

Control Valve



ARTES Valve & Service GmbH
Parkallee 7 - 16727 Velten
GERMANY

A MEMBER OF THE ARCA FLOW GROUP

1	Customer:	ARTES-ref.-no.		5504246			
2	Plant:	Pos.:		10.1			
3	Location: HDU	Qty.:		1			
4	TAG No.: 1 MAN10 AA101	S/N:		3168071.1			
5	Pipe - Connection Data	Inlet			Outlet		
6	Dimensions ØD [mm] x s [mm]	139,7	x	14,2	508,0	x	11,0
7	Material	1.7380 (10CrMo9-10)			1.7335 (13CrMo4-5)		
8	Welding Connection ØD [mm] x s [mm]	139,7	x	14,2	508,0	x	11,0
9	Flange Connection	--			--		
10	Valve - Design	Inlet			Outlet		
11	Nominal Size DN / NPS	125			500		
12	Nominal Pressure PN / class	--			--		
13	Design Pressure bar(g)	102			15		
14	Design Temperature °C	530			250		
15	Material	1.7380/1.7383 (10CrMo9-10/11CrMo9-10)			1.7335 (13CrMo4-5)		
16	Operation Data	Loading Case	Loading Case	Loading Case	Loading Case	Loading Case	Loading Case
17	Medium : Water/Steam	1	2	3	4	5	6
18	Phase	steam	steam				
19	Flowrate ¹⁾ t/h	28,98	1,65				
20	Temperature, Inlet °C	495,00	495,00				
21	Pressure, Inlet barA	85,00	85,00				
22	Pressure, Outlet ²⁾ barA	2,50	0,41				
23	kv m ³ /h	39,48	2,34				
24							
25	Sound Pressure Level ³⁾ db(A)	86	-				
26	Type Of Valve	Angle Valve					
27	Valve Parameter				Material		
28	Seat Diameter: 65 mm				Body: 1.7380/1.7383 (10CrMo9-10/11CrMo9-10)		
29	Pressure Reduction Steps, controlled: 5				Seat: 1.7380/1.7383 (10CrMo9-10/11CrMo9-10), stellite		
30	Pressure Reduction Steps, fix: 1				Stem with		
31	K _{VS} -value 52 m ³ /h				Holecage: 1.4923 (X22CrMoV12-1), nitrided		
32	Control Characteristic: linear				Seals: Graphite		
33	Stroke: 40 mm				Packing: Graphite K80/K80S		
34	max. Dp for Actuator: 85 bar						
35	Installation Length: 650/325 mm						
36	Design / Inspection				Final Inspection		
37					Confirmation acc. to DIN 3.1		
38	Requirements acc. to: EN 12952				EN 10204		
39	Leakage Class: 0,5% of K _{VS} -value						
40							
41	Actuator pneumatic				3168051		
42	Type: ARCA - diaphragm actuator UMA III 811-3063D-Ö BH, single acting, air opens, spring closes, Fail-Safe - closed						
43	Positioner: Siemens Sipart PS2 - 6DR5011-ONG21-0AA1, incl. Iy-Module for position feedback (4 ... 20mA)						
44	2 inductive limit switches; gauge block; solenoid valve Bückert 24VDC 3/2 way, filter regulator Festo						
45	Type: LFR-N1/2-D-5M-O-MIDI-T3-EX4, volume booster YTC YT-320-N1 with 2 one-way flow control valves for a positioning time of approx. 2 sec. in both directions						
46							
47							
48	Remarks						
49	¹⁾ - total flow rate including water injection => 39,0 t/h						
50	²⁾ - pressure reduction to 0,4 bar(a) via downstream perforated disc, K _{VS} = 1290,0 m ³ /h						
51	³⁾ - sound insulation at least 150,0 mm thick, without rigid spacers						
52	Installation position - stem with holecage horizontal, flow from above, drainage at 6:00 o'clock position						
53	"Piston Release Design"						
54	Revision	0	1	2	3	4	5
55	Date:	11.06.2021	11.10.2021				
56	Prepared:	F. Lange	P. Schüler				
57	Checked:	P. Schüler	R. Feldmann				