

# 3-Way Valve



ARTES Valve & Service GmbH  
Parkallee 7 - 16727 Velten  
GERMANY

A MEMBER OF THE ARCA FLOW GROUP

1	Customer:	Doosan Lentjes GmbH			ARTES-ref.-no.:	5504341	
2	Plant:	A.12016 - Olsztyn WTE			Pos.:	3	
3	Location:	3-Way Control Valve Feed Water Drum Heat Exchanger			Qty.:	1	
4	KKS No.:	11 LAB40 AA002			S/N:	3170954.1	
5	<b>Pipe - Connection Data</b>			<b>Connection A</b>	<b>Connection B</b>	<b>Connection D</b>	
6	Dimensions	Ø D [mm] x s [mm]		114,3 x 7,1	114,3 x 7,1	76,1 x 5,6	
7	Material			1.0345	1.0345	1.0345	
8	Welding Connection	Ø D [mm] x s [mm]		115,1 x 7,5	115,1 x 7,5	76,1 x 5,6	
9	Flange Connection			--	--	--	
10	<b>Valve - Design Data</b>			<b>Connection A</b>	<b>Connection B</b>	<b>Connection D</b>	
11	Nominal Size	DN / NPS		100	100	65	
12	Nominal Pressure	PN / class		160	160	160	
13	Design Pressure	bar(g)		85,5	85,5	85,5	
14	Design Temperature	°C		298	298	298	
15	Material			1.0460	1.0460	1.0460	
16	<b>Test Pressure - Body Strength</b>			<b>182,0 bar</b>			
17	<b>Operation Data</b>		<b>Loading Case</b>	<b>Loading Case</b>	<b>Loading Case</b>	<b>Loading Case</b>	<b>Loading Case</b>
18	Medium:	Water	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
19	Flow Rate	kg/s	16,17	16,18	15,75		
20	Temperature	°C	130	130	130		
21	Pressure, Inlet	bar(a)	82,40	81,50	81,50		
22	Pressure, Outlet	bar(a)	81,70	80,80	80,80		
23	Kv Value	m³/h	--	67,21	65,42		
24	Flow Speed, Outlet	m/s	--	2,19	5,07		
25							
26	<b>Type Of Valve</b> 3-Way Valve - Type W (Mixer)						
27	<b>Material</b>			<b>Valve Parameter</b>			
28							
29	Body:	1.0460			Seat Diameter:	65	mm
30	Stem:	1.4122			Kvs Value:	max. 195	m³/h
31	Plug:	1.0460			max. dp actuator:	2	bar
32					Control characteristic:	linear	
33	Seals:	Graphite			Dimensions:		
34							
35							
36							
37	<b>Design / Inspection</b>			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	<b>Mounting Instruction</b>						
42							
43	<b>Actuator type:</b>	pneumatic					3170823
44	Type:	ProtACT PR134D; double-acting "rack&pinion"; signal/air failure: "Fail-in-Place"					
45		Positioner Sipart PS2 6DR5120-0NG31-0AF0, 2-wire connection & HART-interface,					
46		ly-module (6DR4004-8J) for position-feedback (4...20mA)					
47		air set P172CEACP G3/8", adapter G3/8"-G1/4", piping SST, 2 limit switches with junction box					
48		min. air supply pressure: 4,5 bar(g)					
49	<b>Actuator adaption:</b>	EN ISO 5211 - F10 - square 27 mm					
50	<b>Remarks</b>						
51	Attention! Flow Speed, Connection D: Very High						
52							
53							
54	Body Strength Test - Test Pressure: p' = 182 bar - Test Medium: Water						
55	Revision	0	1	2	3	4	5
56	Date:	03.11.2021	29.12.2021	27.01.2022	22.04.2022	08.03.2024	
57	Prepared:	H. Roßmann	P. Schüler	D. Hermann	P. Schüler	P. Schüler	
58	Checked:	H. Jäkel	R. Feldmann	P. Schüler	R. Feldmann	R. Feldmann	