

Control Valve Specification
Prepared By :

Customer :
PO # :
Quote # :
Rev/By : 0.0 / rcsehi
Application : Deaerator Pressure Control

Project : -
Proj Num :
Q. ID : rcsehi_JKBS4707PNXT_5918
Alternate :

Valve Tag # : 10LBG50AA901
Page # : 1
P&ID :
Line :
Date / Ver : 10-Mar-2022 / 12.7370

Process Data For Control Valve Selection	1	Pipe Size, Up/Down	8.000 / 8.000				Actuator	51	Act. Type/Matl	VL Cylinder / Aluminum		
	2	Pipe Sch, Up/Down	40 / 40					52	Act. Size/Instr. Sup.	100 / Air		
	3	Allow Noise/Add Attn/Type	85 / 10 /					53	Stroke/Spring	3.00 / Standard		
	4	Process Fluid	STEAM					54	Fail/Air-To	In Place / Open		
	5	Design Press./Temp.	0.00 / 16.00 bar (g) / 0.00 / 350.00 °C					55	Vol Tank/Orient/Mtg	/ /		
	6	Driving Cond.	Cond1	Cond2	Cond3	Cond4		56	Tubing Size/Mtl	1/4" / 316 SS		
	7	Temperature (°C)	263.300	271.500	235.500			57	Fitting Mfg/Mtl	Swagelok / 316 SS		
	8	Inlet Press (bar (g))	3.000	13.600	3.000			58	Pos. Ornt./HW	HVR / Side Mnt/Cont Connect		
	9	Outlet Press (bar (g))	2.500	2.500	2.500			59	Act O-Rings	Buna-N		
	10	Liq Flow Rate (kg/h)	0	0	0			60	Spud	3.38 / 1.50-12 UNF		
	11	Gas Flow Rate (kg/h)	6876.000	2628.000	340.000			61				
	12	Viscosity (cP)	0.000	0.000	0.000			Positioner	62	Model	BETA	
	13	Vapor Press (bar (g))	48.404	55.154	29.940				63	Model #	L3W1L11B1200-NT3002282SN1W00	
	14	SG-MW	18.020	18.020	18.020				64	Material Paint	Aluminum, White	
15	Max Shutoff / Shutoff Class	16.000 bar / Class IV				65	Venting		Non-Vented			
16	Min Supply Pressure / Max Supply Pressure	7.500 / 10.340 bar (g)				66	Base Soft Goods		Buna-N			
17	Valve Function / Amb Temp Min/Max	Throttling / °F				67	Gauges		2 SS-Brass PSI/BAR/KPA			
18	Driving Cond.	Cond1	Cond2	Cond3	Cond4	68	Signal		4 - 20 mA			
19	Flow Coeff. (Cv)	297.402	18.297	14.311		69	Spool Valve		High flow			
20	Est Stroke (% Lift)	69.000	18.000	10.000		70	Pos Tag/Mounting		/			
21	Pressure Drop (bar)	0.500	11.100	0.500		71	Transducer		NT 3000 / Direct Mounted			
22	Choke Drop (bar)	2.860	10.412	2.860		72	Conduit Conn.		1/2" NPT / Std Alum w/ Mylar Cert Sticker			
23	Noise [IEC] (dBA)	<70	<70	<70		Pos Ind Sw	73		Model	Pos. Pac TX (analog)		
24	Valve Vel (m/s)	41.598	15.653	1.948			74		Switch Model#			
25	Pipe Vel (m/s)	41.796	15.728	1.957			75		Indicate			
Valve Body Assembly	26	Model / Body Type / Trim Type	Mark One / Globe / Standard				76	Mounting				
	27	Size/Pressure Class/Body Form	8.00 / CL 300 / Cast				77	Tag				
	28	Trim # - Cv / Characteristic	5.00 Cv:457 / Equal Percent				78					
	29	Stages / Design	/ / /				79					
	30	Flow Direction	Flow Under				80					
	31	Body Matl / Bonnet Matl	Carbon Steel (WCC) / Carbon Steel				81					
	32	End Conn/Sch/Face to Face	Butt Weld / 40 / ISA S75.08.05				Solenoid	82	Model/Qty	/		
	33	Flange Finish						83	Cv-Kv/De-en	/		
	34	Bonnet / Drip Plate / Cryo Type	Standard / /					84	Volt/Watt	/		
	35	Balance Type / P/B Seal Matl.	Unbalanced /					85	Body/Housing Mtl	/		
	36	Plug Mtl/ Facing Treatment /Stem Cvr	316 SS / Seat Surf. Alloy 6 /					86	Body/Elect Conn	/		
	37	Stem Mtl/ Facing Treatment /Pilot Spr	316 SS / Alloy 6, LGA /					87	Port Size/Mtg	/		
	38	Seat Ring Mtl/ Facing Treatment	316 SS / Seat Surf. Alloy 6					88	Tag/Reset-Override	/ / /		
	39	Seat Style / Soft Material	/ /					Others	89	Air Filter/Mnting	/	
	40	Seat Retainer Mtl/ Facing Treatment	316 SS /				90		Filter-Reg/Mnting	FR 04411S00ALLT2 AI /Nip.mt		
	41	Sleeve Mtl/ Facing Treatment	/				91		Flow Booster / Mtg.	/		
	42	Guides Upper/Lower	316 SS & Graphite / 316 SS & Graphite				92		Booster Config			
	43	Packing Matl / Style / Vac / Fire / Cert	AFP / Single / / /				93		Quick Exhaust	/		
	44	Packing - Live-Loaded					94		SupTube/Jctn Box	/		
	45	Bonnet Port / Body Drain	/				95		Lockup/Mnting	Fail-In-Place /		
	46	Bellows Type / Material	/				96		Plate ID			
	47	Body Bolting/Bonnet Flange Matl	B7-2H Zinc Plated / Carbon Steel				97		Plate Type			
	48	Gaskets	Spiral Graphite				98		Packaging	Standard		
	49	Gland Flange Material	Carbon Steel				99		Pwr. Sup.			
	50	Gland Flange Bolting	Carbon Steel, Zinc Plated				00		Wiring Conn. Type			
T1						Special Req	01		Rad. Exm/Mat Regu	/		
T2							02		Drawings	Type I		
T3							03	Assem Hydro	EN 60534-4 / FCI 70-2			
T4							04	Seat leak/Final test cert.	EN 60534-4 / FCI 70-2 /			
Customer Spec	01	Certification/Approval Type	ATEX / Intr Safe /				05	PMI/Weld Req	/ ASME BPVC Section IX			
	02	Class or Gas Group	IIB+H2				06	Cert of Conf.	DIN 3.1B Seat-Leak & Results			
	03	Division or Zone	Zone 1 (2)				07	Cln/Bld/Doc/Act Cln	/ /			
	04	Group					08	CMTR/Mat Cert.	Body & Bonnet / EN 10204 3.1			
	05	Ingress / Temperature	IP 65 / T4				09	Special Paint/Test	High temp. stand. V11 /			
	06	NACE / Nuclear	NA / NA				10	Diag Test/FM	/			
	07	SIL Vlv-Act / Pos	NA / NA				11	Cust. Insp/Witn.	No / No			
	08	Oxygen Service/Assy. Lubricant	NA /				12	N. D. Exam.	/			
							13	Cust Furnish	None			
							14	Flow Testing				
						S1						
						S2						

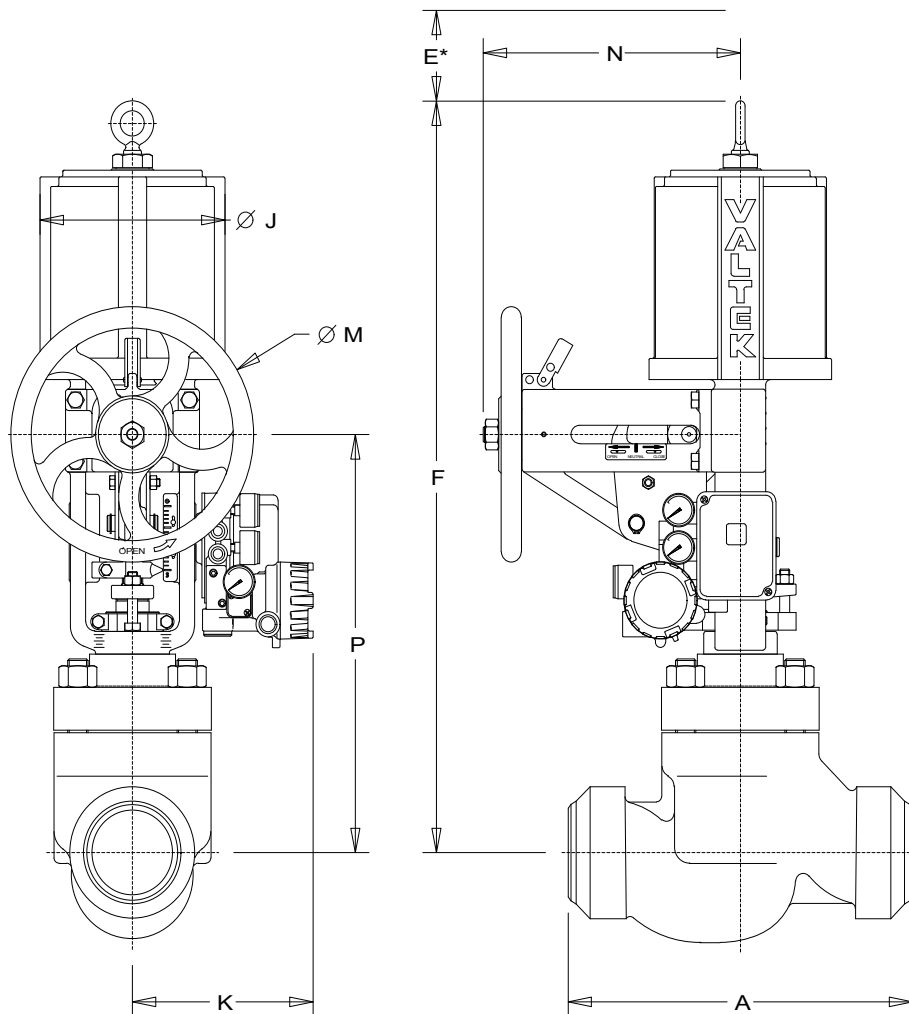
Line # : Remarks :

C	72	we will supply to electrical conn 1/2" 3/4" NPT(F) with adaptor.
C	201	Replacement to SN 708155.007

DB Rev - 782 : 19-Jul-2022 : ID = rcsehi_JKBS4707PNXT_5918

Quantity: 1


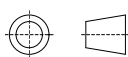
MK1|D|W|V|NN5|XX|8"|300|A216WCC|O|D|X|X|P|O|M|P|2|R|G|5,00|316SS|A|N5|100|X|S|S|D|N|



* - DISASSEMBLY / MAINTENANCE CLEARANCE

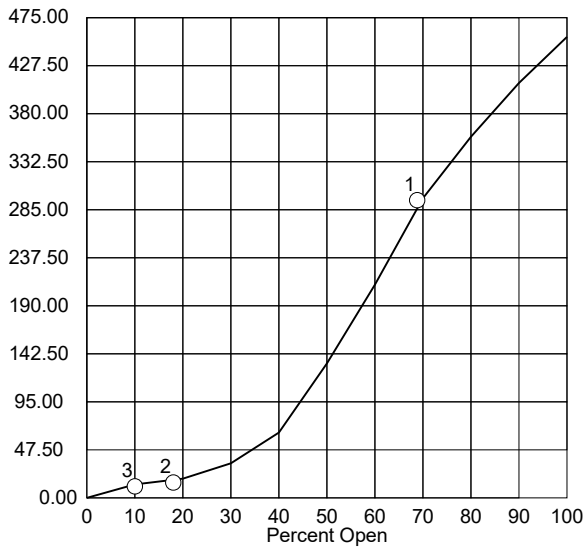
	A	E	F	J	K	M	N	P	WT
INCH	24.00	11.4	49.3	12.5	12.6	24.0	19.5	29.4	773 LBS
MM	609.6	290	1252	318	320	610	495	746	351 KG

Note: Dimensions are correct per associated specification sheet. End connections and scaling may not actual. For accessory information, see associated specification sheet.

MODEL Mark One	ACTUATOR 100 SQ IN	 DIMENSIONAL DRAWING		
SIZE 8 INCH	AIR TO OPEN	BY rcsehi	CUSTOMER	ITEM 1
RATING / F/F STD CL 300 / S75.08.05	FAIL In Place	DATE 10-Mar-2022	VALVE TAG 10LBG50AA901	SHEET 1
END CONNECTION BW SCH	SPRING STANDARD	THIRD ANGLE PROJECTION	P.O. NUMBER	REVISION 0.0
TRIM TYPE STD	TRIM / CV 5.00 /Cv:457		PROJECT -	SERIAL NUMBER .001

8.00 in (Trim: 5.00 Cv:457) CL 300 Mark One Standard Globe

	Cond1	Cond2	Cond3							
Process Data										
Temp (°C)	263.300	271.500	235.500	---	---	---	---	---	---	---
P1 (bar (g))	3.000	13.600	3.000	---	---	---	---	---	---	---
P2 (bar (g))	2.500	2.500	2.500	---	---	---	---	---	---	---
Liq Flow (kg/h)	---	---	---	---	---	---	---	---	---	---
Gas Flow (kg/h)	6876.000	2628.000	340.000	---	---	---	---	---	---	---
Visc (cP)	0.000	0.000	0.000	---	---	---	---	---	---	---
VP (bar (g))	48.404	55.154	29.940	---	---	---	---	---	---	---
DP (bar)	0.500	11.100	0.500	---	---	---	---	---	---	---
DpC (bar)	2.860	10.412	2.860	---	---	---	---	---	---	---
Vel (m/s)	41.598	15.653	1.948	---	---	---	---	---	---	---
Pipe Vel (m/s)	41.796	15.728	1.957	---	---	---	---	---	---	---
Noise (dBA)	< 70.0	< 70.0	< 70.0	---	---	---	---	---	---	---
Flow Cap (Cv)	297.402	18.297	14.311	---	---	---	---	---	---	---
Stroke (% Lift)	69	18	10	---	---	---	---	---	---	---
Info (l)	---	---	---	---	---	---	---	---	---	---
Detailed Miscellaneous Information										
FP	1.000	1.000	1.000	---	---	---	---	---	---	---
FL	---	---	---	---	---	---	---	---	---	---
FR	0.000	0.000	0.000	---	---	---	---	---	---	---
Sg	---	---	---	---	---	---	---	---	---	---
K	1.330	1.330	1.330	---	---	---	---	---	---	---
Xt	0.750	0.750	0.750	---	---	---	---	---	---	---
Z	1.005	0.974	1.004	---	---	---	---	---	---	---
FD	0.330	0.040	0.031	---	---	---	---	---	---	---
MWT	18.020	18.020	18.020	---	---	---	---	---	---	---
Detailed Cavitation (Sigma) Information										
Sigma	---	---	---	---	---	---	---	---	---	---
Sigma MR	---	---	---	---	---	---	---	---	---	---
PSE	---	---	---	---	---	---	---	---	---	---
SSE	---	---	---	---	---	---	---	---	---	---
Sigma V	---	---	---	---	---	---	---	---	---	---
Sigma P	---	---	---	---	---	---	---	---	---	---



Fluid: STEAM
Type: Full
Owner: EVERYONE Fluid List: STANDARD
Vp Equation: Antoine

Critical Pressure (psi (a)/bar (a)) : 3208.200 / 221.255
Critical Temperature (°F/°C) : 705.430 / 374.128
Reference Specific Gravity: 0.998
Molecular Weight: 18.020
Specific Heat Ratio: 1.330
Reference Temperature (°F/°C) : 67.730 / 19.850
Vp-A: 14.358 Vp-B: 6869.520
Vp-C: -83.030

Minimum Temperature (°F/°C) : 35.330 / 1.850
Maximum Temperature (°F/°C) : 704.930 / 373.850
Bulk Modulus ((lbf/in²)/(kg/cm²)) : 340000.000 / 4835820.000

Flow Direction : Flow Under
Trim Characteristic : Equal Percent
Balance Type: Unbalanced
Trim Type : Standard

DB Rev - 782 : 19-Jul-2022