

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.:	1			
3	Service:		Qty.:	1			
4	TAG No.:	CV558	S/N:	3159562.1			
5	Pipe - Connection Data		Connection 1	Connection 2	Connection 3		
6	Dimensions	Ø D x s [mm x mm]	Ø273,0 x 21,44	Ø273,0 x 21,44	Ø219,1 x 18,26		
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	10"	10"	8"		
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]	150				
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	Loading Case
21	Medium:	CO ₂	1	2	3	4	5
22	Flow	[kg/s]	99,72				
23	Temperature	[°C]	150				
24	Inlet Pressure	[bar(a)]	105,10				
25	Outlet Pressure	[bar(a)]	104,83				
26							
27	K _v -Value	[m ³ /h]	1.885				
28							
29	Valve type		3-Way Valve - Mixer - Type G				
30	Material:				Valve Parameters		
31					Ø Seat:	200	mm
32	Body:	SA182 F22 Cl3			K _{VS} -Value:	1.885	m ³ /h
33	Stem:	1.4122			Δp actuator:	2	MPa
34	Plug:	SA182 F22 Cl3			Control	Install. Length	ca. 1100 mm
35					Characteristic:	linear	ca. 505 mm
36	Gaskets:	FKM, O-Rings					
37							
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					3159577
46	Type:	ProtACT Type PR387S, single acting, spring closes; fail safe position: air failure - current position					
47		signal failure - connection 3 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	11
56	Date:	28.05.2020					
57	Prepared:	P. Schüler					
58	Checked:	F. Exner					