



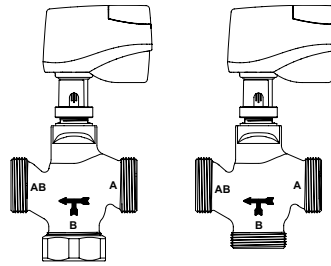
Control valve in 3-way-/straightway form in compact-design for HVAC Applications - Fig. 491 / Fig. 492

Control valve in 3-way-/straightway form for HVAC Applications - Fig. 485/487 / Fig. 486/488

ARI-STEVI® H 491 / 492

Electric actuator

- Enclosure IP40
- Supply voltage 24 V AC/DC
input signal 0-10 V
feedback 0-10 V
- Supply voltage 24/230 V AC
3-point control
- Handwheel



Page 2

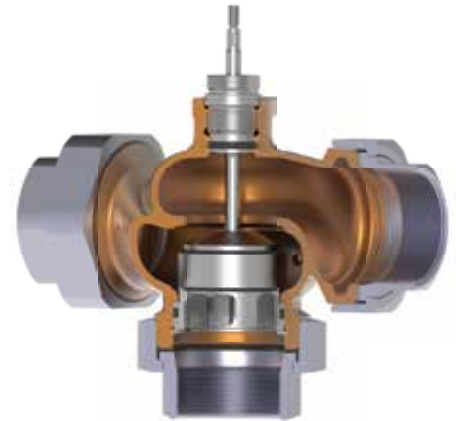


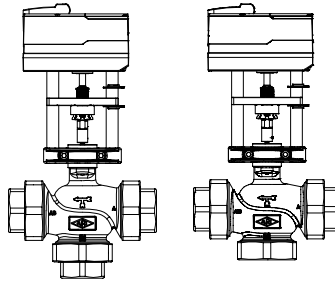
Fig. 487

ARI-STEVI® H 487 / 488

Electric actuator

AVM

- Enclosure IP54
- Supply voltage 24 V AC/DC
input signal 0-10 V, 4-20 mA, 2/3-point
feedback 0-10 V
- Supply voltage 230 V AC
2/3-point control
- Handwheel
- Additional devices available,
e.g. feedback 4-20 mA



Page 4

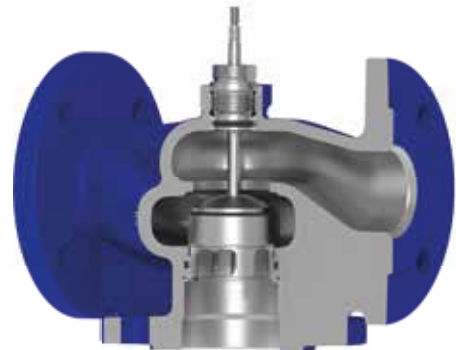


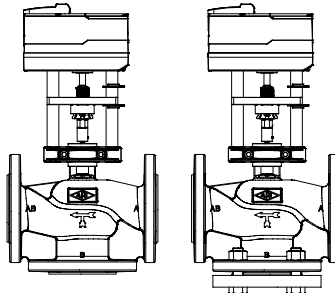
Fig. 485

ARI-STEVI® H 485 / 486

Electric actuator

AVM

- Supply voltage 24 V AC/DC
input signal 0-10 V, 4-20 mA, 2/3-point
feedback 0-10 V
- Supply voltage 230 V AC
2/3-point control



Page 6

ARI-PACO® 2G 1,6kN

- Supply voltage 24 V AC/DC
input signal 0/2-0 V
feedback 0/2-10 V
- Supply voltage 230 V AC
3-point control

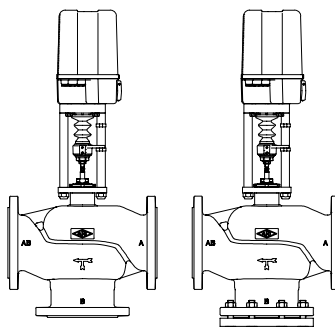
ARI-STEVI® H 485 / 486

Electric actuator

ARI-PREMIO® 2,2-15kN

ARI-PREMIO®-Plus 2G 2,2-15kN

- Enclosure IP65
- Supply voltage 24 V AC/DC
- Supply voltage 100-240 V AC
- optional input signal:
-3-point from 12 to 250 V AC/DC
-0-10 V
-4-20 mA
- 2 torque switches
- Handwheel
- Additional devices available,
e.g. potentiometer, feedback 0-10 V / 4-20 mA



Page 8

Control valve in compact-design for heating, ventilation and air-conditioning - 3-way with threaded joint - Fig. 491

Control valve in compact-design for heating, ventilation and air-conditioning - straight through with threaded joint - Fig. 492

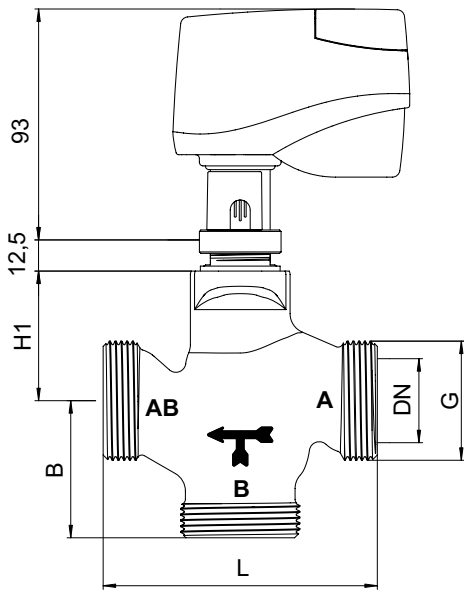


Fig. 491 Mixing function

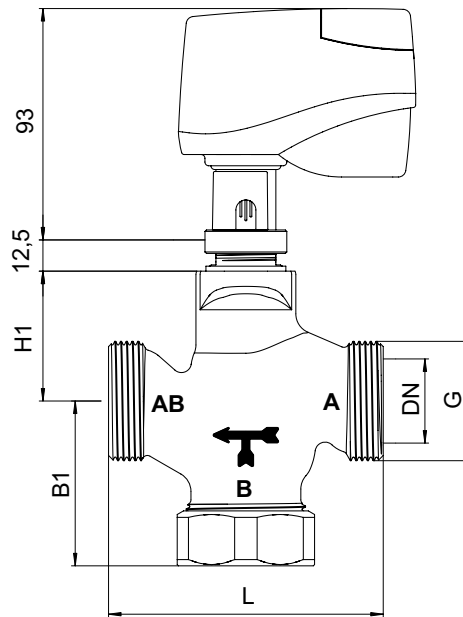
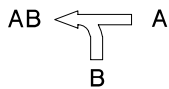


Fig. 492 Straight through function

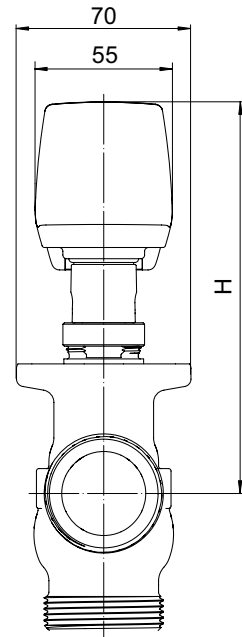
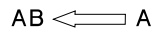


Figure	Nominal pressure	Material	Nominal diameter	Stem sealing	Temperature range
72.491	PN16	CC499K	DN15-50	EPDM-O-ring	0°C to +120°C
72.492	PN16	CC499K	DN15-50	EPDM-O-ring	0°C to +120°C
Other materials and versions on request.					
Plug design			Guiding	Rangeability	
standard:	<ul style="list-style-type: none"> A Parabolic plug, Metal-seated B V-port plug, Metal-seated 		Stem and seat guiding	30 : 1	
Flow characteristic					
standard:	<ul style="list-style-type: none"> A equal percentage to DN32 / A linear DN40 and DN50 B linear 				
Shut off class (seat / plug leakage classes)					
Metal:	<ul style="list-style-type: none"> DIN EN 60534-4 0,05% of the Kvs 				
Technical data for actuator refer to data sheet.					



DN		15	20	25	32	40	50		
Kvs-value									
Kvs-value	Parabolic plug / V-port plug	Standard	(m³/h)	2,5	6,3	10	16	25	35
		Reduced	(m³/h)	1,6 / 1,0 / 0,63	4	8,0 / 6,3	10	--	--
Seat-Ø		(mm)	18	21	27	31	41	51	
Travel		(mm)	10						
Face-to-face dimension FTF series 1 according to DIN EN 558									
L		(mm)	80	90	110	120	130	150	
Connections									
Ø G		PN16	(inch)	G 1 1/8	G 1 1/4	G 1 1/2	G 2	G 2 1/4	G 2 3/4
Heights									
H		(mm)	152	152	158	162	171	171	
H1		(mm)	46	46	52	56	65	65	
H3		(mm)	65	65	66	67	72	77	
B		(mm)	55	55	55	55	60	65	
B1		(mm)	65	65	66	67	72	77	
Weights									
BR491		PN16	(kg)	1,3	1,4	1,6	2,2	2,6	3,7
BR492		PN16	(kg)	1,4	1,5	1,8	2,4	2,9	4,2
Closing pressures			max. permissible closing pressures on flow-to-open P2 = 0. Observe pressure-temperature-limits, see below.						
Max. allowable differential pressure at flow		(bar)	1	1	1	1	1	0,7	
0,5 kN	Closing pressure		(bar)	12,1	9,2	5,0	3,5	1,5	0,7
	Operating time		(s)	220					
	Operating speed		(mm/s)	0,045					
Pressure-temperature-ratings									
acc. to DIN EN 1092-3			0°C to 120°C						
CC499K		PN16	(bar)	16					

Parts		
Description	Fig. 72.487	Fig. 72.488
Body	CC499K	
Seat ring	1.4021+QT	
O-ring	EPDM	
Retaining ring	FSt	
Plug	CW614N	
O-ring	EPDM	
Stem	1.4021+QT	
Screw joint	CW614N	
Retaining ring	CW452K	
O-ring	EPDM	
Bush	PTFE	
Washer	CW508L	
O-ring	EPDM	
Gasket	Centellen	
Sleeve nut	TMP / chrom.	
Blind plate	--	1.0037

Information / restriction of technical rules need to be observed!

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

Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview and Resistance list).

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

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

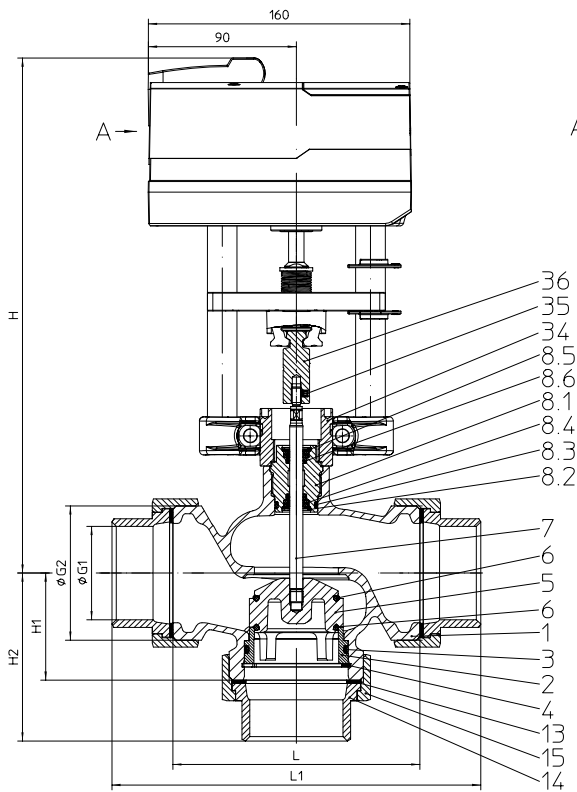


Fig. 487 Mixing function

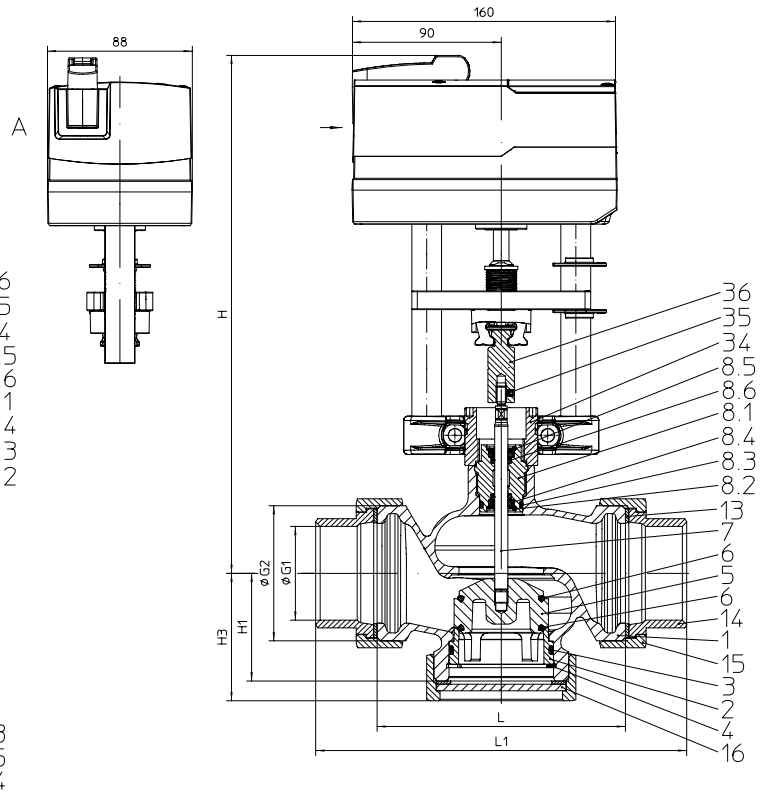
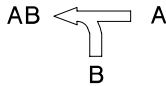


Fig. 488 Straight through function

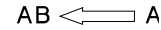


Figure	Nominal pressure	Material	Nominal diameter	Stem sealing	Temperature range
72.487	PN16	CC499K	DN15-50	EPDM-O-ring	0°C to +130°C; with stem heating to -10°C
72.488	PN16	CC499K	DN15-50	EPDM-O-ring	0°C to +130°C; with stem heating to -10°C
Other materials and versions on request.					
Plug design			Guiding	Rangeability	
standard:	<ul style="list-style-type: none"> A Parabolic plug with EPDM-O-ring B V-port plug with EPDM-O-ring 		Stem and seat guiding	30 : 1	
Flow characteristic					
standard:	<ul style="list-style-type: none"> A equal percentage B linear 				
Shut off class (seat / plug leakage classes)					
Metal / Soft seal:	• DIN EN 12266-1 Leakage rate A (DIN 3230 T3 Leakage rate 1)				
Technical data for actuator refer to data sheet.					



DN		15	20	25	32	40	50		
Kvs-value									
Kvs-value	Parabolic plug / V-port plug	Standard	(m³/h)	4	6,3	10	16	25	40
		Reduced	(m³/h)	2,5 / 1,6 / 1,0 / 0,63	4	6,3	10	16	25
Seat-Ø		(mm)	18	21	27	31	41	51	
Travel		(mm)	14						
Face-to-face dimension FTF series 1 according to DIN EN 558									
L		(mm)	80	90	110	120	130	150	
Connections									
Ø G1	PN16	(inch)	G 1/2	G 3/4	G 1	G 1 1/4	G 1 1/2	G 2	
Ø G2	PN16	(inch)	G 1 1/8	G 1 1/4	G 1 1/2	G 2	G 2 1/4	G 2 3/4	
Dimensions									
L1	(mm)	128	138	166	186	199	223		
H	(mm)	298	298	304	308	317	317		
H1	(mm)	55	55	55	55	60	65		
H2	(mm)	79	79	83	88	94,5	101,5		
H3	(mm)	65	65	66	67	72	75		
Weights									
BR487	PN16	(kg)	3,2	3,4	4	4,9	5,5	7,1	
BR488	PN16	(kg)	3,2	3,4	4	4,9	5,5	7,1	
Closing pressures			max. permissible closing pressures on flow-to-open P2 = 0. Observe pressure-temperature-limits, see below.						
Max. allowable differential pressure at flow		(bar)	2	2	1,5	1,5	1,5	1,5	
AVM 322S/F	Closing pressure		(bar)	16	16	11,3	8,3	4,4	2,6
	Operating time		(s)	84					
	Operating speed		(mm/s)	0,17					
Pressure-temperature-ratings			Intermediate values for max. permissible operational pressures can be determined by linear interpolation of the given temperature / pressure chart.						
acc. to DIN EN 1092-3			-10°C to 20°C		100°C		130°C		
CC499K	PN16	(bar)	16		16		16		

Parts			Fig. 72.487	Fig. 72.488
Pos.	Sp.p.	Description		
1		Body	CC499K	
2		Seat ring	1.4021+QT	
3		O-ring	EPDM	
4		Retaining ring	FSt	
5		Plug	CW614N	
6		O-ring	EPDM	
7		Stem	1.4571	
8.1	x (cop. unit)	Screw joint	CW614N	
8.2		Retaining ring	CW452K	
8.3		O-ring	EPDM	
8.4		Bush	PTFE	
8.5		Washer	CW508L	
8.6		O-ring	EPDM	
13		Gasket	Centellen	
14		Sleeve	EM-JM1130	
15		Sleeve nut	EM-JM1130	
16		Blind plate	--	1.0037
34		Adapter	1.0715+C	
35		Grub screw	45H-A2B	
36		Stem adapter	1.4021+QT	
		L Spare parts		

Information / restriction of technical rules need to be observed!

A production permission acc. to TRB 801 No. 45 is available.

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

Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview and Resistance list).

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

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

with AVM

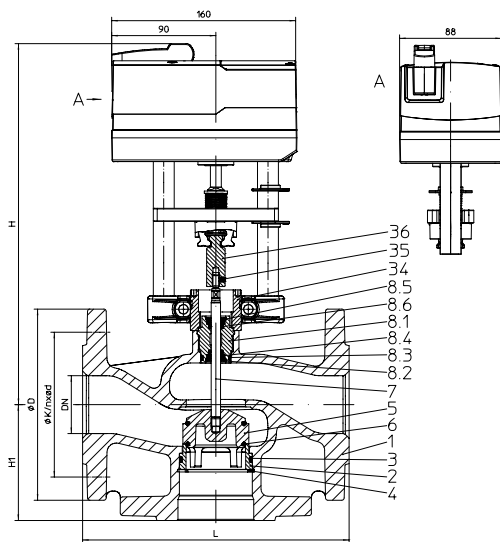


Fig. 485 Mixing function

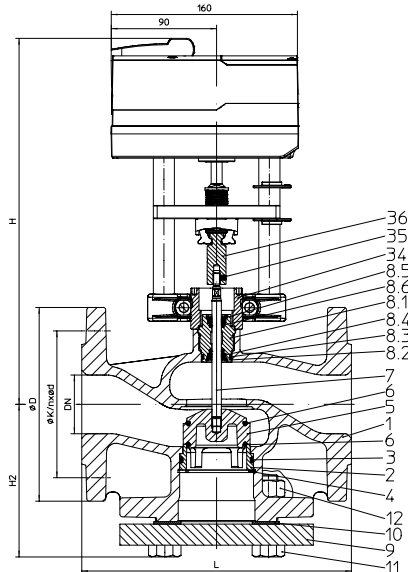
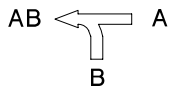
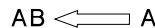


Fig. 486 Straight through function



with ARI-PACO® 2G

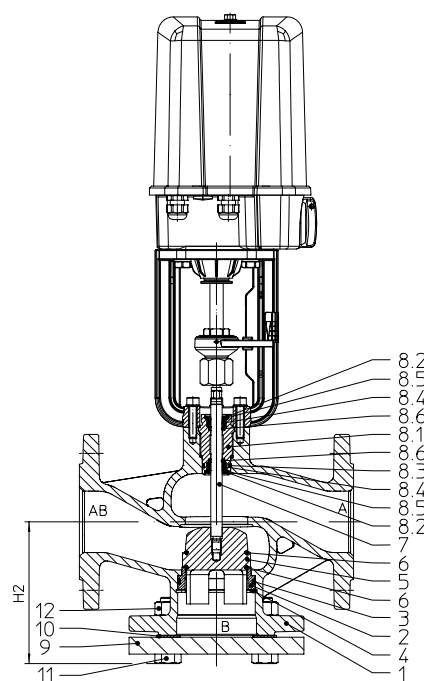
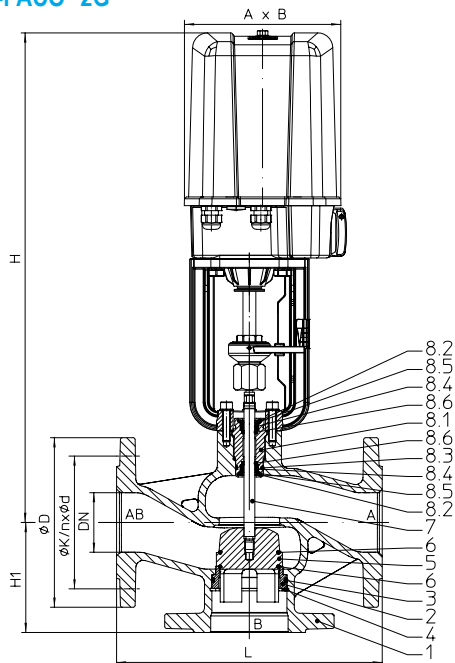


Figure	Nominal pressure	Material	Nominal diameter	Stem sealing	Temperature range
10.485	PN6	EN-JL1040	DN15-100	EPDM-O-ring	0°C to +130°C; with stem heating to -10°C
12.485	PN16	EN-JL1040	DN15-100		
10.486	PN6	EN-JL1040	DN15-100	EPDM-O-ring	0°C to +130°C; with stem heating to -10°C
12.486	PN16	EN-JL1040	DN15-100		

Other materials and versions on request.

Plug design	Guiding	Rangeability
standard: <ul style="list-style-type: none"> A Parabolic plug with EPDM-O-ring B V-port plug with EPDM-O-ring 	Stem and seat guiding	30 : 1
Flow characteristic		
standard: <ul style="list-style-type: none"> A equal percentage B linear 		
Shut off class (seat / plug leakage classes)		
Metal / Soft seal:	DIN EN 12266-1 Leakage rate A (DIN 3230 T3 Leakage rate 1)	
Technical data for actuator refer to data sheet.		



DN	15	20	25	32	40	50	65	80	100			
Kvs-Werte												
Kvs-value	Parabolic plug / V-port plug	Standard	(m³/h)	4	6,3	10	16	25	40	63	100	160
		Reduced	(m³/h)	2,5 / 1,6 / 1,0 / 0,63	4	6,3	10	16	25	40	63	100
Seat-Ø		(mm)	18	21	27	31	41	51	66	81	101	
Travel		(mm)	14						30			

Face-to-face dimension FTF series 1 according to DIN EN 558										
L	(mm)	130	150	160	180	200	230	290	310	350

Flanges acc. to DIN EN 1092-2			Flange holes / -thickness tolerances acc. to DIN 2533/2544/2545									
ØD	PN6	(mm)	80	90	100	120	130	140	160	190	210	
	PN16	(mm)	95	105	115	140	150	165	185	200	220	
ØK	PN6	(mm)	55	65	75	90	100	110	130	150	170	
	PN16	(mm)	65	75	85	100	110	125	145	160	180	
n x Ød	PN6	(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	(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	

Heights											
H (with AVM)	(mm)	298	298	304	308	316	316	--	--	--	
H (with ARI-PACO® 2G)	(mm)	--	--	--	--	--	--	537	547	562	
H1	(mm)	65	70	75	95	100	100	120	130	150	
H2	PN6	(mm)	86	93	98	119	124	124	144	158	178
	PN16	(mm)	89	96	101	123	128	130	150	162	182

Weights											
BR485	PN6	(kg)	3,6	4,6	5,3	7,1	9,1	10,3	21,6	28,6	38,6
	PN16	(kg)	4,4	5,3	6,3	8,8	10,8	13,8	26,6	31,6	41,6
BR486	PN6/16	(kg)	4,2	5,5	6,4	8,6	10,9	12,4	25,6	32,6	44,6
	PN6/16	(kg)	6,4	6,6	7,9	11,2	13,5	17,5	30,6	37,6	48,6

Closing pressures max. permissible closing pressures on flow-to-open P2 = 0.
Observe pressure-temperature-limits, see below.

Max. allowable differential pressure at flow	(bar)	2	1,5				1	0,8	0,6		
AVM 32S/F	Closing pressure	(bar)	16	16	11,3	8,3	4,4	2,6	--	--	--
	Operating time	(s)	84						--		
	Operating speed	(mm/s)	0,17								
ARI-PACO® 2G 1,6 kN	Closing pressure	(bar)	--	--	--	--	--	3,2	2	1,2	
	Operating time	(s)	--						120		
	Operating speed	(mm/s)	0,25								

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

acc. to DIN EN 1092-2			-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

Parts										
Pos.	Sp.p.	Description	Fig. 10.485 / 12.485	Fig. 10.486 / 12.486						
1		Body	EN-JL1040							
2		Seat ring	1.4021+QT							
3		O-ring	EPDM							
4		Retaining ring	FSt							
5		Plug	CW614N							
6		O-ring	EPDM							
7		Stem	1.4571							
8.1	x (cpt. unit)	Screw joint	CW614N							
8.2		Retaining ring	CW452K							
8.3		O-ring	EPDM							
8.4		Bush	PTFE							
8.5		Washer	CW508L							
8.6		O-ring	EPDM							
9		Flange	--	1.0037						
10		Gasket	--	Centellen						
11		Hexagon screws	--	5,6 - A2B						
12		Hexagon nut	--	C35E - A2B						
34		Adapter	1.0715+C							
35		Grub screw	45H-A2B							
36		Stem adapter	1.4021+QT							
	L 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 permission acc. to TRB 801 No. 45 is available (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.

Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview and Resistance list).

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

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

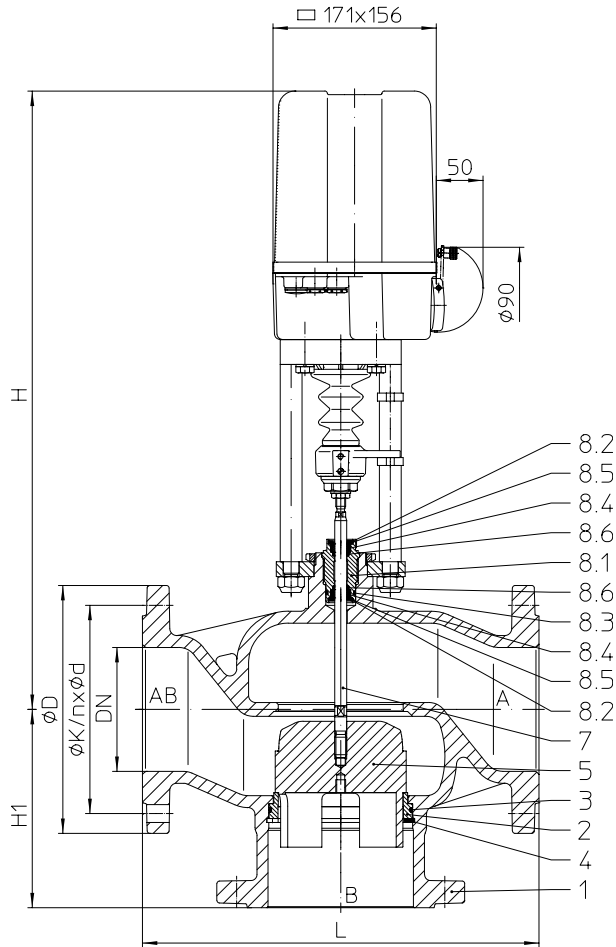


Fig. 485 Mixing function

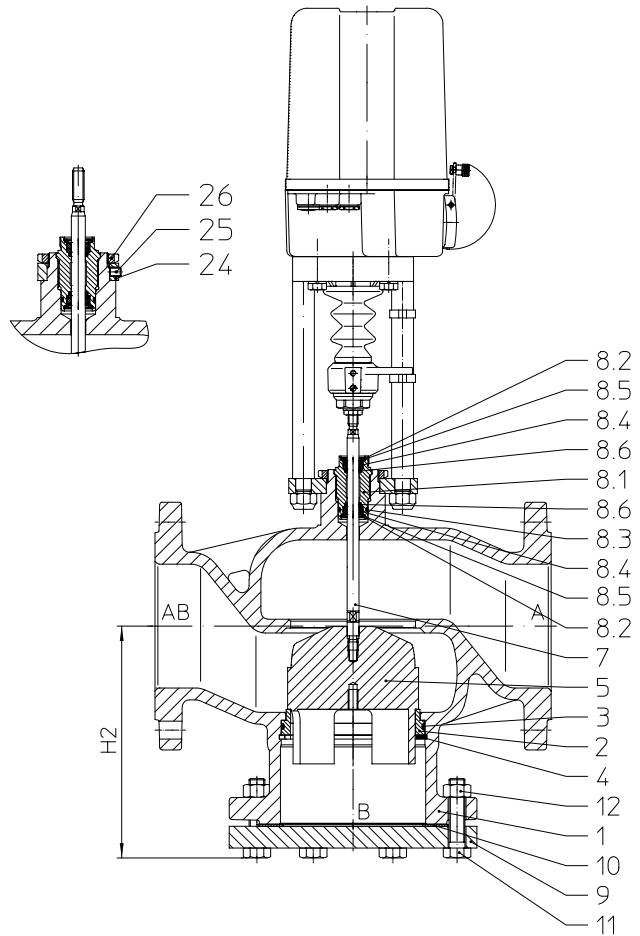
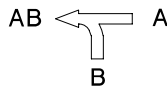


Fig. 486 Straight through function

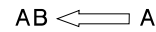


Figure	Nominal pressure	Material	Nominal diameter	Stem sealing	Temperature range
12.485	PN16	EN-JL1040	DN125-150	EPDM-O-ring	0°C to +130°C; with stem heating to -10°C
12.486	PN16	EN-JL1040	DN125-150	EPDM-O-ring	0°C to +130°C; with stem heating to -10°C
Other materials and versions on request.					
Plug design			Guiding	Rangeability	
standard:	<ul style="list-style-type: none"> A Parabolic plug, metal seat B V-port plug, metal seat 		Stem and seat guiding	30 : 1	
Flow characteristic					
standard:	<ul style="list-style-type: none"> A equal percentage B linear 				
Shut off class (seat / plug leakage classes)					
Metal / Metal:	• 0,05% vom Kvs				
Technical data for actuator refer to data sheet.					



DN		125	150
Kvs-value			
Kvs-value	Parabolic plug / V-port plug	Standard	(m³/h) 220
		Reduced	(m³/h) --
Seat-Ø		(mm) 126	151
Travel		(mm)	40

Face-to-face dimension FTF series 1 according to DIN EN 558			
L	(mm)	400	480

Flanges acc. to DIN EN 1092-2			Flange holes / -thickness tolerances acc. to DIN 2533/2544/2545	
ØD	PN16	(mm)	250	285
ØK	PN16	(mm)	210	240
n x Ød	PN16	(mm)	8 x 18	8 x 22

Heights				
H		(mm)	617	638
H1		(mm)	200	210
H2		(mm)	234	247

Weights					
BR485	PN16	2,2 kN	(kg)	58	82
	PN16	5 kN	(kg)	58,5	82,5
BR486	PN16	2,2 kN	(kg)	67,5	94,5
	PN16	5 kN	(kg)	68	95

Closing pressures	max. permissible closing pressures on flow-to-open P2 = 0. Observe pressure-temperature-limits, see below.			
--------------------------	--	--	--	--

Max. allowable differential pressure at flow		(bar)	0,6	
2,2 kN	Closing pressure	(bar)	1,1	0,7
	Operating time	(s)	105	
	Operating speed	(mm/s)	0,38	
5 kN	Closing pressure	(bar)	3,3	2,2
	Operating time	(s)	105	
	Operating speed	(mm/s)	0,38	

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

acc. to DIN EN 1092-2			-10°C to 120°C	120°C	130°C
EN-JL1040	PN16	(bar)	16	16	15,5

Parts					
Pos.	Sp.p.	Description	Fig. 12.485	Fig. 12.486	
1		Body	EN-JL1040		
2	x	Seat ring	1.4021+QT		
3	x	O-ring	EPDM		
4	x	Retaining ring	FSt		
5	x	Plug	1.4021+QT		
6	x	O-ring	EPDM		
7		Stem	1.4571		
8.1	x (cpt. unit)	Screw joint	CW614N		
8.2		Retaining ring	CW452K		
8.3		O-ring	EPDM		
8.4		Bush	PTFE		
8.5		Washer	CW508L		
8.6		O-ring	EPDM		
9	x	Flange	--	1.0037	
10	x	Gasket	--	Centellen	
11		Hexagon screws	--	5.6 - A2B	
12		Hexagon nut	--	C35E - A2B	
24		Traverse	1.0037		
25		Grub screw	St-A2B		
26		Groove nut	St-A4G		
L 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 permission acc. to TRB 801 No. 45 is available (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.

Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview and Resistance list).

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

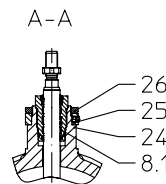
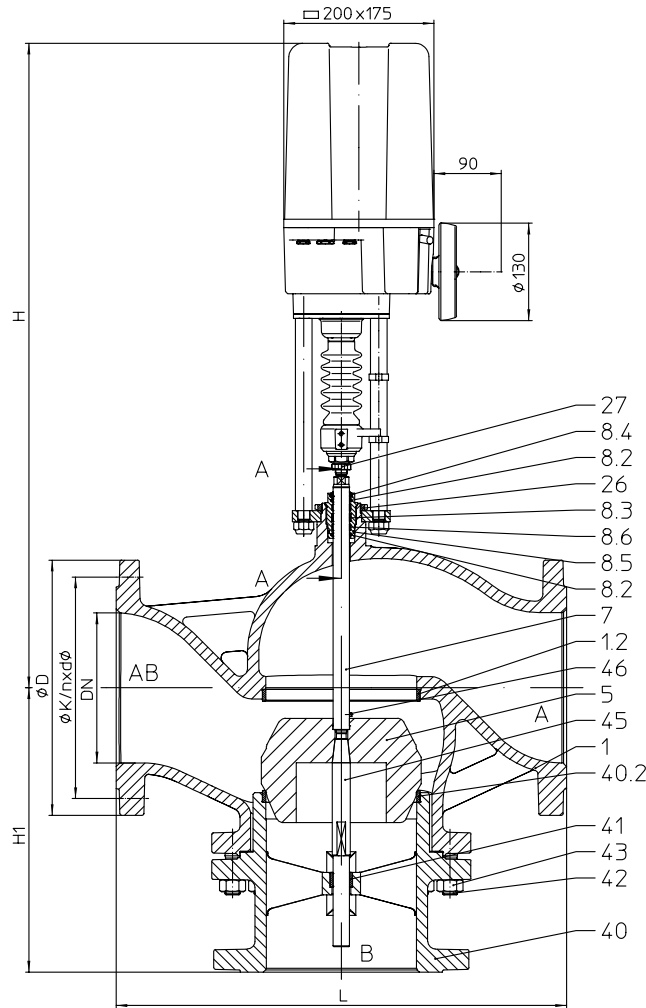


Fig. 485 Mixing function

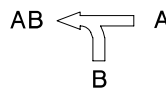


Figure	Nominal pressure	Material	Nominal diameter	Stem sealing	Temperature range
12.485	PN16	EN-JL1040	DN200-250	EPDM-O-ring	0°C to +130°C; with stem heating to -10°C
Other materials and versions on request.					
Plug design			Guiding	Rangeability	
standard: • A Parabolic plug, metal seat • B Parabolic plug, metal seat			double plug guiding	30 : 1	
Flow characteristic					
standard: • A linear • B linear					
Shut off class (seat / plug leakage classes)					
Metal / Metal:			• 0,05% vom Kvs		
Technical data for actuator refer to data sheet.					



DN		200		250	
Kvs-value					
Kvs-value	Parabolic plug	Standard	(m³/h)	630	1000
		Reduced	(m³/h)	--	--
Seat-Ø			(mm)	201	251
Travel			(mm)	65	

Face-to-face dimension FTF series 1 according to DIN EN 558					
L			(mm)	600	730

Flanges acc. to DIN EN 1092-2			Flange holes / -thickness tolerances acc. to DIN 2533/2544/2545		
ØD	PN16	(mm)	340	405	
ØK	PN16	(mm)	295	355	
n x Ød	PN16	(mm)	12 x 22	12 x 26	

Heights					
H			(mm)	873	919
H1			(mm)	379	439

Weights					
BR485	PN16	12/15 kN	(kg)	173	283

Closing pressures			max. permissible closing pressures on flow-to-open P2 = 0. Observe pressure-temperature-limits, see below.		
--------------------------	--	--	--	--	--

Max. allowable differential pressure at flow			(bar)	0,6	
12 kN	Closing pressure		(bar)	3,3	2,1
	Operating time		(s)	171	
	Operating speed		(mm/s)	0,38	
15 kN	Closing pressure		(bar)	4,2	2,7
	Operating time		(s)	171	
	Operating speed		(mm/s)	0,38	

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

acc. to DIN EN 1092-2			-10°C to 120°C	120°C	130°C
EN-JL1040	PN16	(bar)	16	16	15,5

Parts			
Pos.	Sp.p.	Description	Fig. 12.485
1		Body	EN-JL1040
1.2	x	Seat ring	1.4021+QT
3	x	O-ring	EPDM
4	x	Retaining ring	FSt
5	x	Plug	1.4021+QT
6	x	O-ring	EPDM
7	x	Stem	1.4571
8.1	x (cpt. unit)	Screw joint	CW614N
8.2		O-ring	EPDM
8.3		Guide bush	PTFE
8.4		Scraper	Polyurethan
8.5		O-ring	EPDM
8.6		Lubricant	
24		Traverse	1.0037
25		Grub screw	St-A2B
26		Groove nut	St-A4G
40		Bottom flange	EN-JS1049
40.1		Seat ring	1.4021+QT
41		Guide bushing	1.4021+QT
42		Stud	1.7218
43		Hexagon nut	1.1181
44		Gasket	Graphite
45		Plug shaft	1.4021+QT
46		Grub screw	A2
L Spare parts (Pos. 8.1 - 8.6 will be supplied as unit)			

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 permission acc. to TRB 801 No. 45 is available (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.

Resistance and fitness must be verified (contact manufacturer for information, refer to Product overview and Resistance list).



Your valve made by ARI®
ari-armaturen.com

ARI-STEVI®H 491 - 492 / 485 - 488

Address



Your valve made by ARI®
ari-armaturen.com

ARI-Armaturen Albert Richter GmbH & Co. KG, D-33750 Schloß Holte-Stukenbrock,
Tel. +49 52 07 / 994-0, Telefax +49 52 07 / 994-158 or 159 Internet: <https://www.ari-armaturen.com> E-mail: info.vertrieb@ari-armaturen.com