

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.:	1		
3	Location:	Control Valve - Feed Water				Qty.:	1		
4	TAG No.:	LCV 4F004				S/N:	3177834.1		
5	Pipe - Connection Data		Inlet			Outlet			
6	Dimensions	Ø D [mm] x s [mm]		114,3	x	8,0	114,3	x	8,0
7	Material			1.5415 (16Mo3)			1.5415 (16Mo3)		
8	Welding Connection	Ø D [mm] x s [mm]		--	x	--	--	x	--
9	Flange Connection			EN 1092-1/B			EN 1092-1/B		
10	Valve - Design		Inlet			Outlet			
11	Nominal Size	DN / NPS		100			100		
12	Nominal Pressure	PN / class		160			160		
13	Design Pressure	bar(g)		135			135		
14	Design Temperature	°C		140			140		
15	Material			1.5415 (16Mo3, 15Mo3)			1.5415 (16Mo3, 15Mo3)		
16	Operation Data		Loading Case	Loading Case	Loading Case	Loading Case	Loading Case	Loading Case	
17	Medium :	Water/Steam		1	2	3	4	5	6
18	Phase			water	water	water	water	water	
19	Flowrate	t/h		97,66	84,40	86,40	52,64	17,68	
20	Temperature, Inlet	°C		130,00	130,00	130,00	130,00	20,00	
21	Pressure, Inlet	barA		91,40	96,90	83,40	77,20	80,30	
22	Pressure, Outlet	barA		86,50	93,00	76,90	69,00	5,70	
23	k _v	m³/h		46,3	44,8	35,4	19,1	2,05	
24	Flow Speed, Outlet	m/s		3,81	3,29	3,37	2,05	0,65	
25	Type Of Valve Control Ball Valve Type GW								
26	Valve Parameter			Material					
27	Seat Diameter:	65 mm		Body:			1.5415 (16Mo3, 15Mo3)		
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 _{vs}	55 m³/h		Control disc:			1.4122 (X39CrMo17-1), hardened		
31	Control Characteristic:	equal perc. mod.		Seals:			O-Rings, EPDM perox.		
32	max. Dp for Actuator:	160 bar							
33	Installation Length:	430 mm							
34									
35	Design / Inspection					Final Inspection			
36	Pressure Equipment (Safety) Regulations 2016 & Preussure Equipment Directive 2014/68/EU					Confirmation acc. to DIN 3.1			
37	Requirements acc. to: EN 12952					EN 10204			
38	Leakage Class: 0,01% of kvs-Value								
39									
40	Actuator	pneumatic						3177786	
41	Type:	ProtACT PR587D, double-acting "rack&pinion"; signal/air failure: Fail-in-Place; Manual gear box MOG.387...763, handwheel Ø600							
42		Positioner Siemens Sipart PS2 6DR5120-0NG31-0AA0, 2-wire connection & HART-interface, Iy-module (6DR4004-8J) for							
43		position feedback (4...20mA), Iy-module (6DR4004-8K) mechanic limit switches; Filter/Regulator G1/4" Norgren							
44		B82G-2GK-AD3-RMG; 2x Booster Relay EIL100-F02-L; Positioning Time: ≤ 40 sec/90°							
45		min. air supply pressure: 4,5 bar(g), Breakaway Torque ML = 1200 Nm, Control Torque MR = 700 Nm							
46	Actuatoradaption:	EN ISO 5211 - F16, square 46 mm							
47	Remarks								
48	Attention! Flow Speed, Outlet: Very High								
49									
50									
51									
52	Control-disc(s) - partial perforated disc								
53	Revision	0	1	2	3	4	5	6	
54	Date:	01.11.2022	09.11.2022						
55	Prepared:	H. Roßmann	P. Schüler						
56	Checked:	H. Jäkel	R. Feldmann						