

# Three-Way Valve



ARTES Valve & Service GmbH  
Parkallee 7 - 16727 Velten  
GERMANY

A MEMBER OF THE ARCA FLOW GROUP

1	Customer:	ARVOS GmbH	ARTES-Ref.	5503371														
2	Plant:	Navoiy Azot, Uzbekistan	Pos.	1														
3	Service:	Feed water diverter	Qty.:	1														
4	TAG No. / Pos. No.:	TV 12401 / 5100	S/N:	3047068.2														
5	<b>Pipeline</b>		Connection 1	Connection 2	Connection 3													
6	Dimensions	Ø D x s [mm]	273,0x10,0	273,0x10,0	273,0x10,0													
7	Material		--	--	--													
8	Weld ends	Ø D x s [mm]	273,0x10,0	273,0x10,0	273,0x10,0													
9	Flange ends		--	--	--													
10	<b>Valve Design</b>		Connection 1	Connection 2	Connection 3													
11	Nom. pipe size	[DN / NPS]	250	250	250													
12	Nom. pressure	[PN/ class]	--	--	--													
13	Design Pressure	[bar(g)]	52	52	52													
14	Design Temp.	[°C]	480	480	480													
15	Material		1.5415	1.5415	1.5415													
16	<b>Hydraulic Test Pressure</b>		<b>123,0 bar</b>															
17	<b>Operational conditions</b>	Load Case	Load Case	Load Case	Load Case	Load Case												
18	Medium:	water	1	2	3	4												
19	Flow	[t/h]																
20	Temperature	[°C]																
21	Pressure, Inlet	[bar(g)]																
22	Pressure, Outlet	[bar(g)]																
23	K <sub>VS</sub> value	[m³/h]																
24	Leakage flow	[t/h]																
25																		
26	<b>Valve type</b>	<b>Type W</b>																
27	<b>Material:</b>																	
28																		
29	Body:	1.5415																
30	Stem:	1.4122																
31	Plug:	1.4122																
32																		
33	Gaskets:	Graphite																
34																		
35																		
36																		
37	<b>Design &amp; Tests acc. to:</b>	Pressure Equipment Directive 2014/68/EU	<table border="1"> <tr> <td colspan="2"><b>Valve Parameters</b></td> </tr> <tr> <td>Ø seat</td> <td>200 mm</td> </tr> <tr> <td>Kvs Value:</td> <td>1.880 m³/h</td> </tr> <tr> <td>delta p actuator</td> <td>2 bar</td> </tr> <tr> <td>Control characteristic:</td> <td>linear</td> </tr> <tr> <td>Dimensions</td> <td> </td> </tr> </table>				<b>Valve Parameters</b>		Ø seat	200 mm	Kvs Value:	1.880 m³/h	delta p actuator	2 bar	Control characteristic:	linear	Dimensions	
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Ø seat	200 mm																	
Kvs Value:	1.880 m³/h																	
delta p actuator	2 bar																	
Control characteristic:	linear																	
Dimensions																		
38	Requirements acc. to:	EN12952 / AD2000																
39	Leakage:	ca. 1,5% of Kvs																
40	<b>Installation requirements:</b>																	
41																		
42	<b>Actuator:</b>	pneumatic	<b>3141406</b>															
43	Type:	bar GTE250, single acting Rack&Pinion type,																
44		signal/air failure: bypass 3 closed, straight way 2 --> 1: open																
45		positioner Siemens Sipart PS2 6DR5110-0NN01-0AA0, single acting, 4...20mA HART,																
46		incl. position feedback 4...20mA (ly-module)air set MW-C, piping SST, air connection 1/2"NPT																
47		air supply pressure >4,5barg																
48																		
49	<b>Remarks:</b>																	
50																		
51																		
52																		
53																		
54	Revision:	0	1	2	3	4												
55	Date:	15.03.2018	02.05.2018	31.05.2018	11.06.2018													
56	Prepared:	S. Haftenberger	S. Haftenberger	P. Schüler	P. Schüler													
57	Checked:	F. Exner	P. Schüler	F. Exner	D. Hadjiev													