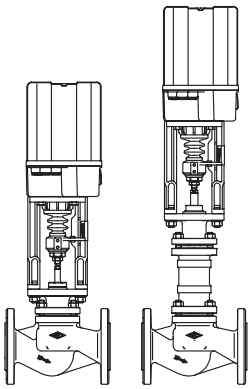
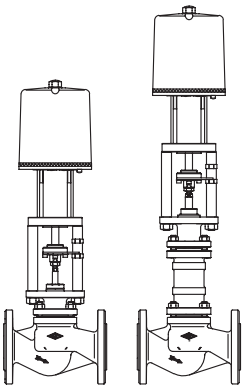
Control valve in straightway form with screwed seat ring
DN 15 - 250

ARI-STEVI® 445 / 446
Electric actuator ARI-PREMIO
- Enclosure IP 65
- 2 torque switches
- Handwheel
- Additional devices available, e.g. potentiometer



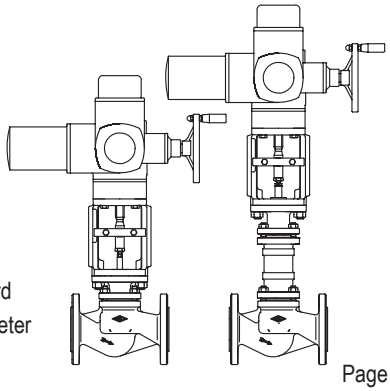
Page 2

ARI-STEVI® 445 / 446
Electric actuator FR with safety reset
- Optional direction for safety reset, OPEN or CLOSE, as required
- Enclosure IP 54
- 1 travel switch for OPEN and CLOSE
- Additional devices available, e.g. potentiometer



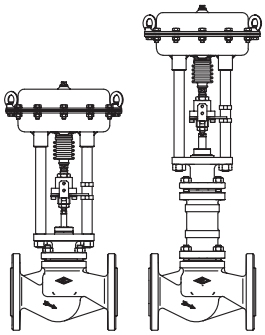
Page 10

ARI-STEVI® 445 / 446
Electric actuator AUMA SAR
- 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



Page 14

ARI-STEVI® 445 / 446
Pneumatic actuator ARI-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



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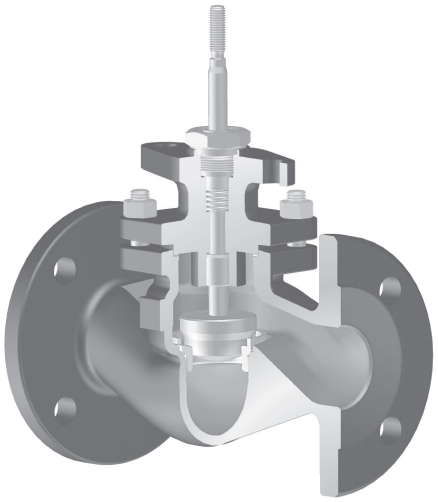


Fig. 445

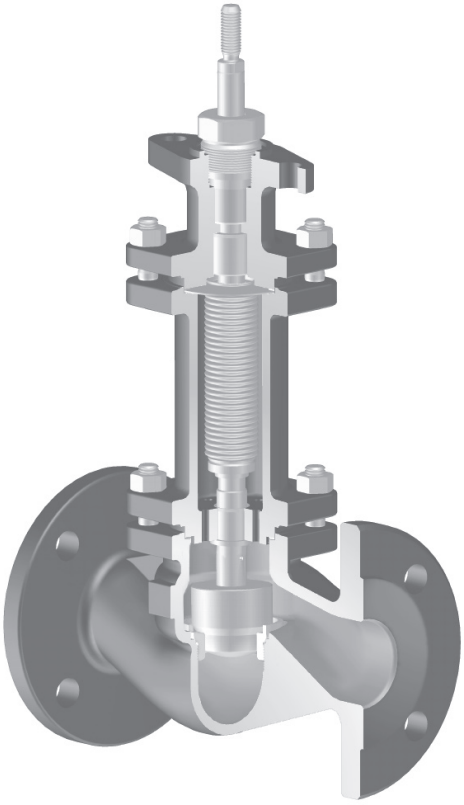


Fig. 446

Features:
- Compact design
- Precision guided stem
- Burnished stem
- Tapered seat ring
- Replaceable seat and plug
- Screwed seat ring
- Kvs-value reduzierbar
- Rangeability 50 : 1
- Spring loaded PTFE-V ring packing unit
- Two-ply bellows seal as standard
- Travel indicator

Control valve in straightway form with electric actuator ARI-PREMIO

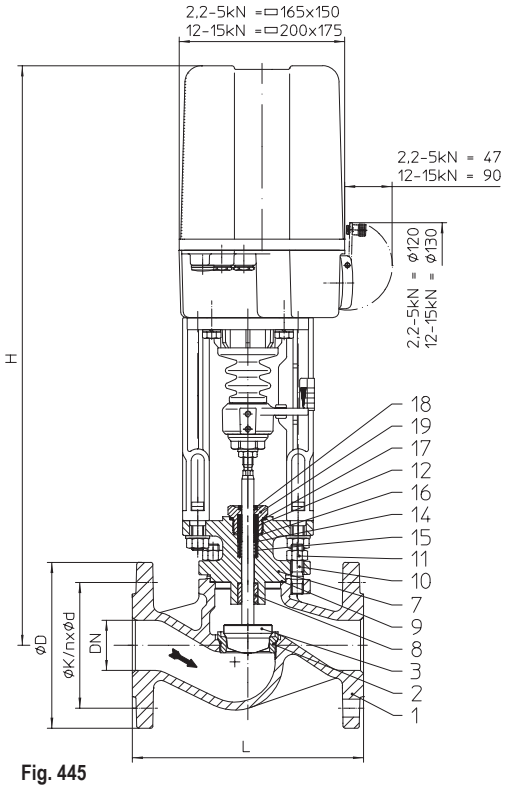


Fig. 445

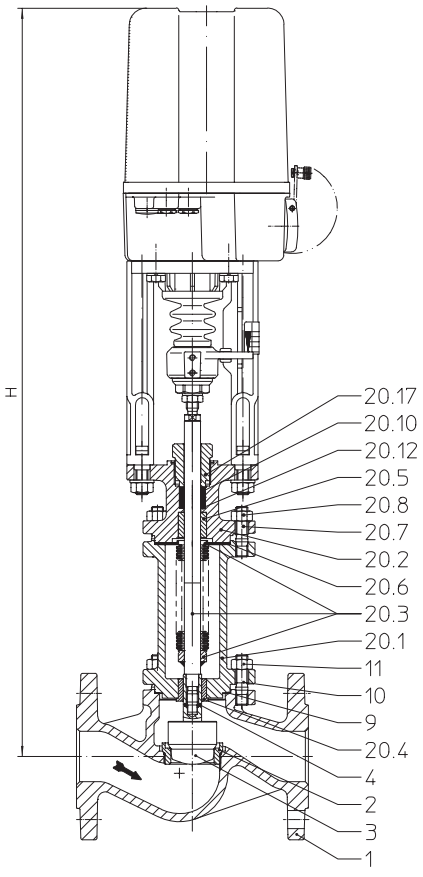


Fig. 446

Figure	Nominal pressure	Material	Nominal diameter
55.445 / 55.446	PN40	1.4408	DN15-150
Other materials and versions on request.			

Stem sealing

Fig. 445: • PTFE-V-ring unit -10°C up to +220°C
• PTFE-packing -10°C up to +250°C
• Pure graphite-packing -10°C to 400°C

Fig. 446: • Stainless steel bellows seal with safety stuffing box -60°C to 400°C

Plug design

standard: • Parabolic plug, metal seat

optional: • Parabolic plug with PTFE soft seat (max. 200°C)

Guiding • Stem-Guiding

Flow characteristic • Equal percentage or linear
(from Kvs 100 modified equal percentage)
(Miniature-Kvs-values ≤ 0,63 only equal percentage)

Rangeability • 50 : 1

Shut off class (seat / plug leakage 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 (from Kvs 1,0)

Closing pressures refer to page 4.

Technical data for actuator refer to data sheet.

Selection of possible applications

Industrial installations, processing technology, plant manufacturing, etc.
(other applications on request)

Selection of possible flow media

Fig. 445: Cooling water, cooling brine, warm water, hot water, steam, gas, alkalis, acids, de-ionised water, pure steam, etc.

Fig. 446: Refrigerant, Cooling water, Warm water, Hot water, Thermal oil, Steam, Gas, alkalis, acids, de-ionised water, pure steam, etc.

(other flow media on request)

Dimensions and weights

DN				15	20	25	32	40	50	65	80	100	125	150
L			(mm)	130	150	160	180	200	230	290	310	350	400	480
Fig. 445	H		(mm)	556	556	564	564	571	577	590	605	624	685	745
	ARI-PREMIO 2,2 kN	PN40	(kg)	9,8	10,6	11,9	13,7	16,2	18,9	26,1	32,3	45,1	56	81
	ARI-PREMIO 5 kN	PN40	(kg)	--	--	--	14,8	17,3	20	27,2	33,4	46,2	63	83
	H		(mm)	--	--	---	--	--	727	740	755	774	833	893
	ARI-PREMIO 12 kN ARI-PREMIO 15 kN	PN40	(kg)	--	--	--	--	--	24	31,2	37,4	50,2	67	87
Fig. 446	H		(mm)	741	741	749	749	740	742	826	838	854	1037	1068
	ARI-PREMIO 2,2 kN	PN40	(kg)	15,4	16,9	19,4	22,4	28,4	30,9	37,9	47,9	64,4	82	103
	ARI-PREMIO 5 kN	PN40	(kg)	16,5	18	20,5	23,5	29,5	32	39	49	65,5	83	105
	H		(mm)	--	--	--	--	--	892	976	988	1004	1185	1216
	ARI-PREMIO 12 kN ARI-PREMIO 15 kN	PN40	(kg)	--	--	--	--	--	36	43	53	69,5	87	109

Standard-flange dimensions refer to page 31.

Face-to-face dimension FTF series 1 according to DIN EN 558

Parts

Pos.	Description	Fig. 55.445 Fig. 55.446
1	Body	GX5CrNiMo19-11-2, 1.4408
2	Seat ring *	X6CrNiMoTi17-12-2, 1.4571
3	Plug *	X6CrNiMoTi17-12-2, 1.4571
4	Straight spin *	A4 - 70
7	Mounting bonnet	GX5CrNiMo19-11-2, 1.4408
8	Guide bushing	X6CrNiMoTi17-12-2, 1.4571
9	Gasket *	Pure graphite (CrNi laminated with graphite)
10	Studs	A4 - 70
11	Hexagon nuts	A4
12	V-ring unit *	PTFE
14	Washer *	X5CrNi18-10, 1.4301
15	Spring *	X10CrNi18-8, 1.4310
16	Bushing *	PTFE (reinforced)
17	Sealing ring *	X6CrNiMoTi17-12-2, 1.4571
18	Scraper *	PTFE (reinforced)
19	Screw joint *	X8CrNiS18-9, 1.4305
20.1	Bellows housing	GX5CrNiMo19-11-2, 1.4408
20.2	Mounting bonnet	GX5CrNiMo19-11-2, 1.4408
20.3	Stem- / Bellows unit *	X6CrNiMoTi17-12-2, 1.4571
20.4	Guide bushing	X6CrNiMoTi17-12-2, 1.4571
20.5	Guide bushing	X6CrNiMoTi17-12-2, 1.4571
20.6	Gasket *	Pure graphite (CrNi laminated with graphite)
20.7	Studs	A4 - 70
20.8	Hexagon nuts	A4
20.10	Packing ring *	Pure graphite
20.12	Washer *	X5CrNi18-10, 1.4301
20.17	Screw joint *	X8CrNiS18-9, 1.4305
* Spare parts		

Information / restriction of technical rules need to be observed!

A production allowance acc. to TRB 801 No. 45 exists

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

max. permissible closing pressures on flow-to-open P2 = 0
Observe restrictions by Pressure-temperature-ratings, refer to page 31.

DN			15			20				25					32			40		
Standard Kvs-values	Seat-ø (mm)				12				16					22			28			35
	Kvs-value				4				6,3					10			16			25
	Travel (mm)				20				20					20			20			20
Reduced Kvs-values	Seat-ø (mm)		3	5	12	3	5	12		3	5	12	16		16	22		22	28	
	Kvs-value		0,25; 0,16; 0,1	0,63; 0,4	2,5; 1,6; 1	0,25; 0,16; 0,1	0,63; 0,4	4; 2,5; 1,6; 1		0,25; 0,16; 0,1	0,63; 0,4	4; 2,5; 1,6; 1	6,3		6,3	10		10	16	
	Travel (mm)		20	20	20	20	20	20		20	20	20	20		20	20		20	20	
Max. differential pressure drop (bar)	Parabolic plug		40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	30
Actuator [1] **ARI-PREMIO 2,2 kN**	Closing pressure (bar)	**I.**	40	40	40	40	40	40	40	40	40	40	40	40	40	40	28,6	40	28,6	18
		II.	40	40	40	40	40	40	40	40	40	40	40	40	40	40	26,7	40	26,7	16,8
		III.	33,3	33	32	33,3	33	32	31,4	33,3	33	32	31,4	30,5	31,4	30,5	25,2	29,1	24	15
	Operating time [2] (s) (Op. speed 0,38 mm/s)		53			53				53					53			53		
Actuator [1] **ARI-PREMIO 5 kN**	Closing pressure (bar)	**I.**															40		40	40
		II.															40		40	40
		III.	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
	Operating time [2] (s) (Op. speed 0,38 mm/s)		53			53				53					53			53		

I. Fig. 445: PTFE-V-ring unit; **II. Fig. 445: PTFE- / pure graphite-packing;** **III. Fig. 446: Bellows seal**

DN			50			65			80			100			125			150		
Standard Kvs-values	Seat-ø (mm)				43			56			70			95			120			145
	Kvs-value				40			63			100			160			250			400
	Travel (mm)				20			30			30			30			50			50
Reduced Kvs-values	Seat-ø (mm)		28	35		35	43		43	56		56	70		70	95		95	120	
	Kvs-value		16	25		25	40		40	63		63	100		100	160		160	250	
	Travel (mm)		20	20		20	20		20	30		30	30		30	30		30	50	
Max. differential pressure drop (bar)	Parabolic plug		40	30	20	30	20	8	20	8	4	8	4	1,5	4	1,5	1	1,5	1	1
	V-port plug							30		30	25	30	25	25	25	25	10	25	10	10
Actuator [1] **ARI-PREMIO 2,2 kN**	Closing pressure (bar)	**I.**	28,6	17,9	11,6	17,6	11,3	6,3	11,3	6,3	3,8	6,3	3,8	1,8	3,7	1,8		1,8		
		II.	26,7	16,7	10,8	16	10,2	5,7	10,2	5,7	3,4	5,7	3,4	1,6	3,3	1,5		1,5		
		III.	24	14,9	9,6	15	9,6	5,3	9,6	5,3	3,1	5,3	3,1	1,4	2,7	1,2		1,2		
	Operating time [2] (s) (Op. speed 0,38 mm/s)		53			53		79	53	79		79			79			79		
Actuator [1] **ARI-PREMIO 5 kN**	Closing pressure (bar)	**I.**	40	40	30,2	40	29,9	17,4	29,9	17,4	10,9	17,4	10,9	5,7	10,8	5,6	3,4	5,6	3,4	2,2
		II.	40	40	29,4	40	28,8	16,7	28,8	16,7	10,5	16,7	10,5	5,5	10,3	5,4	3,2	5,4	3,2	2,1
		III.	40	40	28,2	40	28,2	16,3	28,2	16,3	10,2	16,3	10,2	5,3	9,8	5,1	3	5,1	3	2
	Operating time [2] (s) (Op. speed 0,38 mm/s)		53			53		79	53	79		79			79		132	79	132	
Actuator [1] **ARI-PREMIO 12 kN**	Closing pressure (bar)	**I.**			40		40	40	40	40	28,7	40	28,7	15,4	28,5	15,3	9,5	15,3	9,5	6,4
		II.			40		40	40	40	40	28,3	40	28,3	15,2	28	15,1	9,3	15,1	9,3	6,3
		III.			40		40	40	40	40	28	40	28	15	27,5	14,8	9,1	14,8	9,1	6,9
	Operating time [2] (s) (Op. speed 0,38 mm/s)				53		53	79	53	79		79			79		132	79	132	
Actuator [1] **ARI-PREMIO 15 kN**	Closing pressure (bar)	**I.**									36,3		36,3	19,6	36	19,4	12,1	19,4	12,1	8,2
		II.									35,9		35,9	19,3	35,6	19,2	11,9	19,2	11,9	8,1
		III.									35,6		35,6	19,2	35,1	18,9	11,7	18,9	11,7	7,9
	Operating time [2] (s) (Op. speed 0,38 mm/s)										79		79		79		132	79	132	

I. Fig. 445: PTFE-V-ring unit; **II. Fig. 445: PTFE- / pure graphite-packing;** **III. Fig. 446: Bellows seal**

[1] Motor voltage: 230V 50Hz
Other voltages: 24V 50/60Hz; 115V 50/60Hz; 230V 60Hz
Technical data for actuator refer to data sheet ARI-PREMIO..

[2] Indicated operating times with 50Hz.

Control valve in straightway form with electric actuator ARI-PREMIO

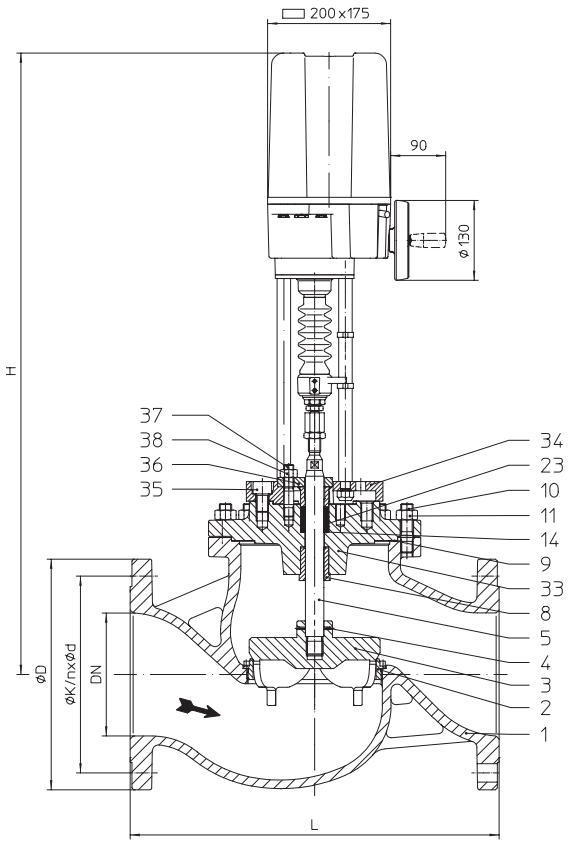


Fig. 445

Figure	Nominal pressure	Material	Nominal diameter
55.445	PN40	1.4408	DN200-250
Other materials and versions on request.			
Stem sealing Fig. 445: • PTFE-packing -10°C up to +250°C • Pure graphite-packing -10°C to 400°C			
Plug design standard: • V-port plug, metal seat			
Guiding • Stem-Guiding			
Flow characteristic • Modified equal percentage or linear			
Rangeability • 30 : 1			
Shut off class (seat / plug leakage classes) • Metal seat - Leakage class IV acc. to DIN EN 1349 or IEC 60534-4			
Closing pressures refer to page 8.			
Technical data for actuator refer to data sheet.			

Selection of possible applications

Industrial installations, processing technology, plant manufacturing, etc.
(other applications on request)

Selection of possible flow media

Fig. 445: Cooling water, cooling brine, warm water, hot water, steam, gas, alkalis, acids, de-ionised water, pure steam, etc.

(other flow media on request)

Dimensions and weights

DN				200	250
L			(mm)	600	730
Fig. 445	H		(mm)	1011	1069
	ARI-PREMIO 12 kN ARI-PREMIO 15 kN	PN40	(kg)	168	245
Standard-flange dimensions refer to page 31.					

Face-to-face dimension FTF series 1 according to DIN EN 558

Parts

Pos.	Description	Fig. 55.445
1	Body	GX5CrNiMo19-11-2, 1.4408
2	Seat ring *	X6CrNiMoTi17-12-2, 1.4571
3	Plug *	X6CrNiMoTi17-12-2, 1.4571
4	Straight spin *	A4 - 70
5	Stem	X6CrNiMoTi17-12-2, 1.4571
8	Guide bushing	X6CrNiMoTi17-12-2, 1.4571
9	Gasket *	Pure graphite (CrNi laminated with graphite)
10	Studs	A4 - 70
11	Hexagon nuts	A4
14	Washer *	X5CrNi18-10, 1.4301
23	Packing ring *	PTFE
33	Stuffing box housing	X6CrNiMoTi17-12-2, 1.4571
34	Adapter flange	EN-GJS-400-18U-LT, EN-JS1049
35	Hexagon socket head screw	A2 - 70
36	Packing box flange	X6CrNiMoTi17-12-2, 1.4571
37	Stud	A4 - 70
38	Hexagon nut	A4
* Spare parts		

Information / restriction of technical rules need to be observed!

A production allowance acc. to TRB 801 No. 45 exists

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

max. permissible closing pressures on flow-to-open P2 = 0
Observe restrictions by Pressure-temperature-ratings, refer to page 31.

DN			200			250		
Standard Kvs-values	Seat-ø (mm)				200			250
	Kvs-value				630			1000
	Travel (mm)				65			65
Reduced Kvs-values	Seat-ø (mm)		125	150		150	200	
	Kvs-value		250	400		400	630	
	Travel (mm)		50	50		50	65	
Max. differential pressure drop (bar)	Parabolic plug		10	10	5	10	5	5
Actuator [1] **ARI-PREMIO 12 kN**	Closing pressure (bar)	**II.**	8,4	5,7	3,1	5,7	3,1	1,9
	Operating time [2] (s) (Op. speed 0,38 mm/s)		132		171	132	171	
Actuator [1] **ARI-PREMIO 15 kN**	Closing pressure (bar)	**II.**	10,8	7,4	4	7,4	4	2,5
	Operating time [2] (s) (Op. speed 0,38 mm/s)		132		171	132	171	

II. Fig. 445: PTFE- / pure graphite-packing

[1] Motor voltage: 230V 50Hz
Other voltages: 24V 50/60Hz; 115V 50/60Hz; 230V 60Hz
Technical data for actuator refer to data sheet ARI-PREMIO.

[2] Indicated operating times with 50Hz.

Control valve in straightway form with electric actuator FR 2.1 / FR 2.2

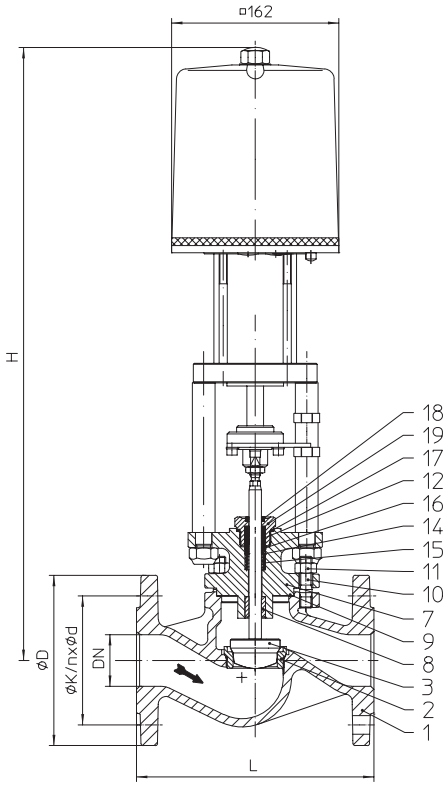


Fig. 445

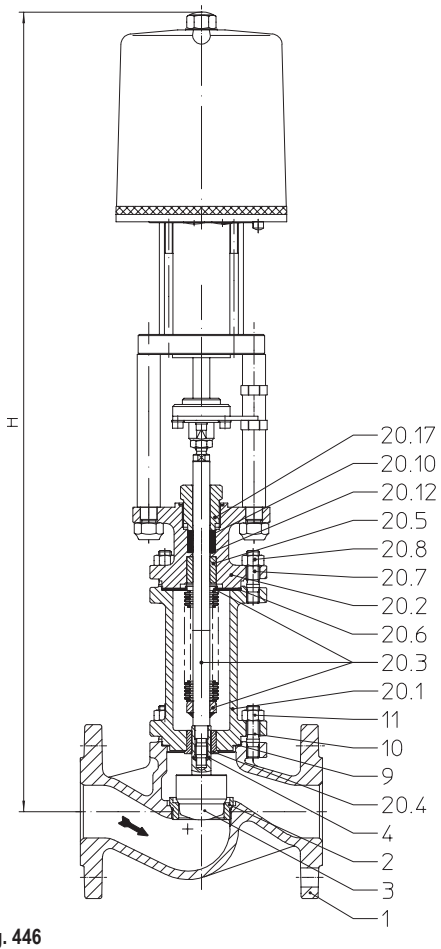


Fig. 446

Figure	Nominal pressure	Material	Nominal diameter
55.445 / 55.446	PN40	1.4408	DN15-100
Other materials and versions on request.			

Stem sealing

Fig. 445:
- PTFE-V-ring unit -10°C up to +220°C
- PTFE-packing -10°C up to +250°C
- Pure graphite-packing -10°C to 400°C

Fig. 446:
- Stainless steel bellows seal with safety stuffing box -60°C to 400°C

Plug design

standard:
- Parabolic plug, metal seat

optional:
- Parabolic plug with PTFE soft seat (max. 200°C)

Guiding
- Stem-Guiding

Flow characteristic
- Equal percentage or linear
  (from Kvs 100 modified equal percentage)
  (Miniature-Kvs-values ≤ 0,63 only equal percentage)

Rangeability
- 50 : 1

Shut off class (seat / plug leakage 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 (from Kvs 1,0)

Closing pressures refer to page 12.

Technical data for actuator refer to data sheet.

Selection of possible applications

Industrial installations, processing technology, plant manufacturing, etc.
(other applications on request)

Selection of possible flow media

Fig. 445: Cooling water, cooling brine, warm water, hot water, steam, gas, alkalis, acids, de-ionised water, pure steam, etc.

Fig. 446: Refrigerant, Cooling water, Warm water, Hot water, Thermal oil, Steam, Gas, alkalis, acids, de-ionised water, pure steam, etc.

(other flow media on request)

Dimensions and weights

DN				15	20	25	32	40	50	65	80	100
L			(mm)	130	150	160	180	200	230	290	310	350
Fig. 445	H	FR 2.1	(mm)	573	573	581	581	588	594	607	622	
		FR 2.2	(mm)	591	591	599	599	606	612	625	640	659
	FR 2.1 / 2.2	PN40	(kg)	13,1	13,9	15,2	17	19,5	22,2	29,4	35,6	48
Fig. 446	H	FR 2.1	(mm)	758	758	766	766	757	759	843	855	
		FR 2.2	(mm)	776	776	784	784	775	777	861	873	889
	FR 2.1 / 2.2	PN40	(kg)	18,7	20,2	22,7	25,7	31,7	34,2	41,2	51,2	68
Standard-flange dimensions refer to page 31.												

Face-to-face dimension FTF series 1 according to DIN EN 558

Parts

Pos.	Description	Fig. 55.445 Fig. 55.446
1	Body	GX5CrNiMo19-11-2, 1.4408
2	Seat ring *	X6CrNiMoTi17-12-2, 1.4571
3	Plug *	X6CrNiMoTi17-12-2, 1.4571
4	Straight spin *	A4 - 70
7	Mounting bonnet	GX5CrNiMo19-11-2, 1.4408
8	Guide bushing	X6CrNiMoTi17-12-2, 1.4571
9	Gasket *	Pure graphite (CrNi laminated with graphite)
10	Studs	A4 - 70
11	Hexagon nuts	A4
12	V-ring unit *	PTFE
14	Washer *	X5CrNi18-10, 1.4301
15	Spring *	X10CrNi18-8, 1.4310
16	Bushing *	PTFE (reinforced)
17	Sealing ring *	X6CrNiMoTi17-12-2, 1.4571
18	Scraper *	PTFE (reinforced)
19	Screw joint *	X8CrNiS18-9, 1.4305
20.1	Bellows housing	GX5CrNiMo19-11-2, 1.4408
20.2	Mounting bonnet	GX5CrNiMo19-11-2, 1.4408
20.3	Stem- / Bellows unit *	X6CrNiMoTi17-12-2, 1.4571
20.4	Guide bushing	X6CrNiMoTi17-12-2, 1.4571
20.5	Guide bushing	X6CrNiMoTi17-12-2, 1.4571
20.6	Gasket *	Pure graphite (CrNi laminated with graphite)
20.7	Studs	A4 - 70
20.8	Hexagon nuts	A4
20.10	Packing ring *	Pure graphite
20.12	Washer *	X5CrNi18-10, 1.4301
20.17	Screw joint *	X8CrNiS18-9, 1.4305
* Spare parts		

Information / restriction of technical rules need to be observed!

A production allowance acc. to TRB 801 No. 45 exists

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

max. permissible closing pressures on flow-to-open P2 = 0
Observe restrictions by Pressure-temperature-ratings, refer to page 31.

DN			15			20				25					32		
Standard Kvs-values	Seat-ø (mm)				12				16					22			28
	Kvs-value				4				6,3					10			16
	Travel (mm)				20				20					20			20
Reduced Kvs-values	Seat-ø (mm)		3	5	12	3	5	12		3	5	12	16		16	22	
	Kvs-value		0,25; 0,16; 0,1	0,63; 0,4	2,5; 1,6; 1	0,25; 0,16; 0,1	0,63; 0,4	4; 2,5; 1,6; 1		0,25; 0,16; 0,1	0,63; 0,4	4; 2,5; 1,6; 1	6,3		6,3	10	
	Travel (mm)		20	20	20	20	20	20		20	20	20	20		20	20	
Max. differential pressure drop (bar)	Parabolic plug		40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Actuator [1] **FR 2.1 1 kN**	Closing pressure (bar)	**I.**	40	40	40	40	40	40	34	40	40	40	34,2	17,3	34,2	17,3	10,1
		II.	40	40	40	40	40	40	28,6	40	40	40	28,7	14,3	28,7	14,3	8,3
		III.	11,5	11,2	10,2	11,5	11,2	10,2	9,7	11,5	11,2	10,2	9,7	8,8	9,7	8,8	6,8
	Operating time [2] (s)		69			69				69					69		
	Operating time on voltage failure (s)		5,5			5,5				5,5					5,5		
Actuator [1] **FR 2.2 2,2 kN**	Closing pressure (bar)	**I.**							40				40	40	40	40	28,6
		II.							40				40	40	40	40	26,7
		III.	33,3	33	32	33,3	33	32	31,4	33,3	33	32	31,4	30,5	31,4	30,5	25,2
	Operating time [2] (s)		69			69				69					69		
	Operating time on voltage failure (s)		5,5			5,5				5,5					5,5		

I. Fig. 445: PTFE-V-ring unit; **II. Fig. 445: PTFE- / pure graphite-packing;** **III. Fig. 446: Bellows seal**

DN			40			50			65			80			100		
Standard Kvs-values	Seat-ø (mm)				35			43			56			70			95
	Kvs-value				25			40			63			100			160
	Travel (mm)				20			20			30			30			30
Reduced Kvs-values	Seat-ø (mm)		22	28		28	35		35	43		43	56		56	70	
	Kvs-value		10	16		16	25		25	40		40	63		63	100	
	Travel (mm)		20	20		20	20		20	20		20	30		30	30	
Max. differential pressure drop (bar)	Parabolic plug		40	40	30	40	30	20	30	20	8	20	8	4	8	4	1,5
	V-port plug										30		30	25	30	25	25
Actuator [1] **FR 2.1 1 kN**	Closing pressure (bar)	**I.**	17,3	10,1	6	10,1	6	3,6	5,6	3,3		3,3					
		II.	14,3	8,3	4,8	8,3	4,8	2,8	4,0	2,3		2,2					
		III.	7,3	5,5	3	5,5	3	1,6	3	1,6		1,6					
	Operating time [2] (s)		69			69			69			69					
	Operating time on voltage failure (s)		5,5			5,5			5,5			5,5					
Actuator [1] **FR 2.2 2,2 kN**	Closing pressure (bar)	**I.**	40	28,6	18	28,6	17,9	11,6	17,6	11,3	6,3	11,3	6,3	3,8	6,3	3,8	1,8
		II.	40	26,7	16,8	26,7	16,7	10,8	16	10,2	5,7	10,2	5,7	3,4	5,7	3,4	1,6
		III.	29,1	24	15	24	14,9	9,6	15	9,6	5,3	9,6	5,3	3,1	5,3	3,1	1,4
	Operating time [2] (s)		69			69			69		103	69	103		103		
	Operating time on voltage failure (s)		5,5			5,5			5,5		8,5	5,5	8,5		8,5		

I. Fig. 445: PTFE-V-ring unit; **II. Fig. 445: PTFE- / pure graphite-packing;** **III. Fig. 446: Bellows seal**

1) Motor voltage: 230V 50Hz
Other voltages: 24V 50/60Hz; 115V 50/60Hz; 230V 60Hz
Technical data for actuator refer to data sheet FR

2) Indicated operating times with 50Hz.

Control valve in straightway form with electric actuator AUMA

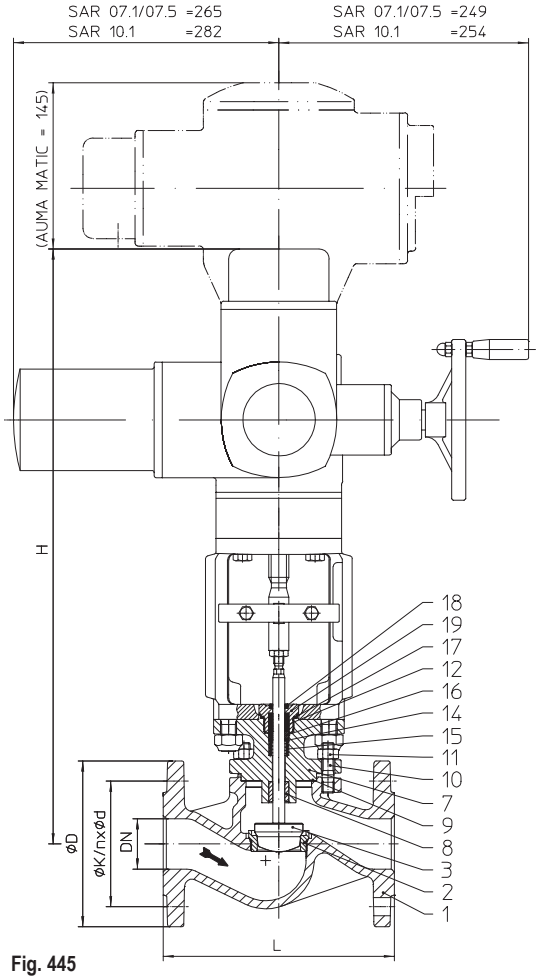


Fig. 445

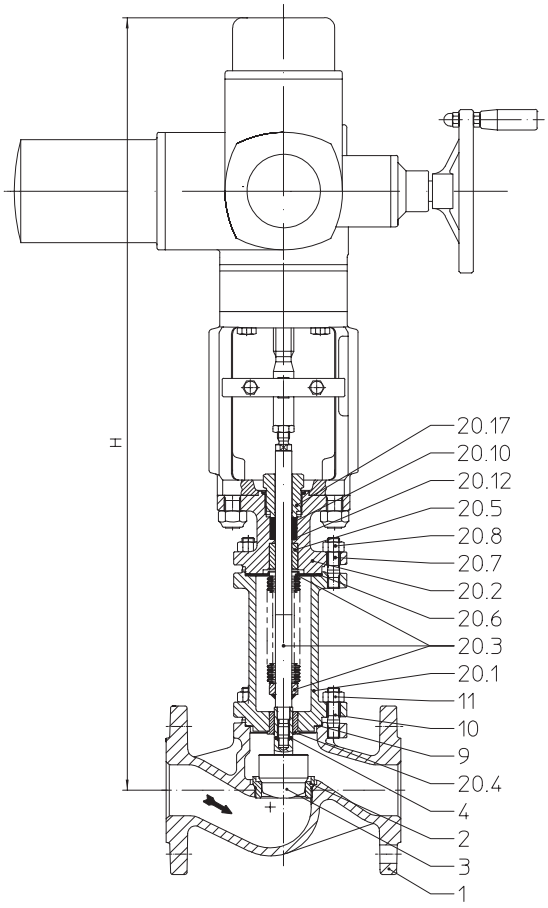


Fig. 446

Figure	Nominal pressure	Material	Nominal diameter
55.445 / 55.446	PN40	1.4408	DN40-150
Other materials and versions on request.			

Stem sealing

Fig. 445:
- PTFE-V-ring unit -10°C up to +220°C
- PTFE-packing -10°C up to +250°C
- Pure graphite-packing -10°C to 400°C

Fig. 446:
- Stainless steel bellows seal with safety stuffing box -60°C to 400°C

Plug design

standard:
- Parabolic plug, metal seat

optional:
- Parabolic plug with PTFE soft seat (max. 200°C)

Guiding
- Stem-Guiding

Flow characteristic
- Equal percentage or linear
  (from Kvs 100 modified equal percentage)
  (Miniature-Kvs-values ≤ 0,63 only equal percentage)

Rangeability
- 50 : 1

Shut off class (seat / plug leakage 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 (from Kvs 1,0)

Closing pressures refer to page 16.

Technical data for actuator refer to data sheet.

Selection of possible applications

Industrial installations, processing technology, plant manufacturing, etc.
(other applications on request)

Selection of possible flow media

Fig. 445: Cooling water, cooling brine, warm water, hot water, steam, gas, alkalis, acids, de-ionised water, pure steam, etc.

Fig. 446: Refrigerant, Cooling water, Warm water, Hot water, Thermal oil, Steam, Gas, alkalis, acids, de-ionised water, pure steam, etc.

(other flow media on request)

Dimensions and weights

DN				40	50	65	80	100	125	150
L			(mm)	200	230	290	310	350	400	480
Fig. 445	H		(mm)	611	617	630	645	664	703	763
	AUMA SAR 07.2 AUMA SAR 07.6	PN40	(kg)	38,6	41,3	48,5	54,7	68	84	104
	H		(mm)	--	--	--	657	676	715	775
	AUMA SAR 10.2	PN40	(kg)	--	--	--	59,2	72	88	108
Fig. 446	H		(mm)	780	782	866	878	894	1055	1086
	AUMA SAR 07.2 AUMA SAR 07.6	PN40	(kg)	50,8	53,3	60,3	70,3	87	104	126
	H		(mm)	--	--	--	--	--	1067	1098
	AUMA SAR 10.2	PN40	(kg)	--	--	--	--	--	108	130

Standard-flange dimensions refer to page 31. **(For version with AUMA SAR Ex other heights.)**

Face-to-face dimension FTF series 1 according to DIN EN 558

Parts

Pos.	Description	Fig. 55.445 Fig. 55.446
1	Body	GX5CrNiMo19-11-2, 1.4408
2	Seat ring *	X6CrNiMoTi17-12-2, 1.4571
3	Plug *	X6CrNiMoTi17-12-2, 1.4571
4	Straight spin *	A4 - 70
7	Mounting bonnet	GX5CrNiMo19-11-2, 1.4408
8	Guide bushing	X6CrNiMoTi17-12-2, 1.4571
9	Gasket *	Pure graphite (CrNi laminated with graphite)
10	Studs	A4 - 70
11	Hexagon nuts	A4
12	V-ring unit *	PTFE
14	Washer *	X5CrNi18-10, 1.4301
15	Spring *	X10CrNi18-8, 1.4310
16	Bushing *	PTFE (reinforced)
17	Sealing ring *	X6CrNiMoTi17-12-2, 1.4571
18	Scraper *	PTFE (reinforced)
19	Screw joint *	X8CrNiS18-9, 1.4305
20.1	Bellows housing	GX5CrNiMo19-11-2, 1.4408
20.2	Mounting bonnet	GX5CrNiMo19-11-2, 1.4408
20.3	Stem- / Bellows unit *	X6CrNiMoTi17-12-2, 1.4571
20.4	Guide bushing	X6CrNiMoTi17-12-2, 1.4571
20.5	Guide bushing	X6CrNiMoTi17-12-2, 1.4571
20.6	Gasket *	Pure graphite (CrNi laminated with graphite)
20.7	Studs	A4 - 70
20.8	Hexagon nuts	A4
20.10	Packing ring *	Pure graphite
20.12	Washer *	X5CrNi18-10, 1.4301
20.17	Screw joint *	X8CrNiS18-9, 1.4305
* Spare parts		

Information / restriction of technical rules need to be observed!

A production allowance acc. to TRB 801 No. 45 exists

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

max. permissible closing pressures on flow-to-open P2 = 0
Observe restrictions by Pressure-temperature-ratings, refer to page 31.

Fig. 445

DN				40			50			65			80			100			125			150		
Standard Kvs-values	Seat-ø (mm)					35			43			56			70			95			120			145
	Kvs-value					25			40			63			100			160			250			400
	Travel (mm)					20			20			30			30			30			50			50
Reduced Kvs-values	Seat-ø (mm)			22	28		28	35		35	43		43	56		56	70		70	95		95	120	
	Kvs-value			10	16		16	25		25	40		40	63		63	100		100	160		160	250	
	Travel (mm)			20	20		20	20		20	20		20	30		30	30		30	30		30	50	
Max. differential pressure drop (bar)		Parabolic plug		40	40	30	40	30	20	30	20	8	20	8	4	8	4	1,5	4	1,5	1	1,5	1	1
		V-port plug										30		30	25	30	25	25	25	25	10	25	10	10
Actuator [1] **AUMA SAR 07.2** Output drive Form A TR 20 x 4 - LH	Closing pressure (bar)	**I./II.**	shut off	40	40	40	40	40	40	40	40	40	40	40	40	40	40	21,6	39,8	21,5	13,4	21,5	13,4	9,1
			controlling [3]	40	40	40	40	40	40	40	40	29,9	40	29,9	19	29,9	19	10,1	18,8	10	6,1	10	6,1	4,1
	Torque (Nm)				15			15			15	20	15	20	30	20	30			30			30	
	Operating time [2] (s)				54			54			54	56	54	56			56			56	94	56	94	
	Output drive (rpm)				5,6			5,6			5,6	8	5,6	8			8			8			8	
Actuator [1] **AUMA SAR 07.6** Output drive Form A TR 26 x 5 - LH	Closing pressure (bar)	**I./II.**	shut off									40		40	40	40	40	30,5	40	30,4	18,9	30,4	18,9	12,9
			controlling [3]									40		40	27,1	40	27,1	14,5	26,8	14,4	8,9	14,4	8,9	6
	Torque (Nm)											30		30	45	30	45	60	45	60		60		
	Operating time [2] (s)											64		64			64			64	55	64	55	
	Output drive (rpm)											5,6		5,6			5,6			5,6	11	5,6	11	
Actuator [1] **AUMA SAR 10.2** Output drive Form A TR 26 x 5 - LH	Closing pressure (bar)	**I./II.**	shut off												40		40	35,9	40	40	32,3	40	32,3	22,1
			controlling [3]												40		40	30,5	40	30,4	18,9	30,4	18,9	12,9
	Torque (Nm)														60		60	70	60	80	100	80	100	
	Operating time [2] (s)														64		64			64	55	64	55	
	Output drive (rpm)														5,6		5,6			5,6	11	5,6	11	

I. Fig. 445: PTFE-V-ring unit; **II. Fig. 445: PTFE- / pure graphite-packing**

Fig. 446

DN				40			50			65			80			100			125			150		
Standard Kvs-values	Seat-ø (mm)					35			43			56			70			95			120			145
	Kvs-value					25			40			63			100			160			250			400
	Travel (mm)					20			20			30			30			30			50			50
Reduced Kvs-values	Seat-ø (mm)			22	28		28	35		35	43		43	56		56	70		70	95		95	120	
	Kvs-value			10	16		16	25		25	40		40	63		63	100		100	160		160	250	
	Travel (mm)			20	20		20	20		20	20		20	30		30	30		30	30		30	50	
Max. differential pressure drop (bar)		Parabolic plug		40	40	30	40	30	20	30	20	8	20	8	4	8	4	1,5	4	1,5	1	1,5	1	1
		V-port plug										30		30	25	30	25	25	25	25	10	25	10	10
Actuator [1] **AUMA SAR 07.2** Output drive Form A TR 20 x 4 - LH	Closing pressure (bar)	**III.**	shut off	40	40	40	40	40	40	40	40	40	40	40	39,9	40	39,9	21,5	39,3	21,2	13,2	21,2	13,2	8,9
			controlling [3]	40	40	40	40	40	40	40	40	29,5	40	29,5	18,7	29,5	18,7	9,9	18,2	9,7	5,9	9,7	5,9	4
	Torque (Nm)				15			15			15	20	15	20	30	20	30			30			30	
	Operating time [2] (s)				54			54			54	56	54	56			56			56	94	56	94	
	Output drive (rpm)				5,6			5,6			5,6	8	5,6	8			8			8			8	
Actuator [1] **AUMA SAR 07.6** Output drive Form A TR 26 x 5 - LH	Closing pressure (bar)	**III.**	shut off									40		40	40	40	40	22,4	40	30,1	18,8	30,1	18,8	12,8
			controlling [3]									40		40	26,9	40	26,9	14,4	26,3	14,1	8,7	14,1	8,7	5,9
	Torque (Nm)											30		30	45	30	45	45	45	60		60		
	Operating time [2] (s)											64		64			64			64	55	64	55	
	Output drive (rpm)											5,6		5,6			5,6			5,6	11	5,6	11	
Actuator [1] **AUMA SAR 10.2** Output drive Form A TR 26 x 5 - LH	Closing pressure (bar)	**III.**	shut off																40	40	28,8	40	28,8	19,7
			controlling [3]																40	30,1	18,8	30,1	18,8	12,8
	Torque (Nm)																		60	80	90	80	90	
	Operating time [2] (s)																		64		55	64	55	
	Output drive (rpm)																		5,6		11	5,6	11	

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

[2] Indicated operating times with 50Hz.

[3] Restrictions through max. permissible torque of the actuator at controlling operation.

Control valve in straightway form with electric actuator AUMA

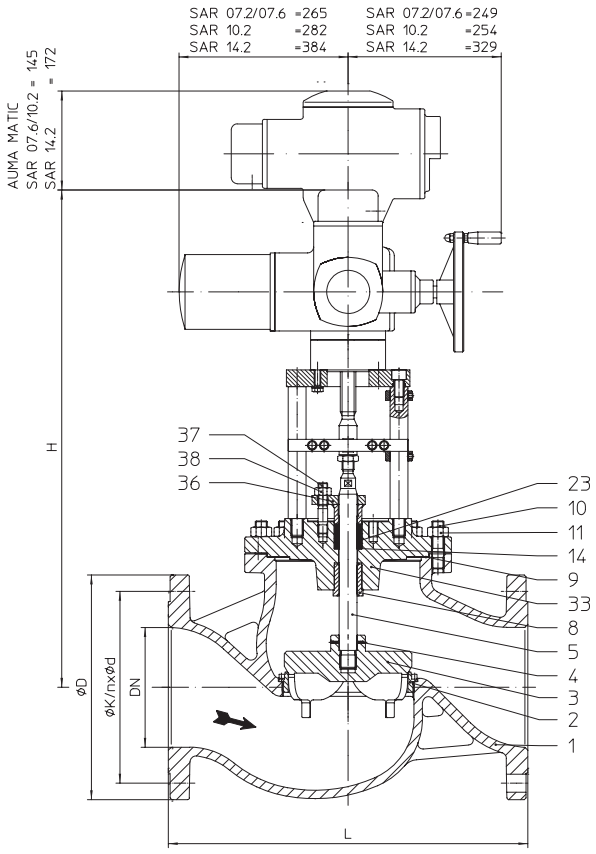


Fig. 445

Figure	Nominal pressure	Material	Nominal diameter
55.445	PN40	1.4408	DN125v-150v
55.445	PN40	1.4408	DN200-250

Other materials and versions on request.

Stem sealing

Fig. 445:
- PTFE-packing -10°C up to +250°C
- Pure graphite-packing -10°C to 400°C

Plug design

standard:
- DN125v-150v: Parabolic plug, metal seat
- DN200-250: V-port plug, metal seat

optional:
- DN125v-150v: Parabolic plug with PTFE soft seat (max. 200°C)

Guiding
- Stem-Guiding

Flow characteristic
- Modified equal percentage or linear

Rangeability
- 30 : 1

Shut off class (seat / plug leakage 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

Closing pressures refer to page 22.

Technical data for actuator refer to data sheet.

Selection of possible applications

Industrial installations, processing technology, plant manufacturing, etc.
(other applications on request)

Selection of possible flow media

Fig. 445: Cooling water, cooling brine, warm water, hot water, steam, gas, alkalis, acids, de-ionised water, pure steam, etc.

(other flow media on request)

Dimensions and weights

DN				125v	150v	200	250
L			(mm)	400	480	600	730
Fig. 445	H		(mm)	--	--	776	833
	AUMA SAR 07.6	PN40	(kg)	--	--	189	266
	H		(mm)	--	--	856	913
	AUMA SAR 10.2	PN40	(kg)	--	--	193	270
	H		(mm)	844	868	931	988
	AUMA SAR 14.2	PN40	(kg)			223	300
Standard-flange dimensions refer to page 31.						(For version with AUMA SAR Ex other heights.)	

Face-to-face dimension FTF series 1 according to DIN EN 558

Parts

Pos.	Description	Fig. 55.445
1	Body	GX5CrNiMo19-11-2, 1.4408
2	Seat ring *	X6CrNiMoTi17-12-2, 1.4571
3	Plug *	X6CrNiMoTi17-12-2, 1.4571
4	Straight spin *	A4 - 70
5	Stem	X6CrNiMoTi17-12-2, 1.4571
8	Guide bushing	X6CrNiMoTi17-12-2, 1.4571
9	Gasket *	Pure graphite (CrNi laminated with graphite)
10	Studs	A4 - 70
11	Hexagon nuts	A4
14	Washer *	X5CrNi18-10, 1.4301
23	Packing ring *	PTFE
33	Stuffing box housing	X6CrNiMoTi17-12-2, 1.4571
34	Adapter flange	EN-GJS-400-18U-LT, EN-JS1049
35	Hexagon socket head screw	A2 - 70
36	Packing box flange	X6CrNiMoTi17-12-2, 1.4571
37	Stud	A4 - 70
38	Hexagon nut	A4
* Spare parts		

Information / restriction of technical rules need to be observed!

A production allowance acc. to TRB 801 No. 45 exists

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

max. permissible closing pressures on flow-to-open P2 = 0
Observe restrictions by Pressure-temperature-ratings, refer to page 31.

Fig. 445

DN				**125v**			**150v**			**200**			**250**		
Standard Kvs-values	Seat-ø (mm)					120			145			200			250
	Kvs-value					250			400			630			1000
	Travel (mm)					50			50			65			65
Reduced Kvs-values	Seat-ø (mm)			70	95		95	120		125	150		150	200	
	Kvs-value			100	160		160	250		250	400		400	630	
	Travel (mm)			30	30		30	50		50	50		50	65	
Max. differential pressure drop (bar)		Parabolic plug		4	1,5	1	1,5	1	1						
		V-port plug		25	25	10	25	10	10	10	10	5	10	5	5
Actuator [1] **AUMA SAR 07.6** Output drive Form A TR 26 x 5 - LH	Closing pressure (bar)	**II.**	shut off							17,2	11,9	6,6	11,9	6,6	4,1
			controlling [3]							8	5,5	3	5,5	3	1,8
	Torque (Nm)									60			60		
	Operating time [2] (s)									55		71	55	71	
	Output drive (rpm)									11		11	11	11	
Actuator [1] **AUMA SAR 10.2** Output drive Form A TR 26 x 5 - LH	Closing pressure (bar)	**II.**	shut off							35,7	24,2	13,9	24,8	13,9	8,8
			controlling [3]							17,2	11,9	6,6	11,9	6,6	4,1
	Torque (Nm)									120			120		
	Operating time [2] (s)									55		71	55	71	
	Output drive (rpm)									11		11	11	11	
Actuator [1] **AUMA SAR 14.2** Output drive Form A TR 30 x 6 - LH	Closing pressure (bar)	**II.**	shut off	40	40	40	40	40	40	40	40	23,9	40	23,9	15,3
			controlling [3]	40	40	31,3	40	31,3	21,4	28,8	19,9	11,1	19,9	11,1	7,1
	Torque (Nm)			120		175	120	175	225	175	250		250		
	Operating time [2] (s)			38		63	38	63		63		59	63	59	
	Output drive (rpm)			8		8	8	8		8		11	8	11	

II. Fig. 445: 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 50Hz.

[3] Restrictions through max. permissible torque of the actuator at controlling operation.

Control valve in straightway form with pneumatic actuator DP

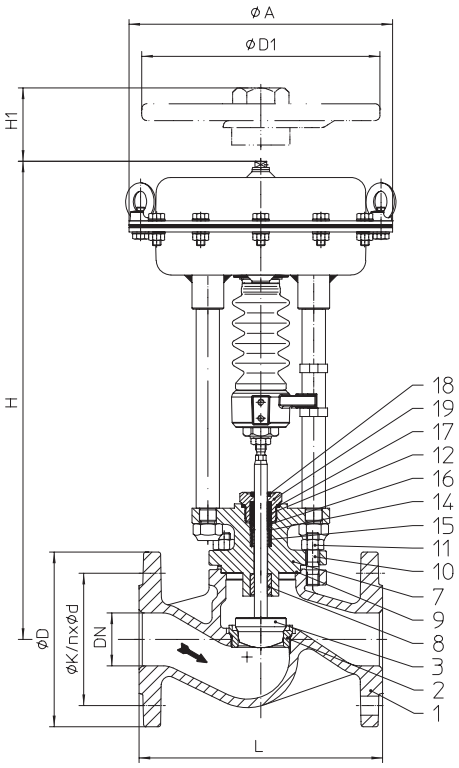


Fig. 445

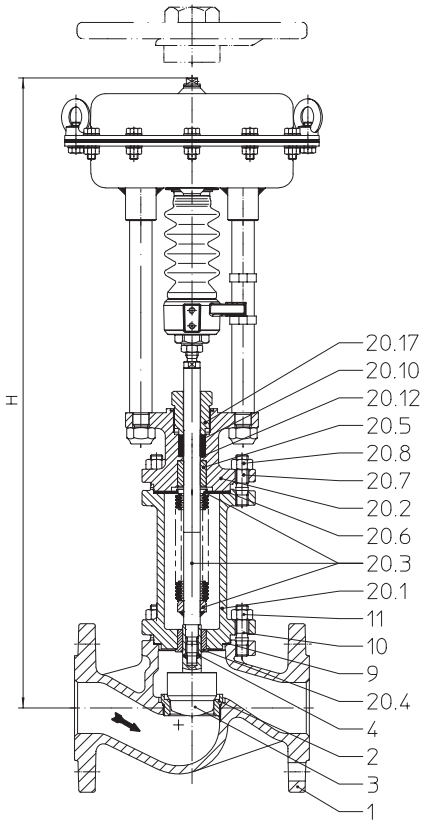


Fig. 446

Figure	Nominal pressure	Material	Nominal diameter
55.445 / 55.446	PN40	1.4408	DN15-150
Other materials and versions on request.			

Stem sealing

Fig. 445:
- PTFE-V-ring unit -10°C up to +220°C
- PTFE-packing -10°C up to +250°C
- Pure graphite-packing -10°C to 400°C

Fig. 446:
- Stainless steel bellows seal with safety stuffing box -60°C to 400°C

Plug design

standard:
- Parabolic plug, metal seat

optional:
- Parabolic plug with PTFE soft seat (max. 200°C)

Guiding
- Stem-Guiding

Flow characteristic
- Equal percentage or linear
  (from Kvs 100 modified equal percentage)
  (Miniature-Kvs-values ≤ 0,63 only equal percentage)

Rangeability
- 50 : 1

Shut off class (seat / plug leakage 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 (from Kvs 1,0)

Closing pressures refer to page 24.

Technical data for actuator refer to data sheet.

Selection of possible applications

Industrial installations, processing technology, plant manufacturing, etc.
(other applications on request)

Selection of possible flow media

Fig. 445: Cooling water, cooling brine, warm water, hot water, steam, gas, alkalis, acids, de-ionised water, pure steam, etc.

Fig. 446: Refrigerant, Cooling water, Warm water, Hot water, Thermal oil, Steam, Gas, alkalis, acids, de-ionised water, pure steam, etc.

(other flow media on request)

Top mounted handwheel

Actuator		DP32	DP33	DP34
Ø D1	(mm)	225	300	400
H1	(mm)	270	284	442
Weight	(kg)	5	8	17
Technical data for actuator refer to data sheet DP32-34Tri.				

Dimensions and weights

DN				15	20	25	32	40	50	65	80	100	125	150
L			(mm)	130	150	160	180	200	230	290	310	350	400	480
DP32	Ø A		(mm)	250										
	Fig. 445	H	(mm)	442	442	450	450	457	463	476	491	499	538	598
		PN40	(kg)	13,4	14,2	15,5	17,3	19,8	22,5	29,7	35,9	49	65	85
	Fig. 446	H	(mm)	627	627	635	635	626	628	712	724	729	890	--
		PN40	(kg)	19	20,5	23	26	32	34,5	41,5	51,5	68	85	--
DP33	Ø A		(mm)	300										
	Fig. 445	H	(mm)	497	497	505	505	512	518	531	546	565	604	664
		PN40	(kg)	19,4	20,2	21,5	23,3	25,8	28,5	35,7	41,9	55	71	91
	Fig. 446	H	(mm)	682	682	690	690	681	683	767	779	795	956	987
		PN40	(kg)	25	26,5	29	32	38	40,5	47,5	57,5	74	91	113
DP34	Ø A		(mm)	--	--	--	--	--	--	405				
	Fig. 445	H	(mm)	--	--	--	--	--	--	666	681	700	719	779
		PN40	(kg)	--	--	--	--	--	--	65,7	71,9	85	101	121
	Fig. 446	H	(mm)	--	--	--	--	--	--	902	914	930	1091	1122
		PN40	(kg)	--	--	--	--	--	--	77,5	87,5	104	121	143

Standard-flange dimensions refer to page 31.

Face-to-face dimension FTF series 1 according to DIN EN 558

Parts

Pos.	Description	Fig. 55.445 Fig. 55.446
1	Body	GX5CrNiMo19-11-2, 1.4408
2	Seat ring *	X6CrNiMoTi17-12-2, 1.4571
3	Plug *	X6CrNiMoTi17-12-2, 1.4571
4	Straight spin *	A4 - 70
7	Mounting bonnet	GX5CrNiMo19-11-2, 1.4408
8	Guide bushing	X6CrNiMoTi17-12-2, 1.4571
9	Gasket *	Pure graphite (CrNi laminated with graphite)
10	Studs	A4 - 70
11	Hexagon nuts	A4
12	V-ring unit *	PTFE
14	Washer *	X5CrNi18-10, 1.4301
15	Spring *	X10CrNi18-8, 1.4310
16	Bushing *	PTFE (reinforced)
17	Sealing ring *	X6CrNiMoTi17-12-2, 1.4571
18	Scraper *	PTFE (reinforced)
19	Screw joint *	X8CrNiS18-9, 1.4305
20.1	Bellows housing	GX5CrNiMo19-11-2, 1.4408
20.2	Mounting bonnet	GX5CrNiMo19-11-2, 1.4408
20.3	Stem- / Bellows unit *	X6CrNiMoTi17-12-2, 1.4571
20.4	Guide bushing	X6CrNiMoTi17-12-2, 1.4571
20.5	Guide bushing	X6CrNiMoTi17-12-2, 1.4571
20.6	Gasket *	Pure graphite (CrNi laminated with graphite)
20.7	Studs	A4 - 70
20.8	Hexagon nuts	A4
20.10	Packing ring *	Pure graphite
20.12	Washer *	X5CrNi18-10, 1.4301
20.17	Screw joint *	X8CrNiS18-9, 1.4305
* Spare parts		

Information / restriction of technical rules need to be observed!

A production allowance acc. to TRB 801 No. 45 exists

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

max. permissible closing pressures on flow-to-open P2 = 0
Observe restrictions by Pressure-temperature-ratings, refer to page 31.

Spring closes on air failure

DN						15			20				25					32			40		
Standard Kvs-values	Seat-ø (mm)							12				16					22			28			35
	Kvs-value							4				6,3					10			16			25
	Travel (mm)							20				20					20			20			20
Reduced Kvs-values	Seat-ø (mm)					3	5	12	3	5	12		3	5	12	16		16	22		22	28	
	Kvs-value					0,25; 0,16; 0,1	0,63; 0,4	2,5; 1,6; 1	0,25; 0,16; 0,1	0,63; 0,4	4; 2,5; 1,6; 1		0,25; 0,16; 0,1	0,63; 0,4	4; 2,5; 1,6; 1	6,3		6,3	10		10	16	
	Travel (mm)					20	20	20	20	20	20		20	20	20	20		20	20		20	20	
Max. differential pressure drop (bar)	Parabolic plug					40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	30
	Laternenkeg.																						
Actuator DP32	Spring range (bar)	0,2-1,0	Air supply pressure min. (bar)	1,2	I.	30,6	29,2	21,2	30,6	29,2	21,2	11	30,6	29,2	21,2	11,1	4,8	11,1	4,8	2,3	4,8	2,3	1
					II.	20	18,6	11,9	20	18,6	11,9	5,6	20	18,6	11,9	5,7	1,8	5,7	1,8		1,8		
					III.	2,3	2	1	2,3	2	1		2,3	2	1								
		0,4-1,2		1,4	I.	40	40	40	40	40	40	33,1	40	40	40	33,3	16,8	33,3	16,8	9,8	16,8	9,8	5,8
					II.	40	40	40	40	40	40	27,7	40	40	40	27,8	13,8	27,8	13,8	8	13,8	8	4,6
					III.	11,2	10,9	9,9	11,2	10,9	9,9	9,3	11,2	10,9	9,9	9,3	8,4	9,3	8,4	6,5	7	5,2	2,8
		0,8-2,4		2,7	I.							40				40	40	40	40	24,9	40	24,9	15,6
					II.							40				40	37,8	40	37,8	23	37,8	23	14,4
					III.	28,9	28,6	27,6	28,9	28,6	27,6	27,1	28,9	28,6	27,6	27,1	26,2	27,1	26,2	21,5	24,7	20,3	12,6
		1,5-2,5		2,7	I.															40		36,4	32,6
					II.												40		40	40	40	36,4	31,4
					III.	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	36,4	29,6
		2,0-3,3		3,6	I.																		40
					II.																		40
					III.																		40
Actuator DP33	Spring range (bar)	0,2-1,0	Air supply pressure min. (bar)	1,2	I.	40 c)	40 c)	40 c)	40 c)	40 c)	40 c)	24,1 c)	40 c)	40 c)	40 c)	24,2 c)	11,9 c)	24,2 c)	11,9 c)	6,8 c)	11,9c)	6,8 c)	3,8 c)
					II.	40 c)	40 c)	34,4 c)	40 c)	40 c)	34,4 c)	18,7 c)	40 c)	40 c)	34,4 c)	18,8 c)	8,9 c)	18,8 c)	8,9 c)	4,9 c)	8,9 c)	4,9 c)	2,6 c)
					III.	7,5 a)	7,2 a)	6,2 a)	7,5 a)	7,2 a)	6,2 a)	5,7 a)	7,5 a)	7,2 a)	6,2 a)	5,7 a)	4,8 a)	5,7 a)	4,8 a)	3,4 a)	3,3 a)	2,2 a)	
		0,4-1,2		1,4	I.							40 c)				40 c)	31 c)	40 c)	31 c)	18,7c)	31 c)	18,7 c)	11,6 c)
					II.			40 c)			40 c)	40 c)			40 c)	40 c)	28 c)	40 c)	28 c)	16,9 c)	28 c)	16,9 c)	10,4 c)
					III.	21,7 a)	21,4 a)	20,4 a)	21,7 a)	21,4 a)	20,4 a)	19,8 a)	21,7 a)	21,4 a)	20,4 a)	19,8 a)	18,9 a)	19,8 a)	18,9 a)	15,4 a)	17,5 a)	14,1 a)	8,6 a)
		0,8-2,4		2,7	I.												40 a)		40 a)	40 a)	40 a)	40 a)	27,1 a)
					II.												40 a)		40 a)	40 a)	40 a)	40 a)	25,9 a)
					III.	40	40	40	40	40	40	40	40	40	40	40	40	40	40	39,3	40	38,1	24,1
		1,7-2,7		3,0	I.																		40 a)
					II.																		40 a)
					III.															40		40	40
		1,5-3,0		3,3	I.																		
					II.																		
					III.																		
		2,0-4,0		4,5	I.																		
					II.																		
					III.																		
Actuator DP34	Spring range (bar)	0,2-1,0	Air supply pressure min. (bar)	1,2	I.																		
					II.																		
					III.																		
		0,4-1,2		1,4	I.																		
					II.																		
					III.																		
		0,8-2,4		2,7	I.																		
					II.																		
					III.																		
		2,1-3,0 (1,5-3,0)		3,3 (3,3)	I.																		
					II.																		
					III.																		
		2,4-3,6 (2,0-4,0)		4 (4,5)	I.																		
					II.																		
					III.																		

I. Fig. 445: PTFE-V-ring unit; **II. Fig. 445: PTFE- / pure graphite-packing;** **III. Fig. 446: Bellows seal**

Air supply pressure max. of pneumatic actuators DP: max. permissible 6 bar

Air supply pressure max. limit of control valve: max. permissible a) 5 bar b) 4,5 bar c) 4 bar d) 3,5 bar e) 3 bar

max. permissible closing pressures on flow-to-open P2 = 0
Observe restrictions by Pressure-temperature-ratings, refer to page 31.

Spring closes on air failure

DN						50			65			80			100			125			150		
Standard Kvs-values	Seat-ø (mm)						43			56			70			95			120			145
	Kvs-value						40			63			100			160			250			400
	Travel (mm)						20			30			30			30			50			50
Reduced Kvs-values	Seat-ø (mm)				28	35		35	43		43	56		56	70		70	95		95	120	
	Kvs-value				16	25		25	40		40	63		63	100		100	160		160	250	
	Travel (mm)				20	20		20	20		20	30		30	30		30	30		30	50	
Max. differential pressure drop (bar)	Parabolic plug				40	30	20	30	20	8	20	8	4	8	4	1,5	4	1,5	1	1,5	1	1
	Laternenkeg.									30		30	25	30	25	25	25	25	10	25	10	10
Actuator **DP32**	Spring range (bar)	0,2-1,0	Air supply pressure min. (bar)	1,2	I.	2,3																
					II.																	
					III.																	
		0,4-1,2		1,4	I.	9,8	5,8	3,5	5,4	3,2	1,5	3,2	1,5		1,5							
					II.	8	4,6	2,7	3,8	2,1		2,1										
					III.	5,2	2,8	1,5	2,8	1,5		1,5										
		0,8-2,4		2,7	I.	24,9	15,5	10	15,2	9,7	5,4	9,7	5,4	3,2	5,4	3,2	1,5	3,1	1,4		1,4		
					II.	23	14,3	9,2	13,6	8,7	4,7	8,7	4,7	2,8	4,7	2,8	1,2	2,7	1,2		1,2		
					III.	20,3	12,5	8	12,6	8	4,3	8	4,3	2,5	4,3	2,5	1,1	2,1					
		1,5-2,5		2,7	I.	40	32,6	21,4	32,2	21,1		21,1											
					II.	40	31,4	20,6	30,6	20		20											
					III.	40	29,6	19,4	29,6	19,4		19,4											
		2,0-3,3		3,6	I.		40	29,5	40	29,2		29,2											
					II.		40	28,7	40	28,2		28,2											
					III.		40	27,5	40	27,5		27,5											
Actuator **DP33**	Spring range (bar)	0,2-1,0	Air supply pressure min. (bar)	1,2	I.	6,8 c)	3,8 c)	2,1 c)	3,4	1,9		1,9											
					II.	4,9 c)	2,6 c)	1,3 c)	1,8														
					III.	2,2 a)																	
		0,4-1,2		1,4	I.	18,7 c)	11,6 c)	7,3 c)	11,2	7,1	3,8	7,1	3,8	2,2	3,8	2,2		2,1					
					II.	16,9 c)	10,4 c)	6,5 c)	9,6	6	3,2	6	3,2	1,8	3,2	1,8		1,6					
					III.	14,1 a)	8,6 a)	5,3 a)	8,6 a)	5,3 a)	2,8 a)	5,3 a)	2,8 a)	1,5 a)	2,8 a)	1,5 a)		1,1					
		0,8-2,4		2,7	I.	40 a)	27,1 a)	17,7 a)	26,7	17,4	9,9	17,4	9,9	6,1	9,9	6,1	3,1	6	3		3		
					II.	40 a)	25,9 a)	16,9 a)	25,1	16,4	9,3	16,4	9,3	5,7	9,3	5,7	2,8	5,6	2,8		2,8		
					III.	38,1	24,1	15,7	24,1	15,7	8,9	15,7	8,9	5,5	8,9	5,5	2,7	5,1	2,5		2,5		
		1,7-2,7		3,0	I.		40 a)	40 a)	40	40		40											
					II.		40 a)	40 a)	40	39,7		39,7											
					III.	40	40	39	40	39		39											
		1,5-3,0		3,3	I.						20,7		20,7	13,1	20,7	13,1	6,9	12,9	6,8		6,8		
					II.						20,1		20,1	12,7	20,1	12,7	6,6	12,5	6,6		6,6		
					III.						19,7		19,7	12,4	19,7	12,4	6,5	11,9	6,3		6,3		
		2,0-4,0 (2,3-3,7)		4,5	I.						28,4		28,4	18	28,4	18	9,6	17,9	9,5		9,5		
					II.					(40)	27,8	(40)	27,8	17,6	27,8	17,6	9,3	17,4	9,2		9,2		
					III.					(40)	27,4	(40)	27,4	17,4	27,4	17,4	9,2	16,9	9		9		
Actuator **DP34**	Spring range (bar)	0,2-1,0	Air supply pressure min. (bar)	1,2	I.						3,8 b)		3,8 b)	2,2 b)	3,8 b)	2,2 b)		2,1					
					II.						3,2 b)		3,2 b)	1,8 b)	3,2 b)	1,8 b)		1,7					
					III.						2,8 e)		2,8 e)	1,5 e)	2,8 e)	1,5 e)		1,1 a)					
		0,4-1,2		1,4	I.						10 b)		10 b)	6,2 b)	10 b)	6,2 b)	3,1 b)	6,1	3,1	1,8	3,1	1,8	1,1
					II.						9,4 b)		9,4 b)	5,8 b)	9,4 b)	5,8 b)	2,9 b)	5,6	2,8	1,6	2,8	1,6	1
					III.						9 d)		9 d)	5,5 d)	9 d)	5,5 d)	2,7 d)	5,1 a)	2,5 a)	1,4 a)	2,5 a)	1,4 a)	
		0,8-2,4		2,7	I.						22,4		22,4	14,2	22,4	14,2	7,5	14	7,4	4,5	7,4	4,5	3
					II.						21,8		21,8	13,7	21,8	13,7	7,2	13,6	7,1	4,3	7,1	4,3	2,9
					III.						21,4 b)		21,4 b)	13,5 b)	21,4 b)	13,5 b)	7,1 b)	13	6,9	4,1	6,9	4,1	2,7
		2,1-3,0 (1,5-3,0)		3,3 (3,3)	I.						40		40	40	40	40	21,6	39,8	21,5	(9,3)	21,5	(9,3)	(6,2)
					II.						40		40	39,7	40	39,7	21,4	39,3	21,2	(9,1)	21,2	(9,1)	(6,1)
					III.						40 a)		40 a)	39,4 a)	40 a)	39,4 a)	21,3 a)	38,8	21	(8,9)	21	(8,9)	(6)
		2,4-3,6 (2,0-4,0)		4 (4,5)	I.												24,9	40	24,7	(12,7)	24,7	(12,7)	(8,6)
					II.									40		40	24,7	40	24,5	(12,5)	24,5	(12,5)	(8,5)
					III.													40	24,2	(12,3)	24,2	(12,3)	(8,4)

I. Fig. 445: PTFE-V-ring unit; **II. Fig. 445: PTFE- / pure graphite-packing;** **III. Fig. 446: Bellows seal**

Air supply pressure max. of pneumatic actuators DP: max. permissible 6 bar

Air supply pressure max. limit of control valve: max. permissible a) 5 bar b) 4,5 bar c) 4 bar d) 3,5 bar e) 3 bar

max. permissible closing pressures on flow-to-open P2 = 0
Observe restrictions by Pressure-temperature-ratings, refer to page 31.

Spring opens on air failure

DN				15			20				25					32			40		
Standard Kvs-values	Seat-ø (mm)					12				16					22			28			35
	Kvs-value					4				6,3					10			16			25
	Travel (mm)					20				20					20			20			20
Reduced Kvs-values	Seat-ø (mm)			3	5	12	3	5	12		3	5	12	16		16	22		22	28	
	Kvs-value			0,25; 0,16; 0,1	0,63; 0,4	2,5; 1,6; 1	0,25; 0,16; 0,1	0,63; 0,4	4; 2,5; 1,6; 1		0,25; 0,16; 0,1	0,63; 0,4	4; 2,5; 1,6; 1	6,3		6,3	10		10	16	
	Travel (mm)			20	20	20	20	20	20		20	20	20	20		20	20		20	20	
Max. differential pressure drop (bar)	Parabolic plug			40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	30
	Laternenkeg.																				
Actuator **DP32**	Air supply pressure min. (bar)	1,4	I.	40	40	40	40	40	40	33,1	40	40	40	33,3	16,8	33,3	16,8	9,8	16,8	9,8	5,8
			II.	40	40	40	40	40	40	27,7	40	40	40	27,8	13,8	27,8	13,8	8	13,8	8	4,6
			III.	11,2	10,9	9,9	11,2	10,9	9,9	9,3	11,2	10,9	9,9	9,3	8,4	9,3	8,4	6,5	7	5,2	2,8
		2	I.							40				40	40	40	40	32,4	40	32,4	20,4
			II.							40				40	40	40	40	30,6	40	30,6	19,2
			III.	37,8	37,5	36,5	37,8	37,5	36,5	36	37,8	37,5	36,5	36	35	36	35	29	33,6	27,8	17,5
		3	I.															40		40	40
			II.															40		40	40
			III.	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
		4	I.																		
			II.																		
			III.																		
		5	I.																		
			II.																		
			III.																		
		6	I.																		
			II.																		
			III.																		
Actuator **DP33**	Air supply pressure min. (bar)	1,4	I.	40 d)	40 d)	40 d)	40 d)	40 d)	40 d)	40 d)	40 d)	40 d)	40 d)	40 d)	31 d)	40 d)	31 d)	18,7d)	31 d)	18,7d)	11,6d)
			II.	40 d)	40 d)	40 d)	40 d)	40 d)	40 d)	40 d)	40 d)	40 d)	40 d)	40 d)	28 d)	40 d)	28 d)	16,9d)	28 d)	16,9d)	10,4d)
			III.	21,7 d)	21,4 d)	20,4 d)	21,7 d)	21,4 d)	20,4 d)	19,8 d)	21,7 d)	21,4 d)	20,4 d)	19,8 d)	18,9 d)	19,8 d)	18,9 d)	15,4 d)	17,5 d)	14,1 d)	8,6 d)
		2	I.												40 d)		40 d)	40 d)	40 d)	40 d)	34,9d)
			II.												40 d)		40 d)	40 d)	40 d)	40 d)	33,7d)
			III.	40 d)	40 d)	40 d)	40 d)	40 d)	40 d)	40 d)	40 d)	40 d)	40 d)	40 d)	40 d)	40 d)	40 d)	40 d)	40 d)	40 d)	31,9d)
		3	I.																		40 d)
			II.																		40 d)
			III.																		40 d)
		4	I.																		
			II.																		
			III.																		
		5	I.																		
			II.																		
			III.																		
		6	I.																		
			II.																		
			III.																		
Actuator **DP34**	Air supply pressure min. (bar)	1,4	I.																		
			II.																		
			III.																		
		2	I.																		
			II.																		
			III.																		
		3	I.																		
			II.																		
			III.																		
		4	I.																		
			II.																		
			III.																		
		5	I.																		
			II.																		
			III.																		
		6	I.																		
			II.																		

I. Fig. 445: PTFE-V-ring unit; **II. Fig. 445: PTFE- / pure graphite-packing;** **III. Fig. 446: Bellows seal**

Air supply pressure max. of pneumatic actuators DP: 6 bar
Air supply pressure max. limit of control valve: max. permissible a) 5 bar b) 4,5 bar c) 4 bar d) 3,5 bar e) 3 bar
max. permissible

max. permissible closing pressures on flow-to-open P2 = 0
Observe restrictions by Pressure-temperature-ratings, refer to page 31.

Spring opens on air failure

DN				50			65			80			100			125			150		
Standard Kvs-values	Seat-ø (mm)					43			56			70			95			120			145
	Kvs-value					40			63			100			160			250			400
	Travel (mm)					20			30			30			30			50			50
Reduced Kvs-values	Seat-ø (mm)			28	35		35	43		43	56		56	70		70	95		95	120	
	Kvs-value			16	25		25	40		40	63		63	100		100	160		160	250	
	Travel (mm)			20	20		20	20		20	30		30	30		30	30		30	50	
Max. differential pressure drop (bar)	Parabolic plug			40	30	20	30	20	8	20	8	4	8	4	1,5	4	1,5	1	1,5	1	1
	Laternenkeg.								30		30	25	30	25	25	25	25	10	25	10	10
Actuator **DP32**	Air supply pressure min. (bar)	1,4	I.	9,8	5,8	3,5	5,4	3,2	1,5	3,2	1,5		1,5								
			II.	8	4,6	2,7	3,8	2,1		2,1											
			III.	5,2	2,8	1,5	2,8	1,5		1,5											
		2	I.	32,4	20,4	13,2	20	13	7,3	13	7,3	4,4	7,3	4,4	2,1	4,3	2,1		2,1		
			II.	30,6	19,2	12,4	18,4	11,9	6,7	11,9	6,7	4	6,7	4	1,9	3,9	1,9		1,9		
			III.	27,8	17,4	11,2	17,5	11,2	6,3	11,2	6,3	3,8	6,3	3,8	1,8	3,4	1,6		1,6		
		3	I.	40	40	29,5	40	29,2	17	29,2	17	10,6	17	10,6	5,5	10,5	5,5		5,5		
			II.	40	40	28,7	40	28,2	16,3	28,2	16,3	10,2	16,3	10,2	5,3	10,1	5,2		5,2		
			III.	40	40	27,5	40	27,5	15,9	27,5	15,9	10	15,9	10	5,2	9,5	5		5		
		4	I.			40		40	26,6	40	26,6	16,9	26,6	16,9	8,9	16,7	8,9		8,9		
			II.			40		40	26	40	26	16,5	26	16,5	8,7	16,3	8,6		8,6		
			III.			40		40	25,6	40	25,6	16,2	25,6	16,2	8,6	15,7	8,3		8,3		
		5	I.						36,3		36,3	23,1	36,3	23,1	12,3	22,9	12,3		12,3		
			II.						35,7		35,7	22,7	35,7	22,7	12,1	22,5	12		12		
			III.						35,3		35,3	22,4	35,3	22,4	12	21,9	11,7		11,7		
		6	I.						40		40	29,3	40	29,3	15,7	29,1	15,6		15,6		
			II.						40		40	28,9	40	28,9	15,5	28,6	15,4		15,4		
			III.						40		40	28,7	40	28,7	15,4	28,1	15,1		15,1		
Actuator **DP33**	Air supply pressure min. (bar)	1,4	I.	18,7 d)	11,6 d)	7,3 d)	11,2 d)	7,1 d)	3,8 d)	7,1 d)	3,8 d)	2,2 d)	3,8 d)	2,2 d)		2,1 d)					
			II.	16,9 d)	10,4 d)	6,5 d)	9,6 d)	6 d)	3,2 d)	6 d)	3,2 d)	1,8 d)	3,2 d)	1,8 d)		1,6 d)					
			III.	14,1 d)	8,6 d)	5,3 d)	8,6 d)	5,3 d)	2,8 d)	5,3 d)	2,8 d)	1,5 d)	2,8 d)	1,5 d)		1,1 d)					
		2	I.	40 d)	34,8 d)	22,9 d)	34,5 d)	22,6 d)	13 d)	22,6 d)	13 d)	8,1 d)	13 d)	8,1 d)	4,2 d)	8 d)	4,1 d)		4,1 d)		
			II.	40 d)	33,6 d)	22,1 d)	32,9 d)	21,5 d)	12,4 d)	21,5 d)	12,4 d)	7,7 d)	12,4 d)	7,7 d)	3,9 d)	7,6 d)	3,9 d)		3,9 d)		
			III.	40 d)	31,8 d)	20,9 d)	31,9 d)	20,9 d)	12 d)	20,9 d)	12 d)	7,4 d)	12 d)	7,4 d)	3,8 d)	7 d)	3,6 d)		3,6 d)		
		3	I.		40 d)	40 d)	40 d)	40 d)	28,4 d)	40 d)	28,4 d)	18 d)	28,4 d)	18 d)	9,6 d)	17,9 d)	9,5 d)		9,5 d)		
			II.		40 d)	40 d)	40 d)	40 d)	27,8 d)	40 d)	27,8 d)	17,6 d)	27,8 d)	17,6 d)	9,3 d)	17,4 d)	9,2 d)		9,2 d)		
			III.		40 d)	40 d)	40 d)	40 d)	27,4 d)	40 d)	27,4 d)	17,4 d)	27,4 d)	17,4 d)	9,2 d)	16,9 d)	9 d)		9 d)		
		4	I.						40		40	27,9	40	27,9	15	27,7	14,9		14,9		
			II.						40		40	27,5	40	27,5	14,8	27,3	14,6		14,6		
			III.						40 a)		40 a)	27,3 a)	40 a)	27,3 a)	14,6 a)	26,7	14,3		14,3		
		5	I.									37,8		37,8	20,4	37,6	20,3		20,3		
			II.									37,4		37,4	20,2	37,1	20		20		
			III.									37,2 a)		37,2 a)	20 a)	36,6	19,7		19,7		
		6	I.									40		40	25,8	40	25,7		25,7		
			II.									40		40	25,6	40	25,4		25,4		
			III.													40	25,1		25,1		
Actuator **DP34**	Air supply pressure min. (bar)	1,4	I.						10 b)		10 b)	6,2 b)	10 b)	6,2 b)	3,1 b)	6,1	3,1	1,8	3,1	1,8	1,1
			II.						9,4 b)		9,4 b)	5,8 b)	9,4 b)	5,8 b)	2,9 b)	5,6	2,8	1,6	2,8	1,6	1
			III.						9 e)		9 e)	5,5 e)	9 e)	5,5 e)	2,7 e)	5,1 a)	2,5 a)	1,4 a)	2,5 a)	1,4 a)	
		2	I.						28,6 b)		28,6 b)	18,1 b)	28,6 b)	18,1 b)	9,6 b)	18	9,6	5,9	9,6	5,9	3,9
			II.						28 b)		28 b)	17,7 b)	28 b)	17,7 b)	9,4 b)	17,5	9,3	5,7	9,3	5,7	3,8
			III.						27,6 e)		27,6 e)	17,5 e)	27,6 e)	17,5 e)	9,3 e)	17 a)	9 a)	5,5 a)	9 a)	5,5 a)	3,7 a)
		3	I.						40 b)		40 b)	38,1 b)	40 b)	38,1 b)	20,5 b)	37,8	20,4	12,7	20,4	12,7	8,6
			II.						40 b)		40 b)	37,7 b)	40 b)	37,7 b)	20,3 b)	37,4	20,2	12,5	20,2	12,5	8,5
			III.						40 e)		40 e)	37,4 b)	40 e)	37,4 e)	20,2 e)	36,8 a)	19,9 a)	12,3 a)	19,9 a)	12,3 a)	8,4 a)
		4	I.									40 b)		40 b)	31,4 b)	40	31,3	19,5	31,3	19,5	13,3
			II.									40 b)		40 b)	31,2 b)	40	31	19,3	31	19,3	13,2
			III.													40 a)	30,7 a)	19,2 a)	30,7 a)	19,2 a)	13 a)
		5	I.														40	26,3	40	26,3	18
			II.														40	26,2	40	26,2	17,9
			III.														40 a)	26 a)	40 a)	26 a)	17,7 a)
		6	I.															33,2		33,2	22,7
			II.															33		33	22,5

I. Fig. 445: PTFE-V-ring unit; **II. Fig. 445: PTFE- / pure graphite-packing;** **III. Fig. 446: Bellows seal**

Air supply pressure max. of pneumatic actuators DP: 6 bar
Air supply pressure max. limit of control valve: max. permissible a) 5 bar b) 4,5 bar c) 4 bar d) 3,5 bar e) 3 bar
max. permissible

Control valve in straightway form with pneumatic actuator DP

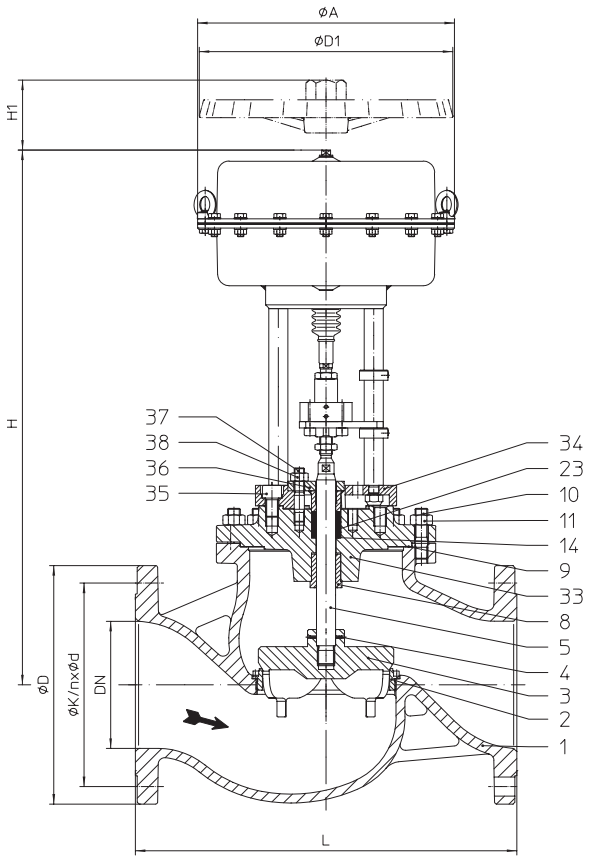


Fig. 445

Figure	Nominal pressure	Material	Nominal diameter
55.445	PN40	1.4408	DN125v-150v
55.445	PN40	1.4408	DN200-250
Other materials and versions on request.			

Stem sealing

Fig. 445:
- PTFE-packing -10°C up to +250°C
- Pure graphite-packing -10°C to 400°C

Plug design

standard:
- DN125v-150v: Parabolic plug, metal seat
- DN200-250: V-port plug, metal seat

optional:
- DN125v-150v: Parabolic plug with PTFE soft seat (max. 200°C)

Guiding
- Stem-Guiding

Flow characteristic
- Modified equal percentage or linear

Rangeability
- 30 : 1

Shut off class (seat / plug leakage 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

Closing pressures refer to page 30.

Technical data for actuator refer to data sheet.

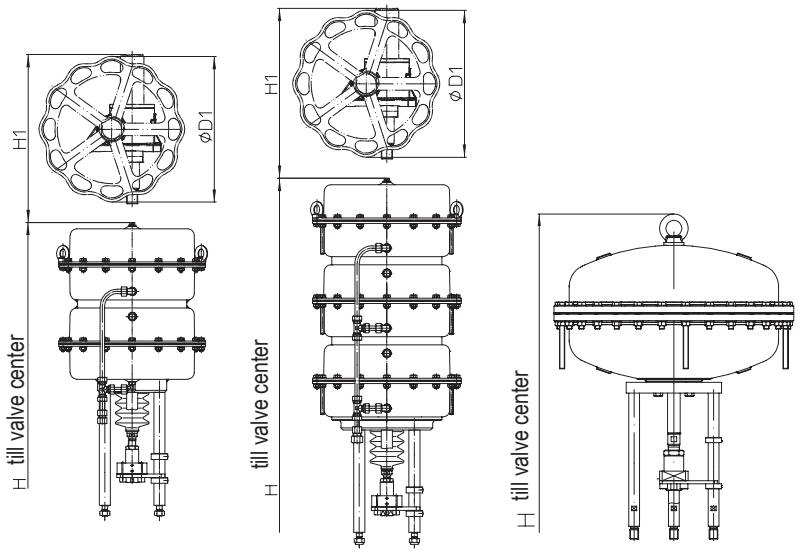
Selection of possible applications

Industrial installations, processing technology, plant manufacturing, etc.
(other applications on request)

Selection of possible flow media

Fig. 445: Cooling water, cooling brine, warm water, hot water, steam, gas, alkalis, acids, de-ionised water, pure steam, etc.

(other flow media on request)



DP34T **DP34Tri** **DP35**

Top mounted handwheel

Actuator		DP34	DP34T	DP34Tri
Ø D1	(mm)	400	400	400
H1	(mm)	470	635	635
Weight	(kg)	17	41	71
Technical data for actuator refer to data sheet DP32-35.				

Dimensions and weights

DN				125v	150v	200	250
L			(mm)	400	480	600	730
DP34	Ø A		(mm)	405			
	Fig. 445	H	(mm)	--	--	812	869
		PN40	(kg)	--	--	202	279
DP34 T	Ø A		(mm)	405			
	Fig. 445	H	(mm)	975	999	1062	1284
		PN40	(kg)			273	350
DP34 Tri	Ø A		(mm)	405			
	Fig. 445	H	(mm)	1197	1221	1119	1341
		PN40	(kg)			279	356
DP35	Ø A		(mm)	755			
	Fig. 445	H	(mm)	--	--	1197	1254
		PN40	(kg)	--	--	479	556
Standard-flange dimensions refer to page 31.							

Face-to-face dimension FTF series 1 according to DIN EN 558

Parts

Pos.	Description	Fig. 55.445
1	Body	GX5CrNiMo19-11-2, 1.4408
2	Seat ring *	X6CrNiMoTi17-12-2, 1.4571
3	Plug *	X6CrNiMoTi17-12-2, 1.4571
4	Straight spin *	A4 - 70
5	Stem	X6CrNiMoTi17-12-2, 1.4571
8	Guide bushing	X6CrNiMoTi17-12-2, 1.4571
9	Gasket *	Pure graphite (CrNi laminated with graphite)
10	Studs	A4 - 70
11	Hexagon nuts	A4
14	Washer *	X5CrNi18-10, 1.4301
23	Packing ring *	PTFE
33	Stuffing box housing	X6CrNiMoTi17-12-2, 1.4571
34	Adapter flange	EN-GJS-400-18U-LT, EN-JS1049
35	Hexagon socket head screw	A2 - 70
36	Packing box flange	X6CrNiMoTi17-12-2, 1.4571
37	Stud	A4 - 70
38	Hexagon nut	A4
* Spare parts		

Information / restriction of technical rules need to be observed!

A production allowance acc. to TRB 801 No. 45 exists

The engineer, designing a system or a plant, is responsible for the selection of the correct valve.

max. permissible closing pressures on flow-to-open P2 = 0
Observe restrictions by Pressure-temperature-ratings, refer to page 31.

Spring closes on air failure

DN						125v			150v			200			250		
Standard Kvs-values	Seat-ø (mm)							120			145			200			250
	Kvs-value							250			400			630			1000
	Travel (mm)							50			50			65			65
Reduced Kvs-values	Seat-ø (mm)					70	95		95	120		125	150		150	200	
	Kvs-value					100	160		160	250		250	400		400	630	
	Travel (mm)					30	30		30	50		50	50		50	65	
Max. differential pressure drop (bar)		Parabolic plug				4	1,5	1	1,5	1	1						
		V-port plug				25	25	10	25	10	10	10	10	5	10	5	5
Actuator DP34	Spring range (bar)	0,4-1,2	Air supply pressure min. (bar)	1,4	II.							1,2					
		0,8-2,4		2,7	II.							3,8	2,5		2,5		
		1,0-2,0		2,4	II.									1,8		1,8	1,1
		1,5-3,0		3,3	II.							8,2	5,6		5,6		
		2,0-4,0		4,5	II.							11,3	7,8	4,3	7,8	4,3	2,7
Actuator DP34T		0,2-1,0		1,5	II.	5 b)	2,5 b)	1,4 b)	2,5 b)	1,4 b)		1,2 b)					
		0,4-1,2		1,7	II.	13 b)	6,8 b)	4,1 b)	6,8 b)	4,1 b)	2,7 b)	3,8 b)	2,5 b)	1,3 b)	2,5 b)	1,3 b)	
		0,8-2,4		2,9	II.	28,8	15,5	9,6	15,5	9,6	6,5	8,8	6		6		
		1,0-2,0		2,5	II.									4,3 a)		4,3 a)	2,7 a)
		1,5-3,0		3,5	II.			19,1		19,1	13	17,6	12,2		12,2		
		2,0-4,0		4,5	II.			26		26	17,7	23,9	16,5	9,2	16,5	9,2	5,8
		2,1-3,0		3,5	II.		40		40								
Actuator DP34Tri		0,2-1,0		1,5	II.	9 d)	4,6 d)	2,8 d)	4,6 d)	2,8 d)	1,8 d)	2,5 d)	1,6 d)		1,6 d)		
		0,4-1,2		1,7	II.	20,9 d)	11,2 d)	6,9 d)	11,2 d)	6,9 d)	4,6 d)	6,3 d)	4,3 d)	2,3 d)	4,3 d)	2,3 d)	1,4 d)
		0,8-2,4		2,9	II.	40 b)	24,2 b)	15 b)	24,2 b)	15 b)	10,2 b)	13,8 d)	9,5 b)		9,5 b)		
		1,0-2,0		2,5	II.									6,7 b)		6,7 b)	4,2 b)
		1,5-3,0		3,5	II.			29,4 a)		29,4 a)	20,1 a)	27,1 a)	18,7 a)		18,7 a)		
		2,0-4,0		4,5	II.			39,6 a)		39,6 a)	27,1 a)	36,5 a)	25,3 a)	14,2 a)	25,3 a)	14,2 a)	9 a)
		2,1-3,0		3,5	II.		40 a)		40 a)								
Actuator DP35		1,8-3,8		4,3	II.							40	37,3	23,3	37,3	23,3	14,9

II. Fig. 445: PTFE- / pure graphite-packing

Air supply pressure max. of pneumatic actuators DP: max. permissible 6 bar (DP34Tri: max. perm. 5 bar)
Air supply pressure max. limit of control valve: max. permissible a) 5 bar b) 4,5 bar c) 4 bar d) 3,5 bar e) 3 bar

Spring opens on air failure

DN					125v			150v			200			250		
Standard Kvs-values	Seat-ø (mm)						120			145			200			250
	Kvs-value						250			400			630			1000
	Travel (mm)						50			50			65			65
Reduced Kvs-values	Seat-ø (mm)				70	95		95	120		125	150		150	200	
	Kvs-value				100	160		160	250		250	400		400	630	
	Travel (mm)				30	30		30	50		50	50		50	65	
Max. differential pressure drop (bar)	Parabolic plug				4	1,5	1	1,5	1	1						
	V-port plug				25	25	10	25	10	10	10	10	5	10	5	5
Actuator DP34	Air supply pressure min. (bar)	1,4	II.								1,2					
		2	II.								5	3,4	1,8	3,4	1,8	1,1
		3	II.								11,3	7,8	4,3	7,8	4,3	2,7
		4	II.								17,6	12,2	6,7	12,2	6,7	4,2
		5	II.								23,9	16,5	9,2	16,5	9,2	5,8
		6	II.								30,2	20,9	11,7	20,9	11,7	7,4
Actuator DP34T		1,5	II.	16,9 b)	9 b)	5,5 b)	9 b)	5,5 b)	3,7 b)	5 b)	3,4 b)	1,8 b)	3,4 b)	1,8 b)	1,1 b)	
		2	II.	36,8 b)	19,8 b)	12,3 b)	19,8 b)	12,3 b)	8,3 b)	11,3 b)	7,8 b)	4,3 b)	7,8 b)	4,3 b)	2,7 b)	
		3	II.	40 b)	40 b)	26 b)	40 b)	26 b)	17,7 b)	23,9 b)	16,5 b)	9,2 b)	16,5 b)	9,2 b)	5,8 b)	
		4	II.			39,6 b)		9,6 b)	27,1 b)	36,5 b)	25,3 b)	14,2 b)	25,3 b)	14,2 b)	9 b)	

II. Fig. 445: PTFE- / pure graphite-packing

Air supply pressure max. of pneumatic actuators DP: max. permissible 6 bar
Air supply pressure max. limit of control valve: max. permissible a) 5 bar b) 4,5 bar c) 4 bar d) 3,5 bar e) 3 bar

Standard-flange dimensions

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

DN			15	20	25	32	40	50	65	80	100	125	150	200	250
PN40	ØD	(mm)	95	105	115	140	150	165	185	200	235	270	300	375	450
PN40	ØK	(mm)	65	75	85	100	110	125	145	160	190	220	250	320	385
PN40	n x Ød	(mm)	4x14	4x14	4x14	4x18	4x18	4x18	8x18	8x18	8x22	8x26	8x26	12x30	12x33

Pressure-temperature-ratings acc. to manufacturers standard

Material			-60°C to <-10°C *	-10°C to100°C	150°C	200°C	250°C	300°C	350°C	400°C
1.4408	PN40	(bar)	40	40	36,3	33,7	31,8	29,7	28,5	27,4

Intermediate values for max. permissible operational pressures can be determined by linear interpolation of the given temperature / pressure chart.

* Valve with extended bonnet, studs and nuts made of A4-70 (at temperatures below -10°C)

Please indicate when ordering:

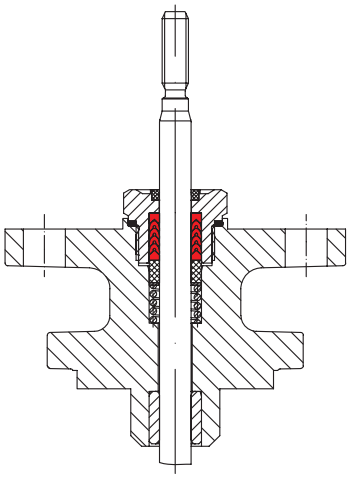
- Figure-No.
- Nominal diameter
- Nominal pressure
- Body material
- Plug design
- Kvs-value
- Flow characteristic
- Stem sealing
- Actuator
- Special design / accessories

Example:

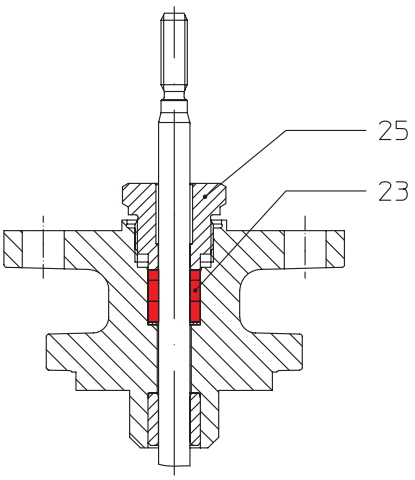
Figure 55.445; Nominal diameter DN65; Nominal pressure PN40; Body material 1.4408; Parabolic plug; Kvs 63; GLP; Stem sealing PTFE-V-ring unit; Actuator ARI-PREMIO 5 kN.

Dimensions in mm
Weights in kg
Pressures in barg (gauge)
1 bar ≙ 10^5 Pa ≙ 0,1 MPa
Kvs in m^3/h

Stem sealing



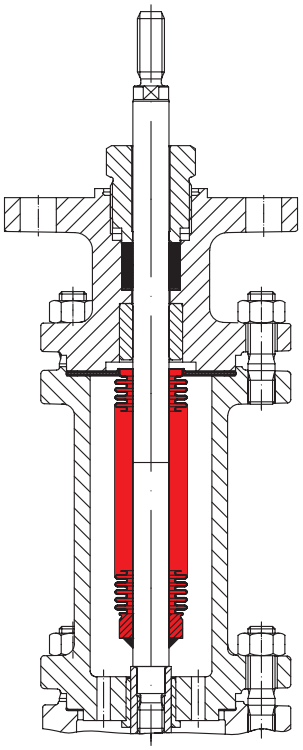
Spring loaded PTFE-V ring packing unit



PTFE-/ Pure graphite-packing

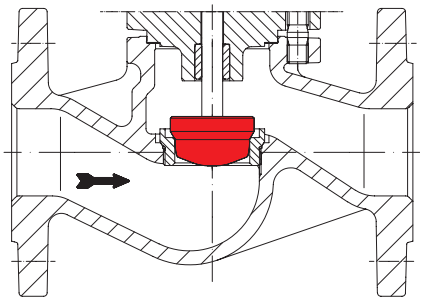
Pos.	Description	
23	Packing ring *	PTFE or Pure graphite
25	Screw joint *	X8CrNiS18-9, 1.4305

* Spare part

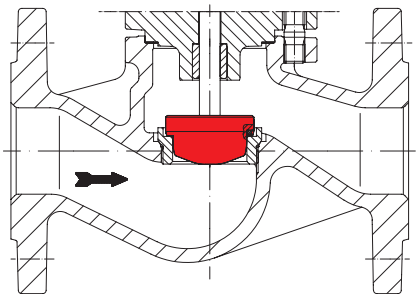


Bellows seal with safety stuffing box

Plug design



Parabolic plug with stem guiding



Parabolic plug with PTFE soft seat and stem guiding

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