

3-Way 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.:	4	
3	Location:	3-Way Control Valve - Drum Preheating			Qty.:	1	
4	KKS No.:	TCV 4F010			S/N:	3177876.1	
5	Pipe - Connection Data			Connection 1	Connection 2	Connection 3	
6	Dimensions	Ø D [mm] x s [mm]		114,3 x 8,0	114,3 x 8,0	114,3 x 8,0	
7	Material			1.5415	1.5415	1.5415	
8	Welding Connection	Ø D [mm] x s [mm]		--	--	--	
9	Flange Connection			EN 1092-1/B	EN 1092-1/B	EN 1092-1/B	
10	Valve - Design			Connection 1	Connection 2	Connection 3	
11	Nominal Size	DN / NPS		100	100	100	
12	Nominal Pressure	PN / class		160	160	160	
13	Design Pressure	bar(g)		89	89	89	
14	Design Temperature	°C		303	303	303	
15	Material			1.5415	1.5415	1.5415	
16	Test Pressure - Body Strength			240,0 bar			
17	Operation Data		Loading Case	Loading Case	Loading Case	Loading Case	Loading Case
18	Medium:	Water	1	2	3	4	5
19	Flow Rate	t/h	61,00	40,66	43,32	80,08	
20	Temperature	°C	130	130	130	130,0	
21	Pressure, Inlet	bar(a)	85,35	85,35	76,58	76,58	
22	Pressure, Outlet	bar(a)	84,65	84,22	76,08	46,08	
23	Kv Value	m³/h	89,02	59,34	63,24	116,89	
24	Flow Speed, Outlet	m/s	--	--	--	3,13	
25							
26	Type Of Valve 3-Way Valve - Type W (Distributor)						
27	Material			Valve Parameter			
28							
29	Body:	1.5415		Seat Diameter: 65 mm			
30	Stem:	1.4122		Kvs Value: max. 200 m³/h			
31	Plug:	1.5415		max. dp actuator: 3 bar			
32				Control characteristic: --			
33	Seals:	Graphite		Dimensions: 430,0 mm			
34				215,0 mm			
35							
36							
37	Design / Inspection			Pressure Equipment (Safety) Regulations 2016 & Pressure Equipment Directive 2014/68/EU			
38				Requirements acc. to: EN 12952			
39				Leakage class: 1,5% of Kvs-value			
40				Final Inspection Confirmation acc. to DIN EN 10204 - 3.1			
41	Mounting Instruction						
42							
43	Actuator type:	pneumatic				3178803	
44	Type:	ProtACT PR216S, single-acting "rack&pinion"; air to close, spring to open, signal/air failure: open; Manual gear box					
45		MOG.216...263, handwheel Ø400; Positioner Siemens Sipart PS2 6DR5110-0NG31-0AA0, 2-wire connection & HART-interface,					
46		ly-module (6DR4004-8J) for position feedback (4...20mA), ly-module (6DR4004-8K) mechanic limit switches					
47		Filter/Regulator G1/4" Norgren B82G-2GK-AD3-RMG; Positioning Time: ≤ 30 sec/90°					
48		min. air supply pressure: 4,5 bar(g), Breakaway Torque ML = 500 Nm, Control Torque MR = 300 Nm					
49	Actuator adaption:	EN ISO 5211 - F14 - square 27 mm					
50	Remarks						
51	Safety position - signal/air failure - Connection 3 closed						
52							
53							
54							
55	Revision	0	1	2	3	4	5
56	Date:	01.11.2022	14.11.2022	05.01.2023			
57	Prepared:	H. Roßmann	P. Schüler	P. Schüler			
58	Checked:	H. Jäkel	R. Feldmann	R. Feldmann			