

3-Way Valve



ARTES Valve & Service GmbH
Parkallee 7 - 16727 Velten
GERMANY

A MEMBER OF THE ARCA FLOW GROUP

1	Customer:	ARCA Flow Controls, LLC		ARTES-Ref.:	5503868	
2	Project:			Pos.:	2	
3	Service:			Qty.:	1	
4	TAG No.:	CV414		S/N:	3159575.1	
5	Pipe - Connection Data			Connection 1	Connection 2	Connection 3
6	Dimensions	Ø D x s	[mm x mm]	Ø168,3 x 15,88	Ø168,3 x 15,88	Ø168,3 x 15,88
7	Material			--	--	--
8	Weld ends	Ø D x s	[mm x mm]	--	--	--
9	Flange ends			ASME B16.5 - RF	ASME B16.5 - RF	ASME B16.5 - RF
10	Valve - Connection Data			Connection 1	Connection 2	Connection 3
11	Nominal Pipe Size	NPS		6"	6"	6"
12	Nominal Pressure (Rating Class)	class		1500	1500	1500
13	Material			SA182 F22 Cl3	SA182 F22 Cl3	SA182 F22 Cl3
14	Valve - Design Data					
15	Design Pressure	[bar(g)]		175		
16	Design Temperature	[°C]		231		
17	Material			SA182 F22 Cl3		
18	Nominal Pressure (Rating Class)	class		1500		
19	Hydraulic Test Pressure			388,0 bar		
20	Operational conditions		Loading Case	Loading Case	Loading Case	Loading Case
21	Medium:	CO ₂	1	2	3	4
22	Flow	[kg/s]	34,79	35	22,00	33
23	Temperature	[°C]	150	150	150	150
24	Inlet Pressure	[bar(a)]	175,00	175,00	175,00	175
25	Outlet Pressure	[bar(a)]	174,90	174,90	174,96	174,91
26						
27	K _v -Value	[m ³ /h]	736	736	736	736
28						
29	Valve type 3-Way Valve - Divider - Type W					
30	Material:			Valve Parameters		
31						
32	Body:	SA182 F22 Cl3		Ø Seat:	125	mm
33	Stem:	1.4122		K _{VS} -Value:	736	m ³ /h
34	Plug:	SA182 F22 Cl3		Δp actuator:	3	MPa
35				Control	Install. Length ca. 770 mm	
36	Gaskets:	Graphite		Characteristic:	ca. 410 mm	
37				linear		
38						
39						
40	Design & Inspection:			Inspection certificate acc. EN 10204 - 3.1		
41				Requirements acc. to: ASME BPVC - Sec. VIII Div. 1, ASME B16.34		
42				Leakage: ca. 1,5% of K _{VS} - value		
43	Installation requirements:					
44						
45	Actuator:	pneumatic				3159578
46	Type:	ProtACT Type PR387S HT, single acting, spring closes; fail safe position: air failure - current position				
47		signal failure - connection 2 closed ; Positioner ARCAPro 827A.X4-A0H-M10-N,				
48		Filter/Regulator: ARCA 961 SS Gauge, Air Lock Up Valve SMC EIL 201-F02 G1/4, SST piping				
49		no gearbox and no handwheel				
50		air supply: min. 5,0 bar(g)				
51	Remarks:					
52						
53						
54						
55	Revision:	6	7	8	9	10
56	Date:	28.05.2020				
57	Prepared:	P. Schüler				
58	Checked:	F. Exner				