


GENERAL	1	Tag No.			PV -3102-04A						
	2	Service			V-3102 O/L TO FLR HDR CV						
	3	Line No.	P&ID No		6"-G-3100-004-DS0-HC		JI-191-PR-12-3100-10002				
	4	Area Classification			Zone 1 Gr. IIA T3						
	5	Ambient Temperature:		Min.	Max.	(-)10 °C		52 °C			
	6	Available Air Supply Press.:		Min.	Max.	5 bar-g		8 bar-g			
	7	Leakage Class	Allowable Noise Limit		Class IV		< 85 dB(A)				
	8	Design Press. Max	Design Temp. Min / Max		94	bar-g	-46	87 °C			
MECHANICAL DATA	9	Line Size	Sch.		6 in		80S				
	10	Pipe Material	Insulation		ASTM A312 TP316L		NA				
PROCESS CONDITIONS	11	Process Fluid	Stream Number		HC GAS						
	12	Fluid Phase	Fluid State		Single_Phase		Gas/Vapor				
	13	Shutoff Pressure	Molecular Weight		94 bar		19.36				
	14										
	15			Units	@ Max. Flow	@ Norm. Flow	@ Min. Flow				
	16	Flow Rate			kg/d	535799	487091	146126			
	17	Inlet Pressure			bar-g	87.95	88.04	88.42			
	18	Pressure Drop			bar	83.55	86.45	87.92			
	19	Inlet Temperature			°C	67.6	67.6	67.6			
	20	Density			kg/m³	67.924	67.993	68.283			
	21	Inlet Compressibility Factor			-	0.895	0.895	0.895			
	22	Inlet Viscosity			cP	0.015	0.015	0.015			
	23	Inlet Specific Heats Ratio			-	1.481	1.481	1.481			
	24	Inlet Vapour Pressure									
	25	Critical Pressure			bar-a						
CALCULATED RESULTS	26	Flow Coefficient Cv			-	15.41	13.96	4.16			
	27	Travel			%	61	57	17			
	28	Sound Pressure Level			dBA	75	81.2	79.84			
BODY AND TRIM	29	MFR	Model	Kent Introl	530D	56	MFR	Model	ABB	TZIDC	
	30	Body Type		Globe		57	Signal: Inlet	Outlet	4-20mA,HART Pneumatic		
	31	Body Size	Port Size	4 in	2 in	58	Increase Signal Valve		Close		
	32	Select Cv	Characteris.	25	Linear	59	Type		Electro Pneumatic, SMART		
	33	Rating, End Con., Facing	900#, Flanged RTJ			60	Bypass	Gauges (Barg)	No	Required	
	34	Body/ Bonnet Material	ASTM A 351 Gr.CF3M			61	Cable Entry		ISO M20 x1.5		
	35	Bonnet Type	Extended Bonnet			62	Certification		EEx 'i' / IP 65		
	36	Packing	Graphite			63	E/P Tag No.		PY -3102-04A		
	37	Flow Action To	Open			64	MFR	Model	NA	NA	
	38	Lubricator	Isolat. Valve	No	No	65	Type	Quantity	NA	NA	
	39	Guiding	No. of Ports	Cage	One	66	When De-Enegr.Valve:		NA		
	40	Trim Type	Vector Multi-Stage Multi-Path			67	Cable Entry		NA		
	41	Plug/ Disc Material	ASTM A182 Gr. F316L +Stellite 6			68	MFR	Model	NA	NA	
	42	Seat Material	ASTM A182 Gr. F316L +Stellite 6			69	Type	Quantity	NA	NA	
	43	Rated Travel	3.6 in			70	Contacts / Rating		NA		
	44	Stem/ Shaft Material	ASTM A182 Gr. F316L			71	Switching Position		NA		
	45	Cage / Guide Material	Inconel 718			72	MFR	Model	ABB	X1004FA	
	46	NACE MR-01-75	NA			73	Set Pressure		3.5 barg		
	47	Gasket Material	SS 316L Spiral-wound			74	Filter	Gauge	Required	Required	
	48	Body/Bonnet Bolts/Nuts	ASTM A320 Gr. L7 / A194 Gr. 4			75	Hydro. Pressure		Required		
	ACTUATOR	49	MFR	Model	Kent Introl	G150	76	Leakage		Note 10	
		50	Type	Material	Spring & Diaphragm	CS	77	Other Test		Note 10	
		51	Size	Area	150 in	150 in2	78	Manufacturer		KENT INTROL	
		52	Air Failure Valve	Close			79	Model			
		53	Handwheel	No			80	Purchase Order Num.		191030089	
54		Bench Range	0.4-2 Bar			81	Serial Number		520045V6P1		
55		Mechanical Travel Stop	Required @ Cv=15.41			82					

Notes: See notes


2	PGJ	07/02/2010	RE-ISSUED FOR PURCHASE	INSTRUMENT DATASHEET  Control Valve		
1	PGJ	20/06/2009	RE-ISSUED FOR PURCHASE			
0	PGJ	17/03/2009	ISSUED FOR PURCHASE			
B	PK/PJ	11/09/2008	ISSUED FOR APPROVAL			
A	AP/PK	08/09/2008	ISSUED FOR IDC			
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Tag number : PV -3102-04A

NA : Not Applicable

Notes :

1. The Control valve shall comply with piping valve datasheet : JI-191-PI-07-0000-10001 & Tag No.VO1DS0RJN.
2. Composition (mol%): H2O-0.42, CO2 - 0.99, Benzene - 0.05, Toluene - 0.01%, Xylene - 0.00
3. Minimum temperature coincidental at 1 bara is -46 °C.
4. Maximum Condensation of 0.2 wt% at the control valve outlet is envisaged, valve shall be designed for anticavitation.
5. Liquid Properties at Control valve outlet, Density 757.7 Kg/m3, Viscosity 1.092 cP
6. Vapour Properties at control valve outlet Molecular Weight :19.36 ;Viscosity (cP) : 0.0116 ; Density(Kg/m3) (Min/Norm/Max) : 3.08 / 3.16/ 3.16; Compressibility Factor : 0.9909 ; Cp/Cv : 1.271
7. Critical pressure (true) - 60.51 bara.
8. The rangeability of valve shall meet the minimum and maximum operating conditions as indicated in datasheet.
9. DELETED.
10. Control valve testing shall be comply with "Purchase specification for valves : JI-191-PI-10-0000-10001".
11. Limit Stop is not a part of handwheel mechanism. Limit stop to be mounted on actuator or valve stem.
12. EEx certification shall be ATEX and the Valves in general shall have CE marking.

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