

Straight through control valve with V-port plug

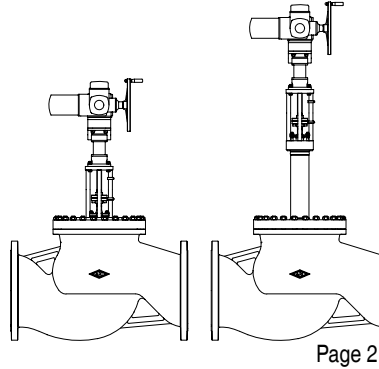
DN 300 - 500



STEVI® 425 / 426

Electric actuator AUMA SAR with LE

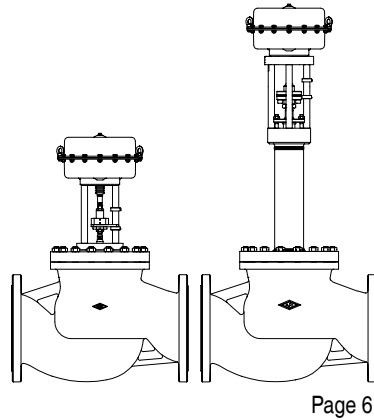
- Electric multiturn actuator, capable of high closing pressures
- Enclosure IP 67
- 2 torque switches
- 2 travel switches
- Handwheel
- Overheating protection for motor as standard
- Additional devices available, e.g. potentiometer
- Explosion proof version available
- Encased linear thrust unit



STEVI® 425 / 426

Pneumatic actuator DP

- Reversible pneumatic actuator
- Actuator with rolling diaphragm
- Air supply pressure max. 6 bar
- Stem protection by bellow
- Maintenance-free O-ring sealing
- Assembly of additional devices acc. to DIN IEC 60534-6



Features:

- Maintenance-free EPDM- and bellows seal
- Burnished stem
- Rangeability 30 : 1
- Kvs-values reducible
- Three-ply bellows seal
- Travel indicator
- Burnished stem



(Material and Figure-No.
refer to technical data
or part list.)

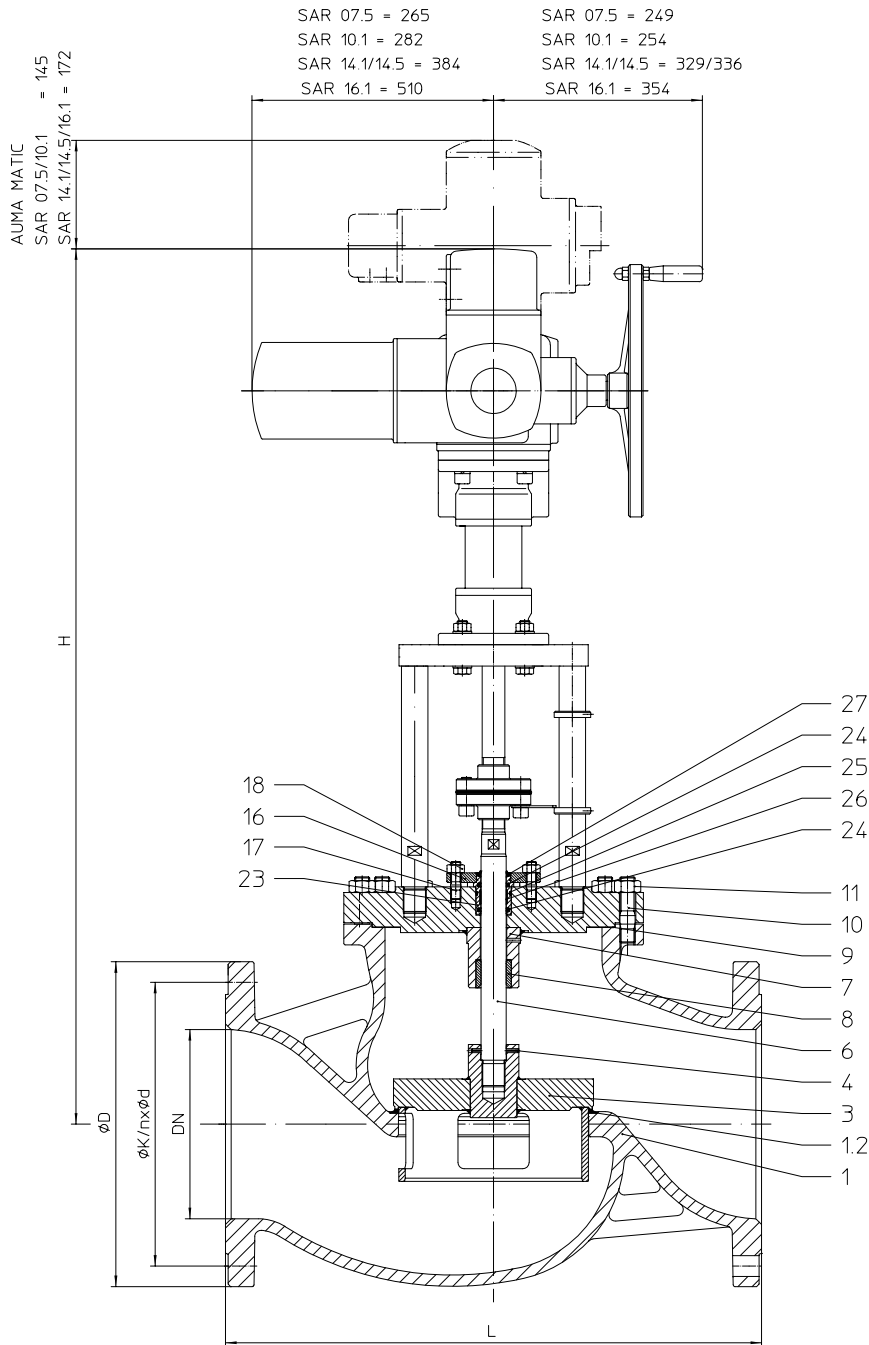


Fig. 425

Heights and weights

DN		300	350	400	500	
...425	H	(mm)	1223	1281	1316	
	SA 07.5 with LE 25.1	PN16/PN25-40 (kg)	498 / 518	672 / 752	994 / 1054	
	H	(mm)	1280	1338	1533	1621
	SA 10.1 with LE 50.1	PN16/PN25-40 (kg)	506 / 526	680 / 760	1002 / 1062	1513 / 1564
	H	(mm)	1468	1526	1561	1649
	SA 14.1 with LE 70.1	PN16/PN25-40 (kg)	563 / 583	736 / 816	1059 / 1119	1570 / 1621
	H	(mm)	1468	1526	1561	1649
	SA 14.5 with LE 100.1	PN16/PN25-40 (kg)	565 / 585	738 / 818	1061 / 1121	1572 / 1623
H	(mm)	1477	1635	1690	1778	
SA 16.1 with LE 200.1	PN16/PN25-40 (kg)	617 / 637	790 / 870	1113 / 1173	1624 / 1675	

Other dimensions refer to page 9.

(For version with AUMA SAR Ex other heights.)

max. permissible closing pressures on flow-to-open $P_2 = 0$

(Observe pressure-temperature-limits on page 9. Plug design acc. to „Selection STEVI®“, refer to techn. annex.)

Fig. 425

DN		300			350			400			500				
Standard Kvs-values ³⁾	Seat - Ø (mm)			301			351			380			480		
	Kvs - value			1500			1800			2500			4000		
	Travel (mm)			90			120			140			140		
Reduced Kvs-values	Seat - Ø (mm)	200	250		250	301		301	351		351	380			
	Kvs - value	630	1000		1000	1500		1500	1800		1800	2500			
	Travel (mm)	65	65		65	90		90	120		120	140			
Actuator ¹⁾ AUMA SAR 07.5 with LE 25.1	Closing press. (bar) I./II.	5	3,1	1,6	3,1	1,6		1,6							
	Differential pressure (bar)	3,3	2,1	1,4	2,1	1,4		1,4							
	Torque (Nm)	60			60			60							
	Operating time ²⁾ (s)	71		68	71		68	68							
	Exit speed (min ⁻¹)	11		16	11		16	16							
Actuator ¹⁾ AUMA SAR 10.1 with LE 50.1	Closing press. (bar) I./II.	8,6	5,4	3,1	5,4	3,1	2,2	3,1	2,2	1,9	2,2	1,9	1,1		
	Differential pressure (bar)	5,6	3,6	2,4	3,6	2,4	1,8	2,4	1,8	1,5	1,8	1,5	1		
	Torque (Nm)	120			120			120			120				
	Operating time ²⁾ (s)	59		56	59		56	55		56	55	64	55		64
	Exit speed (min ⁻¹)	11		16	11		16	22		16		22		22	
Actuator ¹⁾ AUMA SAR 14.1 with LE 70.1	Closing press. (bar) I./II.	15,3	9,7	6	9,7	6	4,3	6	4,3	3,7	4,3	3,7	2,2		
	Differential pressure (bar)	9,3	6	4	6	4	3	4	3	2,5	3	2,5	1,6		
	Torque (Nm)	250			250			250			250				
	Operating time ²⁾ (s)	70			70		64	70		64	55	64		55	
	Exit speed (min ⁻¹)	8		11	8		11	16		11	16	22		16	22
Actuator ¹⁾ AUMA SAR 14.5 with LE 100.1	Closing press. (bar) I./II.	31,4	20	12,9	20	12,9	9,4	12,9	9,4	8	9,4	8	5		
	Differential pressure (bar)	15,8	10,1	6,7	10,1	6,7	5	6,7	5	4,3	5	4,3	2,7		
	Torque (Nm)	500			500			500			500				
	Operating time ²⁾ (s)	70			70		64	70		64	55	64		55	
	Exit speed (min ⁻¹)	8		11	8		11	16		11	16	22		16	22
Actuator ¹⁾ AUMA SAR 16.1 with LE 200.1	Closing press. (bar) I./II.	40	30,9	20,1	30,9	20,1	14,8	20,1	14,8	12,6	14,8	12,6	7,9		
	Differential pressure (bar)	27	17,3	11,5	17,3	11,5	8,5	11,5	8,5	7,3	8,5	7,3	4,6		
	Torque (Nm)	900			900			900			900				
	Operating time ²⁾ (s)	61			61		56	61		56	66	56		66	
	Exit speed (min ⁻¹)	8		11	8		11	16		11	16		16		
I. Fig. 405: EPDM-stem sealing;		II. Fig. 405: PTFE- / pure graphite-packing													

1) Motor voltage: 400V 50Hz 3~
(other voltages on request)
Technical data for actuator refer to price list.

2) Indicated operating times with 50 Hz.

3) Not for perforated flow restrictor (presentation refer to page 10). Kvs-values acc. to „Selection STEVI®“, refer to techn. annex.

(Material and Figure-No. refer to technical data or part list.)

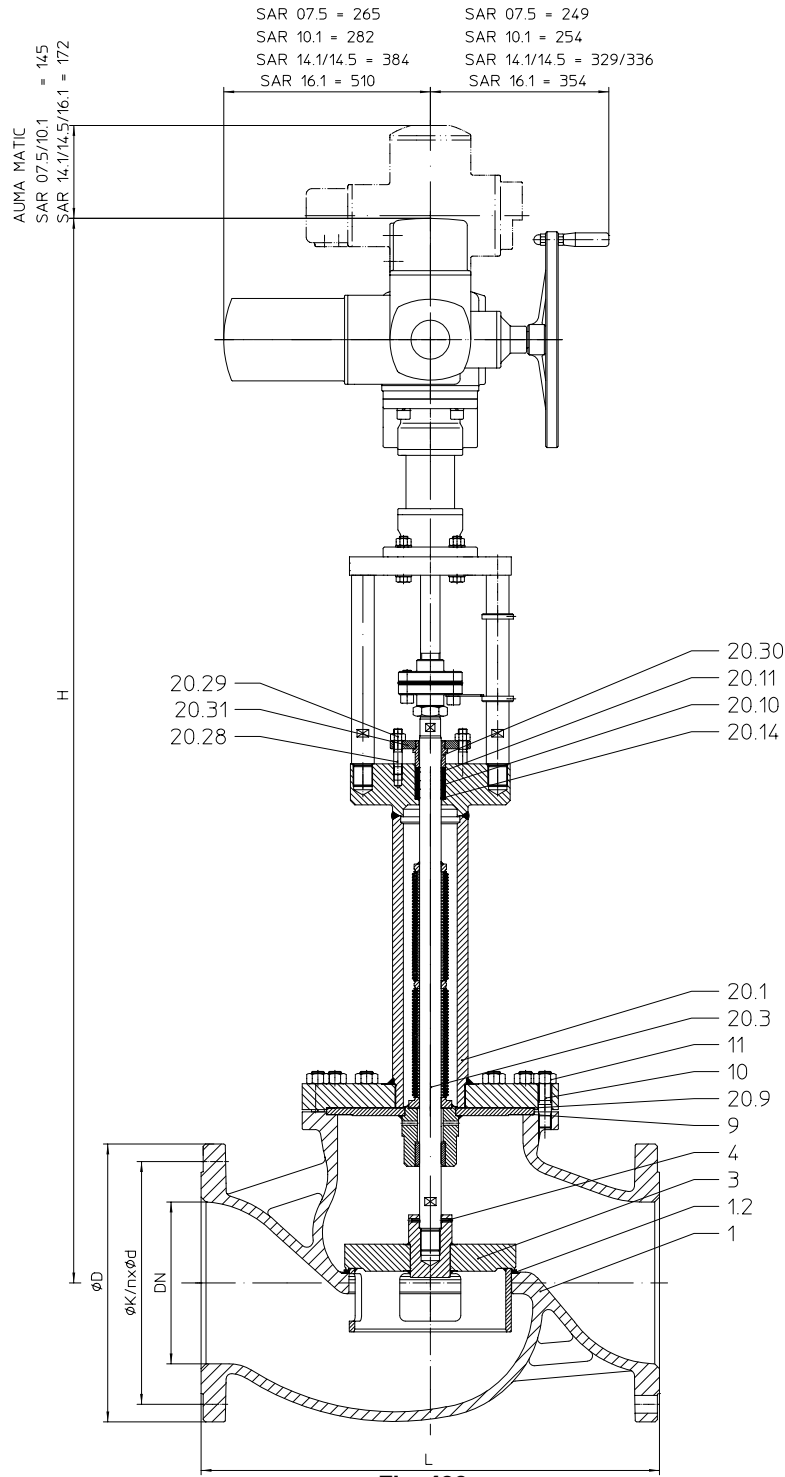


Fig. 426

Heights and weights

DN		300	350	400	500		
...426	H	(mm)	1809	1892	1902		
	SA 07.5 with LE 25.1	PN16/PN25-40	(kg)	575 / 595	751 / 831	1009 / 1069	
	H	(mm)	1866	1949	2119	2047	
	SA 10.1 with LE 50.1	PN16/PN25-40	(kg)	583 / 603	759 / 839	1017 / 1077	1533 / 1584
	H	(mm)	2054	2137	2147	2235	
	SA 14.1 with LE 70.1	PN16/PN25-40	(kg)	640 / 660	816 / 896	1074 / 1134	1590 / 1641
	H	(mm)	2054	2137	2147	2235	
	SA 14.5 with LE 100.1	PN16/PN25-40	(kg)	642 / 662	818 / 898	1076 / 1136	1592 / 1643
H	(mm)	2063	2246	2276	2344		
SA 16.1 with LE 200.1	PN16/PN25-40	(kg)	694 / 714	870 / 950	1128 / 1188	1644 / 1695	

Other dimensions refer to page 9

(For version with AUMA SAREx other heights.)

max. permissible closing pressures on flow-to-open $P_2 = 0$

(Observe pressure-temperature-limits on page 9. Plug design acc. to „Selection STEVI®“, refer to techn. annex.)

Fig. 426

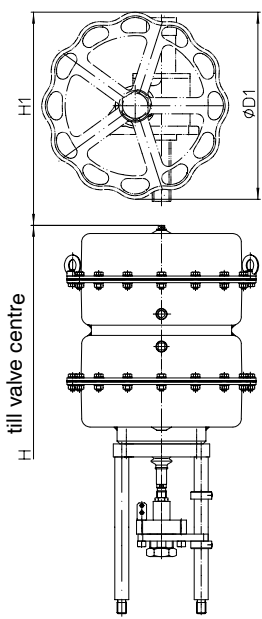
DN		300			350			400			500		
Standard Kvs-values ³⁾	Seat - Ø (mm)			301			351			380		480	
	Kvs - value			1500			1800			2500		4000	
	Travel (mm)			90			120			140		140	
Reduced Kvs-values	Seat - Ø (mm)	200	250		250	301		301	351		351	380	
	Kvs - value	630	1000		1000	1500		1500	1800		1800	2500	
	Travel (mm)	65	65		65	90		90	120		120	140	
Actuator ¹⁾ AUMA SAR 07.5 with LE 25.1	Closing pressure (bar)	5	3,1	1,6	3,1	1,6		1,6					
	Differential pressure (bar)	3,3	2,1	1,4	2,1	1,4		1,4					
	Torque (Nm)	60							60				
	Operating time ²⁾ (s)	71		68	71	68		68					
	Exit speed (min ⁻¹)	11		16	11	16		16					
Actuator ¹⁾ AUMA SAR 10.1 with LE 50.1	Closing pressure (bar)	8,6	5,4	3,1	5,4	3,1	2,2	3,1	2,2		2,2		
	Differential pressure (bar)	5,6	3,6	2,4	3,6	2,4	1,8	2,4	1,8		1,8		
	Torque (Nm)	120										120	
	Operating time ²⁾ (s)	59		56	59	56	55	56	55		55		
	Exit speed (min ⁻¹)	11		16	11	16	22	16	22		22		
Actuator ¹⁾ AUMA SAR 14.1 with LE 70.1	Closing pressure (bar)	15,3	9,7	6	9,7	6	4,3	6	4,3		4,3		
	Differential pressure (bar)	9,3	6	4	6	4	3	4	3		3		
	Torque (Nm)	250										250	
	Operating time ²⁾ (s)	70			70			64	70	64		64	
	Exit speed (min ⁻¹)	8		11	8	11	16	11	16		16		
Actuator ¹⁾ AUMA SAR 14.5 with LE 100.1	Closing pressure (bar)	31,4	20	12,9	20	12,9	9,4	12,9	9,4		9,4		
	Differential pressure (bar)	15,8	10,1	6,7	10,1	6,7	5	6,7	5		5		
	Torque (Nm)	500										500	
	Operating time ²⁾ (s)	70			70			64	70	64		64	
	Exit speed (min ⁻¹)	8		11	8	11	16	11	16		16		
Actuator ¹⁾ AUMA SAR 16.1 with LE 200.1	Closing pressure (bar)	40	30,9	20,1	30,9	20,1	14,8	20,1	14,8		14,8		
	Differential pressure (bar)	27	17,3	11,5	17,3	11,5	8,5	11,5	8,5		8,5		
	Torque (Nm)	900										900	
	Operating time ²⁾ (s)	61			61			56	61	56		56	
	Exit speed (min ⁻¹)	8		11	8	11	16	11	16		16		
Closing pressures valid for bellows seal													

1) Motor voltage: 400V 50Hz 3~
(other voltages on request)

Technical data for actuator refer to price list.

2) Indicated operating times with 50 Hz.

3) Not for perforated flow restrictor (presentation refer to page 10). Kvs-values acc. to „Selection STEVI®“, refer to techn. annex.



(Material and Figure-No. refer to technical data or part list.)

Design with DP 34 Tandem

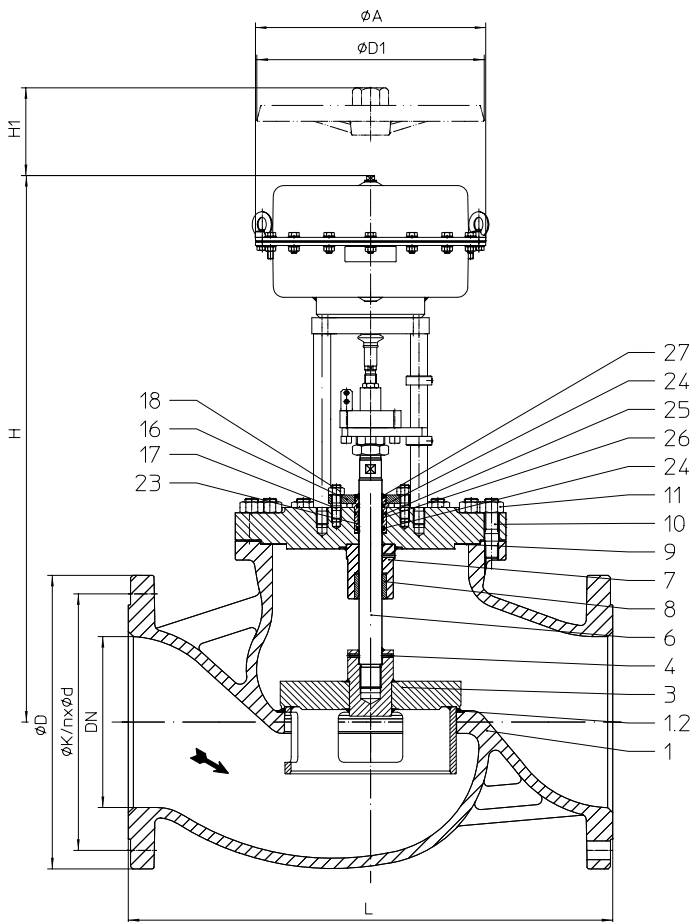


Fig. 425

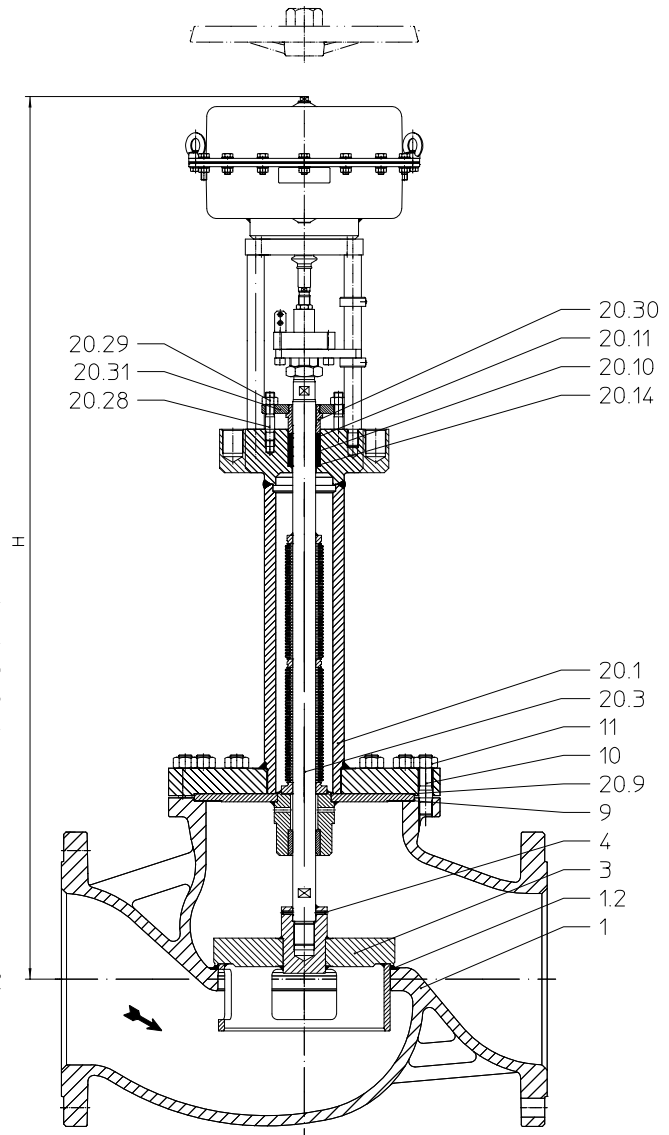


Fig. 426

Heights and weights

DN		300	350	300	350
Actuator		DP 34		DP 34 Tandem	
Ø A	(mm)	405			
...425	H (mm)	960	1018	1213	1271
	PN16 / PN25-40 (kg)	507 / 527	681 / 761	578 / 598	752 / 832
...426	H (mm)	1546	1629	1799	1882
	PN16 / PN25-40 (kg)	585 / 605	760 / 840	656 / 676	831 / 911

Other dimensions refer to page 9.

Top mounted handwheel

Actuator		DP 34	DP 34 Tandem
Ø D1	(mm)	400	400
H1	(mm)	470	630
Weight	(kg)	17	41

Technical data for actuator refer to data sheet DP32-34T.

max. permissible closing pressures on flow-to-open $P_2 = 0$

(Observe pressure-temperature-limits on page 9. Plug design acc. to „Selection STEVI®“, refer to techn. annex.)

DN		300				350			
Reduced Kvs-values	Seat - \varnothing (mm)	200	250			250			
	Kvs - value	630	1000			1000			
	Travel (mm)	65	65			65			
Spring closes on air failure									
Antrieb DP 34	Control signal (bar)	1,00 - 2,00	Air supply pressure min. (bar)	2,3	1,7	1,0		1,0	
		2,00 - 4,00		4,5	4,1	2,6		2,6	
Antrieb DP 34 T	Control signal (bar)	0,40 - 1,20	Air supply pressure min. (bar)	1,4	1,2				
		1,00 - 2,00		2,3	4,1	2,6		2,6	
		2,00 - 4,00		4,5	9	5,7		5,7	
Spring opens on air failure									
Actuator DP 34			Air supply pressure min. (bar)	2	1,7	1		1	
				3	4,1	2,6		2,6	
				4	6,6	4,1		4,1	
				5	9	5,7		5,7	
				6	11,5	7,3		7,3	
Actuator DP 34 T			Air supply pressure min. (bar)	1,4	1,2				
				2	4,1	2,6		2,6	
				3	9	5,7		5,7	
				4	14	8,9		8,9	
				5	18,9	12		12	
Closing pressures valid for all stem sealings.									
Air supply pressure max. of pneumatic actuators DP:		6 bar							
Air supply pressure max. limit of control valve:		a) 5 bar		b) 4,5 bar		c) 4 bar		d) 3,5 bar e) 3 bar	

Figure		PN 16 - 12.425 / 12.426	PN 16 - 22.425 / 22.426	PN 25 - 34.425 / 34.426 PN 40 - 35.425 / 35.426
Pos.	Description	Material- DIN- No.		
1	Body	GG-25 , 0.6025	GGG-40.3, 0.7043	1.0619+N, 1.0619.01
1.2	Seat ring	X20Cr13+QT, 1.4021+QT		G19 9 Nb Si, 1.4551
3	Plug *	P265 GH, 1.0425 + St 37-2 / G19 9 Nb Si, 1.4551		
4	Straight pin *	X12CrNi17-7, 1.4310		
5	Screw joint *	X20Cr13+QT, 1.4021+QT		
6	Stem *	X20Cr13+QT, 1.4021+QT		
7	Packing box housing	P265 GH, 1.0425 + St 37-2		
8	Guide bushing	X20Cr13+QT, 1.4021+QT		
9	Gasket *	CrNi laminated both sides with pure graphite		
10	Studs	25CrMo4, 1.7218		
11	Hexagon nuts	C35E, 1.1181		
12	Packing ring *	PTFE or pure graphite		
14	Washer *	X5CrNi18-10, 1.4301		
15	Pressure ring*	X20Cr13+QT, 1.4021+QT		
16	Packing box flange	X20Cr13+QT, 1.4021+QT		
17	Studs	25CrMo4, 1.7218		
18	Hexagon nuts	C35E, 1.1181		
20.1	Bellows housing	P265 GH, 1.0425 / St / C22.8		
20.3	Stem- / Bellows unit *	X20Cr13+QT, 1.4021+QT / X6CrNiMoTi17-12-2, 1.4571		
20.9	Gasket *	CrNi laminated both sides with pure graphite		
20.10	Packing ring *	Pure graphite		
20.11	Packing ring *	Pure graphite		
20.12	Washer *	X5CrNi18-10, 1.4301		
20.28	Studs	25CrMo4, 1.7218		
20.29	Hexagon nuts	C35E, 1.1181		
20.30	Pressure ring *	X5CrNi18-10, 1.4301		
20.31	Packing box flange	X20Cr13+QT, 1.4021+QT		
21	Stem adapter*	X20Cr13+QT, 1.4021+QT		
22	Straight pin *	X12CrNi17-7, 1.4310		
23	Stem guide *	X5CrNi18-10, 1.4301		
24	Gasket *	EPDM 70		
25	O-ring *	EPDM 70		
26	Guiding band *	PTFE		
27	Scraper *	NBR		
31	Aadapter flange	GGG-40.3, 0.7043		
32	Head cap screw	8.8		

* Spare parts

Please indicate when ordering:

- | | |
|--------------------------|----------------------------------|
| 1. Figure-No. | 6. Kvs-value |
| 2. Nominal diameter (DN) | 7. Flow characteristic |
| 3. Nominal pressure (PN) | 8. Stem sealing |
| 4. Body material | 9. Actuator |
| 5. Plug design | 10. Special design / accessories |

Example:

Figure 35.425; nominal diameter DN300; nominal pressure PN40; body material 1.0619+N; V-port plug; Kvs 1000; equal percentage; PTFE-packing; DP 34, spring closes on air failure, spring range 2.0 - 4.0 bar.

Dimensions in mm
Weight in kg
Pressures in barg (gauge)
1 bar $\hat{=}$ 10 ⁵ Pa $\hat{=}$ 0,1 MPa
Kvs in m ³ /h
1Kvs $\hat{=}$ 0,85 Cv

Technical data of the valve

Type:	Control valve Fig. 425-426	Guiding:	• V-port plug, stem and port guiding
Nominal diameter:	DN 300-500	Flow characteristic:	Equal percentage or linear
Nominal pressure:	PN 16, PN 25, PN 40	Rangeability:	• 30 : 1
Stem sealing: (refer to page 10)	Fig. 425 • EPDM-packing 0°C up to +130°C • PTFE-packing -10°C up to +250°C • Pure graphite-packing -10°C up to +450°C Fig. 426 • Stainless steel bellows seal with safety stuffing box -60°C up to +450°C	Shut off classes:	• Metal seat - Leakage class IV acc. to DIN EN 1349 or IEC 60534-4 • Soft seat - Leakage class VI acc. to DIN EN 1349 or IEC 60534-4
Body material:	GG-25 PN16 Fig. 12.425, 12.426 (only DN300) GGG-40.3 PN16 Fig. 22.425, 22.426 (only DN300 and DN350 and without reduction) 1.0619+N PN25 Fig. 34.425, 34.426 PN40 Fig. 35.425, 35.426 Other materials and versions on request	Selection of possible applications:	Fig. 425 • Cooling water • Cooling brine • Warm water • Hot water • Steam • Gas Fig. 426 • Refrigerant • Cooling water • Warm water • Hot water • Thermal oil • Steam • Gas - other applications on request -
Plug design: (refer to page 10)	• V-port plug, metal seat Special designs: • V-port plug with PTFE soft seat (max. 200°C) (on request) • Perforated plug, metal seat • Parabolic pressure balanced plug or perforated pressure balanced plug, metal seat Material of piston seal: PTFE		

Technical data for actuator refer to corresponding actuator data sheets.

Pressure - temperature - ratings acc. to DIN EN 1092-1 / -2

observe regulations

Material	PN	Temperature										
		-60°C up to <-10°C*	-10°C	20°C	120°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C
GG-25	16	---	16 bar	16 bar	16 bar	14,4 bar	12,8 bar	11,2 bar	9,6 bar	---	---	---
GGG-40.3	16	---	16 bar	16 bar	16 bar	15,5 bar	14,7 bar	13,9 bar	12,8 bar	11,2 bar	---	---
Material	PN	Temperature										
		-60°C up to <-10°C*	-10°C	20°C	100°C	150°C	200°C	250°C	300°C	350°C	400°C	450°C
1.0619+N	25	12,5 bar *	25 bar	25 bar	23,3 bar	21,7 bar	19,4 bar	17,8 bar	16,1 bar	15 bar	14,4 bar	13,9 bar
	40	20 bar *	40 bar	40 bar	37,3 bar	34,7 bar	30,2 bar	28,4 bar	25,8 bar	24 bar	23,1 bar	22,2 bar

Intermediate values for max. permissible operational pressures can be determined by linear interpolation of the given temperature / pressure chart only from 120°C / 100°C upwards. * Valve with extended bonnet, studs and nuts made of A4-70 required

ARI-Valves of GG-25 are not allowed in systems acc. to TRD 110.

A production allowance acc. to TRB 801 No. 45 exists. (acc. to TRB 801 No. 45 GG-25 is not allowed.)

Valve dimensions

Face to face dimension FTF series 1 according to DIN EN 558-1 (DIN 3202-1 series F1)

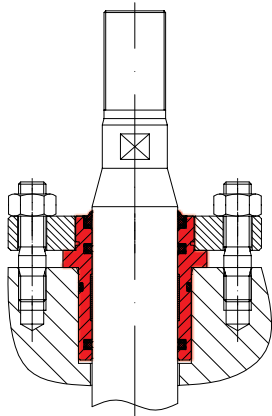
DN		300	350	400	500
L	(mm)	850	980	1100	1350 (acc.to ARI-standard)

Flange dimensions

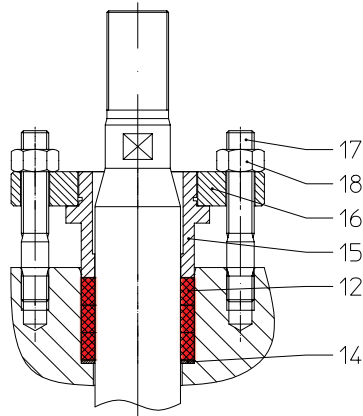
Flanges acc. to DIN EN 1092-1/-2 (Flangeholes/-thickness tolerances acc. to DIN 2533/2544/2545)

DN			300	350	400	500
PN 16	∅ D	(mm)	460	520	580	715
	∅ K	(mm)	410	470	525	650
	n x ∅ d1	(mm)	12 x 26	16 x 26	16 x 30	20 x 33
PN 25	∅ D	(mm)	485	555	620	730
	∅ K	(mm)	430	490	550	660
	n x ∅ d1	(mm)	16 x 30	16 x 33	16 x 36	20 x 36
PN 40	∅ D	(mm)	515	580	660	755
	∅ K	(mm)	450	510	585	670
	n x ∅ d1	(mm)	16 x 33	16 x 36	16 x 39	20 x 42

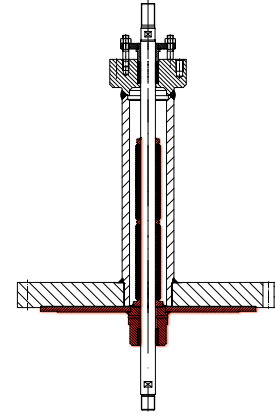
Stem sealings



EPDM-packing

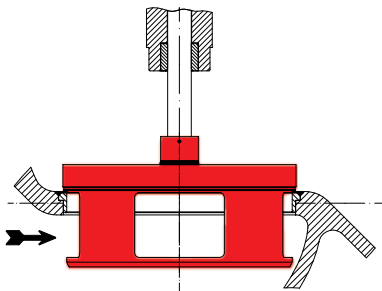


PTFE- / pure graphite-packing

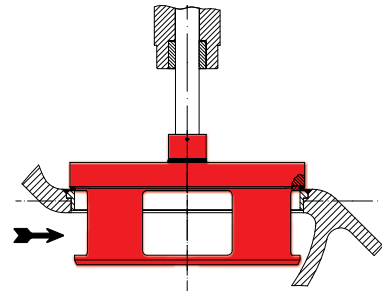


Bellows seal with safety stuffing box

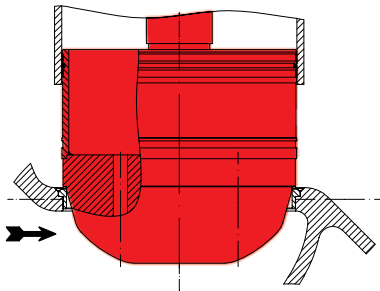
Plug designs



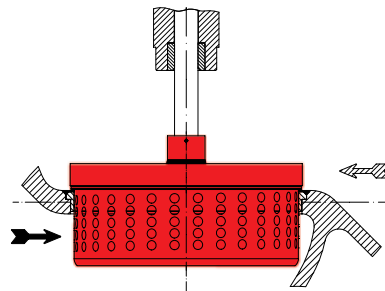
V-port plug with stem- and port guiding (standard)



V-port plug with stem- and port guiding, soft seal

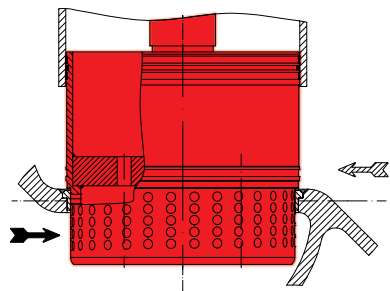


Parabolic pressure balancing plug



Perforated plug with stem- and port guiding

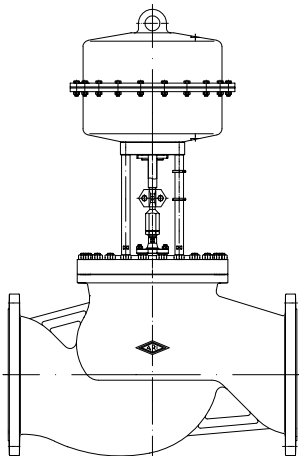
➡ Flow direction for gas and steam to reduce the sound level
 ↗ Flow direction for liquids to reduce the cavitation



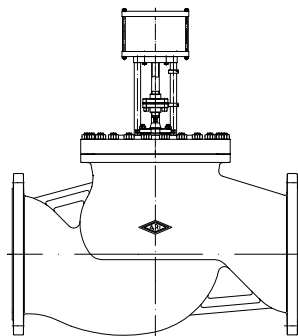
Perforated pressure balancing plug

➡ Flow direction for gas and steam to reduce the sound level
 ↗ Flow direction for liquids to reduce the cavitation

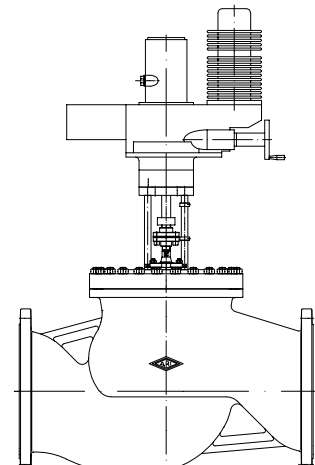
... also with further actuators:
(on request)



... with pneumatic actuators



... with hydraulic actuators



... with electric actuators



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