

**Technical data**

Type		ARI-PREMO 2,2 kN	ARI-PREMO 5 kN	
Thrust force	kN	2,2 kN	5,0 kN	
Operating speed	mm/s	0,38 mm/s	0,38 mm/s	1,0 mm/s
Travel distance max.	mm	50 mm		
Duty classification in accordance with EN 60034-1		S3 80% ED / max. 1200 ch		S3 50% ED / max. 1200 ch
Supply voltage	V - Hz	230 V - 50 Hz / 60 Hz <sup>1)</sup>		230 V - 50/60 Hz <sup>1)</sup>
Motor type		Synchronous motor		
Power consumption	VA	21	33	75
Torque switch		2 pcs., fixed wiring switching capacity 10 A, 250 V-		
Travel switch		1 pcs., fixed wiring switching capacity 10 A, 250 V- (Options trip slide necessary!)		
Enclosure EN 60529		IP 65		
Max. storage temperature	°C	-40 °C ... +85 °C		
Max. permissible ambient temperature	°C	-20 °C ... +70 °C (For outdoor use and sub-zero temperatures, a heating is recommended!)		
Hand operating device		Yes (always running)		
Operation		3-step		
Max. cable cross section	mm <sup>2</sup>	3-step input: 2,5 mm <sup>2</sup>		
Mounting position		Any, except: motor not hanging downwards		
Gear lubricant		Klüber / Isclifex Topas NB152		
Weight	kg	5,4 kg	6,0 kg	6,5 kg
Accessories		refer to page		

**Additional voltage / frequencies**

Type		ARI-PREMO 2,2 kN	ARI-PREMO 5 kN	
Thrust force	kN	2,2 kN	5,0 kN	
Operating speed	mm/s	0,38 mm/s	0,38 mm/s	1,0 mm/s
Supply voltage	V - Hz	115 V - 50/60 Hz <sup>1)</sup> 3-400 V - 50/60 Hz <sup>1)</sup>		115 V - 50/60 Hz <sup>1)</sup> 3-400 V - 50/60 Hz <sup>1)</sup>
Duty classification in accordance with EN 60034-1		24 V - 230 V: S3 80% ED / max. 1200 ch 400 V: S3 50% ED / max. 1200 ch		S3 50% ED / max. 1200 ch
Power consumption		refer to nameplate or on request		

**BLDC motor (Brushless DC motor)**

Type		ARI-PREMO 2,2 kN	ARI-PREMO 5 kN	
Thrust force	kN	2,2 kN	5,0 kN	
Operating speed	mm/s	0,38 mm/s	0,38 mm/s	1,0 mm/s
Supply voltage	V - Hz	24V - AC/DC		
Duty classification in accordance with EN 60034-1		S3 80% ED / max. 1200 ch		
Power consumption	VA	53	53	72

<sup>1)</sup> Control speed and power consumption are 20% higher at frequency of 60 Hz.

5.4.2 Wiring diagram ARI-PREMIO® 2,2 - 15 kN 3Ph~

5.4.2.1 ARI-PREMIO® 12 - 15 kN 3 Ph~ with reversing contactor / external reversing contactor

WITTPMEIN  
 ANDG EOOD  
 10070A

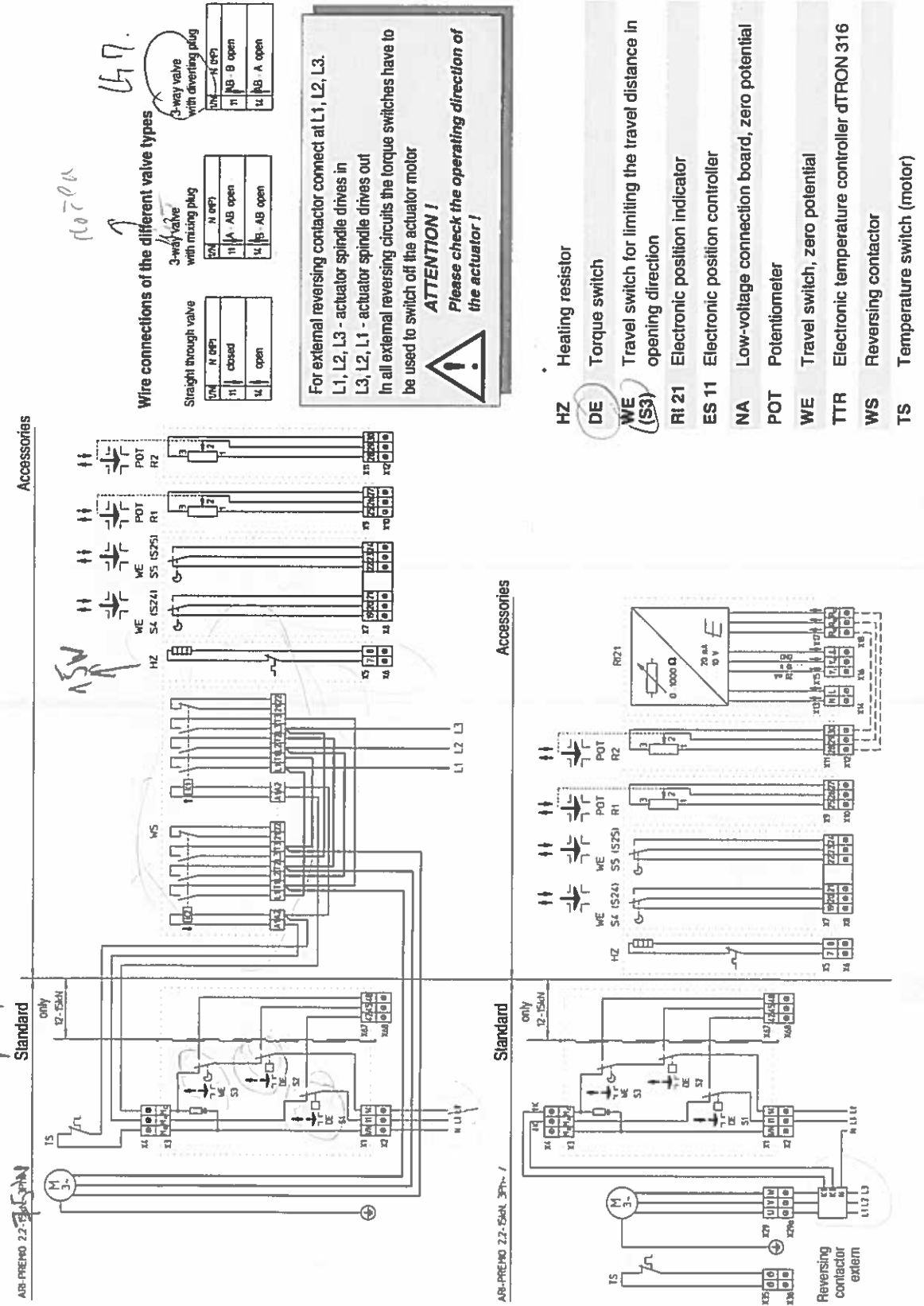


Fig. 11

Control valve in 3-way-form with electric actuator ARI-PREMIO (3-way mixing valve / 3-way diverting valve)

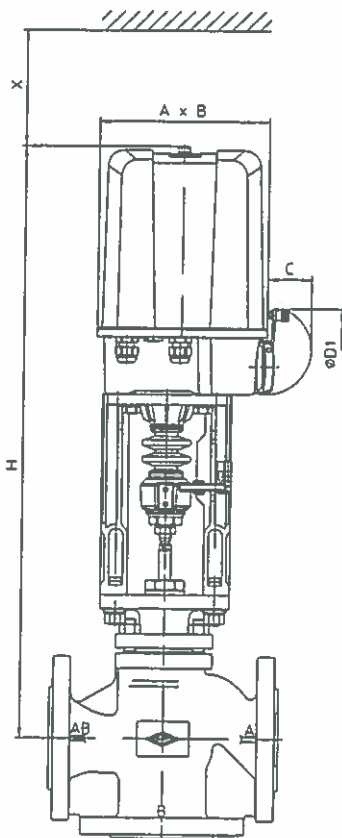


Fig. 450

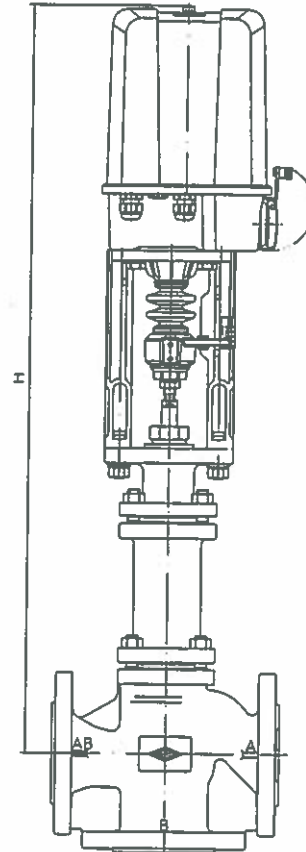


Fig. 451

Actuator data		2,2 - 5 kN	12 - 15 kN
A	(mm)	171	210
B	(mm)	156	184
C	(mm)	50	97
ø D1	(mm)	90	130
X	(mm)	150	200

Supply voltage: 230V 50Hz  
 Other voltages: 24V 50/60Hz; 115V 50/60Hz; 230V 60Hz  
 Further technical data of the actuator: refer to data sheet ARI-PREMIO/PREMIO-Plus 2G

Heights and weights

DN			15	20	25	32	40	50	65	80	100	125	150	
Fig. 450	2,2 kN	H (mm)	564	564	568	594	600	598	634	650	669	738	--	
		PN16 (kg)	11	12	13	15	18	22	29	35	52	73	--	
		PN40 (kg)	11	12	13	16	20	24	31	38	56	100	--	
	5 kN	H (mm)	564	564	568	594	600	598	634	650	669	738	800	
		PN16 (kg)	12	13	14	16	20	23	30	37	53	74	101	
		PN40 (kg)	12	13	14	17	21	25	32	39	57	101	144	
	12 kN 15 kN	H (mm)	--	--	718	744	750	748	784	800	819	886	948	
		PN16 (kg)	--	--	18	20	24	27	34	41	57	78	105	
		PN40 (kg)	--	--	18	21	25	29	36	43	61	105	148	
	Fig. 451	2,2 kN	H (mm)	749	749	753	779	769	763	869	882	898	--	--
			PN16 (kg)	14	15	16	18	23	26	35	45	63	--	--
			PN40 (kg)	14	15,3	16,6	19,2	24,5	28	37,9	48,7	68	--	--
5 kN		H (mm)	749	749	753	779	769	763	869	882	898	1093	1126	
		PN16 (kg)	15	16	17	19	24	27	36	46	64	84	111	
		PN40 (kg)	15	16	18	20	25,6	29	39	50	69	112	155	
12 kN 15 kN		H (mm)	--	--	903	929	919	913	1019	1032	1048	1241	1274	
		PN16 (kg)	--	--	21	23	28	31	40	50	68	88	115	
		PN40 (kg)	--	--	22	24	30	33	43	54	73	116	159	

Further dimensions refer to pages 16 - 17.

max. permissible closing pressures on flow-to-open P2 = 0.  
 Observe pressure-temperature-limits, refer to page 2.

DN			15	20	25	32	40	50	65	80	100	125	150	
 Mixing function	Kvs-value	(m³/h)	4 2,5	6,3 4	10 6,3	16 10	25 16	40 25	63 40	100 63	160 100	250 160	320 250	
	max. diff. pressure <sup>1)</sup>	(bar)	40				30			25		15		
	Seat-Ø A/B	(mm)	21/20	21/25	27/27	31/32	41/40	51/50	66/60	81/75	101/95	120/120	140/140	
	Travel	(mm)	20							30			50	
	Closing pressure	I.	(bar)	40	35,9	30,8	21,7	12,8	8	4,3	2,7	1,5		
II.		(bar)	40	33,7	28,8	20,2	11,9	7,4	3,9	2,3	1,3			
III.		(bar)	30,7	30,1	27,1	19,1	10,6	6,5	3,6	2,2	1,2			
Operating time (50 Hz)	(s)	53							79					
Operating speed	(mm/s)	0,38												
2.2 kN	Closing pressure	I.	(bar)	40	40	40	33,2	21,3	12,3	8	4,9	3,4	2,4	
		II.	(bar)	40	40	40	32,3	20,7	11,9	7,6	4,7	3,2	2,3	
		III.	(bar)	40	40	40	31	19,8	11,6	7,5	4,6	3	2,1	
	Operating time (50 Hz)	(s)	53							79			132	
Operating speed	(mm/s)	0,38												
12 kN	Closing pressure	I.	(bar)				40	40	32,3	21,2	13,5	9,5	6,9	
		II.	(bar)				40	40	31,8	20,9	13,3	9,3	6,8	
		III.	(bar)				40	40	31,6	20,7	13,2	9,1	6,6	
	Operating time (50 Hz)	(s)	53							79			132	
Operating speed	(mm/s)	0,38												
15 kN	Closing pressure	I.	(bar)						40	26,9	17,2	12,1	8,8	
		II.	(bar)						40	26,6	17	11,9	8,7	
		III.	(bar)						40	26,4	16,9	11,7	8,5	
	Operating time (50 Hz)	(s)								79			132	
Operating speed	(mm/s)								0,38					

DN			15	20	25	32	40	50	65	80	100	125	150	
			mixing plug for diverting				40	50	65	80	100	125	150	
 Diverting function	Kvs-value	(m³/h)	4 2,5	6,3 4	10 6,3	16 10	14	25	45	60	95	170	200	
	max. diff. pressure <sup>1)</sup>	(bar)	40				30			25		15		
	Seat-Ø A/B	(mm)	21/20	21/25	27/27	31/32	40/40	50/50	60/60	75/75	90/90	105/105	125/125	
	Travel	(mm)	20							30				
	Closing pressure	I.	(bar)	25,7	18	15,4	10,8	13,4	8,2	5,4	3,2	2	1,3	
II.		(bar)	24,1	16,8	14,4	10,1	12,5	7,6	4,8	2,8	1,8	1,1		
III.		(bar)	15,4	15	13,6	9,5	11,1	6,8	4,5	2,6	1,6			
Operating time (50 Hz)	(s)	53							79					
Operating speed	(mm/s)	0,38												
2.2 kN	Closing pressure	I.	(bar)	40	40	38,5	27,4	34,6	21,9	15	9,4	6,4	4,5	3,1
		II.	(bar)	40	40	37,5	26,7	33,7	21,3	14,4	9	6,1	4,3	2,9
		III.	(bar)	40	40	36,6	26,1	32,3	20,4	14,1	8,8	6	4	2,7
	Operating time (50 Hz)	(s)	53							79				
Operating speed	(mm/s)	0,38												
12 kN	Closing pressure	I.	(bar)			40	40	40	40	38,9	24,8	17,1	12,3	8,6
		II.	(bar)			40	40	40	40	38,4	24,4	16,9	12,1	8,5
		III.	(bar)			40	40	40	40	38	24,2	16,7	11,9	8,3
	Operating time (50 Hz)	(s)	53							79				
Operating speed	(mm/s)	0,38												
15 kN	Closing pressure	I.	(bar)							40	31,4	21,7	15,7	11
		II.	(bar)							40	31,1	21,5	15,5	10,9
		III.	(bar)							40	30,8	21,3	15,3	10,7
	Operating time (50 Hz)	(s)								79				
Operating speed	(mm/s)								0,38					

I. Fig. 450: PTFE-V-ring unit / EPDM-sealing

II. Fig. 450: PTFE- / pure graphite-packing

III. Fig. 451: Bellows seat

<sup>1)</sup> max. differential pressure drop