

# Control Valve



ARTES Valve & Service GmbH  
Parkallee 7 - 16727 Velten  
GERMANY

A MEMBER OF THE ARCA FLOW GROUP

1	Customer:	Standardkessel Baumgarte GmbH			ARTES-ref.-no.:	5504578	
2	Plant:	Oldhall			Pos.:	5	
3	Location:	Drum Emergency Drain			Qty.:	1	
4	TAG No.:	LCV 4U014			S/N:	3177878.1	
5	<b>Pipe - Connection Data</b>			<b>Inlet</b>		<b>Outlet</b>	
6	Dimensions	Ø D [mm] x s [mm]		48,3	x	3,2	114,3 x 3,2
7	Material			1.5415 (16Mo3)		1.0345 (P235GH)	
8	Welding Connection	Ø D [mm] x s [mm]		48,3	x	3,2	114,3 x 3,2
9	Flange Connection			--		--	
10	<b>Valve - Design</b>			<b>Inlet</b>		<b>Outlet</b>	
11	Nominal Size	DN / NPS		40		100	
12	Nominal Pressure	PN / class		--		--	
13	Design Pressure	bar(g)		78		10	
14	Design Temperature	°C		294		184	
15	Material			1.5415 (16Mo3, 15Mo3)		1.0460 (P250GH, C22.8)	
16	<b>Operation Data</b>		<b>Loading Case</b>	<b>Loading Case</b>	<b>Loading Case</b>	<b>Loading Case</b>	<b>Loading Case</b>
17	Medium :	Water/Steam		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
18	Phase			water	water	water	water
19	Flowrate	t/h		29,00	26,50	10,00	3,40
20	Temperature, Inlet	°C		293,00	283,00	255,00	290,00
21	Pressure, Inlet	barA		79,00	69,00	47,40	79,00
22	Pressure, Outlet	barA		2,50	2,30	2,00	2,00
23	k <sub>v</sub>	m <sup>3</sup> /h		8,50	8,26	3,48	0,93
24	Flow Speed, Outlet	m/s		224	209	74,2	32,7
25	<b>Type Of Valve</b> Control Ball Valve Type W						
26	<b>Valve Parameter</b>			<b>Material</b>			
27	Seat Diameter:	40 mm		Body:	1.0460 (P250GH, C22.8)		
28	Pressure Reduction Steps, controlled:	1		Seating:	1.4122 (X39CrMo17-1), metal sealing		
29	Pressure Reduction Steps, fix:			Ball:	1.4122 (X39CrMo17-1), metal sealing		
30	k <sub>vs</sub>	10 m <sup>3</sup> /h		Control disc:	1.4122 (X39CrMo17-1), hardened		
31	Control Characteristic:	equal perc. mod.		Seals:	Graphite		
32	max. Dp for Actuator:	78 bar					
33	Installation Length:	280 mm					
34							
35	<b>Design / Inspection</b>				<b>Final Inspection</b>		
36	Pressure Equipment (Safety) Regulations 2016 & Preussure Equipment Directive 2014/68/EU				<b>Confirmation acc. to DIN 3.1</b>		
37	Requirements acc. to: EN 12952				<b>EN 10204</b>		
38	Leakage Class: 0,01% of kvs-Value						
39							
40	<b>Actuator</b>	pneumatic					3177806
41	Type:	ProtACT PR216S, single-acting "rack&pinion"; air to open, spring to close, signal/air failure: close; Manual gear box					
42		MOG.216...263, handwheel Ø400; Positioner Siemens Sipart PS2 6DR5110-0NG31-0AA0, 2-wire connection & HART-interface,					
43		ly-module (6DR4004-8J) for position feedback (4...20mA), ly-module (6DR4004-8K) mechanic limit switches					
44		Filter/Regulator G1/4" Norgren B82G-2GK-AD3-RMG; Positioning Time: ≤ 30 sec/90°					
45		min. air supply pressure: 4,5 bar(g), Breakaway Torque ML = 500 Nm, Control Torque MR = 300 Nm					
46	<b>Actuatoradaption:</b>	EN ISO 5211 - F14, square 36 mm					
47	<b>Remarks</b>						
48	Attention! Flashing in all loading cases! Valve should be placed as close as possible to the flash tank.						
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50							
51							
52	Control-disc(s) - perforated disc						
53	Revision	0	1	2	3	4	5
54	Date:	01.11.2022	09.11.2022				
55	Prepared:	H. Roßmann	P. Schüler				
56	Checked:	H. Jäkel	R. Feldmann				