中海油石化工程有限公司 CNOOC Petrochemical Engineering Co.,Ltd.	DATA SHEET FOR SELF-FORCE REGULATOR VALVE (FLARE SYSTEM)	Owner Doc.No.	CMIT-240048-728-INS-15.17-5007	
		Job's Doc. No.	253001D0728IN05017	
		Phase	Detailed Design	
		Rev.	B	Page 1 of 4

Company:	CMIT CNOOC.MOC.IDC.TPAO CNOOC IRAQ LIMITED
Project:	FQN NEW DEGASSING STATION UPGRADING PROJECT
Unit:	FQN DEGASSING STATION
Contract No.:	CMIT-PRT-10.53-240048

	Discipline	Name	Date
Prepared by:	Instrumentation	Li H.Q.	20251022
Checked by:	Instrumentation	Qi CH.Y.	20251022
Approved by:	Instrumentation	Ji An X.	20251022
Countersigned by:	Process	Wang Jie	20251022

Rev.	Description	Prepared	Checked	Approved		Date
B	ISSUED FOR APPROVAL	Li Haiqin	Qi Changyong	Ji Anxia		20251022
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No.	Item No.	Rev.	Service	Page	Rmks
1	SRV-2838101	B	2"-IA-28381101-1G0	3	
2	SRV-2838102	B	3"-FG-28381101-1D6	4	

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GENERAL	1	Tag Number		P&ID No.		SRV-2838101		PCS-15.11-0021		Rev.
	2	Service				Instrument Air Pressure Regulation				
	3	Line No.		Size and Sch.		2"-IA-28381101-1G0		2"		
	4	Pipe I.D. mm		Pipe O.D. mm		49.22		60.3		
	5	Pipe Material		Insulation		ASTM A106 GR.B Galvanized				
	6	Fire-proofing		Enclosure Protection				IP65		
PROCESS CONDITIONS	7	Process Fluid		Fluid State		Instrument Air		Gas		
	8	Design Pressure MPa(G)		Design Temperature °C		1.2		85		
	9	Max Shut-off DP MPa(G)				0.88				
	10	Vapor Pressure MPa								
	11	Molecular Weight		Critical Pressure MPa						
	12	Compression Factor		Solid Content						
	13	Specific Heat Ratio (Cp/Cv)								
	14	Erosion	Corrosion	Oxidizing	Toxic	No	No	No	No	
	15					Units	Minimum	Normal	Maximum	
	16	Flow Rate				Nm^3/h		50		
	17	Inlet Pressure				MPa(G)	0.7	0.8	0.88	
	18	Outlet Pressure				MPa(G)		0.2		
	19	Operperating Temperature				°C		65		
	20	Operating Density/Standard Density				kg/Nm^3		1.2		
	21	Viscosity				mPa·s		0.017		
CALCULATED RESULTS	22	Flow Coefficient Cv					VTA	VTA	VTA	
	23	Selected Cv		Calculation Standard		VTA		ISA 75.01		
	24	Valve Opening				%	VTA	VTA	VTA	
	25	Allow. SPL dBA		Predicted SPL dBA		<85dBA@1m	VTA	VTA	VTA	
BODY	26	Model		Body Size		Globe		VTA		
	27	Valve type				Outlet Self-powered Pressure Regulator，Pressure Reducing Type				
	28	Process Connections & Size				ASME B16.5 150LB RF				
	29	Body/Bonnet Material				ASTM A182 F316				
	30	Bonnet Type		Flow Direction		Standard		Flow Open		
	31	Packing Material		Packing Type		VTA		VTA		
	32	Finish	Isolation	Lubrication						
	33									
TRIM	34	Trim Size		Trim Form		VTA		Plunger or Cage Type		
	35	Characteristic				Linear				
	36	Plug/Ball/Disk Material				NOTE 3				
	37	Seat Material		Shaft Material		NOTE 3		NOTE 3		
	38	Cage/Guide Material				NOTE 3				
	39	Seat Leakage Class				ANSI/FCI 70-3 Class IV				
	40									
ACTUATOR	41	Actuator Model		Actuator Type				Diaphragm		
	42	Pilot		Pressure Tap Method				Internal		
	43	Up/Down Stream		Ext. Conn. Size		VTA		VTA		
	44	Up Inlet Valve		Down Inlet Valve		VTA		VTA		
	45	Seal Type		Spring Material				SS		
	46	Diaph. Temp. Rating		Diaph. Press. Rating		VTA		VTA		
	47	Diaphragm Material		Available D.P.		SS		VTA		
	48	Spring Range		Press. Set Point		VTA		0.2MPa		
	49	Temp. Assembly		Capillary Length		NO				
	50	Action Type		Tubing&Fitting						
	51									
ACCESS	52	Filter		Mesh Size		NO				
	53	Condenser		Check Valve		NO		NO		
	54	Inlet Gauge		Control Gauge				YES		
	55	Inlet Conn.								
PURCHASE	56	Manufacturer		PO No.						
	57	Price	SN	Item No.						

Note: 1. The SS tag plate of the vavle shall indicate the manufacturer's name, model number, serial number, size, rating, certification data and customer's tag number.

2. Flow Units of liquid and steam is kg/h. Flow Units of gas is Nm^3/h(Standard conditions is 101.325kPa, 0°C.).

3.Instrument selection shall comply with the requirements of some relevant specifications, such as SPECIFICATION FOR PROCESS PIPING MATERIALS (Doc.CMIT-240048-728-PIP-15.03-3001) & SPECIFICATION FOR MANUAL VALVES (Doc.CMIT-240048-728-PIP-15.03-3002),SPECIFICATION FOR PROCESS CONTROL VALVES(GENERAL) (Doc.CMIT-240048-728-INS-15.03-0004),etc.

4.Complete Set of Installation Accessories.

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GENERAL	1	Tag Number		P&ID No.		SRV-2838102		PCS-15.11-0021	Rev.
	2	Service				Fuel Gas Pressure Regulation			
	3	Line No.		Size and Sch.		3"-FG-28381101-1D6		3"	
	4	Pipe I.D. mm		Pipe O.D. mm		77.92		88.9	
	5	Pipe Material		Insulation		ASTM A106Gr.B(SSC&HIC)			
	6	Fire-proofing		Enclosure Protection				IP65	
PROCESS CONDITIONS	7	Process Fluid		Fluid State		Fuel Gas		Gas	
	8	Design Pressure MPa(G)		Design Temperature °C		2.2		100	
	9	Max Shut-off DP MPa(G)				1.1			
	10	Vapor Pressure MPa							
	11	Molecular Weight		Critical Pressure MPa					
	12	Compression Factor		Solid Content					
	13	Specific Heat Ratio (Cp/Cv)							
	14	Erosion	Corrosion	Oxidizing	Toxic	No	No	No	No
	15					Units	Minimum	Normal	Maximum
	16	Flow Rate				Nm^3/h	10	10	30
	17	Inlet Pressure				MPa(G)	0.9	1	1.1
	18	Outlet Pressure				MPa(G)		0.2	
	19	Operperating Temperature				°C		67~73	
	20	Operating Density/Standard Density				kg/Nm^3		0.84	
	21	Viscosity				mPa·s		0.01	
CALCULATED RESULTS	22	Flow Coefficient Cv					VTA	VTA	VTA
	23	Selected Cv		Calculation Standard		VTA		ISA 75.01	
	24	Valve Opening				%	VTA	VTA	VTA
	25	Allow. SPL dBA		Predicted SPL dBA		<85dBA@1m	VTA	VTA	VTA
BODY	26	Model		Body Size		Globe		VTA	
	27	Valve type				Outlet Self-powered Pressure Regulator，Pressure Reducing Type			
	28	Process Connections & Size				ASME B16.5 150LB RF			
	29	Body/Bonnet Material				ASTM A216 WCB(SSC&HIC)			
	30	Bonnet Type		Flow Direction		Standard		Flow Open	
	31	Packing Material		Packing Type		VTA		VTA	
	32	Finish	Isolation	Lubrication					
	33								
TRIM	34	Trim Size		Trim Form		VTA		Plunger or Cage Type	
	35	Characteristic				Linear			
	36	Plug/Ball/Disk Material				NOTE 3			
	37	Seat Material		Shaft Material		NOTE 3		NOTE 3	
	38	Cage/Guide Material				NOTE 3			
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	42	Pilot		Pressure Tap Method				Internal	
	43	Up/Down Stream		Ext. Conn. Size		VTA		VTA	
	44	Up Inlet Valve		Down Inlet Valve		VTA		VTA	
	45	Seal Type		Spring Material				SS	
	46	Diaph. Temp. Rating		Diaph. Press. Rating		VTA		VTA	
	47	Diaphragm Material		Available D.P.		SS		VTA	
	48	Spring Range		Press. Set Point		VTA		0.2MPa	
	49	Temp. Assembly		Capillary Length		NO			
	50	Action Type		Tubing&Fitting					
	51								
ACCESS	52	Filter		Mesh Size		NO			
	53	Condenser		Check Valve		NO		NO	
	54	Inlet Gauge		Control Gauge				YES	
	55	Inlet Conn.							
PURCHASE	56	Manufacturer		PO No.					
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