

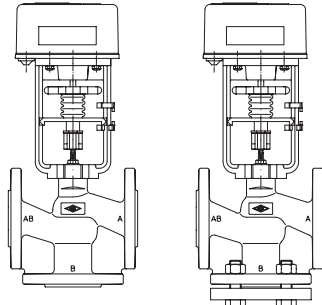
Control valve in 3-way-form for heating - Fig. 485/487

Control valve in straightway form with electric actuator ARI-PACO for heating - Fig. 486/488

ARI-STEVI® H 485 / 486

Electric actuator ARI-PACO

- Motor voltage 24V/50Hz input signal 0-10 V
- Motor voltage 24/230 VAC 3-step control
- Handwheel
- Travel indicator
- Additional devices available, e.g. potentiometer



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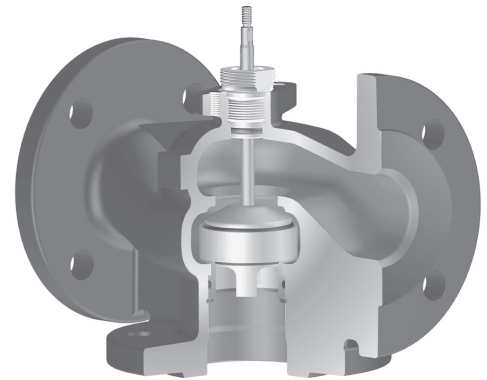
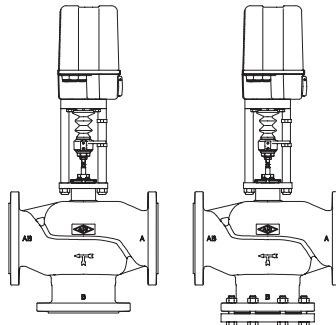


Fig. 485

ARI-STEVI® H 485 / 486

Electric actuator ARI-PREMIO

- Enclosure IP 65
- 2 torque switches
- Handwheel
- Additional devices available, e.g. potentiometer



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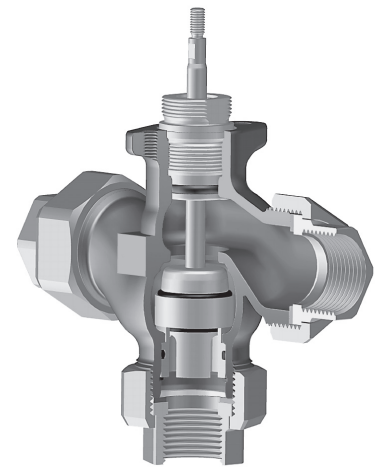
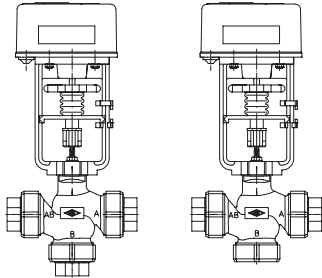


Fig. 487

ARI-STEVI® H 487 / 488

Electric actuator ARI-PACO

- Motor voltage 24V/50Hz input signal 0-10 V
- Motor voltage 24/230 VAC 3-step control
- Handwheel
- Travel indicator
- Additional devices available, e.g. potentiometer



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Features

- Compact design
- Tight seat (DN 15-100)
- Operation temperature max. 130°C
- Kvs-value 0,63 -320 (Fig. 487/488 0,63 - 40)
- Reducible kvs-values
- Flow characteristics: equal percentage and linear
- Burnished stem, made of material No. 1.4571
- Low friction stem-sealing unit
- Stem sealing free of maintenance
- Nominal pressure PN6 and PN16 (Fig. 487/488 PN16)
- DN 15-150 (Fig. 487/488 DN 15-50)
- Larger valve sizes available with other ARI Control valve series

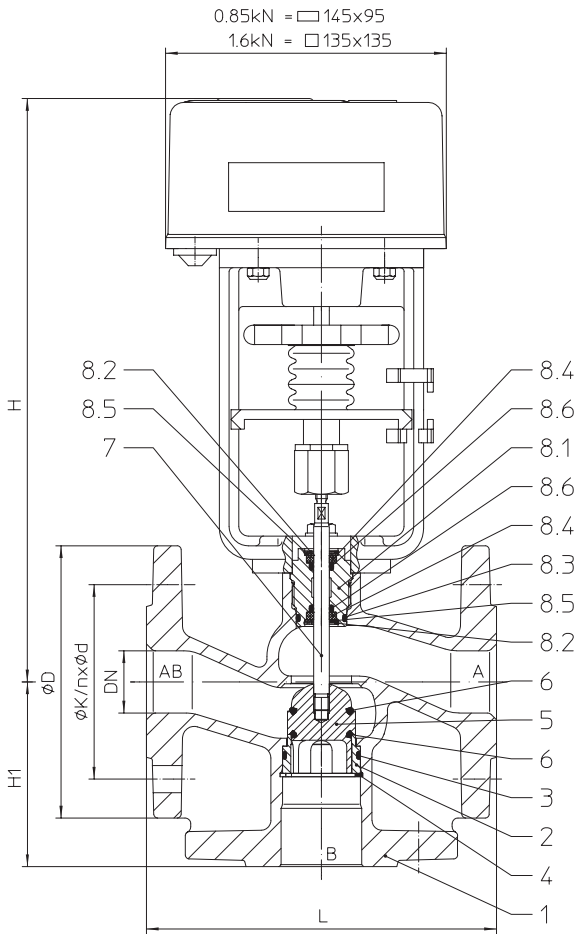
Control valve for heating, ventilation and air-conditioning - 3-way with flanges - Fig. 485


Figure	Nominal pressure	Material	Nominal diameter
10.485	PN6	EN-JL1040	DN15-100
12.485	PN16	EN-JL1040	DN15-100
10.486	PN6	EN-JL1040	DN15-100
12.486	PN16	EN-JL1040	DN15-100

Other materials and versions on request.

Operating temperature

- 0°C to +130°C; with stem heating to -10°C

Stem sealing

- O-rings

Plug designs

- Parabolic plug / V-plug

Guiding

- Stem and port guiding

Flow characteristic

- A equal percentage / B linear

Rangeability

- 30 : 1

Shut off class (seat / plug-leakage rate)

- Soft seat - Leakage class 1 DIN 3230 T3 BN by given closing pressure

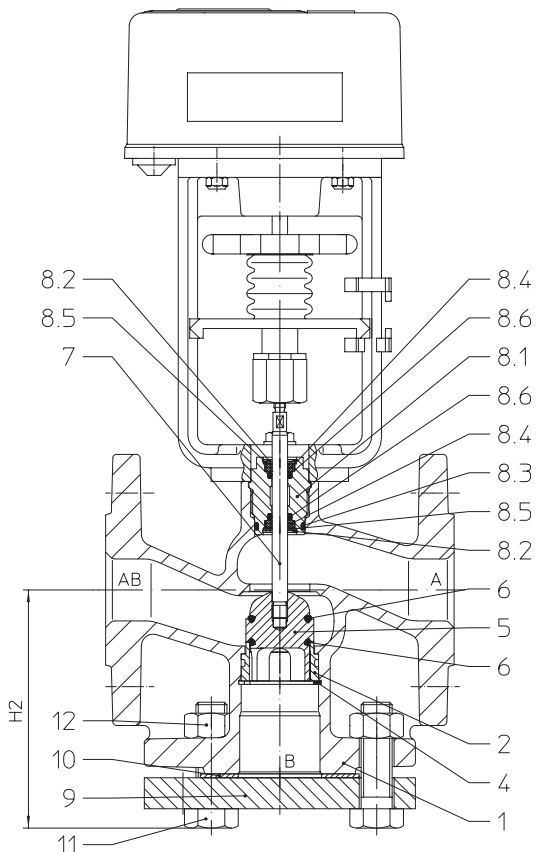
Technical data for actuator refer to data sheet.

Selection of possible applications

 Heating-, Ventilation- and Air-Conditioning- Systems, etc.
 (other applications on request)

Selection of possible flow media

 Water, water with cold-protection, etc.
 (other flow media on request)

Control valve for heating, ventilation and air-conditioning - straight through with flanges - Fig. 486


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. 485	H		(mm)	283	283	289	293	301	301				
	H1		(mm)	65	70	75	95	100	100				
	ARI-PACO 0,85 kN	PN6/16	(kg)	3,3/4,1	4,3/5	5/6	6,8/8,5	8,8/11	10/14				
	H		(mm)							490	500	515	
	H1		(mm)							120	130	150	
	ARI-PACO 1,6 kN	PN6/16	(kg)							18/23	25/28	35/38	
Fig. 486	H		(mm)	283	283	289	293	301	301				
	H2	PN6	(mm)	86	93	98	119	124	124				
		PN16	(mm)	89	96	101	123	128	130				
	ARI-PACO 0,85 kN	PN6/16	(kg)	3,9/6,1	5,2/6,3	6,1/7,6	8,3/11	11/13	12/17				
	H		(mm)							490	500	515	
	H2	PN6	(mm)								144	158	178
		PN16	(mm)								150	162	182
	ARI-PACO 1,6 kN	PN6/16	(kg)							22/27	29/34	41/45	

Standard-flange dimensions refer to page 8.

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

max. permissible closing pressures on flow-to-open P2 = 0 (Observe regulations.)

Fig. 485 Mixing function			Fig. 486 Straight through function									
DN			15	20	25	32	40	50	65	80	100	
Seat-Ø (mm)			18	21	27	31	41	51	66	81	101	
Standard Kvs-values			4	6,3	10	16	25	40	63	100	160	
Reduced Kvs-values			2,5 / 1,6 / 1,0 / 0,63	4	6,3	10	16	25	40	63	100	
Travel (mm)			14						30			
Actuator ARI-PACO 0,85 kN	Closing pressure (bar)		16	16	11,3	8,3	4,4	2,6	--	--	--	
	Operating time (s) (Operating speed 0,11 mm/s)		127						--			
Actuator ARI-PACO 1,6 kN	Closing pressure (bar)		--	--	--	--	--	--	3,2	2	1,2	
	Operating time (s) (Operating speed 0,15 mm/s)		--						200			

Parts

Pos.	Description	Fig. 10.485 / 12.485	Fig. 10.486 / 12.486
1	Body	EN-GJL-250 , EN-JL1040	
2	Seat ring	X20Cr13+QT, 1.4021+QT	
3	O-ring	EPDM	
4	Retaining ring	FSt	
5	Plug	CuZn39Pb3	
6	O-ring	EPDM	
7	Stem	X6CrNiMoTi17-12-2, 1.4571	
8.1	Screw joint	CuZn39Pb3, CW614N	
8.2	Retaining ring	CuSn8, CW453K	
8.3	O-ring	EPDM	
8.4	Bushing	PTFE	
8.5	Washer	CuZn37, CW508L	
8.6	O-ring	EPDM	
9	Flange	--	S235JR, 1.0037
10	Gasket	--	Centellen
11	Hexagon screws	--	5.6 - A2B
12	Hexagon nut	--	C35E - A2B

* Spare parts

Information / restriction of technical rules need to be observed!

ARI-Valves of EN-JL1040 are not allowed to be operated in systems acc. to TRD 110.

A production allowance acc. to TRB 801 No. 45 exists (acc. to TRB 801 No. 45 EN-JL1040 is not allowed.)

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

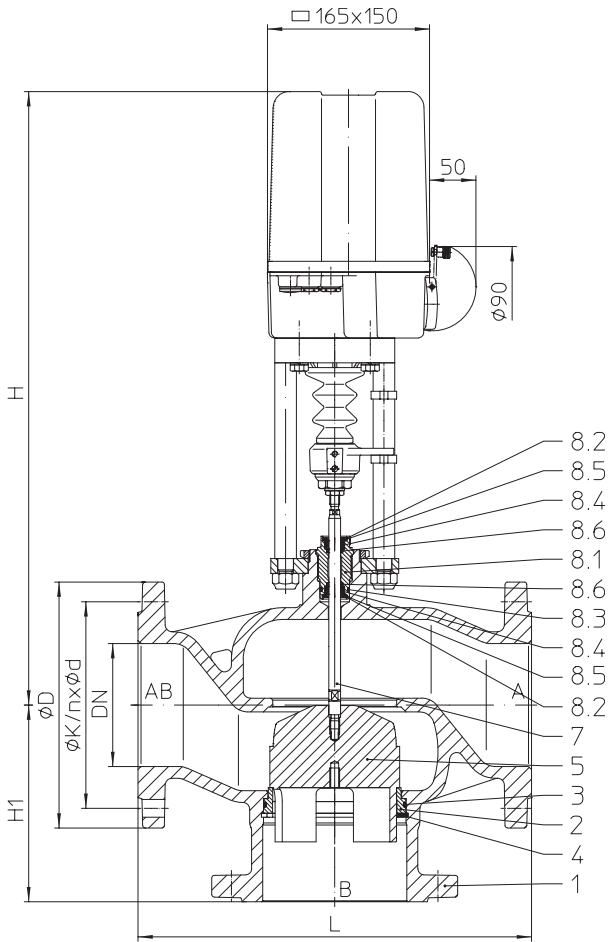
Control valve for heating, ventilation and air-conditioning - 3-way with flanges - Fig. 485


Figure	Nominal pressure	Material	Nominal diameter
12.485	PN16	EN-JL1040	DN125-150
12.486	PN16	EN-JL1040	DN125-150

Other materials and versions on request.

Operating temperature

- 0°C to +130°C; with stem heating to -10°C

Stem sealing

- O-rings

Plug designs

- Parabolic plug / V-plug

Guiding

- Stem and port guiding

Flow characteristic

- A equal percentage / B linear

Rangeability

- 30 : 1

Shut off class (seat / plug-leakage rate)

- 0,05% of Kvs

Technical data for actuator refer to data sheet.

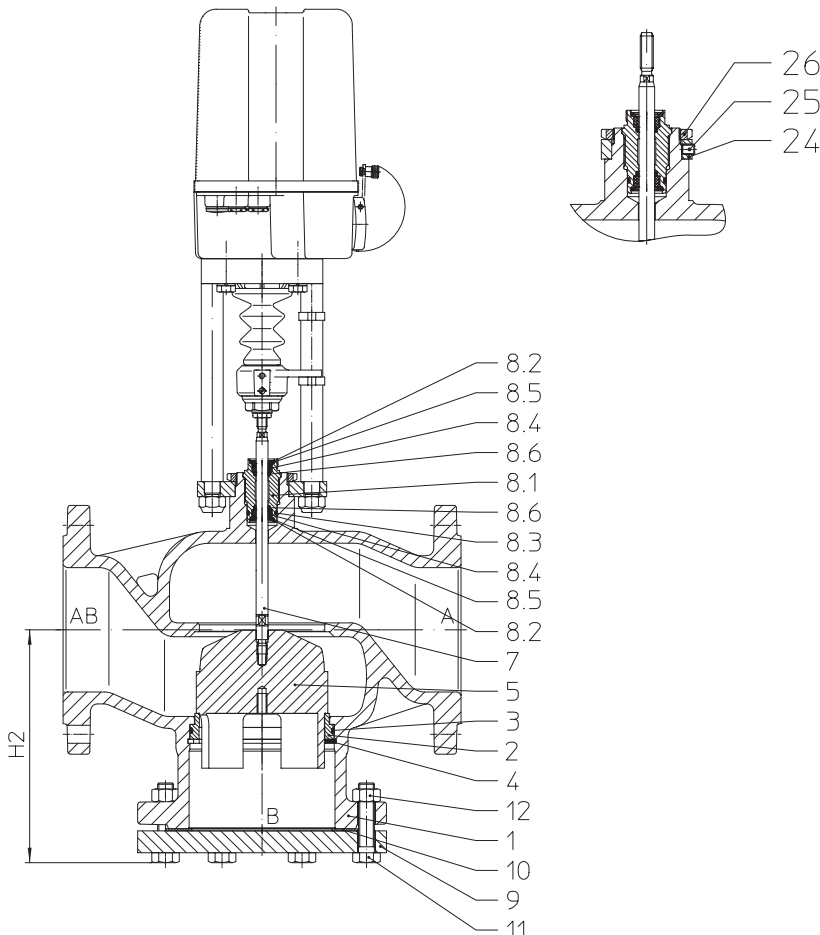
Selection of possible applications

 Heating-, Ventilation- and Air-Conditioning- Systems, etc.
 (other applications on request)

Selection of possible flow media

Water, water with cold-protection, etc.

(other flow media on request)

Control valve for heating, ventilation and air-conditioning - straight through with flanges - Fig. 486


Dimensions and weights

			DN	125	150
L			(mm)	400	480
Fig. 485	H		(mm)	629	653
	H1		(mm)	200	210
	ARI-PREMIO 2,2 kN	PN16	(kg)	58	82
	H		(mm)	629	653
	H1		(mm)	200	210
	ARI-PREMIO 5 kN	PN16	(kg)	58,5	82,5
Fig. 486	H		(mm)	629	653
	H2		(mm)	234	247
	ARI-PREMIO 2,2 kN	PN16	(kg)	67,5	94,5
	H		(mm)	629	653
	H2		(mm)	234	247
	ARI-PREMIO 5 kN	PN16	(kg)	68	95

Standard-flange dimensions refer to page 8.

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

max. permissible closing pressures on flow-to-open P2 = 0 (Observe regulations.)

Fig. 485 Mixing function		Fig. 486 Straight through function	
DN		125	150
Seat-Ø (mm)		126	151
Standard Kvs-values		220	320
Reduced Kvs-values		--	--
Travel (mm)			40
Actuator	Closing pressure (bar)	1,1	0,7
ARI-PREMIO 2,2 kN	Operating time (s) (Operating speed 0,38 mm/s)		105
Actuator	Closing pressure (bar)	3,3	2,2
ARI-PREMIO 5 kN	Operating time (s) (Operating speed 0,38 mm/s)		105

Parts

Pos.	Description	Fig. 12.485	Fig. 12.486
1	Body	EN-GJL-250 , EN-JL1040	
2	Seat ring	X20Cr13+QT, 1.4021+QT	
3	O-ring	EPDM	
4	Retaining ring	FSt	
5	Plug	X20Cr13+QT, 1.4021+QT	
6	O-ring	EPDM	
7	Stem	X6CrNiMoTi17-12-2, 1.4571	
8.1	Screw joint	CuZn39Pb3, CW614N	
8.2	Retaining ring	CuSn8, CW453K	
8.3	O-ring	EPDM	
8.4	Bushing	PTFE	
8.5	Washer	CuZn37, CW508L	
8.6	O-ring	EPDM	
9	Flange	--	S235JR, 1.0037
10	Gasket	--	Centellen
11	Hexagon screws	--	5.6 - A2B
12	Hexagon nut	--	C35E - A2B
24	Traverse	S235JR, 1.0037	
25	Grub screw	St-A2G	
26	Slotted nut	St-A4G	

* Spare parts

Information / restriction of technical rules need to be observed!

ARI-Valves of EN-JL1040 are not allowed to be operated in systems acc. to TRD 110.

A production allowance acc. to TRB 801 No. 45 exists (acc. to TRB 801 No. 45 EN-JL1040 is not allowed.)

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

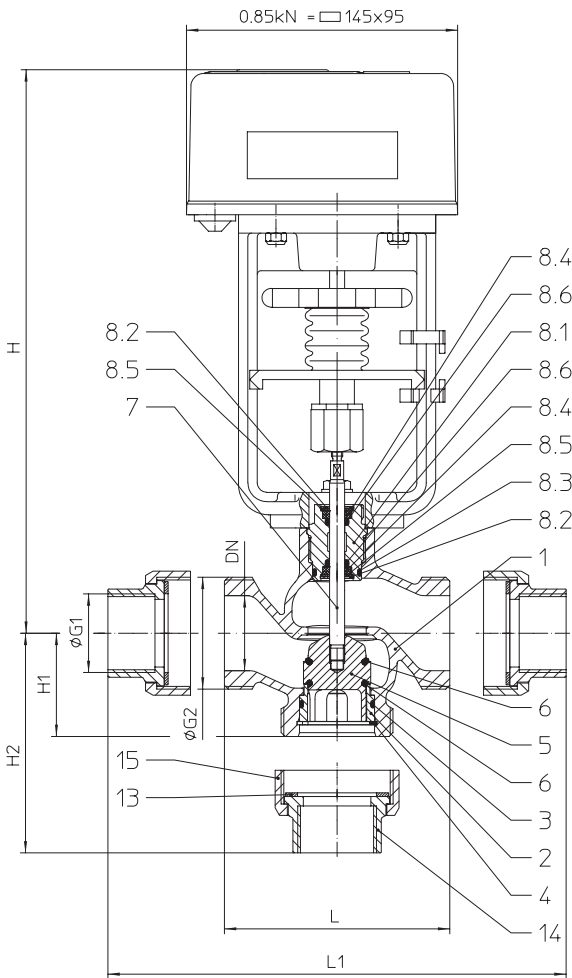
Control valve for heating, ventilation and air-conditioning - 3-way with threaded joint - Fig. 487


Figure	Nominal pressure	Material	Nominal diameter
72.487	PN16	CC491K	DN15-50
72.488	PN16	CC491K	DN15-50

Other materials and versions on request.

Operating temperature

- 0°C to +130°C; with stem heating to -10°C

Stem sealing

- O-rings

Plug designs

- Parabolic plug / V-plug

Guiding

- Stem and port guiding

Flow characteristic

- A equal percentage / B linear

Rangeability

- 30 : 1

Shut off class (seat / plug-leakage rate)

- Soft seat - Leakage class 1 DIN 3230 T3 BN by given closing pressure

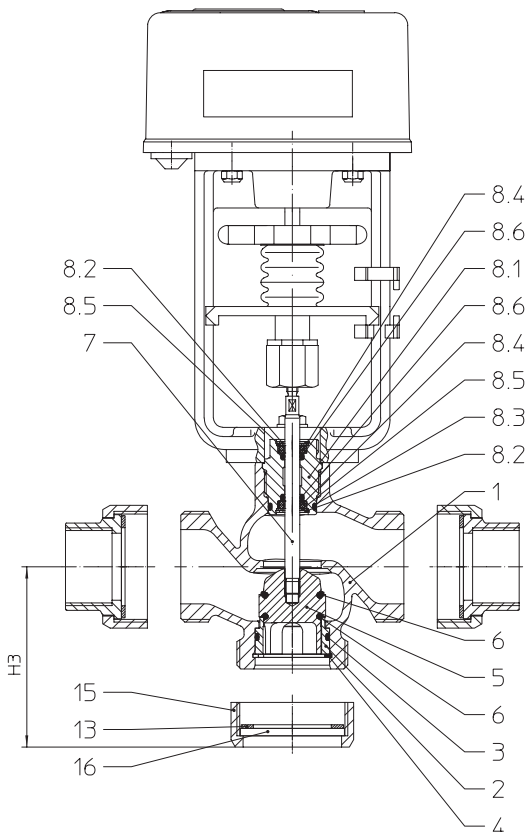
Technical data for actuator refer to data sheet.

Selection of possible applications

Heating-, Ventilation- and Air-Conditioning- Systems, etc.
(other applications on request)

Selection of possible flow media

Water, water with cold-protection, etc.
(other flow media on request)

Control valve for heating, ventilation and air-conditioning - straight through with threaded joint - Fig. 488


Dimensions and weights

		DN	15	20	25	32	40	50
Ø G1			G 1/2	G 3/4	G 1	G 1 1/4	G 1 1/2	G 2
Ø G2			G 1 1/8	G 1 1/4	G 1 1/2	G 2	G 2 1/4	G 2 3/4
L		(mm)	80	90	110	120	130	150
L1		(mm)	128	138	166	186	199	223
Fig. 487	H	(mm)	283	283	289	293	302	302
	H1	(mm)	55	55	55	55	60	65
	H2	(mm)	79	79	83	88	95	102
	ARI-PACO 0,85 kN	PN16	(kg)	2,9	3,1	3,7	4,6	5,2
Fig. 488	H	(mm)	283	283	289	293	302	302
	H1	(mm)	55	55	55	55	60	65
	H3	(mm)	65	65	66	67	72	77
	ARI-PACO 0,85 kN	PN6/16	(kg)	2,9	3,1	3,7	4,6	5,2

Standard-flange dimensions refer to page 8.

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

max. permissible closing pressures on flow-to-open P2 = 0 (Observe regulations.)

		15	20	25	32	40	50
DN		15	20	25	32	40	50
Seat-Ø (mm)		18	21	27	31	41	51
Standard Kvs-values		4	6,3	10	16	25	40
Reduced Kvs-values		2,5 / 1,6 / 1,0 / 0,63	4	6,3	10	16	25
Travel (mm)		14					
Actuator ARI-PACO 0,85 kN	Closing pressure (bar)	16	16	11,3	8,3	4,4	2,6
	Operating time (s) (Operating speed 0,11 mm/s)	127					

Parts

Pos.	Description	Fig. 72.487	Fig. 72.488
1	Body	CuSn5Zn5Pb5-C, CC491K	
2	Seat ring	X20Cr13+QT, 1.4021+QT	
3	O-ring	EPDM	
4	Retaining ring	FSt	
5	Plug	CuZn39Pb3	
6	O-ring	EPDM	
7	Stem	X6CrNiMoTi17-12-2, 1.4571	
8.1	Screw joint	CuZn39Pb3, CW614N	
8.2	Retaining ring	CuSn8, CW453K	
8.3	O-ring	EPDM	
8.4	Bushing	PTFE	
8.5	Washer	CuZn37, CW508L	
8.6	O-ring	EPDM	
13	Gasket	Centellen	
14	Sleeve	TMP / chrom.	--
15	Sleeve nut	TMP / chrom.	
16	Blind plate	--	S235JR, 1.0037

* 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.

Standard-flange dimensions

DN			15	20	25	32	40	50	65	80	100	125	150
PN6	ØD	(mm)	80	90	100	120	130	140	160	190	210	--	--
PN6	ØK	(mm)	55	65	75	90	100	110	130	150	170	--	--
PN6	n x Ød	(mm)	4 x 11	4 x 11	4 x 11	4 x 14	4 x 14	4 x 14	4 x 14	4 x 18	4 x 18	--	--
PN16	ØD	(mm)	95	105	115	140	150	165	185	200	220	250	285
PN16	ØK	(mm)	65	75	85	100	110	125	145	160	180	210	240
PN16	n x Ød	(mm)	4 x 14	4 x 14	4 x 14	4 x 18	4 x 18	4 x 18	4 x 18	8 x 18	8 x 18	8 x 18	8 x 22

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

Material			-10°C to 120°C	120°C	130°C
EN-JL1040	PN6	(bar)	6	6	5,8
EN-JL1040	PN16	(bar)	16	16	15,5

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

Material			-10°C to 20°C	100°C	130°C
CC491K	PN16	(bar)	16	16	15,3

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

Please indicate when ordering

- Figure-No.
- Nominal diameter
- Nominal pressure
- Body material
- Plug design
- Kvs-value
- Stem sealing
- Actuator

Example:

Figure 12.485; Nominal diameter DN 50; Nominal pressure PN16; Body material EN-JL1040; Mixing function; Kvs 40; Stem sealing O-rings; Actuator ARI-PACO 0,85 kN; Y 24V AC.

Dimensions in mm
 Weights in kg
 Pressures in barg (gauge)
 1 bar \triangleq 10⁵ Pa \triangleq 0,1 MPa
 Kvs in m³/h