



## AVK PRESS. SUSTAINING/RELIEF CONTROL VALVE, PN10/16 879/101X99-001

Full bore, AISI304/DI trim, AISI304 pilot, brass fittings/accs., EPDM/WRAS rubber, protected pos. ind.

AVK series 879 diaphragm actuated pressure sustaining control valves (PSV) automatically secure a minimum upstream pressure by reducing the flow if the upstream pressure drops below the setpoint. Adjusting the setpoint above the usual operating pressure changes the function to pressure relief (PRV), where the valve automatically opens to dump excess upstream pressure if it exceeds the setpoint. A replaceable spring inside the pilot makes it possible to operate in different pressure ranges and still keep the high precision. Setting and adjustment on a control knob on the pilot. Both full bore and reduced bore versions are available with the full bore having full capacity and the reduced bore having increased precision and smooth regulation at low flow rates.

### Product description:

Control valve, press. sustaining/relief, for drinking water or other neutral liquids to max. 70°C

### Design standards:

- EN 1074-5
- Face-to-face dimension according to EN 558 Table 2 Basic Series 1
- Flange drilling to EN1092, PN10/16

### Test/Approvals:

- Hydraulic test: 1.5 x PN
- Tested according to EN 12266-1
- Approved according to WRAS Certificate 2010005, series 879
- Approved according to ACS-FRANCE, certificate 20ACCLY795, ser.879

### Features:

- The lifted seat design controls the flow around the plug so that in case of cavitation this happens with minimal damage away from plug and seat
- The parabolic shape of the plug creates a smooth regulating characteristic with low gain around the near-closed positions improving control performance at low flow
- Non-symmetric axial position of rubber diaphragm results in low stretch stress when closed
- Body and bonnet of ductile iron coated with fusion bonded epoxy, 300µm, GSK approved, RAL 5017, according to DIN 3476 and WRAS-DVGW/W270/UBA
- All rubber parts approved for drinking water
- All non-coated internals made of stainless steel or bronze
- Seat and pilot in stainless steel AISI 304
- A needle valve fitted between the upstream side and the control chamber allows for adjustment of the regulation reaction time
- Closing the needle valve isolates the control chamber and fixes the position of the main valve allowing for service of the pilot valve
- Fittings, pipes and accessories in Ni-plated brass

### Accessories:

V-port or anti-cavitation cage, pressure gauge, circuit by-pass, visual position indicator, inductive position switch, position transmitter 4-20 mA



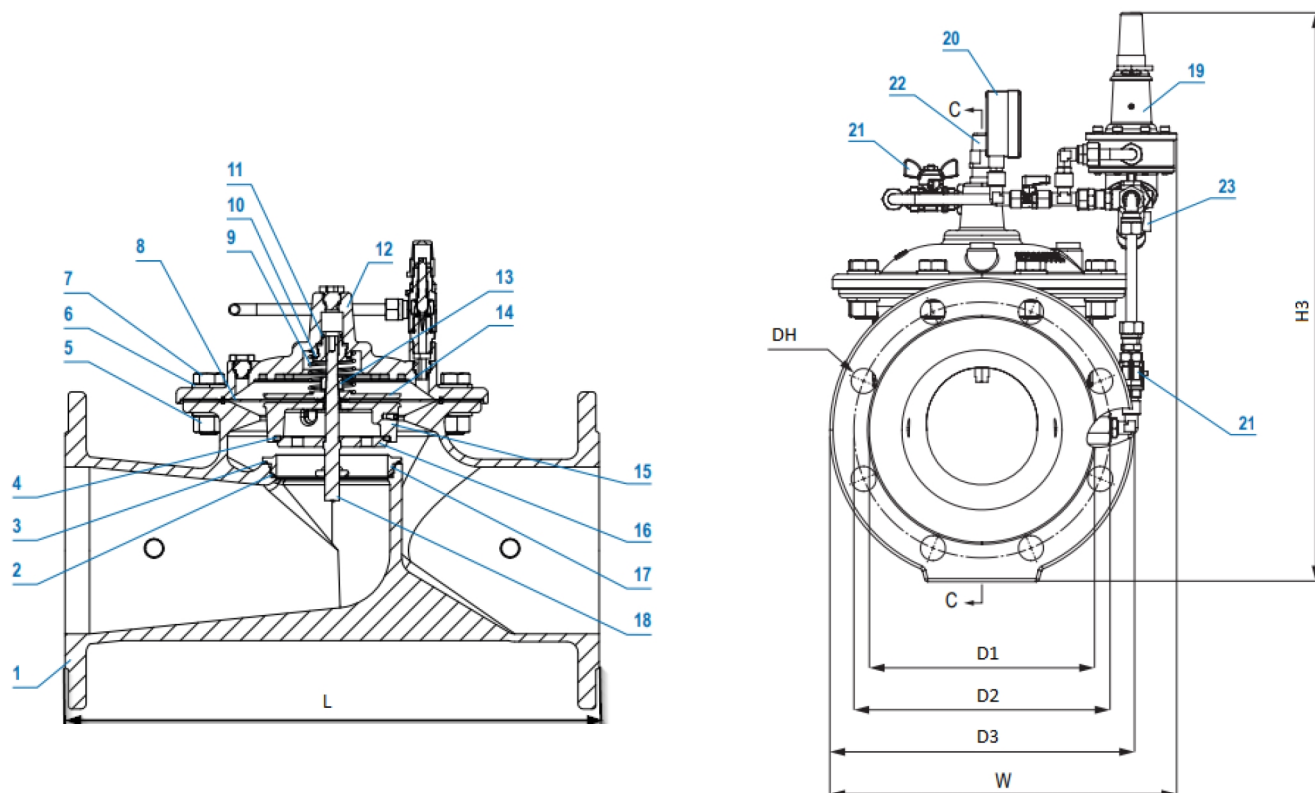
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The designs, materials and specifications shown are subject to change without notice due to the continuous development of our product range.

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## Component list:

1. Body	Ductile iron GJS-500-7	13. Hex nut	Stainless steel A2
2. O-ring	EPDM rubber	14. Diaphragm support	Ductile iron GJS-500-7
3. O-ring	EPDM rubber	15. Obturator	Ductile iron GJS-500-7
4. Plug sealing	EPDM rubber	16. Regulating plug	Stainless steel AISI 304
5. Hex nut	Stainless steel A2	17. Seat	Stainless steel AISI 304
6. Washer	Stainless steel AISI 304	18. Stem	Stainless steel AISI 304
7. Bolts	Stainless steel A2	19. Pilot valve	Stainless steel
8. Diaphragm	EPDM rubber	20. Pressure gauge	Stainless steel
9. Spring	Stainless steel AISI 304	21. Ball valve	Nickel Brass
10. Flat seal	EPDM rubber	22. Needle valve	Stainless steel
11. Flat seal	EPDM rubber	23. Y-strainer / Orifice	Brass + SS 316
12. Cover	Ductile iron GJS-500-7		

Components may be substituted with equivalent or higher class materials without prior notification.

## Reference nos. and dimensions:

AVK ref. no.	DN	Flange	Pilot range	D1	D2	D3	Dh	W	H3	L	Theoretical weight/kg
	mm	drilling	bar	mm	mm	mm	mm	mm	mm	mm	
879-0050-10-14400119999	50	PN16	2-15	99	125	165	19	250	425	230	18
879-0050-10-144001199A0 <sup>(1)</sup>	50	PN16	2-15	99	125	165	19	250	425	230	18
879-0065-10-14400119999	65	PN16	2-15	118	145	185	19	250	450	290	23
879-0065-10-144001199A0 <sup>(1)</sup>	65	PN16	2-15	118	145	185	19	250	450	290	23
879-0080-10-14400119999	80	PN16	2-15	132	160	200	19	265	465	310	27
879-0080-10-144001199A0 <sup>(1)</sup>	80	PN16	2-15	132	160	200	19	265	465	310	27
879-0100-10-14400119999	100	PN16	2-15	156	180	220	19	285	485	350	36
879-0100-10-144001199A0 <sup>(1)</sup>	100	PN16	2-15	156	180	220	19	285	485	350	36
879-0150-10-14400119999	150	PN16	2-15	211	240	285	23	410	630	480	82
879-0150-10-144001199A0 <sup>(1)</sup>	150	PN16	2-15	211	240	285	23	410	630	480	82
879-0200-10-04400119999	200	PN10	2-15	266	295	340	23	510	715	600	138

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AVK ref. no.	DN	Flange	Pilot range	D1	D2	D3	Dh	W	H3	L	Theoretical weight/kg
	mm	drilling	bar	mm	mm	mm	mm	mm	mm	mm	
879-0200-10-044001199A0 <sup>(1)</sup>	200	PN10	2-15	266	295	340	23	510	774	600	138
879-0200-10-14400119999	200	PN16	2-15	266	295	340	23	510	715	600	138
879-0200-10-144001199A0 <sup>(1)</sup>	200	PN16	2-15	266	295	340	23	510	774	600	138
879-0250-10-04400119999	250	PN10	2-15	319	350	395	23	555	780	730	199
879-0250-10-044001199A0 <sup>(1)</sup>	250	PN10	2-15	319	350	395	23	555	854	730	199
879-0250-10-14400119999	250	PN16	2-15	319	355	405	28	555	780	730	199
879-0250-10-144001199A0 <sup>(1)</sup>	250	PN16	2-15	319	355	405	28	555	854	730	199
879-0300-10-04400119999	300	PN10	2-15	370	400	445	23	605	850	850	256
879-0300-10-044001199A0 <sup>(1)</sup>	300	PN10	2-15	370	400	445	23	605	923	850	256
879-0300-10-14400119999	300	PN16	2-15	370	410	460	28	605	850	850	256
879-0300-10-144001199A0 <sup>(1)</sup>	300	PN16	2-15	370	410	460	28	605	923	850	256
879-0350-10-04400119999	350	PN10	2-15	429	460	505	23	710	970	980	457
879-0350-10-044001199A0 <sup>(1)</sup>	350	PN10	2-15	429	460	505	23	710	1045	980	457
879-0350-10-14400119999	350	PN16	2-15	429	470	520	28	710	970	980	457
879-0350-10-144001199A0 <sup>(1)</sup>	350	PN16	2-15	429	470	520	28	710	1045	980	457
879-0400-10-04400119999	400	PN10	2-15	480	515	565	28	780	1030	1100	543
879-0400-10-044001199A0 <sup>(1)</sup>	400	PN10	2-15	480	515	565	28	780	1183	1100	543
879-0400-10-14400119999	400	PN16	2-15	480	525	580	31	780	1030	1100	543
879-0400-10-144001199A0 <sup>(1)</sup>	400	PN16	2-15	480	525	580	31	780	1183	1100	543
879-0450-10-04400119999	450	PN10	2-15	530	565	615	28	930	1210	1200	869
879-0450-10-044001199A0 <sup>(1)</sup>	450	PN10	2-15	530	565	615	28	930	1361	1200	869
879-0450-10-14400119999	450	PN16	2-15	548	585	640	31	930	1210	1200	869
879-0450-10-144001199A0 <sup>(1)</sup>	450	PN16	2-15	548	585	640	31	930	1361	1200	869
879-0500-10-04400119999	500	PN10	2-15	582	620	670	28	1020	1285	1250	1114
879-0500-10-044001199A0 <sup>(1)</sup>	500	PN10	2-15	582	620	670	28	1020	1435	1250	1114
879-0500-10-14400119999	500	PN16	2-15	609	650	715	34	1020	1285	1250	1114
879-0500-10-144001199A0 <sup>(1)</sup>	500	PN16	2-15	609	650	715	34	1020	1435	1250	1114
879-0600-10-04400119999	600	PN10	2-15	682	725	780	31	1090	1430	1450	1673
879-0600-10-044001199A0 <sup>(1)</sup>	600	PN10	2-15	682	725	780	31	1090	1584	1450	1673
879-0600-10-14400119999	600	PN16	2-15	720	770	840	37	1090	1430	1450	1673
879-0600-10-144001199A0 <sup>(1)</sup>	600	PN16	2-15	720	770	840	37	1090	1584	1450	1673

(1) Incl. position indicator