INPEX - Ichthys Project

INSTRUMENT DATA SHEET

Pressure Relief Valve

TAG No. L-510-PRV -0046

1	ADMINISTRATIVE IDENTIFICATIONS			67	SERVICE IDENTIFICATIONS CONTINUED				
2	**Tag number**	L-510-PRV -0046		68	Downstream line size				
3	NA			69					
4	Project	ICHTHYS		70	Downtream wall thickness				
5	Module Number	A3EE		71	Discharge pipe orientation				
6	Commissioning System Number	510-010		72	Downstream pipe material				
7	Vendor Tag Number	NA		73	Downstream insulation				
8	Unit Name	510 - Onshore Arrival		74	Local hazardous area class	NA	Div / Zone	NA	
9				75	Local hazardous area group	NA	Temp class	NA	
10	SERVICE IDENTIFICATIONS			76	Remote hazardous area class	NA	Div / Zone	NA	
11	Equipment	L-510-V-104		77	Remote hazardous area group	NA	Temp class	NA	
12	Service | BDV0046 VT RELIEF			78	Enviromental area	Outdoor			
13	PID / Reference dwg number	L510-DP-PID-0005.001		79					
14	Upstream line number			80	COMPONENT DESIGN CRITERIA				
15	Upstream pipe standard	NA | Pipe spec		81	Criticality				
16	Upstream line size	NA		82	Standard for size calculation	AS1271/API520/API526			
17	NA	NA		83	Seat tightness	As per procedures			
18	Upstream wall thickness	NA		84	Test fluid medium	As per procedures			
19	Upstream pipe material	NA		85	Effective coeff of discharge				
20	Fluid service	Instrument Air		86	Fire-fighting / Drainage				
21	Upstream line insulation	NA		87	Certification				
22	Downstream line number			88	Test requirements	As per requisition			
23	Downstream pipe standard	NA | Pipe spec		89					
24	PROCESS VARIABLES	MATERIAL FLOW CONDITIONS							
25	Flow Condition Identification	NA		90	Const. Back Pres(superimposed)	0	kPa	gauge	
26	Fluid state	Gas/Vapor		91	Variable back pressure (max)		kPa	gauge	
27	Fluid phase	Single phase		92	Built-up Back pressure (allowed)	104	kPa		
28	Fluid name	Instrument Air		93	Back pressure (total)	104	kPa	gauge	
29	Gauge pressure @ Normal	850 kPa gauge		94	Gauge pressure @ Maximum	1040	kPa	gauge	
30	Temperature @ Normal	44 °C		95	Temperature @ Maximum	100	°C		
31	SIZING BASIS			96	RELIEVING CONDITIONS				
32	Vessel MAWP			97	Density	kg/m³			
33	Presure / Vacuum	Pressure		98	Liquid specific gravity	NA			
34	Valve set pressure	1040 kPa gauge		99	Gas / Vapor specific gravity				
35	Valve set vacuum			100	Molecular mass	29			
36	Accumulation (Overpressure)	121 %		101	Ratio of specific heat	1.36			
37	Maximum discharge (Capacity)	138 kg/h		102	Viscosity	cP			
38	Case (fire/non-fire)			103	Compressibility	1			
39	Exposed surface Area (fire case)	in²		104	Temperature	180.2 °C			
40	Non - fire case			105	Latent heat of vaporization	kcal IT/kg			
41	Vessel wall temperature	°C		106	Enviroment factor				
42	Sizing basis	Firecase		107	Two-phase sizing senario	NA			
43	ASME Capacity Certification			108	Two-phase fluid conditions	NA			
44	Valve style	Conventional		109	Saturation temperature	NA			
45	Rupture disk at valve inlet			110	Vapor (saturation) pressure	NA			
46	Factor due to back pressure Kw			111	Noncondensible gas pressure	NA			
47	Factor for back pressure Kb			112	Mass fraction vapor (Quality)	NA			
48	Combination capacity factor Kc			113	Gas mole fraction	NA			
49	Heat absorption factor			114	Two-phase specific volume	NA			
50	Calculated (orifice) area	0.154 cm²		115	Liquid specific volume	NA			
51	Calculated Area designation	D		116	Gas / Vapor specific volume	NA			
52	Selected (effective) area			117	Spec. volume(90% inl. abs pres)	NA			
53	Selected area capacity	703 kg/h		118	Liquid speciic heat Cp	NA			
54	Spring set pressure			119	Den.(90% saturation abs press)	NA			
55	Reaction force			120	Critical gauge pressure	NA			
56	PROCESS DESIGN CONDITIONS			121	PROCESS DESIGN CONDITIONS (CONTINUED)				
57	Design gauge pressure min	kPa gauge		122	Barometric absolute pressure	1	atm(stand)		
58	Design gauge pressure max	1040 kPa gauge		123	Design ambient temperature min	0 °C	Max	65 °C	
59	Design temperature minimum	°C		124					
60	Design temperature maximum	100 °C		125	MATERIAL PROPERTIES				
61	Fluid discharge to	Atmosphere		126	Critical temperature				
62	Base absolute pressure	kPa		127	NFPA health hazard		Flammability		
63	Base Temperature	°C		128	NFPA Reactivity		Corrosive		
64	Density at Base conditions	kg/m³		129	Erosive		Toxic		
65	Specific gravity at Base	NA		130	Pulsations				
66	Compressibility at base			131					

Rev	Created	Date	Revision	Checked	Approvd	Signed
3	P. R.	10/10/2014	Issue for Construction	H. M.	Y. A.	Y. A.

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INSTRUMENT DATA SHEET

Pressure Relief Valve

TAG No. L-510-PRV -0046

1	**VALVE BODY**				51	**PERFORMANCE CHARACTERISTICS**			
2	Body type	Cast block body			52	Maximum press at design temp	1040	kPa	gauge
3	Nozzle style				53	Maximum design temp	100	°C	
4	Valve nominal size	1 x 2			54	Maximum back pressure	104	kPa	gauge
5	Inlet connection nominal size	DN 25	Rating	cl 300	55	Minimum working temperature		Max	
6	Inlet connection termn type	Flanged	Style	RF	56	Set pressure Lower range-limit			
7	Outlet connection nominal size	DN 50	Rating	cl 150	57	Set pressure Upper range-limit			
8	Outlet conectionn termn type	Flanged	Style	RF	58	Rated relieving capacity			
9	Body / Cylinder material	ASME SA-216 gr WCB			59	Rated coef of discharge			
10	Nozzle / Base material	316 SST			60	Rated seat leakage rate			
11	Bolting material	SA193 gr B7-SA194 cl 2H			61	Actual discharge area			
12	Separable flange material				62				
13	Gasket / O ring material				63				
14					64				
15					65				
16					66				
17	**VALVE TRIM**				67				
18	Trim type	Conventional			68				
19	Seat style				69				
20	Orifice designation	D			70				
21	Orifice Effective area	0.71 cm²			71				
22	Blowdown type				72				
23	Disc holder material	SUS316			73				
24	Disc insert material	SUS316 HF (Bishilite)			74				
25	Guide material	SUS316			75	**ACCESSSORIES**			
26	O ring / Soft seat material				76	Silencer	NA		
27	Bellows material				77	Weatherhood	NA		
28	Adjusting ring material	SUS316-TP			78	Drip pan elbow	NA		
29					79	Bugproof vent	NA		
30					80				
31					81				
32	**SPRING AND BONNET**				82				
33	Bonnet type				83	**SPECIAL REQUIREMENTS**			
34	Bonnet style	Bolted			84	Custom tag	NA		
35	Lifting device type	plain lever			85	Reference specification	L290-AX-DAT-10003		
36	Cap type	Threaded cap			86	Special preparation			
37	Restricted lift style				87	Compliance standard			
38	Bonnet / Yoke material	ASME SA-216 gr WCB			88	Construction code			
39	Spring material	SWPA (A228)			89	Certification			
40	Spring washer / Step material	SUS316			90	Special inspection			
41	Adjusting screw / Bolt material	SUS316			91	Service design	Air/Gas		
42	Stem/Spindle material	SUS316			92				
43	Cap material	FCMB31-08			93				
44	Gasket / O ring material				94	**PURCHASE**			
45					95	Purchase order number	PT216G-501-A02		
46					96	Item number	0542	Price	NA
47					97	Serial number	TBA		
48					98	Dry weight			
49					99	Manufacturer reference dwg	12W-042A/B-01-2		
50					100				

101	CALIBRATIONS AND TEST	TEST		
102	DESCRIPTION	INPUT OR SETPOINT		LEAKAGE
103	Cold Differential Test Pressure		D	NA
104	Blowdown - Setpoint	kPa		NA
105	Pressure - Allowed leak rate			
106	Test pressure	kPa	gauge	NA
107				
108				

109	COMPONENT IDENTIFICATIONS		
110	COMPONENT TYPE	MANUFACTURER	MODEL NUMBER
111			
112			
113			
114			
115			
116			

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This Data Sheet shall be read in conjuction with Requisition for Pressure Relief Valves, Doc. No. L290-AX-REQ-0053 and Specification for Pressure Relief Valves, Doc. No. L290-AX-SPC-0006 / s-0290-1360-0501.