

# 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.:		12.1			
3	Location: NDU	Qty.:		1			
4	TAG No.: 1 LBS10 AA101	S/N:		3168081.1			
5	<b>Pipe - Connection Data</b>		<b>Inlet</b>			<b>Outlet</b>	
6	Dimensions ØD [mm] x s [mm]	114,3	x	11,0	508,0	x	11,0
7	Material	1.7380 (10CrMo9-10)			1.7335 (13CrMo4-5)		
8	Welding Connection ØD [mm] x s [mm]	114,3	x	11,0	508,0	x	11,0
9	Flange Connection	--			--		
10	<b>Valve - Design</b>		<b>Inlet</b>			<b>Outlet</b>	
11	Nominal Size DN / NPS	100			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	<b>Operation Data</b>	<b>Loading Case</b>	<b>Loading Case</b>	<b>Loading Case</b>	<b>Loading Case</b>	<b>Loading Case</b>	<b>Loading Case</b>
17	Medium : Water/Steam	1	2	3	4	5	6
18	Phase	steam	steam	steam			
19	Flowrate t/h	26,00	23,20	4,00			
20	Temperature, Inlet °C	495,00	495,00	495,00			
21	Pressure, Inlet barA	85,00	85,00	85,00			
22	Pressure, Outlet barA	2,50	2,50	2,50			
23	kv m³/h	35,36	31,50	5,42			
24							
25	Sound Pressure Level <sup>1)</sup> db(A)	86	86	76			
26	<b>Type Of Valve</b>	<b>Angle Valve</b>					
27	<b>Valve Parameter</b>			<b>Material</b>			
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 <sub>VS</sub> -value	46	m³/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	<b>Design / Inspection</b>				<b>Final Inspection</b>		
37					<b>Confirmation acc. to DIN 3.1</b>		
38	Requirements acc. to:	EN 12952		<b>EN 10204</b>			
39	Leakage Class:	0,5% of K <sub>VS</sub> -value					
40							
41	<b>Actuator</b>	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	<b>Remarks</b>						
49	<sup>1)</sup> - sound insulation at least 150,0 mm thick, without rigid spacers						
50							
51							
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				