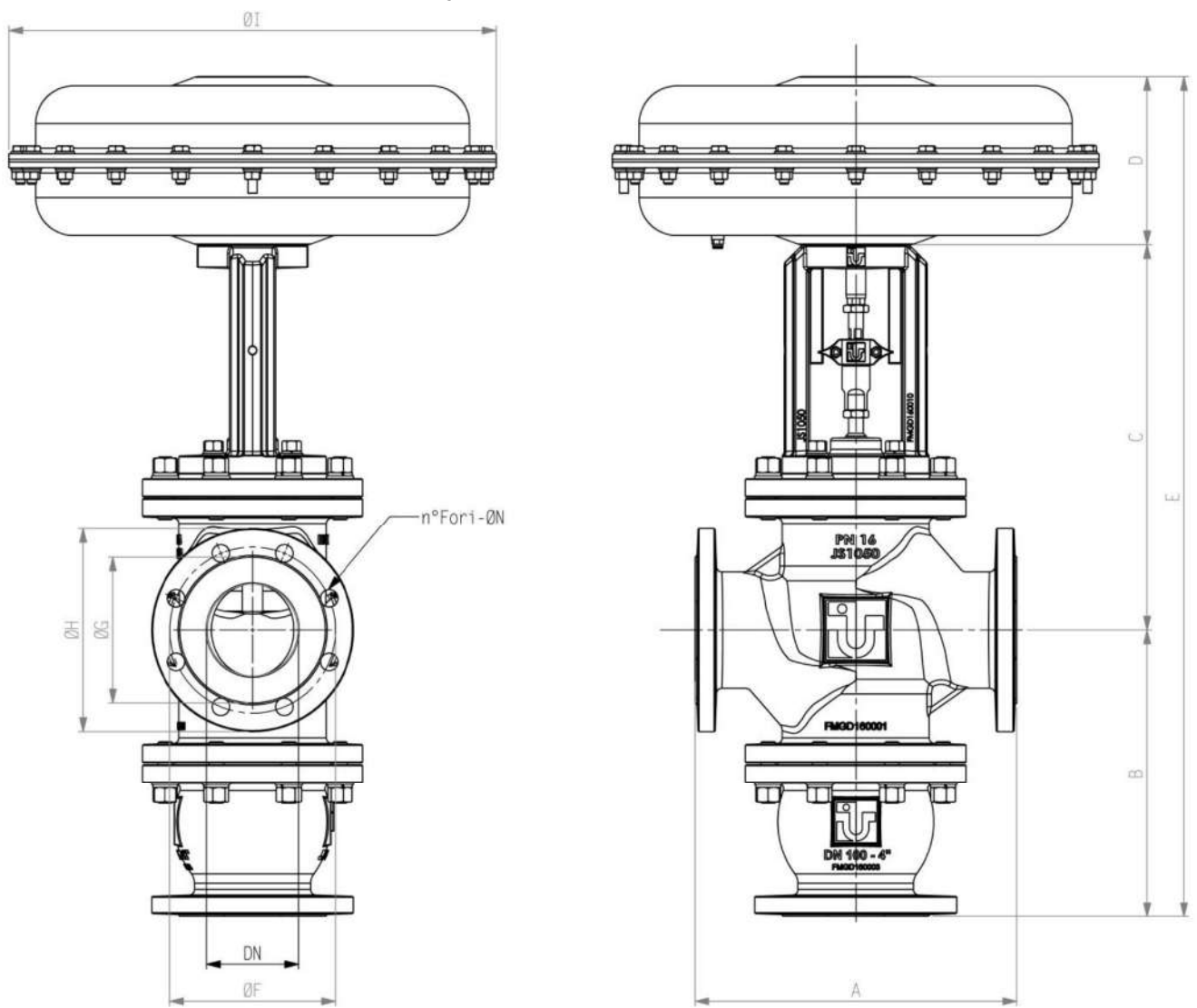


Dimensions – SBS DN 100+200 – 2-Way - DIN:



DN	A		B	C	D		E		F		G	H		I	N		Nr. holes			
	PN16	PN40			Actuator				PN16	PN40		PN16	PN40		PN16	PN40	PN16	PN40	PN16	PN40
					530	530 s.60	530	530 s.60												
100	350		196	420	173	323	789	939	180	190	162	220	235	530	19	22	8			
125	400		232	459			864	1014	210	220	188	250	270		19	26	8			
150	480		271	493			937	1087	240	250	212	285	300		23	26	8			
200	600		240	561			974	1124	295	320	268	340	375		22	30	12			

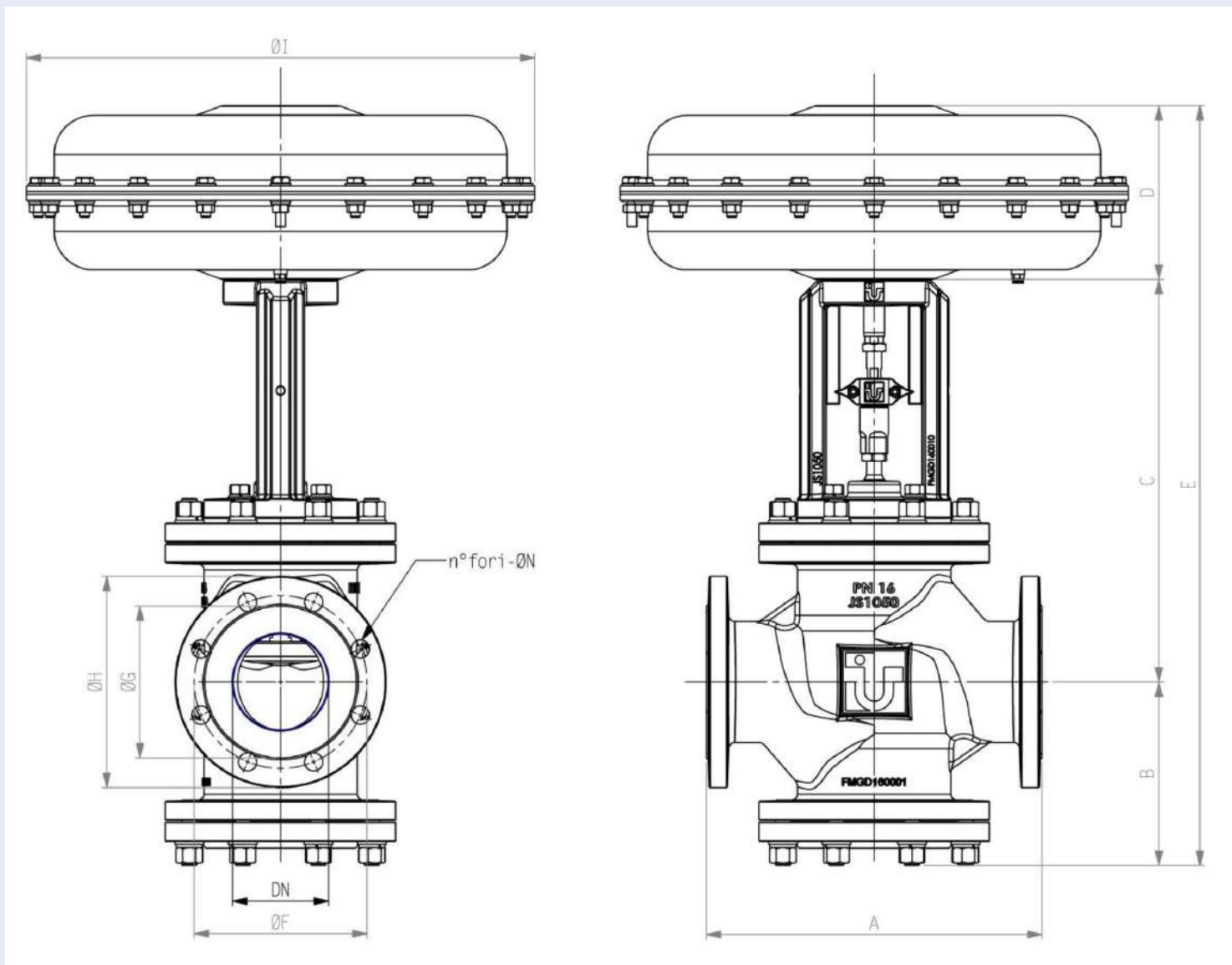
Dimensions – SBS DN 100+200 – 3-Way - DIN:



DN	A		B	C	D		E		F		G	H		I	N		Nr. holes			
	PN16	PN40			Actuator				PN16	PN40		PN16	PN40		PN16	PN40	PN16	PN40	PN16	PN40
					530	530 s.60	530	530 s.60												
100	350		312	420	173	323	905	1055	180	190	162	220	235	530	19	22	8			
125	400	353	459	985			1135	210	220	188	250	270	19		26	8				
150	480	408	493	1075			1225	240	250	212	285	300	23		26	8				
200	600	477	561	1211			1361	295	320	268	340	375	22		30	12				



Dimensions – SBS DN 100+200 – 2-Way - ANSI:



ANSI cl.150 / 300:

DN	A		B	C	D		E		Ø F		Ø G		Ø H		Ø I	Ø N		n° holes			
	cl.150	cl.300			actuator Ø				cl.150	cl.300	cl.150	cl.300	cl.150	cl.300		cl.150	cl.300	cl.150	cl.300	cl.150	cl.300
					530	530 STR.60	530	530 STR.60													
100 4"	352 13,88	368 14,5	196 196	420 420	173 6,81	323 12,72	789 31,06	939 36,97	190,5 7,5	200 7,874	157,2 6,189	157,2 6,189	228,6 9	254 10	530	19 0,748	22,2 0,866	8	8		
150 6"	451 17,75	473 18,62	271 271	493 493			937 36,89	1087 42,8	241,3 9,5	269,9 10,63	215,9 8,5	215,9 8,5	279,4 11	317,5 12,5		22,2 0,866					
200 8"	543 21,38	568 22,38	240 240	561 561			974 38,35	1124 44,25	298,4 11,75	330,2 13	269,8 10,62	269,8 10,62	342,9 13,5	381 15		25,4 1,00	12				



Double-Head Actuator
Stroke 60mm



Safety Bellows



Body and Actuator in
Stainless Steel



Handwheel



Anti-Cavitation Trim
Silencer



Adaptability



Instrumentation



Pneumatics

Air Consumption – Actuator:

Actuator [mm]	Stroke [mm]	Air Consumption [l]
200	15	0,760
	20	0,870
275	15	1,438
	20	1,639
360	15	2,463
	20	2,809
430	15	3,513
	20	4,008
530	30	7,588
	60	18,265

Pressure-Temperature Rating:

PRESSURE-TEMPERATURE RATING										
Maximum Working Pressure Depending on Temperature										
PN	Material	Name	Temperature (°C)							
			-10	50	100	150	200	250	300	350
16	GJL - 250	cast-iron	16	16	16	16	12,8	11,2	9,6	-
	GJS - 500	spher. cast-iron	16	16	16	16	14,7	13,9	12,8	11,2
	A216 WCB	carbon steel	16	15,8	14,6	14,3	13,8	13,2	12,2	11,7
	AISI 316	stainless steel	16	15,2	13,3	12,2	11,3	10,5	10	9,6
25	A216 WCB	carbon steel	25	24,7	22,9	22,3	21,6	20,6	19,1	18,2
	AISI 316	stainless steel	25	23,7	20,8	19	17,6	16,5	15,6	15
40	A216 WCB	carbon steel	40	39,5	36,6	35,7	34,6	32,9	30,6	29,2
	AISI 316	stainless steel	40	38	33,3	30,4	28,2	26,3	25	24
63	A216 WCB	carbon steel	63	62,2	57,7	56,2	54,5	51,9	48,1	45,9
	AISI 316	stainless steel	63	59,8	52,5	47,9	44,3	41,5	39,3	37,9
100	A216 WCB	carbon steel	100	98,8	91,5	89,2	86,5	82,3	76,4	72,9
	AISI 316	stainless steel	100	95	83,3	76	70,4	65,9	62,4	60,1

ANSI	Material	Name	Temperature (°C)							
			-10	50	100	150	200	250	300	350
150	A216 WCB	carbon steel	20	19	17,9	15,9	13,8	11,8	9,9	8,5
	AISI 316	stainless steel	20	19,2	16,2	14,8	13,4	11,7	9,6	8,6
300	A216 WCB	carbon steel	50	50	46,4	45,2	43,8	41,7	38,7	37
	AISI 316	stainless steel	50	48,1	42,2	38,5	35,7	33,4	31,6	30,5
600	A216 WCB	carbon steel	110	100	92,7	90,4	87,8	83,4	77,4	73,9
	AISI 316	stainless steel	110	96,2	84,4	77	71,3	66,8	63,2	60,9

