



NISOC

نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEET FOR ON OFF & SHUTDOWN VALVES

شماره پیمان:

053 - 073 - 9184

پروژه

پسته کاری

صادر کننده

تهیهات

120

رشته

نوع مدرک

DT

سریال

0010

نسخه

D01

شماره صفحه: 1 از 37

طرح نگهداشت و افزایش تولید 27 مخزن

DATA SHEET FOR ON OFF & SHUTDOWN VALVES

نگهداشت و افزایش تولید میدان نفتی بینک

D01	OCT.2022	IFA	P.Hajisadeghi	M.Fakharian	M.Mehrshad	
D00	MAY.2022	IFC	P.Hajisadeghi	M.Fakharian	M.Mehrshad	
Rev.	Date	Purpose of Issue / Status	Prepared by:	Checked by:	Approved by:	CLIENT Approval

Class: 2

CLIENT Doc. Number: F9Z-708931

status:

IDC: Inter-Discipline Check

IFC: Issued For Comment

IFA: Issued For Approval

AFD: Approved For Design

AFC: Approved For Construction

AFP: Approved For Purchase

AFQ: Approved For Quotation

IFI: Issued For Information

AB-R: As-Built for CLIENT Review

AB-A: As-Built -Approved



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053 - 073 - 9184

پروژه

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تسهيلات

رشته

نوع مدرک

سریال

نسخه

BK

GCS

PEDCO

120

IN

DT

0010

D01

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REVISION RECORD SHEET

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NISOC

نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEET FOR ON OFF & SHUTDOWN VALVES

شماره پیمان:

053 - 073 - 9184

پروژه

پسته کاری

صادر کننده

تسهيلات

رشته

نوع مدرک

سریال

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شماره صفحه: 3 از 37

REFERENCE DOCUMENTS :

Specification For Instrumentation

BK-GNRAL-PEDCO-000-IN-SP-0001

Process Basis Of Design

BK-GNRAL-PEDCO-000-PR-DB-0001

Piping Material Specification

BK-GCS-PEDCO-120-PI-SP-0001

Instrument & Control System Design Criteria

BK-GCS-PEDCO-120-IN-DC-0002

Specification For Hazardous Area Classification

BK-GNRAL-PEDCO-000-SA-SP-0002

Specification For On-off /Shut Down Valves(ESDV/MOV)

BK-GNRAL-PEDCO-000-IN-SP-0006



Symbol & Legend For PFD and P&ID

BK-GCS-PEDCO-120-PR-PI-0001

P&ID - Gas Compression Inlet Gas Pipeline (Binak)

BK-GCS-PEDCO-120-PR-PI-0002

P&ID - Gas Compression Inlet Gas Pipeline (Golkhari)

BK-GCS-PEDCO-120-PR-PI-0003

P&ID - Slug Catcher System

BK-GCS-PEDCO-120-PR-PI-0004

P&ID - Gas Compression Inlet Knock Out Drum

BK-GCS-PEDCO-120-PR-PI-0005

P&ID - 1st Stage Gas Compression Suction Drums

BK-GCS-PEDCO-120-PR-PI-0006

P&ID - 1st Stage Gas Compression Compressors

BK-GCS-PEDCO-120-PR-PI-0007

P&ID - 1st Stage Gas Compression Air Coolers

BK-GCS-PEDCO-120-PR-PI-0008

P&ID - 2nd Stage Gas Compression Suction Drums

BK-GCS-PEDCO-120-PR-PI-0009

P&ID - 2nd Stage Gas Compression Compressors

BK-GCS-PEDCO-120-PR-PI-0010

P&ID - 2nd Stage Gas Compression Air Coolers

BK-GCS-PEDCO-120-PR-PI-0011

P&ID - 2nd Stage Gas Compression Discharge Drum

BK-GCS-PEDCO-120-PR-PI-0012

P&ID - Gas Compression Dehydration Package

BK-GCS-PEDCO-120-PR-PI-0013

P&ID - Lean Glycol Storage Tank

BK-GCS-PEDCO-120-PR-PI-0014

P&ID - Instrument & Plant Air System

BK-GCS-PEDCO-120-PR-PI-0015

P&ID - Nitrogen Generation System

BK-GCS-PEDCO-120-PR-PI-0016

P&ID - Close Drain System

BK-GCS-PEDCO-120-PR-PI-0017

P&ID - Corrosion Inhibitor Package

BK-GCS-PEDCO-120-PR-PI-0018

P&ID - Methanol Injection Package

BK-GCS-PEDCO-120-PR-PI-0019

P&ID - LP Flare System

BK-GCS-PEDCO-120-PR-PI-0020

P&ID - Oily Water Sewer

BK-GCS-PEDCO-120-PR-PI-0021

P&ID - Fuel Gas System

BK-GCS-PEDCO-120-PR-PI-0022

P&ID - Diesel Oil System

BK-GCS-PEDCO-120-PR-PI-0023

P&ID - Potable Water System

BK-GCS-PEDCO-120-PR-PI-0024

P&ID - Glycol Sump Drum

BK-GCS-PEDCO-120-PR-PI-0025

P&ID - Fire Water Network

BK-GCS-PEDCO-120-SA-PI-0001

P&ID - Total Flooding System For Extension of Existing Elect. Building

BK-GCS-PEDCO-120-SA-PI-0002

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	DATA SHEET FOR ON OFF & SHUTDOWN VALVES								
شماره پیمان:	پروژه	بسته کاری	صادر کننده	تجهیزات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: 4 از 37
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GENERAL NOTES:

- Calculations shall be provided for each completely piped actuated valve assembly (including solenoid valve), the stroking times i.e. to close and to open.
- The duty, failure action and stroke time shall all be approved by the Purchaser.
- The actuator shall be designed to operate the valve through its full stroke.

4. The maximum valve stroking time to achieve the safety position shall be defined according to size of the body (5 seconds for body until 4", 1 second per inch for body greater than 4"). The maximum fully stroke time shall be 10 seconds.

D01

5. The piping indicates corrosion allowance selected as per document "Piping & Pipeline Material Specification, No. " BK-GCS-PEDCO-120-PI-SP-0001 "

6. Hydro-test duration shall be in accordance with API 6D.

7. All ball valves shall be fitted with suitable 'end of travel' stops at the fully open and fully closed positions and a local position indicator . The design shall prevent the ingress of foreign material and corrosion products which would impair the operation of the stops. Devices capable of locking the valves in their safe position (ESDV in open or closed position) shall be provided for maintenance and shall be vendor's standard proven design.

8. Vendor shall guarantee and demonstrate the required stroking speed, during the Functional Test (FAT).

9. All accessories shall be mounted, together with solenoid valve, etc, on a 316SS sub-plate. Tubing shall be suitably sized TP 316L stainless steel with stainless steel double ferrule compression fittings

10. Solenoid valve shall be selected in accordance with low power type.

11. All on/off valves shall be preferably fitted with single acting, spring return pneumatic actuators, completed with mounting kit. Also Partial Stroking test or pilot valve to be considered.

12. The actuator shall be fail safe in operation (as specified in data sheets) in loss of electrical signal or loss of air supply.

13. The spring return actuator shall be "pre stressed".

14. Pneumatic actuators will be sized on the basis of a minimum safety factor of 1.5 and a minimum air pressure of 3 Bar g.
The valve actuator torque shall be in excess of the required valve torque under all operating conditions.

15. All actuators and accessories shall be clearly and permanently identified by nameplate. the nameplate shall be in stainless steel and affixed to the VALVE, actuator and accessories.

16 - Environmental condition for field instrumentation of Binak Oilfield shall be considered as per the followings:

Maximum ambient temperature: 50 (°C)
Minimum ambient temperature: 5 (°C)
Maximum steel surface exposed to sun: 85 (°C)
Maximum summer dry bulb: 50 (°C)
DB/RH for Summer HVAC Design: 41 °C / 61 %
DB FOR Winter HVAC Design: 6 °C

D01

Relative Humidity:

- Maximum Design relative humidity (%): 100
- Minimum Design relative humidity (%): 0

17 - Material Test Certificate and calibration Certificate for all transmitters to be submitted by Vendor.

18 - Flow direction shall be permanently and clearly indicated on the valve body.

D01

19- External grounding shall be provided for each solenoid valve.

D01

20- BDV's shall have a minimum body size of 2" with tight shutoff (ANSI B16.104, class VI), air volume tanks for larger valves and should be sized for three full open/ closed operations at 3-barg instrument air pressure.

21- Valves in safety related services should have been fire tested and certification to be provided by Vendor.

D01

22- Seat rings shall be spring loaded and so designed that line pressure will assist in sealing round the ball.

23- Valve stem extension shall be detachable for easy replacements.

24- At least two stem seals shall be provided with facility for injection of secondary sealant and with stainless steel fittings.

25- Stem seal shall be replaceable while the valve is in closed operation position.

D01

26- Short stroke single acting pneumatic piston actuators shall preferably be used on emergency shutdown service.

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک						 گروه ترابری دریایی		 IRGC		 TE		
		Data Sheets For ON/OFF & Shutdown Valves												
شماره پیمان:		شماره صفحه: 37 از 5	نسخه	سریال	نوع مدرک	رشته	تهیهات	صادر کننده	بسته کاری	پروژه				
053 - 073 - 9038			D01	0010	DT	IN	120	PEDCO	GCS	BK				
On-Off Valve														
TAG NO:  ESDV-2101			P&ID NO : BK-GCS-PEDCO-120-PR-PI-0002_D04				SERVICE: Gas Compression Inlet Gas Pipeline (Binak)							
FLUID STATE: PROCESS GAS			PHASE: GAS				AREA CLASSIFICATION: Zone2, IIB, T4							
SERVICE CONDITION							UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off			
	1	FLOW RATE					kg/h	-	6564	-	-			
	2	INLET PRESSURE					bar(g)	-	7.5	-	-			
	3	OUTLET PRESSURE					bar(g)	-	7.5	-	-			
	4	DIFFERENTIAL PRESSURE					bar(g)	-	-	-	18.2			
	5	INLET TEMPERATURE					°C	-	46.11	-	-			
	6	DENSITY					kg/m3	-	6.66	-	-			
	7	VISCOSITY					CP	-	0.011	-	-			
	8	VAPOR PRESSURE Pv					bar(a)	-	-	-	-			
9	CRITICAL PRESSURE					bar(a)	-	-	-	-				
LINE	10	PIPE LINE SIZE & SCHEDULE	IN	6"	80		53	TYPE	Single Acting , Spring Return					
			OUT	6"	80		54	SIZE	VTA					
	11	PIPING CLASS/PIPE LINE INSULATION	OUT	AN07 / Painted (Brilliant Green)			55	SPRING FAIL ACTION	Fail to Close					
VALVE BODY & BONNET	12	TYPE	OUT	Full Bore Ball Valve/Trunnion Mounted			56	MAX ALLOWABLE PRESSURE	VTA					
	13	SIZE	OUT	6"			57	MIN REQUIRES PRESSURE	VTA					
	14	MAX PRESS./TEMP	OUT	As per PMS			58	AVAILABLE AIR SUPPLY PRESSURE	MAX/NOR/MIN: 10/7/3 bar-g					
	15	MFR. & MODEL	OUT	Will be finalized later			59	BENCH RANGE	VTA					
	16	BODY / BONNET MATL	OUT	ASTM A216 Gr. WCB			60	TRAVELING TIME	6 S					
	17	LINER MATERIAL / ID	OUT	VTA			61	FUNCTION	On/Off					
	18	END CONNECTION	IN	6" /300#			62	LOCAL POSITION INDICATOR	Required					
			OUT	6" /300#			63	ACT. ORIENTATION	VTA					
	19	FLG FACE FINISH			RF		64	HAND WHEEL TYPE	Clutchable side mounted					
	20	END EXT./MATL.			N/A		65	ADJUSTABLE LIMIT STOP	Yes					
	21	FLOW DIRECTION			(Note 18 in Page 4)		66	INPUT SIGNAL	24VDC					
	22	TYPE OF BONNET			Standard		67	MFR. & MODEL	Will be finalized later					
	23	LUBE & ISO VALVE			No		68	TYPE	N/A					
	24	PACKING MATERIAL	PACKING TYPE	PTFE		Standard	69	MFR. & MODEL	Will be finalized later					
	25	ENTRY DESIGN			Top Entry		70	ON INCR SIGNAL OUTPUT INCR / DECR	N/A					
	26	NACE REQUIREMENT	NACE (MR-0175/ISO 15156)			YES	71	GAUGES	N/A					
TRIM	27	TRIM	TYP	MATERIAL	VTA	316 SS+ PTFE	72	CAM CHARACTERISTIC	N/A					
	28	SIZE	RATED TRAVEL	VTA		VTA	73	AIR CONNECTION	N/A					
	29	CHARACTERISTICS			On/Off		74	TAG NO. :	EZSC-2101 / EZSO-2101					
	30	BALANCED / UNBALANCED			VTA		75	TYPE	QUANTITY	Magnetically operated 'REED' contacts			2	
	31	RATED Cv	FL	XT	VTA	VTA		76	CONTACTS / RATING	110V DC , 10A				
	32	PLUG / BALL / DISK MATERIAL			316 SS		77	ACTUATION POINT	Fully Open/Close					
	33	SEAT	TYP	MATERIAL	Soft Seat	PTFE	78	ENCLOSURE MATERIAL	Die Cast Amuluminum					
	34	CAGE / GUIDE MATERIAL			VTA		79	WEATHER PROTECTION	IP-65					
SOLENOID VALVE	35	STEM	TYP	MATERIAL	Anti-Blow Out	316 SS	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d", IIB T4	ISO M20 x 1.5			
	36	LEAKAGE CLASS			ANSI Class VI		81	MFR. & MODEL	Will be finalized later					
	37	VALVE STEM EXTENSION REQUIREMENT			YES		82	SET PRESSURE	Yes					
	38	TAG NO			ESOV-2101		83	PNEUMATIC CONNECTION	1/4" NPT					
	39	TYPE			3 Way		84	GAUGES	FILTER	Required	Required			
	40	BODY MATERIAL	WEATHER IP.	AISI 316 S.S		IP-65	85	MFR. & MODEL	Will be finalized later					
	41	ELE. CERTIFICATE	ELE. CONNECTION	EEx "d", IIB T4		ISO M20 x 1.5	86	ANSIFCI LEAKAGE CLASS	Required					
	42	MANUAL RESET			Yes		87	HYDRO PRESSURE	Required					
	43	Power Supply			24 VDC		88	FUNCTIONAL TEST	Required					
	44	Pnu. Connection			1/4" NPT		89							
	45	FUSIBLE LEAKAGE			No		90							
	46	BLOCK RELAY			No		91							
SPECIAL / ACCESS.	47	QUICK EXHUST			Yes		92	PASSIVE FIRE PROTECTION	Yes					
	48	FILTER REGULATOR			Yes		93	API 6FA REQUIREMENTS	Yes					
	49	VOLUME TANK			No		94	SIL 3 REQUIREMENTS	Yes					
	50	MECHANICAL POSITION INDICATOR			Required		95	PARTIAL STROKING VALVE TEST	Yes					
51	MANUAL PNEUMATIC BYPASS VALVE FOR SOLENOID VALVE			Yes		96								
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONFIRM (1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage. (4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID														

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		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک									
شماره پیمان: 053 - 073 - 9038		شماره پروژه	پشته کاری	صادر کننده	تسهيلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: 6 از 37	
		BK	GCS	PEDCO	120	IN	DT	0010	D01		
On-Off Valve											
TAG NO:  ESDV-2102		P&ID NO :			BK-GCS-PEDCO-120-PR-PI-0003-D04				SERVICE: Gas Compression Inlet Gas Pipeline (Golghari)		
FLUID STATE: PROCESS GAS		PHASE:			GAS				AREA CLASSIFICATION: Zone2, IIB, T4		
SERVICE CONDITION							UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
	1	FLOW RATE					kg/h	-	11269	-	-
	2	INLET PRESSURE					bar(g)	-	7.5	-	-
	3	OUTLET PRESSURE					bar(g)	-	7.5	-	18.2
	4	DIFFERENTIAL PRESSURE					bar(g)	-	-	-	-
	5	INLET TEMPERATURE					°C	-	32	-	-
	6	DENSITY					kg/m3	-	6.21	-	-
	7	VISCOSITY					CP	-	0.011	-	-
	8	VAPOR PRESSURE Pv					bar(a)	-	N.A.	-	-
	CRITICAL PRESSURE					bar(a)	-	N.A.	-	-	
LINE	10	PIPE LINE SIZE & SCHEDULE		IN	8"	100		53	TYPE		Single Acting , Spring Return
				OUT	8"	100			54	SIZE	
	11	PIPING CLASS/PIPE LINE INSULATION		FN05 / Painted (Brilliant Green)				55	SPRING FAIL ACTION		Fail to Close
VALVE BODY & BONNET	12	TYPE		Full Bore Ball Valve/Trunion Mounted				56	MAX ALLOWABLE PRESSURE		VTA
	13	SIZE		8"				57	MIN REQUIRES PRESSURE		VTA
	14	MAX PRESS./TEMP		As per PMS				58	AVAILABLE AIR SUPPLY PRESSURE		MAX/NOR/MIN: 10/7/3 bar-g
	15	MFR. & MODEL		Will be finalized later				59	BENCH RANGE		VTA
	16	BODY / BONNET MATL		ASTM A216 Gr. WCB				60	TRAVELING TIME		9 S
	17	LINER MATERIAL / ID		VTA				61	FUNCTION		On/Off
	18	END CONNECTION	IN	8"	/600#			62	LOCAL POSITION INDICATOR		Required
		OUT	8"	/600#				63	ACT. ORIENTATION		VTA
	19	FLG FACE FINISH		RF				64	HAND WHEEL TYPE		Clutchable side mounted
	20	END EXT./MATL.		N/A				65	ADJUSTABLE LIMIT STOP		Yes
	21	FLOW DIRECTION		(Note 18 in Page 4)				66	INPUT SIGNAL		24VDC
	22	TYPE OF BONNET		Standard				67	MFR. & MODEL		Will be finalized later
	23	LUBE & ISO VALVE		No				68	TYPE		N/A
	PACKING TYPE	24	PACKING MATERIAL		PTFE		Standard		69	MFR. & MODEL	
25		ENTRY DESIGN		Top Entry				70	ON INCR SIGNAL OUTPUT INCR / DECR		N/A
26		NACE REQUIREMENT NACE (MR-0175/ISO 15156)		YES				71	GAUGES		N/A
TRIM	27	TRIM	TYPE	MATERIAL	VTA	316 SS+RPTFE		72	CAM CHARACTERISTIC		N/A
	28	SIZE	RATED TRAVEL		VTA	VTA		73	AIR CONNECTION		N/A
	29	CHARACTERISTICS		On/Off				74	TAG NO. :		EZSC-2102 / EZSO-2102
	30	BALANCED / UNBALANCED		VTA				75	TYPE	QUANTITY	Magnetically operated 'REED' contacts 2
	31	RATED Cv	FL	XT	VTA	VTA		76	CONTACTS / RATING		110V DC , 10A
	32	PLUG / BALL / DISK MATERIAL		316 SS				77	ACTUATION POINT		Fully Open/Close
	33	SEAT	TYPE	MATERIAL	Soft Seat	PTFE		78	ENCLOSURE MATERIAL		Die Cast Amuluminum
	34	CAGE / GUIDE MATERIAL		VTA				79	WEATHER PROTECTION		IP-65
	35	STEM	TYPE	MATERIAL	Anti-Blow Out	Forged, 13% chromium steel		80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4 ISO M20 x 1.5
	36	LEAKAGE CLASS		ANSI Class VI				81	MFR. & MODEL		Will be finalized later
SOLENOID VALVE	37	VALVE STEM EXTENSION REQUIREMENT		YES				82	SET PRESSURE		Yes
	38	TAG NO		ESOV-2102				83	PNEUMATIC CONNECTION		1/4" NPT
	39	TYPE		3 Way				84	GAUGES	FILTER	Required Required
	40	BODY MATERIAL		WEATHER IP.		AISI 316 S.S	IP-65	85	MFR. & MODEL		Will be finalized later
	41	ELE. CERTIFICATE	ELEC. CONNECTION		EEx "d" ,IIB T4	ISO M20 x 1.5		86	ANSI/FCI LEAKAGE CLASS		Required
	42	MANUAL RESET		Yes				87	HYDRO PRESSURE		Required
	43	Power Supply		24 VDC				88	FUNCTIONAL TEST		Required
	44	Pnu. Connection		1/4" NPT				89			
SPECIAL / ACCESS.	45	FUSIBLE LEAKAGE		No				90			
	46	BLOCK RELAY		No				91			
	47	QUICK EXHUST		Yes				92	PASSIVE FIRE PROTECTION		Yes
	48	FILTER REGULATOR		Yes				93	API 6FA REQUIREMENTS		Yes
	49	VOLUME TANK		No				94	SIL 3 REQUIREMENTS		Yes
	50	MECHANICAL POSITION INDICATOR		Required				95	PARTIAL STROKING VALVE TEST		Yes
	51	MANUAL PNEUMATIC BYPASS VALVE FOR SOLENOID		Yes				96			
	52	VALVE									
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONFIRM (1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage. (4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID											

 NISOC		تکه‌داشت و افزایش تولید میدان نفتی بینک سطح الارض							 			
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک										
شماره پیمان: 053 - 073 - 9038		Data Sheets For ON/OFF & Shutdown Valves							شماره صفحه: 7 از 37			
		نسخه	0010	DT	IN	120	صادر کننده	پسته کاری				
On-Off Valve												
TAG NO: ESDV-2111		P&ID NO :		BK-GCS-PEDCO-120-PR-PI-0004 (1 of 3)					SERVICE: Slug Catcher System			
FLUID STATE: PROCESS GAS		PHASE:		GAS					AREA CLASSIFICATION: Zone2, IIB, T4			
SERVICE CONDITION								UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
	1	FLOW RATE						kg/h	-	356213	-	-
	2	INLET PRESSURE						bar(g)	-	5.5	-	-
	3	OUTLET PRESSURE						bar(g)	-	5.5	-	-
	4	DIFFERENTIAL PRESSURE						bar(g)	-	-	-	9
	5	INLET TEMPERATURE						°C	-	32	-	-
	6	DENSITY						kg/m3	-	694.9	-	-
	7	VISCOSITY						CP	-	0.449	-	-
	8	VAPOR PRESSURE Pv						bar(a)	-	-	-	-
9	CRITICAL PRESSURE						bar(a)	-	-	-	-	
LINE	10	PIPE LINE SIZE & SCHEDULE		IN	14"	40		ACTUATOR	53	TYPE		Single Acting , Spring Return
				OUT	14"	40			54	SIZE		VTA
	11	PIPING CLASS/PIPE LINE INSULATION		AS00 / Painted (Brilliant Green)					55	SPRING FAIL ACTION		Fail to Close
VALVE BODY & BONNET	12	TYPE		Full Bore Ball Valve/Trunion Mounted				56	MAX ALLOWABLE PRESSURE		VTA	
	13	SIZE		10"				57	MIN REQUIRES PRESSURE		VTA	
	14	MAX PRESS./TEMP		As per PMS				58	AVAILABLE AIR SUPPLY PRESSURE		MAX/NOR/MIN: 10/7/3 bar-g	
	15	MFR. & MODEL		Will be finalized later				59	BENCH RANGE		VTA	
	16	BODY / BONNET MATL		ASTM A216 WCB				60	TRAVELING TIME		10 S	
	17	LINER MATERIAL / ID		VTA				61	FUNCTION		On/Off	
	18	END CONNECTION	IN	14"	150#			62	LOCAL POSITION INDICATOR		Required	
		OUT	14"	150#				63	ACT. ORIENTATION		VTA	
	19	FLG FACE FINISH		RF				64	HAND WHEEL TYPE		Clutchable side mounted	
	20	END EXT./MATL.		N/A				65	ADJUSTABLE LIMIT STOP		Yes	
	21	FLOW DIRECTION		N/A				66	INPUT SIGNAL		24VDC	
	22	TYPE OF BONNET		Standard				67	MFR. & MODEL		Will be finalized later	
	23	LUBE & ISO VALVE		No				68	TYPE		N/A	
	TRIM	24	PACKING MATERIAL	PACKING TYPE	PTFE		Standard		69	MFR. & MODEL		Will be finalized later
25		ENTRY DESIGN		Top Entry				70	ON INCR SIGNAL OUTPUT INCR / DECR		N/A	
26		NACE REQUIREMENTNACE (MR-0175/ISO 15156)		YES				71	GAUGES		N/A	
27		TRIM	TYPE	MATERIAL	VTA		316 SS+ PTFE	72	CAM CHARACTERISTIC		N/A	
SOLENOID VALVE	28	SIZE	RATED TRAVEL	VTA		VTA		73	AIR CONNECTION		N/A	
	29	CHARACTERISTICS		On/Off				74	TAG NO. :		EZSC-2111 / EZSO-2111	
	30	BALANCED / UNBALANCED		VTA				75	TYPE	QUANTITY	Magnetically operated "REED" contacts 2	
	31	RATED Cv	FL	XT	VTA	VTA		VTA	76	CONTACTS / RATING		110V DC , 10A
	32	PLUG / BALL / DISK MATERIAL		316 SS				77	ACTUATION POINT		Fully Open/Close	
	33	SEAT	TYPE	MATERIAL	Soft Seat		PTFE		78	ENCLOSURE MATERIAL		Die Cast Aluminum
	34	CAGE / GUIDE MATERIAL		VTA				79	WEATHER PROTECTION		IP-65	
	35	STEM	TYPE	MATERIAL	Anti-Blow Out		13% chromium steel	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" , IIB T4 ISO M20 x 1.5	
	36	LEAKAGE CLASS		ANSI Class VI				81	MFR. & MODEL		Will be finalized later	
	37	VALVE STEM EXTENSION REQUIREMENT		YES				82	SET PRESSURE		Yes	
SPECIAL / ACCESS.	38	TAG NO		ESOV-2111				83	PNEUMATIC CONNECTION		1/4" NPT	
	39	TYPE		3 Way				84	GAUGES	FILTER	Required Required	
	40	BODY MATERIAL		WEATHER IP.		AISI 316 S.S	IP-65	85	MFR. & MODEL		Will be finalized later	
	41	ELE. CERTIFICATE	ELE. CONNECTION	EEx "d" , IIB T4		ISO M20 x 1.5		86	ANSI/FCI LEAKAGE CLASS		Required	
	42	MANUAL RESET		Yes				87	HYDRO PRESSURE		Required	
	43	Power Supply		24 VDC				88	FUNCTIONAL TEST		Required	
	44	Pno. Connection		1/4" NPT				89				
	45	FUSIBLE LEAKAGE		No				90				
FIRE PROOF DESIGN	46	BLOCK RELAY		No				91				
	47	QUICK EXHUST		Yes				92	PASSIVE FIRE PROTECTION		Yes	
	48	FILTER REGULATOR		Yes				93	API 6FA REQUIREMENTS		Yes	
	49	VOLUME TANK		No				94	SIL 3 REQUIREMENTS		Yes	
	50	MECHANICAL POSITION INDICATOR		Required				95	PARTIAL STROKING VALVE TEST		Yes	
	51	MANUAL PNEUMATIC BYPASS VALVE FOR SOLENOID VALVE		Yes				96				
	52											
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONFIRM (1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage. (4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID												

 NISOC		تگه‌داشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							 					
		Data Sheets For ON/OFF & Shutdown Valves												
شماره پیمان: 053 - 073 - 9038		نسخه: D01	سریال: 0010	نوع مدرک: DT	رشته: IN	تجهیزات: 120	صادر کننده: PEDCO	پسته کاری: GCS	پروژه: BK	شماره صفحه: 9 از 37				
On-Off Valve														
TAG NO:  ESDV-2113		P&ID NO: BK-GCS-PEDCO-120-PR-PI-0005-D04 (1 of 1)			SERVICE: Gas Compression Inlet Knock Out Drum to Closed Drain									
FLUID STATE: PROCESS GAS		PHASE: GAS			AREA CLASSIFICATION: Zone2, IIB, T4									
SERVICE CONDITION							UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off			
	1	FLOW RATE					kg/h	-	900	-	-			
	2	INLET PRESSURE					bar(g)	-	5.3	-	-			
	3	OUTLET PRESSURE					bar(g)	-	5.3	-	-			
	4	DIFFERENTIAL PRESSURE					bar(g)	-	-	-	9			
	5	INLET TEMPERATURE					°C	-	37.17	-	-			
	6	DENSITY					kg/m3	-	842.6	-	-			
	7	VISCOSITY					CP	-	0.69	-	-			
	8	VAPOR PRESSURE Pv					bar(a)	-	-	-	-			
9	CRITICAL PRESSURE					bar(a)	-	-	-	-				
LINE	10	PIPE LINE SIZE & SCHEDULE		IN	2" SCH.10S		53	TYPE		Single Acting , Spring Return				
				OUT	2" SCH.10S			54	SIZE		VTA			
VALVE BODY & BONNET	11	PIPING CLASS/PIPE LINE INSULATION			AS00 / Painted (Brilliant Green)			55	SPRING FAIL ACTION			Fail to Close		
	12	TYPE			Full Bore Ball Valve/Trunion Mounted			56	MAX ALLOWABLE PRESSURE			VTA		
	13	SIZE			2"			57	MIN REQUIRES PRESSURE			VTA		
	14	MAX PRESS./TEMP			As per PMS			58	AVAILABLE AIR SUPPLY PRESSURE			MAX/NOR/MIN: 10/7/3 bar-g		
	15	MFR. & MODEL			Will be finalized later			59	BENCH RANGE			VTA		
	16	BODY / BONNET MATL			ASTM A351 GR.CF3M			60	TRAVELING TIME			5 S		
	17	LINER MATERIAL / ID			VTA			61	FUNCTION			On/Off		
	18	END CONNECTION		IN	2" /300#		62	LOCAL POSITION INDICATOR			Required			
				OUT	2" /300#		63	ACT. ORIENTATION			VTA			
	19	FLG FACE FINISH			RF			64	HAND WHEEL TYPE			Clutchable side mounted		
	20	END EXT./MATL.			N/A			65	ADJUSTABLE LIMIT STOP			Yes		
	21	FLOW DIRECTION			(Note 18 in Page 4)			66	INPUT SIGNAL			24VDC		
	22	TYPE OF BONNET			Standard			67	MFR. & MODEL			Will be finalized later		
	23	LUBE & ISO VALVE			No			68	TYPE			N/A		
	24	PACKING MATERIAL		PACKING TYPE	PTFE		69		MFR. & MODEL			Will be finalized later		
	25	ENTRY DESIGN			Top Entry				70	ON INCR SIGNAL OUTPUT INCR / DECR			N/A	
	26	NACE REQUIREMENT NACE (MR-0175/ISO 15156)			YES			71	GAUGES			N/A		
	TRIM	27	TRIM	TYPE	MATERIAL	VTA		72	CAM CHARACTERISTIC			N/A		
28		SIZE	RATED TRAVEL		VTA		73	AIR CONNECTION			N/A			
29		CHARACTERISTICS			On/Off			74	TAG NO. :			EZSC-2113 / EZSO-2113		
30		BALANCED / UNBALANCED			VTA			75	TYPE	QUANTITY	Magnetically operated 'REED' contacts 2			
31		RATED Cv	FL	XT	VTA	VTA		VTA	76	CONTACTS / RATING			110V DC , 10A	
32		PLUG / BALL / DISK MATERIAL			316 SS			77	ACTUATION POINT			Fully Open/Close		
33		SEAT	TYPE	MATERIAL	Soft Seat		78	ENCLOSURE MATERIAL			Die Cast Amulimum			
34		CAGE / GUIDE MATERIAL			VTA			79	WEATHER PROTECTION			IP-65		
35		STEM	TYPE	MATERIAL	Anti-Blow Out		316 SS	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" , IIB T4 ISO M20 x 1.5			
36		LEAKAGE CLASS			ANSI Class VI			81	MFR. & MODEL			Will be finalized later		
SOLENOID VALVE	37	VALVE STEM EXTENSION REQUIREMENT			YES			82	SET PRESSURE			Yes		
	38	TAG NO			ESOV-2113			83	PNEUMATIC CONNECTION			1/4" NPT		
	39	TYPE			3 Way			84	GAUGES	FILTER	Required	Required		
	40	BODY MATERIAL		WEATHER IP.	AISI 316 S.S		IP-65	85	MFR. & MODEL			Will be finalized later		
	41	ELE. CERTIFICATE	ELE. CONNECTION	EEx "d" , IIB T4		ISO M20 x 1.5	86	ANSI/FCI LEAKAGE CLASS			Required			
	42	MANUAL RESET			Yes			87	HYDRO PRESSURE			Required		
	43	Power Supply			24 VDC			88	FUNCTIONAL TEST			Required		
	44	Pnu. Connection			1/4" NPT			89						
SPECIAL / ACCESS.	45	FUSIBLE LEAKAGE			No			90						
	46	BLOCK RELAY			No			91						
	47	QUICK EXHUST			Yes			92	PASSIVE FIRE PROTECTION			Yes		
	48	FILTER REGULATOR			Yes			93	API 6FA REQUIREMENTS			Yes		
	49							94	SIL 3 REQUIREMENTS			Yes		
	50	VOLUME TANK			No			95	PARTIAL STROKING VALVE TEST			Yes		
	51	MECHANICAL POSITION INDICATOR			Required			96						
	52	MANUAL PNEUMATIC BYPASS VALVE FOR SOLENOID VALVE			Yes									
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONIFRM (1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage. (4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID														

 NISOC		تکه‌داشت و افزایش تولید میدان نفتی بینک سطح الارض							 				
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک											
شماره پیمان: 053 - 073 - 9038		نسخه: D01	سریال: 0010	نوع مدرک: DT	رشته: IN	تسهیلات: 120	صادر کننده: PEDCO	بسته کاری: GCS	پروژه: BK	شماره صفحه: 10 از 37			
On-Off Valve													
TAG NO: XV-2110 D01		P&ID NO: BK-GCS-PEDCO-120-PR-PI-0005-D04		SERVICE: Gas Compression Inlet Knock Out Drum to Flare Header									
FLUID STATE: PROCESS GAS		PHASE: GAS		AREA CLASSIFICATION: Zone2, IIB, T4									
SERVICE CONDITION							UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off		
	1	FLOW RATE					kg/h	-	505.8	-	-		
	2	INLET PRESSURE					bar(g)	-	5.3	-	-		
	3	OUTLET PRESSURE					bar(g)	-	5.3	-	-		
	4	DIFFERENTIAL PRESSURE					bar(g)	-	-	-	9		
	5	INLET TEMPERATURE					°C	-	37.17	-	-		
	6	DENSITY					kg/m3	-	5.96	-	-		
	7	VISCOSITY					CP	-	0.011	-	-		
	8	VAPOR PRESSURE Pv					bar(a)	-	-	-	-		
9	CRITICAL PRESSURE					bar(a)	-	-	-	-			
LINE	10	PIPE LINE SIZE & SCHEDULE		IN	2" 160		53	TYPE		Double Acting , Spring Return			
				OUT	2" 160			54	SIZE		VTA	VTA	
VALVE BODY & BONNET	11	PIPG CLASS/PIPE LINE INSULATION			AN07 / Painted (Brilliant Green)			55	SPRING FAIL ACTION			Fail to Close	
	12	TYPE			Full Bore Ball Valve/Trunnion Mounted			56	MAX ALLOWABLE PRESSURE			VTA	
	13	SIZE			2"			57	MIN REQUIRES PRESSURE			VTA	
	14	MAX PRESS./TEMP			As per PMS			58	AVAILABLE AIR SUPPLY PRESSURE			MAX/NOR/MIN: 10/7/3 bar-g	
	15	MFR. & MODEL			Will be finalized later			59	BENCH RANGE			VTA	
	16	BODY / BONNET MATL			ASTM A216 Gr. WCB			60	TRAVELING TIME			5 S	
	17	LINER MATERIAL / ID			VTA			61	FUNCTION			On/Off	
	18	END CONNECTION	IN	2"/300#		2"/300#	62	LOCAL POSITION INDICATOR			Required		
		OUT			63		ACT. ORIENTATION			VTA			
	19	FLG FACE FINISH			RF			64	HAND WHEEL TYPE			Clutchable side mounted	
	20	END EXT./MATL			N/A			65	ADJUSTABLE LIMIT STOP			Yes	
	21	FLOW DIRECTION			(Note 18 in Page 4)			66	INPUT SIGNAL			24VDC	
	22	TYPE OF BONNET			Standard			67	MFR. & MODEL			Will be finalized later	
	23	LUBE & ISO VALVE			No			68	TYPE			N/A	
	24	PACKING MATERIAL	PACKING TYPE		PTFE		Standard	69	MFR. & MODEL			Will be finalized later	
	25	ENTRY DESIGN			Top Entry			70	ON INCR SIGNAL OUTPUT INCR / DECR			N/A	
26	NACE REQUIREMENT/NACE (MR-0175/ISO 15156)			YES			71	GAUGES			N/A		
TRIM	27	TRIM	TYPE	MATERIAL		VTA	316 SS+PTFE	72	CAM CHARACTERISTIC			N/A	
	28	SIZE	RATED TRAVEL		VTA		VTA	73	AIR CONNECTION			N/A	
	29	CHARACTERISTICS			On/Off			74	TAG NO. :			XZSC-2110 / XZSO-2110	
	30	BALANCED / UNBALANCED			VTA			75	TYPE	QUANTITY	Magnetically operated 'REED' contacts	2	
	31	RATED Cv	FL	XT	VTA	VTA		VTA	76	CONTACTS / RATING			110V DC , 10A
	32	PLUG / BALL / DISK MATERIAL			316 SS			77	ACTUATION POINT			Fully Open/Close	
	33	SEAT	TYPE	MATERIAL		Soft Seat	PTFE	78	ENCLOSURE MATERIAL			Die Cast Alumilum	
	34	CAGE / GUIDE MATERIAL			VTA			79	WEATHER PROTECTION			IP-65	
35	STEM	TYPE	MATERIAL		Anti-Blow Out	316 SS	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 × 1.5		
36	LEAKAGE CLASS			ANSI Class VI			81	MFR. & MODEL			Will be finalized later		
37	VALVE STEM EXTENSION REQUIREMENT			YES			82	SET PRESSURE			Yes		
SOLENOID VALVE	38	TAG NO			PSOV-2110			83	PNEUMATIC CONNECTION			1/4" NPT	
	39	TYPE			3 Way			84	GAUGES	FILTER	Required	Required	
	40	BODY MATERIAL	WEATHER IP.		AISI 316 S.S		IP-65	85	MFR. & MODEL			Will be finalized later	
	41	ELE. CERTIFICATE	ELE. CONNECTION		EEx "d" ,IIB T4		ISO M20 × 1.5	86	ANSI/FCI LEAKAGE CLASS			Required	
	42	MANUAL RESET			Yes			87	HYDRO PRESSURE			Required	
	43	Power Supply			24 VDC			88	FUNCTIONAL TEST			Required	
	44	Pnu. Connection			1/4" NPT								
SPECIAL / ACCESS.	45	FUSIBLE LEAKAGE			No								
	46	BLOCK RELAY			No								
	47	QUICK EXHUST			Yes								
	49	FILTER REGULATOR			Yes								
	50	VOLUME TANK			Yes								
	51	MECHANICAL POSITION INDICATOR			Required								
	52	MANUAL/PNEUMATIC BYPASS VALVE FOR SOLENOID VALVE			Yes								
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONFIRM (1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage. (4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID													

 NISOC		تکه‌داشت و افزایش تولید میدان نفتی بینک سطح الارض							 						
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک													
		Data Sheets For ON/OFF & Shutdown Valves													
شماره پیمان: 053 - 073 - 9038		نسخه	سریال	نوع مدرک	رشته	تهیلات	صادر کننده	پسته کاری	پروژه	شماره صفحه: 11 از 37					
		D01	0010	DT	IN	120	PEDCO	GCS	BK						
On-Off Valve															
TAG NO:  XV-2121A		P&ID NO :		BK-GCS-PEDCO-120-PR-PI-0006-D04 (1 of 3)						SERVICE: 1st Stage Gas Compression Suction Drums					
FLUID STATE: PROCESS GAS		PHASE:		GAS						AREA CLASSIFICATION: Zone2, IIB, T4					
SERVICE CONDITION										UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off	
	1	FLOW RATE								kg/h	-	8664	-	-	
	2	INLET PRESSURE								bar(g)	-	5.1	-	-	
	3	OUTLET PRESSURE								bar(g)	-	5.1	-	-	
	4	DIFFERENTIAL PRESSURE								bar(g)	-	-	-	FV/9	
	5	INLET TEMPERATURE								°C	-	36.92	-	-	
	6	DENSITY								kg/m3	-	5.96	-	-	
	7	VISCOSITY								CP	-	0.011	-	-	
	8	VAPOR PRESSURE Pv								bar(a)	-	-	-	-	
9	CRITICAL PRESSURE								bar(a)	-	-	-	-		
LINE	10	PIPE LINE SIZE & SCHEDULE		IN	8" 60					53	TYPE		Double Acting , Spring Return		
				OUT	8" 60					54	SIZE		VTa	VTa	
	11	PIPG CLASS/PIPE LINE INSULATION		AN07 / Painted (Brilliant Green)							55	SPRING FAIL ACTION		Fail to Close	
VALVE BODY & BONNET	12	TYPE		Full Bore Ball Valve/Trunnion Mounted							56	MAX ALLOWABLE PRESSURE		VTa	
	13	SIZE		8"							57	MIN REQUIRES PRESSURE		VTa	
	14	MAX PRESS./TEMP		As per PMS							58	AVAILABLE AIR SUPPLY PRESSURE		MAX/NOR/MIN: 10/7/3 bar-g	
	15	MFR. & MODEL		Will be finalized later							59	BENCH RANGE		VTa	
	16	BODY / BONNET MATL		ASTM A216 Gr. WCB							60	TRAVELING TIME		9 s	
	17	LINER MATERIAL / ID		VTa							61	FUNCTION		On/Off	
	18	END CONNECTION	IN	8"/300#					62	LOCAL POSITION INDICATOR		Required			
			OUT	8"/300#					63	ACT. ORIENTATION		VTa			
	19	FLG FACE FINISH		RF							64	HAND WHEEL TYPE		Clutchable side mounted	
	20	END EXT./MATL		N/A							65	ADJUSTABLE LIMIT STOP		Yes	
	21	FLOW DIRECTION		(Note 18 in Page 4)							66	INPUT SIGNAL		24VDC	
	22	TYPE OF BONNET		Standard							67	MFR. & MODEL		Will be finalized later	
	23	LUBE & ISO VALVE		No							68	TYPE		N/A	
	24	PACKING MATERIAL	PACKING TYPE		PTFE			Standard			69	MFR. & MODEL		Will be finalized later	
25	ENTRY DESIGN		Top Entry							70	ON INCR SIGNAL OUTPUT INCR / DECR		N/A		
26	NACE REQUIREMENT/NACE (MR-0175/ISO 15156)		YES							71	GAUGES		N/A		
TRIM	27	TRIM	TYPE	MATERIAL			VTa	316 SS+PTFE			72	CAM CHARACTERISTIC		N/A	
	28	SIZE	RATED TRAVEL		VTa			VTa			73	AIR CONNECTION		N/A	
	29	CHARACTERISTICS		On/Off							74	TAG NO. :		XZSC-2121A / XZSO-2121A	
	30	BALANCED / UNBALANCED		VTa							75	TYPE	QUANTITY	Magnetically operated 'REED' contacts	2
	31	RATED Cv	FL	XT	VTa			VTa			76	CONTACTS / RATING		110V DC , 10A	
	32	PLUG / BALL / DISK MATERIAL		316 SS							77	ACTUATION POINT		Fully Open/Close	
	33	SEAT	TYPE	MATERIAL			Soft Seat	PTFE			78	ENCLOSURE MATERIAL		Die Cast Aluminlum	
	34	CAGE / GUIDE MATERIAL		VTa							79	WEATHER PROTECTION		IP-65	
	35	STEM	TYPE	MATERIAL			Anti-Blow Out	316 SS			80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 × 1.5
	36	LEAKAGE CLASS		ANSI Class VI							81	MFR. & MODEL		Will be finalized later	
37	VALVE STEM EXTENSION REQUIREMENT		YES							82	SET PRESSURE		Yes		
SOLENOID VALVE	38	TAG NO		PSOV-2121A , ESOV-2121A							83	PNEUMATIC CONNECTION		1/4" NPT	
	39	TYPE		3 Way							84	GAUGES	FILTER	Required	Required
	40	BODY MATERIAL	WEATHER IP.		AISI 316 S.S			IP-65			85	MFR. & MODEL		Will be finalized later	
	41	ELE. CERTIFICATE	ELE. CONNECTION		EEx "d" ,IIB T4			ISO M20 × 1.5			86	ANSI/FCI LEAKAGE CLASS		Required	
	42	MANUAL RESET		Yes							87	HYDRO PRESSURE		Required	
	43	Power Supply		24 VDC							88	FUNCTIONAL TEST		Required	
	44	Pnu. Connection		1/4" NPT											
SPECIAL / ACCESS.	45	FUSIBLE LEAKAGE		No											
	46	BLOCK RELAY		No											
	47	QUICK EXHUST		Yes											
	49	FILTER REGULATOR		Yes											
	50	VOLUME TANK		Yes											
	51	MECHANICAL POSITION INDICATOR		Required											
	52	MANUAL/PNEUMATIC BYPASS VALVE FOR SOLENOID VALVE		Yes											
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONIFRM (1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage. (4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID															

 NISOC		تکه‌داشت و افزایش تولید میدان نفتی بینک سطح الارض							 				
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک											
شماره پیمان: 053 - 073 - 9038		نسخه: D01	سریال: 0010	نوع مدرک: DT	رشته: IN	تسهیلات: 120	صادر کننده: PEDCO	بسته کاری: GCS	پروژه: BK	شماره صفحه: 12 از 37			
On-Off Valve													
TAG NO:  XV-2122A		P&ID NO : BK-GCS-PEDCO-120-PR-PI-0006-D04 (1 of 3)		SERVICE: 1st Stage Gas Compression Suction Drums									
FLUID STATE: PROCESS GAS		PHASE: GAS		AREA CLASSIFICATION: Zone2, IIB, T4									
SERVICE CONDITION							UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off		
	1	FLOW RATE					kg/h	-	337.08	-	-		
	2	INLET PRESSURE					bar(g)	-	4.9	-	-		
	3	OUTLET PRESSURE					bar(g)	-	4.9	-	-		
	4	DIFFERENTIAL PRESSURE					bar(g)	-	-	-	FV/9		
	5	INLET TEMPERATURE					°C	-	36.78	-	-		
	6	DENSITY					kg/m3	-	998.5	-	-		
	7	VISCOSITY					CP	-	0.69	-	-		
	8	VAPOR PRESSURE Pv					bar(a)	-	-	-	-		
9	CRITICAL PRESSURE					bar(a)	-	-	-	-			
LINE	10	PIPE LINE SIZE & SCHEDULE		IN	2"	10S	ACTUATOR	53	TYPE		Double Acting , Spring Return		
				OUT	2"	10S		54	SIZE		VTA	VTA	
	11	PIPG CLASS/PIPE LINE INSULATION		AS00 / Painted (Brilliant Green)				55	SPRING FAIL ACTION		Fail to Close		
VALVE BODY & BONNET	12	TYPE		Full Bore Ball Valve/Trunnion Mounted			56	MAX ALLOWABLE PRESSURE		VTA			
	13	SIZE		2"			57	MIN REQUIRES PRESSURE		VTA			
	14	MAX PRESS./TEMP		As per PMS			58	AVAILABLE AIR SUPPLY PRESSURE		MAX/NOR/MIN: 10/7/3 bar-g			
	15	MFR. & MODEL		Will be finalized later			59	BENCH RANGE		VTA			
	16	BODY / BONNET MATL		ASTM A351 GR.CF3M			60	TRAVELING TIME		5 S			
	17	LINER MATERIAL / ID		VTA			61	FUNCTION		On/Off			
	18	END CONNECTION	IN	2"/300#				62	LOCAL POSITION INDICATOR		Required		
		OUT	2"/300#				63	ACT. ORIENTATION		VTA			
	19	FLG FACE FINISH		RF			64	HAND WHEEL TYPE		Clutchable side mounted			
	20	END EXT./MATL		N/A			65	ADJUSTABLE LIMIT STOP		Yes			
	21	FLOW DIRECTION		(Note 18 in Page 4)			66	INPUT SIGNAL		24VDC			
	22	TYPE OF BONNET		Standard			67	MFR. & MODEL		Will be finalized later			
	23	LUBE & ISO VALVE		No			POSITIONER	68	TYPE		N/A		
	24	PACKING MATERIAL	PACKING TYPE		PTEF	Standard		69	MFR. & MODEL		Will be finalized later		
25	ENTRY DESIGN		Top Entry			70		ON INCR SIGNAL OUTPUT INCR / DECR		N/A			
26	NACE REQUIREMENT/NACE (MR-0175/ISO 15156)		No			71	GAUGES		N/A				
TRIM	27	TRIM	TYPE	MATERIAL	VTA	316 SS+PTFE	72	CAM CHARACTERISTIC		N/A			
	28	SIZE	RATED TRAVEL		VTA	VTA	73	AIR CONNECTION		N/A			
	29	CHARACTERISTICS		On/Off			74	TAG NO. :		XZSC-2122A / XZSO-2122A			
	30	BALANCED / UNBALANCED		VTA			75	TYPE	QUANTITY	Magnetically operated 'REED' contacts	2		
	31	RATED Cv	FL	XT	VTA	VTA		CONTACTS / RATING		110V DC , 10A			
	32	PLUG / BALL / DISK MATERIAL		316 SS			77	ACTUATION POINT		Fully Open/Close			
	33	SEAT	TYPE	MATERIAL	Soft Seat	PTFE	78	ENCLOSURE MATERIAL		Die Cast Amulimum			
	34	CAGE / GUIDE MATERIAL		VTA			79	WEATHER PROTECTION		IP-65			
	35	STEM	TYPE	MATERIAL	Anti-Blow Out	316 SS	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 × 1.5		
36	LEAKAGE CLASS		ANSI Class VI			81	MFR. & MODEL		Will be finalized later				
37	VALVE STEM EXTENSION REQUIREMENT		YES			LIMIT SWITCHES	82	SET PRESSURE		Yes			
38	TAG NO		PSOV-2122A , ESOV-2122A				83	PNEUMATIC CONNECTION		1/4" NPT			
39	TYPE		3 Way				84	GAUGES	FILTER	Required	Required		
SOLENOID VALVE	40	BODY MATERIAL	WEATHER IP.		AISI 316 S.S	IP-65	85	MFR. & MODEL		Will be finalized later			
	41	ELE. CERTIFICATE	ELE. CONNECTION		EEx "d" ,IIB T4	ISO M20 × 1.5	TEST	ANSIFCI LEAKAGE CLASS		Required			
	42	MANUAL RESET		Yes				87	HYDRO PRESSURE		Required		
	43	Power Supply		24 VDC				88	FUNCTIONAL TEST		Required		
44	Pnu. Connection		1/4" NPT										
SPECIAL / ACCESS.	45	FUSIBLE LEAKAGE		No									
	46	BLOCK RELAY		No									
	47	QUICK EXHUST		Yes									
	49	FILTER REGULATOR		Yes									
	50	VOLUME TANK		Yes									
	51	MECHANICAL POSITION INDICATOR		Required									
	52	MANUAL/PNEUMATIC BYPASS VALVE FOR SOLENOID VALVE		Yes									
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONIFRM (1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage. (4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID													

 NISOC		تکه‌داشت و افزایش تولید میدان نفتی بینک سطح الارض							 				
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک											
شماره پیمان: 053 - 073 - 9038		نسخه: D01	سریال: 0010	نوع مدرک: IN	رشته: DT	تسهیلات: 120	صادر کننده: PEDCO	بسته کاری: GCS	پروژه: BK	شماره صفحه: 37 از 37			
On-Off Valve													
TAG NO: XV-2121B 		P&ID NO : BK-GCS-PEDCO-120-PR-PI-0006-D04 (2 of 3)		SERVICE: 1st Stage Gas Compression Suction Drums									
FLUID STATE: PROCESS GAS		PHASE: GAS		AREA CLASSIFICATION: Zone2, IIB, T4									
SERVICE CONDITION							UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off		
	1	FLOW RATE					kg/h	-	8664	-	-		
	2	INLET PRESSURE					bar(g)	-	5.1	-	-		
	3	OUTLET PRESSURE					bar(g)	-	5.1	-	-		
	4	DIFFERENTIAL PRESSURE					bar(g)	-	-	-	FV/9		
	5	INLET TEMPERATURE					°C	-	36.92	-	-		
	6	DENSITY					kg/m3	-	5.96	-	-		
	7	VISCOSITY					CP	-	0.011	-	-		
	8	VAPOR PRESSURE Pv					bar(a)	-	-	-	-		
9	CRITICAL PRESSURE					bar(a)	-	-	-	-			
LINE	10	PIPE LINE SIZE & SCHEDULE		IN	8" 60		53	TYPE		Double Acting , Spring Return			
	11	PIPING CLASS/PIPE LINE INSULATION		OUT	8" 60			54	SIZE		VTa	VTa	
VALVE BODY & BONNET	12	TYPE		Full Bore Ball Valve/Trunnion Mounted			55	SPRING FAIL ACTION		Fail to Close			
	13	SIZE		8"			56	MAX ALLOWABLE PRESSURE		VTa			
	14	MAX PRESS./TEMP		As per PMS			57	MIN REQUIRES PRESSURE		VTa			
	15	MFR. & MODEL		Will be finalized later			58	AVAILABLE AIR SUPPLY PRESSURE		MAX/NOR/MIN: 10/7/3 bar-g			
	16	BODY / BONNET MATL		ASTM A216 Gr. WCB			59	BENCH RANGE		VTa			
	17	LINER MATERIAL / ID		VTa			60	TRAVELING TIME		9 s			
	18	END CONNECTION	IN	8"/300#		VTa	61	FUNCTION		On/Off			
	19	OUT	8"/300#		62		LOCAL POSITION INDICATOR		Required				
	20	FLG FACE FINISH		RF			63	ACT. ORIENTATION		VTa			
	21	END EXT./MATL		N/A			64	HAND WHEEL TYPE		Clutchable side mounted			
	22	FLOW DIRECTION		(Note 18 in Page 4)			65	ADJUSTABLE LIMIT STOP		Yes			
	23	TYPE OF BONNET		Standard			66	INPUT SIGNAL		24VDC			
	24	LUBE & ISO VALVE		No			67	MFR. & MODEL		Will be finalized later			
	25	PACKING MATERIAL		PACKING TYPE	PTFE		68	TYPE		N/A			
26	ENTRY DESIGN		Top Entry			69		MFR. & MODEL		Will be finalized later			
TRIM	27	TRIM	TYPE	MATERIAL		VTa	70	ON INCR SIGNAL OUTPUT INCR / DECR		N/A			
	28	SIZE	RATED TRAVEL		VTa	71	GAUGES		N/A				
	29	CHARACTERISTICS		On/Off			72	CAM CHARACTERISTIC		N/A			
	30	BALANCED / UNBALANCED		VTa			73	AIR CONNECTION		N/A			
	31	RATED Cv	FL	XT	VTa	VTa	74	TAG NO. :		XZSC-2121B/ XZSO-2121B			
	32	PLUG / BALL / DISK MATERIAL		316 SS			75	TYPE	QUANTITY	Magnetically operated 'REED' contacts	2		
	33	SEAT	TYPE	MATERIAL		Soft Seat	76	CONTACTS / RATING		110V DC , 10A			
	34	CAGE / GUIDE MATERIAL		VTa			77	ACTUATION POINT		Fully Open/Close			
SOLENOID VALVE	35	STEM	TYPE	MATERIAL		Anti-Blow Out	78	ENCLOSURE MATERIAL		Die Cast Aluminlum			
	36	LEAKAGE CLASS		ANSI Class VI			79	WEATHER PROTECTION		IP-65			
	37	VALVE STEM EXTENSION REQUIREMENT		YES			80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 × 1.5		
	38	TAG NO		PSOV-2121B, ESOV-2121B			81	MFR. & MODEL		Will be finalized later			
SPECIAL / ACCESS.	39	TYPE		3 Way			82	SET PRESSURE		Yes			
	40	BODY MATERIAL		WEATHER IP.		AISI 316 S.S		83	PNEUMATIC CONNECTION		1/4" NPT		
	41	ELE. CERTIFICATE		ELE. CONNECTION		EEx "d" ,IIB T4		84	GAUGES	FILTER	Required	Required	
	42	MANUAL RESET		Yes				85	MFR. & MODEL		Will be finalized later		
	43	Power Supply		24 VDC				86	ANSI/FCI LEAKAGE CLASS		Required		
44	Pnu. Connection		1/4" NPT			87	HYDRO PRESSURE		Required				
45	FUSIBLE LEAKAGE		No				88	FUNCTIONAL TEST		Required			
46	BLOCK RELAY		No										
47	QUICK EXHUST		Yes										
48	FILTER REGULATOR		Yes										
49	VOLUME TANK		Yes										
50	MECHANICAL POSITION INDICATOR		Required										
51	MANUAL/PNEUMATIC BYPASS VALVE FOR SOLENOID VALVE		Yes										
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONIFRM (1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage. (4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID													

 NISOC		تکه‌داشت و افزایش تولید میدان نفتی بینک سطح الارض							 				
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک											
		Data Sheets For ON/OFF & Shutdown Valves											
شماره پیمان: 053 - 073 - 9038		نسخه	سریال	نوع مدرک	رشته	تهیلات	صادر کننده	پسته کاری	پروژه	شماره صفحه: 14 از 37			
		D01	0010	DT	IN	120	PEDCO	GCS	BK				
On-Off Valve													
TAG NO:  XV-2122B		P&ID NO :		BK-GCS-PEDCO-120-PR-PI-0006-D04 (2 of 3)				SERVICE: 1st Stage Gas Compression Suction Drums					
FLUID STATE: PROCESS GAS		PHASE:		GAS				AREA CLASSIFICATION: Zone2, IIB, T4					
SERVICE CONDITION													
	1	FLOW RATE						kg/h	-	337.08	-	-	-
	2	INLET PRESSURE						bar(g)	-	4.9	-	-	-
	3	OUTLET PRESSURE						bar(g)	-	4.9	-	-	-
	4	DIFFERENTIAL PRESSURE						bar(g)	-	-	-	FV/9	
	5	INLET TEMPERATURE						°C	-	36.78	-	-	
	6	DENSITY						kg/m3	-	998.5	-	-	
	7	VISCOSITY						CP	-	0.69	-	-	
	8	VAPOR PRESSURE Pv						bar(a)	-	-	-	-	
9	CRITICAL PRESSURE						bar(a)	-	-	-	-		
LINE	10	PIPE LINE SIZE & SCHEDULE		IN	2"	10S				53	TYPE		Double Acting , Spring Return
				OUT	2"	10S				54	SIZE		VTa
	11	PIPG CLASS/PIPE LINE INSULATION		AS00 / Painted (Brilliant Green)						55	SPRING FAIL ACTION		Fail to Close
VALVE BODY & BONNET	12	TYPE		Full Bore Ball Valve/Trunnion Mounted						56	MAX ALLOWABLE PRESSURE		VTa
	13	SIZE		2"						57	MIN REQUIRES PRESSURE		VTa
	14	MAX PRESS./TEMP		As per PMS						58	AVAILABLE AIR SUPPLY PRESSURE		MAX/NOR/MIN: 10/7/3 bar-g
	15	MFR. & MODEL		Will be finalized later						59	BENCH RANGE		VTa
	16	BODY / BONNET MATL		ASTM A351 GR.CF3M						60	TRAVELING TIME		5 S
	17	LINER MATERIAL / ID		VTa						61	FUNCTION		On/Off
	18	END CONNECTION	IN	2"/300#					62	LOCAL POSITION INDICATOR		Required	
			OUT	2"/300#					63	ACT. ORIENTATION		VTa	
	19	FLG FACE FINISH		RF						64	HAND WHEEL TYPE		Clutchable side mounted
	20	END EXT./MATL		N/A						65	ADJUSTABLE LIMIT STOP		Yes
	21	FLOW DIRECTION		(Note 18 in Page 4)						66	INPUT SIGNAL		24VDC
	22	TYPE OF BONNET		Standard						67	MFR. & MODEL		Will be finalized later
	23	LUBE & ISO VALVE		No						68	TYPE		N/A
	24	PACKING MATERIAL	PACKING TYPE		PTE		Standard			69	MFR. & MODEL		Will be finalized later
25	ENTRY DESIGN		Top Entry						70	ON INCR SIGNAL OUTPUT INCR / DECR		N/A	
26	NACE REQUIREMENT/NACE (MR-0175/ISO 15156)		No						71	GAUGES		N/A	
TRIM	27	TRIM	TYPE	MATERIAL	VTa		316 SS+PTFE			72	CAM CHARACTERISTIC		N/A
	28	SIZE	RATED TRAVEL		VTa		VTa			73	AIR CONNECTION		N/A
	29	CHARACTERISTICS		On/Off						74	TAG NO. :		XZSC-2122B / XZSO-2122B
	30	BALANCED / UNBALANCED		VTa						75	TYPE	QUANTITY	Magnetically operated 'REED' contacts
	31	RATED Cv	FL	XT	VTa	VTa		VTa		76	CONTACTS / RATING		110V DC , 10A
	32	PLUG / BALL / DISK MATERIAL		316 SS						77	ACTUATION POINT		Fully Open/Close
	33	SEAT	TYPE	MATERIAL	Soft Seat		PTFE			78	ENCLOSURE MATERIAL		Die Cast Alumilum
	34	CAGE / GUIDE MATERIAL		VTa						79	WEATHER PROTECTION		IP-65
	35	STEM	TYPE	MATERIAL	Anti-Blow Out		316 SS			80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4
	36	LEAKAGE CLASS		ANSI Class VI						81	MFR. & MODEL		Will be finalized later
37	VALVE STEM EXTENSION REQUIREMENT		YES						82	SET PRESSURE		Yes	
SOLENOID VALVE	38	TAG NO		PSOV-2122B , ESOV-2122B						83	PNEUMATIC CONNECTION		1/4" NPT
	39	TYPE		3 Way						84	GAUGES	FILTER	Required
	40	BODY MATERIAL	WEATHER IP.		AISI 316 S.S		IP-65			85	MFR. & MODEL		Will be finalized later
	41	ELE. CERTIFICATE	ELE. CONNECTION		EEx "d" ,IIB T4		ISO M20 x 1.5			86	ANSI/FCI LEAKAGE CLASS		Required
	42	MANUAL RESET		Yes						87	HYDRO PRESSURE		Required
	43	Power Supply		24 VDC						88	FUNCTIONAL TEST		Required
	44	Pnu. Connection		1/4" NPT									
SPECIAL / ACCESS.	45	FUSIBLE LEAKAGE		No									
	46	BLOCK RELAY		No									
	47	QUICK EXHUST		Yes									
	49	FILTER REGULATOR		Yes									
	50	VOLUME TANK		Yes									
	51	MECHANICAL POSITION INDICATOR		Required									
	52	MANUAL/PNEUMATIC BYPASS VALVE FOR SOLENOID VALVE		Yes									
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONIFRM (1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage. (4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID													

 NISOC		تکه‌داشت و افزایش تولید میدان نفتی بینک سطح الارض							 				
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک											
شماره پیمان: 053 - 073 - 9038		نسخه: D01	سریال: 0010	نوع مدرک: DT	رشته: IN	تسهیلات: 120	صادر کننده: PEDCO	بسته کاری: GCS	پروژه: BK	شماره صفحه: 15 از 37			
On-Off Valve													
TAG NO:  XV-2121C		P&ID NO : BK-GCS-PEDCO-120-PR-PI-0006-D04 (3 of 3)		SERVICE: 1st Stage Gas Compression Suction Drums									
FLUID STATE: PROCESS GAS		PHASE: GAS		AREA CLASSIFICATION: Zone2, IIB, T4									
SERVICE CONDITION					UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off				
	1	FLOW RATE			kg/h	-	8664	-	-				
	2	INLET PRESSURE			bar(g)	-	5.1	-	-				
	3	OUTLET PRESSURE			bar(g)	-	5.1	-	-				
	4	DIFFERENTIAL PRESSURE			bar(g)	-	-	-	-	FV/9			
	5	INLET TEMPERATURE			°C	-	36.92	-	-				
	6	DENSITY			kg/m3	-	5.96	-	-				
	7	VISCOSITY			CP	-	0.011	-	-				
	8	VAPOR PRESSURE Pv			bar(a)	-	-	-	-				
9	CRITICAL PRESSURE			bar(a)	-	-	-	-					
LINE	10	PIPE LINE SIZE & SCHEDULE		IN 8" 60	53	TYPE		Double Acting , Spring Return					
	11	PIPING CLASS/PIPE LINE INSULATION		AN07 / Painted (Brilliant Green)		54	SIZE		VTA		VTA		
VALVE BODY & BONNET	12	TYPE		Full Bore Ball Valve/Trunnion Mounted	55	SPRING FAIL ACTION		Fail to Close					
	13	SIZE		8"	56	MAX ALLOWABLE PRESSURE		VTA					
	14	MAX PRESS./TEMP		As per PMS	57	MIN REQUIRES PRESSURE		VTA					
	15	MFR. & MODEL		Will be finalized later	58	AVAILABLE AIR SUPPLY PRESSURE		MAX/NOR/MIN: 10/7/3 bar-g					
	16	BODY / BONNET MATL		ASTM A216 Gr. WCB	59	BENCH RANGE		VTA					
	17	LINER MATERIAL / ID		VTA	60	TRAVELING TIME		9 s					
	18	END CONNECTION	IN 8"/300#	61	FUNCTION		On/Off						
	19	FLG FACE FINISH	RF	62	LOCAL POSITION INDICATOR		Required						
	20	END EXT./MATL	N/A	63	ACT. ORIENTATION		VTA						
	21	FLOW DIRECTION		(Note 18 in Page 4)	64	HAND WHEEL TYPE		Clutchable side mounted					
	22	TYPE OF BONNET		Standard	65	ADJUSTABLE LIMIT STOP		Yes					
	23	LUBE & ISO VALVE		No	66	INPUT SIGNAL		24VDC					
	24	PACKING MATERIAL	PACKING TYPE	PTFE	67	MFR. & MODEL		Will be finalized later					
	25	ENTRY DESIGN		Top Entry	POSITIONER	68	TYPE		N/A				
26	NACE REQUIREMENT/NACE (MR-0175/ISO 15156)		YES	69		MFR. & MODEL		Will be finalized later					
27	TRIM	TYPE	MATERIAL	VTA		316 SS+PTFE	70	ON INCR SIGNAL OUTPUT INCR / DECR		N/A			
28	SIZE	RATED TRAVEL		VTA	VTA	71	GAUGES		N/A				
29	CHARACTERISTICS		On/Off		72	CAM CHARACTERISTIC		N/A					
TRIM	30	BALANCED / UNBALANCED		VTA		73	AIR CONNECTION		N/A				
	31	RATED Cv	FL	XT	VTA	VTA							
	32	PLUG / BALL / DISK MATERIAL		316 SS		LIMIT SWITCHES	74	TAG NO. :		XZSC-2121C/ XZSO-2121C			
	33	SEAT	TYPE	MATERIAL	Soft Seat		PTFE	75	TYPE	QUANTITY	Magnetically operated 'REED' contacts		2
	34	CAGE / GUIDE MATERIAL		VTA			76	CONTACTS / RATING		110V DC , 10A			
	35	STEM	TYPE	MATERIAL	Anti-Blow Out		316 SS	77	ACTUATION POINT		Fully Open/Close		
	36	LEAKAGE CLASS		ANSI Class VI		78	ENCLOSURE MATERIAL		Die Cast Aluminum				
	37	VALVE STEM EXTENSION REQUIREMENT		YES		79	WEATHER PROTECTION		IP-65				
SOLENOID VALVE	38	TAG NO		PSOV-2121C, ESOV-2121C		80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4		ISO M20 × 1.5		
	39	TYPE		3 Way		81	MFR. & MODEL		Will be finalized later				
	40	BODY MATERIAL	WEATHER IP.		AISI 316 S.S	IP-65	82	SET PRESSURE		Yes			
	41	ELE. CERTIFICATE	ELE. CONNECTION		EEx "d" ,IIB T4	ISO M20 × 1.5	83	PNEUMATIC CONNECTION		1/4" NPT			
	42	MANUAL RESET		Yes		84	GAUGES	FILTER	Required	Required			
	43	Power Supply		24 VDC		85	MFR. & MODEL		Will be finalized later				
	44	Pnu. Connection		1/4" NPT		TEST	86	ANSI/FCI LEAKAGE CLASS		Required			
SPECIAL / ACCESS.	45	FUSIBLE LEAKAGE		No			87	HYDRO PRESSURE		Required			
	46	BLOCK RELAY		No			88	FUNCTIONAL TEST		Required			
	47	QUICK EXHUST		Yes									
	48	FILTER REGULATOR		Yes									
	49	VOLUME TANK		Yes									
	50	MECHANICAL POSITION INDICATOR		Required									
	51	MANUAL/PNEUMATIC BYPASS VALVE FOR SOLENOID VALVE		Yes									
	52												
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONIFRM (1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage. (4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID													

 NISOC		تکهداشت و افزایش تولید میدان نفتی بینک سطح الارض							 	
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک Data Sheets For ON/OFF & Shutdown Valves								
شماره پیمان: 053 - 073 - 9038		نسخه	سریال	نوع مدرک	رشته	تهیلات	صادر کننده	پسته کاری	پروژه	شماره صفحه: 16 از 37
		D01	0010	DT	IN	120	PEDCO	GCS	BK	
On-Off Valve										
TAG NO:  XV-2122C		P&ID NO : BK-GCS-PEDCO-120-PR-PI-0006-D04 (3 of 3)			SERVICE: 1st Stage Gas Compression Suction Drums					
FLUID STATE: PROCESS GAS		PHASE: GAS			AREA CLASSIFICATION: Zone2, IIB, T4					
SERVICE CONDITION				UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off		
	1	FLOW RATE		kg/h	-	337.08	-	-		
	2	INLET PRESSURE		bar(g)	-	4.9	-	-		
	3	OUTLET PRESSURE		bar(g)	-	4.9	-	-		
	4	DIFFERENTIAL PRESSURE		bar(g)	-	-	-	-	FV/9	
	5	INLET TEMPERATURE		°C	-	36.78	-	-		
	6	DENSITY		kg/m3	-	998.5	-	-		
	7	VISCOSITY		CP	-	0.69	-	-		
	8	VAPOR PRESSURE Pv		bar(a)	-	-	-	-		
9	CRITICAL PRESSURE		bar(a)	-	-	-	-			
LINE	10	PIPE LINE SIZE & SCHEDULE	IN	2"	10S					
			OUT	2"	10S					
	11	PIPING CLASS/PIPE LINE INSULATION		AS00 / Painted (Brilliant Green)						
VALVE BODY & BONNET	12	TYPE		Full Bore Ball Valve/Trunnion Mounted						
	13	SIZE		2"						
	14	MAX PRESS./TEMP		As per PMS						
	15	MFR. & MODEL		Will be finalized later						
	16	BODY / BONNET MATL		ASTM A351 GR.CF3M						
	17	LINER MATERIAL / ID		VTA						
	18	END CONNECTION	IN	2"/300#						
			OUT	2"/300#						
	19	FLG FACE FINISH		RF						
	20	END EXT./MATL		N/A						
	21	FLOW DIRECTION		(Note 18 in Page 4)						
	22	TYPE OF BONNET		Standard						
	23	LUBE & ISO VALVE		No						
	24	PACKING MATERIAL	PACKING TYPE		PTE	Standard				
25	ENTRY DESIGN		Top Entry							
26	NACE REQUIREMENT/NACE (MR-0175/ISO 15156)		No							
TRIM	27	TRIM	TYPE	MATERIAL	VTA	316 SS+PTFE				
	28	SIZE	RATED TRAVEL		VTA	VTA				
	29	CHARACTERISTICS		On/Off						
	30	BALANCED / UNBALANCED		VTA						
	31	RATED Cv	FL	XT	VTA	VTA			VTA	
	32	PLUG / BALL / DISK MATERIAL		316 SS						
	33	SEAT	TYPE	MATERIAL	Soft Seat	PTFE				
	34	CAGE / GUIDE MATERIAL		VTA						
	35	STEM	TYPE	MATERIAL	Anti-Blow Out	316 SS				
	36	LEAKAGE CLASS		ANSI Class VI						
37	VALVE STEM EXTENSION REQUIREMENT		YES							
SOLENOID VALVE	38	TAG NO		PSOV-2122C , ESOV-2122C						
	39	TYPE		3 Way						
	40	BODY MATERIAL	WEATHER IP.		AISI 316 S.S	IP-65				
	41	ELE. CERTIFICATE	ELE. CONNECTION		EEx "d" ,IIB T4	ISO M20 x 1.5				
	42	MANUAL RESET		Yes						
	43	Power Supply		24 VDC						
	44	Pnu. Connection		1/4" NPT						
SPECIAL / ACCESS.	45	FUSIBLE LEAKAGE		No						
	46	BLOCK RELAY		No						
	47	QUICK EXHUST		Yes						
	49	FILTER REGULATOR		Yes						
	50	VOLUME TANK		Yes						
	51	MECHANICAL POSITION INDICATOR		Required						
	52	MANUAL/PNEUMATIC BYPASS VALVE FOR SOLENOID VALVE		Yes						
ACTUATOR	53	TYPE		Double Acting , Spring Return						
	54	SIZE		VTA		VTA				
	55	SPRING FAIL ACTION		Fail to Close						
	56	MAX ALLOWABLE PRESSURE		VTA						
	57	MIN REQUIRES PRESSURE		VTA						
	58	AVAILABLE AIR SUPPLY PRESSURE		MAX/NOR/MIN: 10/7/3 bar-g						
	59	BENCH RANGE		VTA						
	60	TRAVELING TIME		5 S						
	61	FUNCTION		On/Off						
	62	LOCAL POSITION INDICATOR		Required						
POSITIONER	63	ACT. ORIENTATION		VTA						
	64	HAND WHEEL TYPE		Clutchable side mounted						
	65	ADJUSTABLE LIMIT STOP		Yes						
	66	INPUT SIGNAL		24VDC						
	67	MFR. & MODEL		Will be finalized later						
	68	TYPE		N/A						
	69	MFR. & MODEL		Will be finalized later						
	70	ON INCR SIGNAL OUTPUT INCR / DECR		N/A						
	71	GAUGES		N/A						
	72	CAM CHARACTERISTIC		N/A						
LIMIT SWITCHES	73	AIR CONNECTION		N/A						
	74	TAG NO. :		XZSC-2122C / XZSO-2122C						
	75	TYPE	QUANTITY	Magnetically operated 'REED' contacts		2				
	76	CONTACTS / RATING		110V DC , 10A						
	77	ACTUATION POINT		Fully Open/Close						
	78	ENCLOSURE MATERIAL		Die Cast Alumilum						
	79	WEATHER PROTECTION		IP-65						
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 x 1.5					
	81	MFR. & MODEL		Will be finalized later						
	AIR SET	82	SET PRESSURE		Yes					
83		PNEUMATIC CONNECTION		1/4" NPT						
84		GAUGES	FILTER	Required	Required					
85		MFR. & MODEL		Will be finalized later						
TEST		86	ANSI/FCI LEAKAGE CLASS		Required					
	87	HYDRO PRESSURE		Required						
	88	FUNCTIONAL TEST		Required						
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONIFRM (1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage. (4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID										

 NISOC		تکه‌داشت و افزایش تولید میدان نفتی بینک سطح الارض							 								
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک															
		Data Sheets For ON/OFF & Shutdown Valves															
شماره پیمان:		نسخه	سریال	نوع مدرک	رشته	تهیلات	صادر کننده	پسته کاری	پروژه	شماره صفحه: 17 از 37							
053 - 073 - 9038		D01	0010	DT	IN	120	PEDCO	GCS	BK								
On-Off Valve																	
TAG NO:  XV-2131A		P&ID NO :		BK-GCS-PEDCO-120-PR-PI-0009-D04 (1 of 3)						SERVICE: 2nd Stage Gas Compression Suction Drums							
FLUID STATE: PROCESS GAS		PHASE:		GAS						AREA CLASSIFICATION: Zone2, IIB, T4							
SERVICE CONDITION										UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off			
	1	FLOW RATE								kg/h	-	331.64	-	-			
	2	INLET PRESSURE								bar(g)	-	18.1	-	-			
	3	OUTLET PRESSURE								bar(g)	-	18.1	-	-			
	4	DIFFERENTIAL PRESSURE								bar(g)	-	-	-	FV/22			
	5	INLET TEMPERATURE								°C	-	59.88	-	-			
	6	DENSITY								kg/m3	-	981.1	-	-			
	7	VISCOSITY								CP	-	0.496	-	-			
	8	VAPOR PRESSURE Pv								bar(a)	-	-	-	-			
9	CRITICAL PRESSURE								bar(a)	-	-	-	-				
LINE	10	PIPE LINE SIZE & SCHEDULE		IN	2"	10S				53	TYPE		Double Acting , Spring Return				
				OUT	2"	10S				54	SIZE		VTa	VTa			
VALVE BODY & BONNET	11	PIPING CLASS/PIPE LINE INSULATION		CS00 / Painted (Brilliant Green)						55	SPRING FAIL ACTION		Fail to Close				
	12	TYPE		Full Bore Ball Valve/Trunnion Mounted						56	MAX ALLOWABLE PRESSURE		VTa				
	13	SIZE		2"						57	MIN REQUIRES PRESSURE		VTa				
	14	MAX PRESS./TEMP		As per PMS						58	AVAILABLE AIR SUPPLY PRESSURE		MAX/NOR/MIN: 10/7/3 bar-g				
	15	MFR. & MODEL		Will be finalized later						59	BENCH RANGE		VTa				
	16	BODY / BONNET MATL		ASTM A351 GR.CF3M						60	TRAVELING TIME		5 S				
	17	LINER MATERIAL / ID		VTa						61	FUNCTION		On/Off				
	18	END CONNECTION	IN	2"/300#						62	LOCAL POSITION INDICATOR		Required				
			OUT	2"/300#						63	ACT. ORIENTATION		VTa				
	19	FLG FACE FINISH		RF						64	HAND WHEEL TYPE		Clutchable side mounted				
	20	END EXT./MATL		N/A						65	ADJUSTABLE LIMIT STOP		Yes				
	21	FLOW DIRECTION		(Note 18 in Page 4)						66	INPUT SIGNAL		24VDC				
	22	TYPE OF BONNET		Standard						67	MFR. & MODEL		Will be finalized later				
	23	LUBE & ISO VALVE		No						68	TYPE		N/A				
	24	PACKING MATERIAL	PACKING TYPE		PTEF	Standard						69	MFR. & MODEL		Will be finalized later		
	25	ENTRY DESIGN		Top Entry						70	ON INCR SIGNAL OUTPUT INCR / DECR		N/A				
26	NACE REQUIREMENT/NACE (MR-0175/ISO 15156)		No						71	GAUGES		N/A					
TRIM	27	TRIM	TYPE	MATERIAL	VTa	316 SS-RPTFE						72	CAM CHARACTERISTIC		N/A		
	28	SIZE	RATED TRAVEL		VTa	VTa						73	AIR CONNECTION		N/A		
	29	CHARACTERISTICS		On/Off						74	TAG NO. :		XZSC-2131A/ XZSO-2131A				
	30	BALANCED / UNBALANCED		VTa						75	TYPE	QUANTITY	Magnetically operated 'REED' contacts		2		
	31	RATED Cv	FL	XT	VTa	VTa		VTa					76	CONTACTS / RATING		110V DC , 10A	
	32	PLUG / BALL / DISK MATERIAL		316 SS						77	ACTUATION POINT		Fully Open/Close				
	33	SEAT	TYPE	MATERIAL	Soft Seat	PTFE						78	ENCLOSURE MATERIAL		Die Cast Amulium		
	34	CAGE / GUIDE MATERIAL		VTa						79	WEATHER PROTECTION		IP-65				
35	STEM	TYPE	MATERIAL	Anti-Blow Out	316 SS						80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 × 1.5		
36	LEAKAGE CLASS		ANSI Class VI						81	MFR. & MODEL		Will be finalized later					
37	VALVE STEM EXTENSION REQUIREMENT		YES						82	SET PRESSURE		Yes					
SOLENOID VALVE	38	TAG NO		PSOV-2131A , ESOV-2131A						83	PNEUMATIC CONNECTION		1/4" NPT				
	39	TYPE		3 Way						84	GAUGES	FILTER	Required	Required			
	40	BODY MATERIAL	WEATHER IP.		AISI 316 S.S	IP-65						85	MFR. & MODEL		Will be finalized later		
	41	ELE. CERTIFICATE	ELE. CONNECTION		EEx "d" ,IIB T4	ISO M20 × 1.5						86	ANSI/FCI LEAKAGE CLASS		Required		
	42	MANUAL RESET		Yes						87	HYDRO PRESSURE		Required				
	43	Power Supply		24 VDC						88	FUNCTIONAL TEST		Required				
	44	Pnu. Connection		1/4" NPT													
SPECIAL / ACCESS.	45	FUSIBLE LEAKAGE		No													
	46	BLOCK RELAY		No													
	47	QUICK EXHUST		Yes													
	49	FILTER REGULATOR		Yes													
	50	VOLUME TANK		Yes													
	51	MECHANICAL POSITION INDICATOR		Required													
	52	MANUAL/PNEUMATIC BYPASS VALVE FOR SOLENOID VALVE		Yes													
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONIFRM (1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage. (4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID																	

 NISOC		تجهاد است و افزایش تولید میدان نفتی بینک سطح الارض							 	
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک Data Sheets For ON/OFF & Shutdown Valves								
شماره پیمان:		نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادر کننده	پسته کاری	پروژه	شماره صفحه: 37 از 18
053 - 073 - 9038		D01	0010	DT	IN	120	PEDCO	GCS	BK	
On-Off Valve										
TAG NO:  BDV-2131A		P&ID NO : BK-GCS-PEDCO-120-PR-PI-0009-D04 (1 of 3)			SERVICE: 2nd Stage Gas Compression Suction Drums					
FLUID STATE: VENT GAS		PHASE: GAS			AREA CLASSIFICATION: Zone2, IIB, T4					
SERVICE CONDITION				UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off		
	1	FLOW RATE		kg/h	-	8664	-	-		
	2	INLET PRESSURE		bar(g)	-	18.1	-	-		
	3	OUTLET PRESSURE		bar(g)	-	18.1	-	-		
	4	DIFFERENTIAL PRESSURE		bar(g)	-	-	-	-	FV/22	
	5	INLET TEMPERATURE		°C	-	59.88	-	-		
	6	DENSITY		kg/m3	-	18.08	-	-		
	7	VISCOSITY		CP	-	0.012	-	-		
	8	VAPOR PRESSURE Pv		bar(a)	-	-	-	-		
9	CRITICAL PRESSURE		bar(a)	-	-	-	-			
LINE	10	PIPE LINE SIZE & SCHEDULE	IN	2"	80					
			OUT	2"	80					
VALVE BODY & BONNET	11	PIPING CLASS/PIPE LINE INSULATION		CN05 / Painted (Brilliant Green)						
	12	TYPE		Full Bore Ball Valve Floating Type						
	13	SIZE		2"						
	14	MAX PRESS./TEMP		As per PMS						
	15	MFR. & MODEL		Will be finalized later						
	16	BODY / BONNET MATL		ASTM A216 Gr. WCB						
	17	LINER MATERIAL / ID		VTA						
	18	END CONNECTION	IN	2" /300#						
			OUT	2" /300#						
	19	FLG FACE FINISH		RF						
	20	END EXT./MATL		N/A						
	21	FLOW DIRECTION		(Note 18 in Page 4)						
	22	TYPE OF BONNET		Standard						
	TRIM	23	LUBE & ISO VALVE		No					
24		PACKING MATERIAL	PACKING TYPE	PTE	Standard					
25		ENTRY DESIGN		Top Entry						
26		NACE REQUIREMENT/NACE (MR-0175/ISO 15156)		YES						
SOLENOID VALVE	27	TRIM	TYPE	MATERIAL	VTA	316 SS-RPTFE				
	28	SIZE	RATED TRAVEL		VTA	VTA				
	29	CHARACTERISTICS		On/Off						
	30	BALANCED / UNBALANCED		VTA						
	31	RATED Cv	FL	XT	VTA	VTA			VTA	
	32	PLUG / BALL / DISK MATERIAL		316 SS						
	33	SEAT	TYPE	MATERIAL	Soft Seat	PTFE				
	34	CAGE / GUIDE MATERIAL		VTA						
	35	STEM	TYPE	MATERIAL	Anti-Blow Out	316 SS				
	36	LEAKAGE CLASS		ANSI Class VI						
SPECIAL / ACCESS.	37	VALVE STEM EXTENSION REQUIREMENT		YES						
	38	TAG NO		BSOV-2131A , PSOV-2131A						
	39	TYPE		3 Way						
	40	BODY MATERIAL	WEATHER IP.		AISI 316 S.S	IP-65				
	41	ELE. CERTIFICATE	ELE. CONNECTION		EEx "d" ,IIB T4	ISO M20 x 1.5				
	42	MANUAL RESET		Yes						
	43	Power Supply		24 VDC						
	44	Pnu. Connection		1/4" NPT						
ACTUATOR	53	TYPE		Single Acting , Spring Return						
	54	SIZE		VTA						
	55	SPRING FAIL ACTION		Fail to Open						
	56	MAX ALLOWABLE PRESSURE		VTA						
	57	MIN REQUIRES PRESSURE		VTA						
	58	AVAILABLE AIR SUPPLY PRESSURE		MAX/NOR/MIN: 10/7/3 bar-g						
	59	BENCH RANGE		VTA						
	60	TRAVELING TIME		5 S						
	61	FUNCTION		On/Off						
	62	LOCAL POSITION INDICATOR		Required						
	63	ACT. ORIENTATION		VTA						
POSITIONER	64	HAND WHEEL TYPE		Detachable side mounted						
	65	ADJUSTABLE LIMIT STOP		No						
	66	INPUT SIGNAL		24VDC						
	67	MFR. & MODEL		Will be finalized later						
LIMIT SWITCHES	68	TYPE		N/A						
	69	MFR. & MODEL		Will be finalized later						
	70	ON INCR SIGNAL OUTPUT INCR / DECR		N/A						
	71	GAUGES		N/A						
AIR SET	72	CAM CHARACTERISTIC		N/A						
	73	AIR CONNECTION		N/A						
	74	TAG NO. :		BZSC-2131A / BZSO-2131A						
	75	TYPE	QUANTITY	Magnetically operated 'REED' contacts	2					
	76	CONTACTS / RATING		110V DC , 10A						
	77	ACTUATION POINT		Fully Open/Close						
	78	ENCLOSURE MATERIAL		Die Cast Amulium						
	79	WEATHER PROTECTION		IP-65						
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 x 1.5					
	81	MFR. & MODEL		Will be finalized later						
TEST	82	SET PRESSURE		Yes						
	83	PNEUMATIC CONNECTION		1/4" NPT						
	84	GAUGES	FILTER	Required	Required					
	85	MFR. & MODEL		Will be finalized later						
FIRE PROOF DESIGN	86	ANSI/FCI LEAKAGE CLASS		Required						
	87	HYDRO PRESSURE		Required						
	88	FUNCTIONAL TEST		Required						
	89									
	90									
91	PASSIVE FIRE PROTECTION		No							
92	API 6FA REQUIREMENTS		Yes							
93	SIL 3 REQUIREMENTS		Yes							
94	PARTIAL STROKING VALVE TEST		Yes							
95										
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONFIRM (1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage. (4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID										

 NISOC		تکهداشت و افزایش تولید میدان نفتی بینک سطح الارض							 	
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک								
شماره پیمان: 053 - 073 - 9038		نسخه: D01	سریال: 0010	نوع مدرک: DT	رشته: IN	تهیلات: 120	صادر کننده: PEDCO	پسته کاری: GCS	پروژه: BK	شماره صفحه: 37 از 19
On-Off Valve										
TAG NO: XV-2131B D01		P&ID NO : BK-GCS-PEDCO-120-PR-PI-0009-D04 (2 of 3)		SERVICE: 2nd Stage Gas Compression Suction Drums						
FLUID STATE: PROCESS GAS		PHASE: GAS		AREA CLASSIFICATION: Zone2, IIB, T4						
SERVICE CONDITION					UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off	
	1	FLOW RATE			kg/h	-	331.64	-	-	
	2	INLET PRESSURE			bar(g)	-	18.1	-	-	
	3	OUTLET PRESSURE			bar(g)	-	18.1	-	-	
	4	DIFFERENTIAL PRESSURE			bar(g)	-	-	-	FV/22	
	5	INLET TEMPERATURE			°C	-	59.88	-	-	
	6	DENSITY			kg/m3	-	981.1	-	-	
	7	VISCOSITY			CP	-	0.496	-	-	
	8	VAPOR PRESSURE Pv			bar(a)	-	-	-	-	
	CRITICAL PRESSURE			bar(a)	-	-	-	-		
LINE	10	PIPE LINE SIZE & SCHEDULE		IN 2" 10S	ACTUATOR	53	TYPE		Double Acting , Spring Return	
				OUT 2" 10S		54	SIZE		VTA VTA	
	11	PIPG CLASS/PIPE LINE INSULATION		CS00 / Painted (Brilliant Green)		55	SPRING FAIL ACTION		Fail to Close	
VALVE BODY & BONNET	12	TYPE		Full Bore Ball Valve/Trunnion Mounted		56	MAX ALLOWABLE PRESSURE		VTA	
	13	SIZE		2"		57	MIN REQUIRES PRESSURE		VTA	
	14	MAX PRESS./TEMP		As per PMS		58	AVAILABLE AIR SUPPLY PRESSURE		MAX/NOR/MIN: 10/7/3 bar-g	
	15	MFR. & MODEL		Will be finalized later		59	BENCH RANGE		VTA	
	16	BODY / BONNET MATL		ASTM A351 GR.CF3M		60	TRAVELING TIME		5 S	
	17	LINER MATERIAL / ID		VTA		61	FUNCTION		On/Off	
	18	END CONNECTION	IN 2"/300#			62	LOCAL POSITION INDICATOR		Required	
		OUT 2"/300#			63	ACT. ORIENTATION		VTA		
	19	FLG FACE FINISH		RF		64	HAND WHEEL TYPE		Clutchable side mounted	
	20	END EXT./MATL		N/A		65	ADJUSTABLE LIMIT STOP		Yes	
	21	FLOW DIRECTION		(Note 18 in Page 4)		66	INPUT SIGNAL		24VDC	
	22	TYPE OF BONNET		Standard		67	MFR. & MODEL		Will be finalized later	
	23	LUBE & ISO VALVE		No		68	TYPE		N/A	
	24	PACKING MATERIAL	PACKING TYPE	PTEF	Standard		69	MFR. & MODEL		Will be finalized later
25	ENTRY DESIGN		Top Entry		70	ON INCR SIGNAL OUTPUT INCR / DECR		N/A		
26	NACE REQUIREMENT/NACE (MR-0175/ISO 15156)		No		71	GAUGES		N/A		
TRIM	27	TRIM	TYPE MATERIAL	VTA 316 SS-RPTFE		72	CAM CHARACTERISTIC		N/A	
	28	SIZE	RATED TRAVEL	VTA VTA		73	AIR CONNECTION		N/A	
	29	CHARACTERISTICS		On/Off		74	TAG NO. :		XZSC-2131B/ XZSO-2131B	
	30	BALANCED / UNBALANCED		VTA		75	TYPE	QUANTITY	Magnetically operated 'REED' contacts 2	
	31	RATED Cv	FL XT	VTA VTA VTA		76	CONTACTS / RATING		110V DC , 10A	
	32	PLUG / BALL / DISK MATERIAL		316 SS		77	ACTUATION POINT		Fully Open/Close	
	33	SEAT	TYPE MATERIAL	Soft Seat PTFE		78	ENCLOSURE MATERIAL		Die Cast Amulimum	
	34	CAGE / GUIDE MATERIAL		VTA		79	WEATHER PROTECTION		IP-65	
35	STEM	TYPE MATERIAL	Anti-Blow Out 316 SS		80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4 ISO M20 × 1.5		
36	LEAKAGE CLASS		ANSI Class VI		81	MFR. & MODEL		Will be finalized later		
37	VALVE STEM EXTENSION REQUIREMENT		YES		82	SET PRESSURE		Yes		
SOLENOID VALVE	38	TAG NO		PSOV-2131B, ESOV-2131B	AIR SET	83	PNEUMATIC CONNECTION		1/4" NPT	
	39	TYPE		3 Way		84	GAUGES	FILTER	Required Required	
	40	BODY MATERIAL	WEATHER IP.	AISI 316 S.S IP-65		85	MFR. & MODEL		Will be finalized later	
	41	ELE. CERTIFICATE	ELE. CONNECTION	EEx "d" ,IIB T4 ISO M20 × 1.5		86	ANSI/FCI LEAKAGE CLASS		Required	
	42	MANUAL RESET		Yes	TEST	87	HYDRO PRESSURE		Required	
	43	Power Supply		24 VDC		88	FUNCTIONAL TEST		Required	
	44	Pnu. Connection		1/4" NPT						
SPECIAL / ACCESS.	45	FUSIBLE LEAKAGE		No						
	46	BLOCK RELAY		No						
	47	QUICK EXHUST		Yes						
	49	FILTER REGULATOR		Yes						
	50	VOLUME TANK		Yes						
	51	MECHANICAL POSITION INDICATOR		Required						
	52	MANUAL/PNEUMATIC BYPASS VALVE FOR SOLENOID VALVE		Yes						
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONIFRM (1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage. (4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID										

 NISOC		تکه‌داشت و افزایش تولید میدان نفتی بینک سطح الارض							 	
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک Data Sheets For ON/OFF & Shutdown Valves								
شماره پیمان: 053 - 073 - 9038		نسخه: D01	سریال: 0010	نوع مدرک: DT	رشته: IN	تهیه‌لات: 120	صادرکننده: PEDCO	پسته کاری: GCS	پروژه: BK	شماره صفحه: 37 از 20

On-Off Valve											
TAG NO:  BDV-2131B		P&ID NO: BK-GCS-PEDCO-120-PR-PI-0009-D04 (2 of 3)		SERVICE: 2nd Stage Gas Compression Suction Drums							
FLUID STATE: VENT GAS		PHASE: GAS		AREA CLASSIFICATION: Zone2, IIB, T4							
SERVICE CONDITION				UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off			
	1	FLOW RATE		kg/h	-	8664	-	-			
	2	INLET PRESSURE		bar(g)	-	18.1	-	-			
	3	OUTLET PRESSURE		bar(g)	-	18.1	-	-			
	4	DIFFERENTIAL PRESSURE		bar(g)	-	-	-	-	FV/22		
	5	INLET TEMPERATURE		°C	-	59.88	-	-			
	6	DENSITY		kg/m3	-	18.08	-	-			
	7	VISCOSITY		CP	-	0.012	-	-			
	8	VAPOR PRESSURE Pv		bar(a)	-	-	-	-			
9	CRITICAL PRESSURE		bar(a)	-	-	-	-				
LINE	10	PIPE LINE SIZE & SCHEDULE		IN	2"	80					
				OUT	2"	80					
VALVE BODY & BONNET	11	PIPING CLASS/PIPE LINE INSULATION		CN05 / Painted (Brilliant Green)							
	12	TYPE		Full Bore Ball Valve Floating Type							
	13	SIZE		2"							
	14	MAX PRESS./TEMP		As per PMS							
	15	MFR. & MODEL		Will be finalized later							
	16	BODY / BONNET MATL		ASTM A351 GR.CF3M							
	17	LINER MATERIAL / ID		VTA							
	18	END CONNECTION	IN	2" /300#							
			OUT	2" /300#							
	19	FLG FACE FINISH		RF							
	20	END EXT./MATL		N/A							
	21	FLOW DIRECTION		(Note 18 in Page 4)							
	22	TYPE OF BONNET		Standard							
	TRIM	23	LUBE & ISO VALVE		No						
24		PACKING MATERIAL	PACKING TYPE	PTE	Standard						
25		ENTRY DESIGN		Top Entry							
26		NACE REQUIREMENT/NACE (MR-0175/ISO 15156)		YES							
SOLENOID VALVE	27	TRIM	TYPE	MATERIAL	VTA	316 SS-RPTFE					
	28	SIZE	RATED TRAVEL		VTA	VTA					
	29	CHARACTERISTICS		On/Off							
	30	BALANCED / UNBALANCED		VTA							
	31	RATED Cv	FL	XT	VTA	VTA					
	32	PLUG / BALL / DISK MATERIAL		316 SS							
	33	SEAT	TYPE	MATERIAL	Soft Seat	PTFE					
	34	CAGE / GUIDE MATERIAL		VTA							
	35	STEM	TYPE	MATERIAL	Anti-Blow Out	316 SS					
	36	LEAKAGE CLASS		ANSI Class VI							
SPECIAL / ACCESS.	37	VALVE STEM EXTENSION REQUIREMENT		YES							
	38	TAG NO		BSOV-2131B , PSOV-2131B							
	39	TYPE		3 Way							
	40	BODY MATERIAL	WEATHER IP.		AISI 316 S.S	IP-65					
	41	ELE. CERTIFICATE	ELE. CONNECTION		EEx "d" ,IIB T4	ISO M20 x 1.5					
	42	MANUAL RESET		Yes							
	43	Power Supply		24 VDC							
	44	Pnu. Connection		1/4" NPT							
ACTUATOR	53	TYPE		Single Acting , Spring Return							
	54	SIZE		VTA							
	55	SPRING FAIL ACTION		Fail to Open							
	56	MAX ALLOWABLE PRESSURE		VTA							
	57	MIN REQUIRES PRESSURE		VTA							
	58	AVAILABLE AIR SUPPLY PRESSURE		MAX/NOR/MIN: 10/7/3 bar-g							
	59	BENCH RANGE		VTA							
	60	TRAVELING TIME		5 S							
	61	FUNCTION		On/Off							
	62	LOCAL POSITION INDICATOR		Required							
	63	ACT. ORIENTATION		VTA							
POSITIONER	64	HAND WHEEL TYPE		Detachable side mounted							
	65	ADJUSTABLE LIMIT STOP		No							
	66	INPUT SIGNAL		24VDC							
	67	MFR. & MODEL		Will be finalized later							
LIMIT SWITCHES	68	TYPE		N/A							
	69	MFR. & MODEL		Will be finalized later							
	70	ON INCR SIGNAL OUTPUT INCR / DECR		N/A							
	71	GAUGES		N/A							
AIR SET	72	CAM CHARACTERISTIC		N/A							
	73	AIR CONNECTION		N/A							
	74	TAG NO. :		BZSC-2131B/ BZSO-2131B							
	75	TYPE	QUANTITY	Magnetically operated 'REED' contacts		2					
	76	CONTACTS / RATING		110V DC , 10A							
	77	ACTUATION POINT		Fully Open/Close							
	78	ENCLOSURE MATERIAL		Die Cast Amulium							
	79	WEATHER PROTECTION		IP-65							
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 x 1.5						
	81	MFR. & MODEL		Will be finalized later							
TEST	82	SET PRESSURE		Yes							
	83	PNEUMATIC CONNECTION		1/4" NPT							
	84	GAUGES	FILTER	Required	Required						
	85	MFR. & MODEL		Will be finalized later							
FIRE PROOF DESIGN	86	ANSI/FCI LEAKAGE CLASS		Required							
	87	HYDRO PRESSURE		Required							
	88	FUNCTIONAL TEST		Required							
	89										
	90										
91	PASSIVE FIRE PROTECTION		No								
92	API 6FA REQUIREMENTS		Yes								
93	SIL 3 REQUIREMENTS		Yes								
94	PARTIAL STROKING VALVE TEST		Yes								
95											

NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONFIRM

(1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage.

(4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID

 NISOC		تکه‌داشت و افزایش تولید میدان نفتی بینک سطح الارض							 					
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک												
		Data Sheets For ON/OFF & Shutdown Valves												
شماره پیمان:		نسخه	سریال	نوع مدرک	رشته	تهیلات	صادر کننده	پسته کاری	پروژه	شماره صفحه: 21 از 37				
053 - 073 - 9038		D01	0010	DT	IN	120	PEDCO	GCS	BK					
On-Off Valve														
TAG NO:  XV-2131C		P&ID NO :		BK-GCS-PEDCO-120-PR-PI-0009-D04 (3 of 3)						SERVICE: 2nd Stage Gas Compression Suction Drums				
FLUID STATE: PROCESS GAS		PHASE:		GAS						AREA CLASSIFICATION: Zone2, IIB, T4				
SERVICE CONDITION										UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
	1	FLOW RATE								kg/h	-	331.64	-	-
	2	INLET PRESSURE								bar(g)	-	18.1	-	-
	3	OUTLET PRESSURE								bar(g)	-	18.1	-	-
	4	DIFFERENTIAL PRESSURE								bar(g)	-	-	-	FV/22
	5	INLET TEMPERATURE								°C	-	59.88	-	-
	6	DENSITY								kg/m3	-	981.1	-	-
	7	VISCOSITY								CP	-	0.496	-	-
	8	VAPOR PRESSURE Pv								bar(a)	-	-	-	-
9	CRITICAL PRESSURE								bar(a)	-	-	-	-	
LINE	10	PIPE LINE SIZE & SCHEDULE		IN	2"	10S				53	TYPE		Double Acting , Spring Return	
				OUT	2"	10S				54	SIZE		VTA	VTA
	11	PIPING CLASS/PIPE LINE INSULATION		CS00 / Painted (Brilliant Green)							55	SPRING FAIL ACTION		Fail to Close
VALVE BODY & BONNET	12	TYPE		Full Bore Ball Valve/Trunnion Mounted							56	MAX ALLOWABLE PRESSURE		VTA
	13	SIZE		2"							57	MIN REQUIRES PRESSURE		VTA
	14	MAX PRESS./TEMP		As per PMS							58	AVAILABLE AIR SUPPLY PRESSURE		MAX/NOR/MIN: 10/7/3 bar-g
	15	MFR. & MODEL		Will be finalized later							59	BENCH RANGE		VTA
	16	BODY / BONNET MATL		ASTM A351 GR.CF3M							60	TRAVELING TIME		5 S
	17	LINER MATERIAL / ID		VTA							61	FUNCTION		On/Off
	18	END CONNECTION	IN	2"/300#					62	LOCAL POSITION INDICATOR		Required		
		OUT	2"/300#					63	ACT. ORIENTATION		VTA			
	19	FLG FACE FINISH		RF							64	HAND WHEEL TYPE		Clutchable side mounted
	20	END EXT./MATL		N/A							65	ADJUSTABLE LIMIT STOP		Yes
	21	FLOW DIRECTION		(Note 18 in Page 4)							66	INPUT SIGNAL		24VDC
	22	TYPE OF BONNET		Standard							67	MFR. & MODEL		Will be finalized later
	23	LUBE & ISO VALVE		No							68	TYPE		N/A
	24	PACKING MATERIAL	PACKING TYPE		PTEF	Standard				69	MFR. & MODEL		Will be finalized later	
25	ENTRY DESIGN		Top Entry							70	ON INCR SIGNAL OUTPUT INCR / DECR		N/A	
26	NACE REQUIREMENT/NACE (MR-0175/ISO 15156)		No							71	GAUGES		N/A	
TRIM	27	TRIM	TYPE	MATERIAL	VTA	316 SS-RPTFE				72	CAM CHARACTERISTIC		N/A	
	28	SIZE	RATED TRAVEL		VTA	VTA				73	AIR CONNECTION		N/A	
	29	CHARACTERISTICS		On/Off							74	TAG NO. :		XZSC-2131C/ XZSO-2131C
	30	BALANCED / UNBALANCED		VTA							75	TYPE	QUANTITY	Magnetically operated 'REED' contacts 2
	31	RATED Cv	FL	XT	VTA	VTA		VTA		76	CONTACTS / RATING		110V DC , 10A	
	32	PLUG / BALL / DISK MATERIAL		316 SS							77	ACTUATION POINT		Fully Open/Close
	33	SEAT	TYPE	MATERIAL	Soft Seat	PTFE				78	ENCLOSURE MATERIAL		Die Cast Amulium	
	34	CAGE / GUIDE MATERIAL		VTA							79	WEATHER PROTECTION		IP-65
35	STEM	TYPE	MATERIAL	Anti-Blow Out	316 SS				80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4 ISO M20 × 1.5		
36	LEAKAGE CLASS		ANSI Class VI							81	MFR. & MODEL		Will be finalized later	
37	VALVE STEM EXTENSION REQUIREMENT		YES							82	SET PRESSURE		Yes	
SOLENOID VALVE	38	TAG NO		PSOV-2131C, ESOV-2131C							83	PNEUMATIC CONNECTION		1/4" NPT
	39	TYPE		3 Way							84	GAUGES	FILTER	Required Required
	40	BODY MATERIAL	WEATHER IP.		AISI 316 S.S	IP-65				85	MFR. & MODEL		Will be finalized later	
	41	ELE. CERTIFICATE	ELE. CONNECTION		EEx "d" ,IIB T4	ISO M20 × 1.5				86	ANSI/FCI LEAKAGE CLASS		Required	
	42	MANUAL RESET		Yes							87	HYDRO PRESSURE		Required
	43	Power Supply		24 VDC							88	FUNCTIONAL TEST		Required
	44	Pnu. Connection		1/4" NPT										
SPECIAL / ACCESS.	45	FUSIBLE LEAKAGE		No										
	46	BLOCK RELAY		No										
	47	QUICK EXHUST		Yes										
	49	FILTER REGULATOR		Yes										
	50	VOLUME TANK		Yes										
	51	MECHANICAL POSITION INDICATOR		Required										
	52	MANUAL/PNEUMATIC BYPASS VALVE FOR SOLENOID VALVE		Yes										
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONIFRM (1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage. (4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID														

 NISOC		تکه‌داشت و افزایش تولید میدان نفتی بینک سطح الارض							 	
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک Data Sheets For ON/OFF & Shutdown Valves								
شماره پیمان: 053 - 073 - 9038		نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادر کننده	پسته کاری	پروژه	شماره پیمان:
		D01	0010	DT	IN	120	PEDCO	GCS	BK	
شماره صفحه: 22 از 37										
On-Off Valve										
TAG NO: BDV-2131C D01		P&ID NO : BK-GCS-PEDCO-120-PR-PI-0009-D04 (3 of 3)			SERVICE: 2nd Stage Gas Compression Suction Drums					
FLUID STATE: VENT GAS		PHASE: GAS			AREA CLASSIFICATION: Zone2, IIB, T4					
SERVICE CONDITION		UNITS				Max Flow	Norm. Flow	Min. Flow	Shut-Off	
	1	FLOW RATE				kg/h	-	8664	-	-
	2	INLET PRESSURE				bar(g)	-	18.1	-	-
	3	OUTLET PRESSURE				bar(g)	-	18.1	-	-
	4	DIFFERENTIAL PRESSURE				bar(g)	-	-	-	FV/22
	5	INLET TEMPERATURE				°C	-	59.88	-	-
	6	DENSITY				kg/m3	-	18.08	-	-
	7	VISCOSITY				CP	-	0.012	-	-
	8	VAPOR PRESSURE Pv				bar(a)	-	-	-	-
9	CRITICAL PRESSURE				bar(a)	-	-	-	-	
LINE	10	PIPE LINE SIZE & SCHEDULE		IN	2"	80				
				OUT	2"	80				
VALVE BODY & BONNET	11	PIPING CLASS/PIPE LINE INSULATION		CN05 / Painted (Brilliant Green)						
	12	TYPE		Full Bore Ball Valve Floating Type						
	13	SIZE		2"						
	14	MAX PRESS./TEMP		As per PMS						
	15	MFR. & MODEL		Will be finalized later						
	16	BODY / BONNET MATL		ASTM A216 Gr. WCB						
	17	LINER MATERIAL / ID		VTA						
	18	END CONNECTION	IN	2" /300#						
		OUT	2" /300#							
	19	FLG FACE FINISH		RF						
	20	END EXT./MATL		N/A						
	21	FLOW DIRECTION		(Note 18 in Page 4)						
	22	TYPE OF BONNET		Standard						
	TRIM	23	LUBE & ISO VALVE		No					
24		PACKING MATERIAL	PACKING TYPE	PTE	Standard					
25		ENTRY DESIGN		Top Entry						
26		NACE REQUIREMENT/NACE (MR-0175/ISO 15156)		YES						
SOLENOID VALVE	27	TRIM	TYPE	MATERIAL	VTA	316 SS-RPTFE				
	28	SIZE	RATED TRAVEL		VTA	VTA				
	29	CHARACTERISTICS		On/Off						
	30	BALANCED / UNBALANCED		VTA						
	31	RATED Cv	FL	XT	VTA	VTA				
	32	PLUG / BALL / DISK MATERIAL		316 SS						
	33	SEAT	TYPE	MATERIAL	Soft Seat	PTFE				
	34	CAGE / GUIDE MATERIAL		VTA						
	35	STEM	TYPE	MATERIAL	Anti-Blow Out	316 SS				
	36	LEAKAGE CLASS		ANSI Class VI						
SPECIAL / ACCESS.	37	VALVE STEM EXTENSION REQUIREMENT		YES						
	38	TAG NO		BSOV-2131C , PSOV-2131C						
	39	TYPE		3 Way						
	40	BODY MATERIAL	WEATHER IP.		AISI 316 S.S	IP-65				
	41	ELE. CERTIFICATE	ELE. CONNECTION		EEx "d" ,IIB T4	ISO M20 x 1.5				
	42	MANUAL RESET		Yes						
	43	Power Supply		24 VDC						
	44	Pnu. Connection		1/4" NPT						
LIMIT SWITCHES	45	FUSIBLE LEAKAGE		No						
	46	BLOCK RELAY		No						
	47	QUICK EXHUST		Yes						
	48	FILTER REGULATOR		Yes						
	49	VOLUME TANK		No						
	50	MECHANICAL POSITION INDICATOR		Required						
	51									
	52									
	53									
	54									
	55									
ACTUATOR	56	TYPE		Single Acting , Spring Return						
	57	SIZE		VTA						
	58	SPRING FAIL ACTION		Fail to Open						
	59	MAX ALLOWABLE PRESSURE		VTA						
	60	MIN REQUIRES PRESSURE		VTA						
	61	AVAILABLE AIR SUPPLY PRESSURE		MAX/NOR/MIN: 10/7/3 bar-g						
	62	BENCH RANGE		VTA						
	63	TRAVELING TIME		5 S						
	64	FUNCTION		On/Off						
	65	LOCAL POSITION INDICATOR		Required						
POSITIONER	66	ACT. ORIENTATION		VTA						
	67	HAND WHEEL TYPE		Detachable side mounted						
	68	ADJUSTABLE LIMIT STOP		No						
	69	INPUT SIGNAL		24VDC						
	70	MFR. & MODEL		Will be finalized later						
	71	TYPE		N/A						
	72	MFR. & MODEL		Will be finalized later						
	73	ON INCR SIGNAL OUTPUT INCR / DECR		N/A						
	74	GAUGES		N/A						
	75	CAM CHARACTERISTIC		N/A						
AIR SET	76	AIR CONNECTION		N/A						
	77	TAG NO. :		BZSC-2131C/ BZSO-2131C						
	78	TYPE	QUANTITY	Magnetically operated 'REED' contacts		2				
	79	CONTACTS / RATING		110V DC , 10A						
	80	ACTUATION POINT		Fully Open/Close						
	81	ENCLOSURE MATERIAL		Die Cast Amulium						
	82	WEATHER PROTECTION		IP-65						
	83	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 x 1.5					
	84	MFR. & MODEL		Will be finalized later						
	TEST	85	SET PRESSURE		Yes					
86		PNEUMATIC CONNECTION		1/4" NPT						
87		GAUGES	FILTER	Required	Required					
88		MFR. & MODEL		Will be finalized later						
89		ANSI/FCI LEAKAGE CLASS		Required						
90		HYDRO PRESSURE		Required						
91		FUNCTIONAL TEST		Required						
92										
93										
94										
FIRE PROOF DESIGN	95	PASSIVE FIRE PROTECTION		No						
	96	API 6FA REQUIREMENTS		Yes						
	97	SIL 3 REQUIREMENTS		Yes						
	98	PARTIAL STROKING VALVE TEST		Yes						
	99									
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONFIRM (1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage. (4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID										

 NISOC		تجهاد است و افزایش تولید میدان نفتی بینک سطح الارض							 	
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک Data Sheets For ON/OFF & Shutdown Valves								
شماره پیمان:		نسخه	سریال	نوع مدرک	رشته	تهیهات	صادر کننده	پسته کاری	پروژه	شماره صفحه: 37 از 23
053 - 073 - 9038		D01	0010	DT	IN	120	PEDCO	GCS	BK	

On-Off Valve											
TAG NO:  BDV-2132A		P&ID NO :		BK-GCS-PEDCO-120-PR-PI-0011-D04 (1 of 3)				SERVICE: 2nd Stage Gas Compression Air Coolers			
FLUID STATE: VENT GAS		PHASE:		GAS				AREA CLASSIFICATION: Zone2, IIB, T4			
SERVICE CONDITION						UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off	
	1	FLOW RATE				kg/h	-	8664	-	-	
	2	INLET PRESSURE				bar(g)	-	54.1	-	-	
	3	OUTLET PRESSURE				bar(g)	-	54.1	-	-	
	4	DIFFERENTIAL PRESSURE				bar(g)	-	-	-	62	
	5	INLET TEMPERATURE				°C	-	60	-	-	
	6	DENSITY				kg/m3	-	59.63	-	-	
	7	VISCOSITY				CP	-	-	-	-	
	8	VAPOR PRESSURE Pv				bar(a)	-	-	-	-	
9	CRITICAL PRESSURE				bar(a)	-	-	-	-		
LINE	10	PIPE LINE SIZE & SCHEDULE		IN	2"	40S	ACTUATOR	53	TYPE		Single Acting , Spring Return
				OUT	2"	40S		54	SIZE		VTA
11	PIPING CLASS/PIPE LINE INSULATION		FS00 / Painted (Brilliant Green)			55		SPRING FAIL ACTION		Fail to Open	
VALVE BODY & BONNET	12	TYPE		Full Bore Ball Valve Floating Type				56	MAX ALLOWABLE PRESSURE		VTA
	13	SIZE		2"				57	MIN REQUIRES PRESSURE		VTA
	14	MAX PRESS./TEMP		As per PMS				58	AVAILABLE AIR SUPPLY PRESSURE		MAX/NOR/MIN: 10/7/3 bar-g
	15	MFR. & MODEL		Will be finalized later				59	BENCH RANGE		VTA
	16	BODY / BONNET MATL		ASTM A351 GR.CF3M				60	TRAVELING TIME		5 S
	17	LINER MATERIAL / ID		VTA				61	FUNCTION		On/Off
	18	END CONNECTION	IN	2" /600#	2" /600#		62	LOCAL POSITION INDICATOR		Required	
		OUT						63	ACT. ORIENTATION		VTA
	19	FLG FACE FINISH		RF			64	HAND WHEEL TYPE		Detachable side mounted	
	20	END EXT./MATL.		N/A			65	ADJUSTABLE LIMIT STOP		No	
	21	FLOW DIRECTION		(Note 18 in Page 4)			66	INPUT SIGNAL		24VDC	
	22	TYPE OF BONNET		Standard			67	MFR. & MODEL		Will be finalized later	
	23	LUBE & ISO VALVE		No			POSITIONER	68	TYPE		N/A
	24	PACKING MATERIAL	PACKING TYPE		PTEF	Standard		69	MFR. & MODEL		Will be finalized later
25	ENTRY DESIGN		Top Entry			70		ON INCR SIGNAL OUTPUT INCR / DECR		N/A	
26	NACE REQUIREMENT/NACE (MR-0175/ISO 15156)		YES			71		GAUGES		N/A	
TRIM	27	TRIM	TYPE	MATERIAL	VTA	316 SS-RPTFE	72	CAM CHARACTERISTIC		N/A	
	28	SIZE	RATED TRAVEL		VTA	VTA	73	AIR CONNECTION		N/A	
	29	CHARACTERISTICS		On/Off			74	TAG NO. :		BZSC-2132A/ BZSO-2132A	
	30	BALANCED / UNBALANCED		VTA			75	TYPE	QUANTITY	Magnetically operated 'REED' contacts 2	
	31	RATED Cv	FL	XT	VTA	VTA		CONTACTS / RATING		110V DC , 10A	
	32	PLUG / BALL / DISK MATERIAL		316 SS			77	ACTUATION POINT		Fully Open/Close	
	33	SEAT	TYPE	MATERIAL	Soft Seat	PTEF	78	ENCLOSURE MATERIAL		Die Cast Amulium	
	34	CAGE / GUIDE MATERIAL		VTA			79	WEATHER PROTECTION		IP-65	
	35	STEM	TYPE	MATERIAL	Anti-Blow Out	316 SS	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4 ISO M20 x 1.5	
	36	LEAKAGE CLASS		ANSI Class VI			81	MFR. & MODEL		Will be finalized later	
SOLENOID VALVE	37	VALVE STEM EXTENSION REQUIREMENT		YES			LIMIT SWITCHES	82	SET PRESSURE		Yes
	38	TAG NO		BSOV-2132A , PSOV-2132A				83	PNEUMATIC CONNECTION		1/4" NPT
	39	TYPE		3 Way				84	GAUGES	FILTER	Required Required
	40	BODY MATERIAL	WEATHER IP.		AISI 316 S.S	IP-65		85	MFR. & MODEL		Will be finalized later
	41	ELE. CERTIFICATE	ELE. CONNECTION		EEx "d" ,IIB T4	ISO M20 x 1.5	TEST	86	ANSI/FCI LEAKAGE CLASS		Required
	42	MANUAL RESET		Yes				87	HYDRO PRESSURE		Required
	43	Power Supply		24 VDC				88	FUNCTIONAL TEST		Required
	44	Pnu. Connection		1/4" NPT				89			
SPECIAL / ACCESS.	45	FUSIBLE LEAKAGE		No			FIRE PROOF DESIGN	90			
	46	BLOCK RELAY		No				91	PASSIVE FIRE PROTECTION		No
	47	QUICK EXHUST		Yes				92	API 6FA REQUIREMENTS		Yes
	49	FILTER REGULATOR		Yes				93	SIL 3 REQUIREMENTS		Yes
	50	VOLUME TANK		No				94	PARTIAL STROKING VALVE TEST		Yes
	51	MECHANICAL POSITION INDICATOR		Required				95			

NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONFIRM
(1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage.
(4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID

 NISOC		تجهاد است و افزایش تولید میدان نفتی بینک سطح الارض							 	
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک Data Sheets For ON/OFF & Shutdown Valves								
شماره پیمان:		نسخه	سریال	نوع مدرک	رشته	تهیهات	صادر کننده	پسته کاری	پروژه	شماره صفحه: 37 از 24
053 - 073 - 9038		D01	0010	DT	IN	120	PEDCO	GCS	BK	

On-Off Valve											
TAG NO:  BDV-2132B		P&ID NO :		BK-GCS-PEDCO-120-PR-PI-0011-D04 (2 of 3)				SERVICE: 2nd Stage Gas Compression Air Coolers			
FLUID STATE: VENT GAS		PHASE:		GAS				AREA CLASSIFICATION: Zone2, IIB, T4			
SERVICE CONDITION					UNITS		Max Flow	Norm. Flow	Min. Flow	Shut-Off	
	1	FLOW RATE			kg/h	-	8664	-	-	-	
	2	INLET PRESSURE			bar(g)	-	54.1	-	-	-	
	3	OUTLET PRESSURE			bar(g)	-	54.1	-	-	-	
	4	DIFFERENTIAL PRESSURE			bar(g)	-	-	-	-	62	
	5	INLET TEMPERATURE			°C	-	60	-	-	-	
	6	DENSITY			kg/m3	-	59.63	-	-	-	
	7	VISCOSITY			CP	-	-	-	-	-	
	8	VAPOR PRESSURE Pv			bar(a)	-	-	-	-	-	
	CRITICAL PRESSURE			bar(a)	-	-	-	-	-		
LINE	10	PIPE LINE SIZE & SCHEDULE		IN	2"	40S					
				OUT	2"	40S					
	11	PIPING CLASS/PIPE LINE INSULATION		FS00 / Painted (Brilliant Green)							
VALVE BODY & BONNET	12	TYPE		Full Bore Ball Valve Floating Type							
	13	SIZE		2"							
	14	MAX PRESS./TEMP		As per PMS							
	15	MFR. & MODEL		Will be finalized later							
	16	BODY / BONNET MATL		ASTM A351 GR.CF3M							
	17	LINER MATERIAL / ID		VTA							
	18	END CONNECTION	IN	2" /600#							
		OUT	2" /600#								
	19	FLG FACE FINISH		RF							
	20	END EXT./MATL		N/A							
	21	FLOW DIRECTION		(Note 18 in Page 4)							
	22	TYPE OF BONNET		Standard							
	23	LUBE & ISO VALVE		No							
	24	PACKING MATERIAL	PACKING TYPE		PTE			Standard			
25	ENTRY DESIGN		Top Entry								
26	NACE REQUIREMENT/NACE (MR-0175/ISO 15156)		YES								
TRIM	27	TRIM	TYPE	MATERIAL	VTA	316 SS-RPTFE					
	28	SIZE	RATED TRAVEL		VTA	VTA					
	29	CHARACTERISTICS		On/Off							
	30	BALANCED / UNBALANCED		VTA							
	31	RATED Cv	FL	XT	VTA	VTA		VTA			
	32	PLUG / BALL / DISK MATERIAL		316 SS							
	33	SEAT	TYPE	MATERIAL	Soft Seat			PTFE			
	34	CAGE / GUIDE MATERIAL		VTA							
	35	STEM	TYPE	MATERIAL	Anti-Blow Out	316 SS					
	36	LEAKAGE CLASS		ANSI Class VI							
37	VALVE STEM EXTENSION REQUIREMENT		YES								
SOLENOID VALVE	38	TAG NO		BSOV-2132B , PSOV-2132B							
	39	TYPE		3 Way							
	40	BODY MATERIAL	WEATHER IP.		AISI 316 S.S	IP-65					
	41	ELE. CERTIFICATE	ELE. CONNECTION		EEx "d" ,IIB T4	ISO M20 x 1.5					
	42	MANUAL RESET		Yes							
	43	Power Supply		24 VDC							
	44	Pnu. Connection		1/4" NPT							
SPECIAL / ACCESS.	45	FUSIBLE LEAKAGE		No							
	46	BLOCK RELAY		No							
	47	QUICK EXHUST		Yes							
	49	FILTER REGULATOR		Yes							
	50	VOLUME TANK		No							
51	MECHANICAL POSITION INDICATOR		Required								

ACTUATOR	53	TYPE	Single Acting , Spring Return		
	54	SIZE	VTA		
	55	SPRING FAIL ACTION	Fail to Open		
	56	MAX ALLOWABLE PRESSURE	VTA		
	57	MIN REQUIRES PRESSURE	VTA		
	58	AVAILABLE AIR SUPPLY PRESSURE	MAX/NOR/MIN: 10/7/3 bar-g		
	59	BENCH RANGE	VTA		
	60	TRAVELING TIME	5 S		
	61	FUNCTION	On/Off		
	62	LOCAL POSITION INDICATOR	Required		
POSITIONER	63	ACT. ORIENTATION	VTA		
	64	HAND WHEEL TYPE	Detachable side mounted		
	65	ADJUSTABLE LIMIT STOP	No		
	66	INPUT SIGNAL	24VDC		
	67	MFR. & MODEL	Will be finalized later		
	68	TYPE	N/A		
	69	MFR. & MODEL	Will be finalized later		
	70	ON INCR SIGNAL OUTPUT INCR / DECR	N/A		
	71	GAUGES	N/A		
	72	CAM CHARACTERISTIC	N/A		
LIMIT SWITCHES	73	AIR CONNECTION	N/A		
	74	TAG NO. :		BZSC-2132B/ BZSO-2132B	
	75	TYPE	QUANTITY	Magnetically operated 'REED' contacts	2
	76	CONTACTS / RATING		110V DC , 10A	
	77	ACTUATION POINT		Fully Open/Close	
	78	ENCLOSURE MATERIAL		Die Cast Amuluminum	
	79	WEATHER PROTECTION		IP-65	
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 x 1.5
	81	MFR. & MODEL		Will be finalized later	
	AIR SET	82	SET PRESSURE		Yes
83		PNEUMATIC CONNECTION		1/4" NPT	
84		GAUGES	FILTER	Required	Required
85		MFR. & MODEL		Will be finalized later	
TEST		86	ANSI/FCI LEAKAGE CLASS		Required
	87	HYDRO PRESSURE		Required	
	88	FUNCTIONAL TEST		Required	
	89				
FIRE PROOF DESIGN	90				
	91	PASSIVE FIRE PROTECTION		No	
	92	API 6FA REQUIREMENTS		Yes	
	93	SIL 3 REQUIREMENTS		Yes	
	94	PARTIAL STROKING VALVE TEST		Yes	
	95				

NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONFIRM
(1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage.
(4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID

 NISOC		تجهاد است و افزایش تولید میدان نفتی بینک سطح الارض							 	
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک Data Sheets For ON/OFF & Shutdown Valves								
شماره پیمان:		نسخه	سریال	نوع مدرک	رشته	تهیلات	صادر کننده	پسته کاری	پروژه	شماره صفحه: 28 از 37
053 - 073 - 9038		D01	0010	DT	IN	120	PEDCO	GCS	BK	

On-Off Valve										
TAG NO:  BDV-2132C		P&ID NO :		BK-GCS-PEDCO-120-PR-PI-0011-D04 (3 of 3)				SERVICE: 2nd Stage Gas Compression Air Coolers		
FLUID STATE: VENT GAS		PHASE:		GAS				AREA CLASSIFICATION: Zone2, IIB, T4		
SERVICE CONDITION						UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
	1	FLOW RATE				kg/h	-	8664	-	-
	2	INLET PRESSURE				bar(g)	-	54.1	-	-
	3	OUTLET PRESSURE				bar(g)	-	54.1	-	-
	4	DIFFERENTIAL PRESSURE				bar(g)	-	-	-	62
	5	INLET TEMPERATURE				°C	-	60	-	-
	6	DENSITY				kg/m3	-	59.63	-	-
	7	VISCOSITY				CP	-	-	-	-
	8	VAPOR PRESSURE Pv				bar(a)	-	-	-	-
	CRITICAL PRESSURE				bar(a)	-	-	-	-	
LINE	10	PIPE LINE SIZE & SCHEDULE		IN	2"	40S				
				OUT	2"	40S				
	11	PIPING CLASS/PIPE LINE INSULATION		FS00 / Painted (Brilliant Green)						
VALVE BODY & BONNET	12	TYPE		Full Bore Ball Valve Floating Type						
	13	SIZE		2"						
	14	MAX PRESS./TEMP		As per PMS						
	15	MFR. & MODEL		Will be finalized later						
	16	BODY / BONNET MATL		ASTM A351 GR.CF3M						
	17	LINER MATERIAL / ID		VTA						
	18	END CONNECTION	IN	2" /600#						
		OUT	2" /600#							
	19	FLG FACE FINISH		RF						
	20	END EXT./MATL		N/A						
	21	FLOW DIRECTION		(Note 18 in Page 4)						
	22	TYPE OF BONNET		Standard						
	23	LUBE & ISO VALVE		No						
	24	PACKING MATERIAL	PACKING TYPE	PTEF	Standard					
25	ENTRY DESIGN		Top Entry							
26	NACE REQUIREMENT/NACE (MR-0175/ISO 15156)		YES							
TRIM	27	TRIM	TYPE	MATERIAL	VTA	316 SS-RPTFE				
	28	SIZE	RATED TRAVEL		VTA	VTA				
	29	CHARACTERISTICS		On/Off						
	30	BALANCED / UNBALANCED		VTA						
	31	RATED Cv	FL	XT	VTA	VTA				
	32	PLUG / BALL / DISK MATERIAL		316 SS						
	33	SEAT	TYPE	MATERIAL	Soft Seat	PTFE				
	34	CAGE / GUIDE MATERIAL		VTA						
	35	STEM	TYPE	MATERIAL	Anti-Blow Out	316 SS				
	36	LEAKAGE CLASS		ANSI Class VI						
37	VALVE STEM EXTENSION REQUIREMENT		YES							
SOLENOID VALVE	38	TAG NO		BSOV-2132C , PSOV-2132C						
	39	TYPE		3 Way						
	40	BODY MATERIAL	WEATHER IP.		AISI 316 S.S	IP-65				
	41	ELE. CERTIFICATE	ELE. CONNECTION		EEx "d" ,IIB T4	ISO M20 x 1.5				
	42	MANUAL RESET		Yes						
	43	Power Supply		24 VDC						
	44	Pnu. Connection		1/4" NPT						
SPECIAL / ACCESS.	45	FUSIBLE LEAKAGE		No						
	46	BLOCK RELAY		No						
	47	QUICK EXHUST		Yes						
	49	FILTER REGULATOR		Yes						
	50	VOLUME TANK		No						
	51	MECHANICAL POSITION INDICATOR		Required						

ACTUATOR	53	TYPE	Single Acting , Spring Return		
	54	SIZE	VTA		
	55	SPRING FAIL ACTION	Fail to Open		
	56	MAX ALLOWABLE PRESSURE	VTA		
	57	MIN REQUIRES PRESSURE	VTA		
	58	AVAILABLE AIR SUPPLY PRESSURE	MAX/NOR/MIN: 10/7/3 bar-g		
	59	BENCH RANGE	VTA		
	60	TRAVELING TIME	5 S		
	61	FUNCTION	On/Off		
	62	LOCAL POSITION INDICATOR	Required		
POSITIONER	63	ACT. ORIENTATION	VTA		
	64	HAND WHEEL TYPE	Detachable side mounted		
	65	ADJUSTABLE LIMIT STOP	No		
	66	INPUT SIGNAL	24VDC		
	67	MFR. & MODEL	Will be finalized later		
	68	TYPE	N/A		
	69	MFR. & MODEL	Will be finalized later		
	70	ON INCR SIGNAL OUTPUT INCR / DECR	N/A		
	71	GAUGES	N/A		
	72	CAM CHARACTERISTIC	N/A		
LIMIT SWITCHES	73	AIR CONNECTION	N/A		
	74	TAG NO. :	BZSC-2132C/ BZSO-2132C		
	75	TYPE	QUANTITY	Magnetically operated 'REED' contacts	2
	76	CONTACTS / RATING		110V DC , 10A	
	77	ACTUATION POINT		Fully Open/Close	
	78	ENCLOSURE MATERIAL		Die Cast Amulium	
	79	WEATHER PROTECTION		IP-65	
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 x 1.5
	81	MFR. & MODEL		Will be finalized later	
	AIR SET	82	SET PRESSURE		Yes
83		PNEUMATIC CONNECTION		1/4" NPT	
84		GAUGES	FILTER	Required	Required
85		MFR. & MODEL		Will be finalized later	
TEST		86	ANSI/FCI LEAKAGE CLASS		Required
	87	HYDRO PRESSURE		Required	
	88	FUNCTIONAL TEST		Required	
	89				
FIRE PROOF DESIGN	90				
	91	PASSIVE FIRE PROTECTION		No	
	92	API 6FA REQUIREMENTS		Yes	
	93	SIL 3 REQUIREMENTS		Yes	
	94	PARTIAL STROKING VALVE TEST		Yes	
	95				

NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONFIRM

(1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage.

(4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID

 NISOC		تکه‌داشت و افزایش تولید میدان نفتی بینک سطح الارض							 				
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک											
		Data Sheets For ON/OFF & Shutdown Valves											
شماره پیمان:		پروژه	پسته کاری	صادر کننده	تهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: 25 از 37			
053 - 073 - 9038		BK	GCS	PEDCO	120	IN	DT	0010	D01				
On-Off Valve													
TAG NO:  XV-2133A		P&ID NO :		BK-GCS-PEDCO-120-PR-PI-0011-D04 (1 of 3)					SERVICE: 2nd Stage Gas Compression Air Coolers				
FLUID STATE: PROCESS GAS		PHASE:		GAS					AREA CLASSIFICATION: Zone2, IIB, T4				
SERVICE CONDITION							UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off		
	1	FLOW RATE					kg/h	-	8664	-	-		
	2	INLET PRESSURE					bar(g)	-	54.1	-	-		
	3	OUTLET PRESSURE					bar(g)	-	54.1	-	-		
	4	DIFFERENTIAL PRESSURE					bar(g)	-	-	-	62		
	5	INLET TEMPERATURE					°C	-	60	-	-		
	6	DENSITY					kg/m3	-	59.63	-	-		
	7	VISCOSITY					CP	-	-	-	-		
	8	VAPOR PRESSURE Pv					bar(a)	-	-	-	-		
	CRITICAL PRESSURE					bar(a)	-	-	-	-			
LINE	10	PIPE LINE SIZE & SCHEDULE		IN	6"	40S	ACTUATOR	53	TYPE		Double Acting , Spring Return		
				OUT	6"	40S		54	SIZE		VTA	VTA	
	11	PIPG CLASS/PIPE LINE INSULATION		FS00 / Painted (Brilliant Green)				55	SPRING FAIL ACTION		Fail to Close		
VALVE BODY & BONNET	12	TYPE		Full Bore Ball Valve/Trunnion Mounted			56	MAX ALLOWABLE PRESSURE		VTA			
	13	SIZE		6"			57	MIN REQUIRES PRESSURE		VTA			
	14	MAX PRESS./TEMP		As per PMS			58	AVAILABLE AIR SUPPLY PRESSURE		MAX/NOR/MIN: 10/7/3 bar-g			
	15	MFR. & MODEL		Will be finalized later			59	BENCH RANGE		VTA			
	16	BODY / BONNET MATL		ASTM A351 GR.CF3M			60	TRAVELING TIME		7 S			
	17	LINER MATERIAL / ID		VTA			61	FUNCTION		On/Off			
	18	END CONNECTION	IN	6"x600#	OUT	6"x600#	62	LOCAL POSITION INDICATOR		Required			
	19	FLG FACE FINISH		RF			63	ACT. ORIENTATION		VTA			
	20	END EXT./MATL		N/A			64	HAND WHEEL TYPE		Clutchable side mounted			
	21	FLOW DIRECTION		(Note 18 in Page 4)			65	ADJUSTABLE LIMIT STOP		Yes			
	22	TYPE OF BONNET		Standard			66	INPUT SIGNAL		24VDC			
	23	LUBE & ISO VALVE		No			67	MFR. & MODEL		Will be finalized later			
	24	PACKING MATERIAL	PACKING TYPE		PTE	Standard		POSITIONER	68	TYPE		N/A	
	25	ENTRY DESIGN		Top Entry			69		MFR. & MODEL		Will be finalized later		
26	NACE REQUIREMENT/NACE (MR-0175/ISO 15156)		No			70	ON INCR SIGNAL OUTPUT INCR / DECR		N/A				
TRIM	27	TRIM	TYPE	MATERIAL	VTA	316 SS-RPTFE		71	GAUGES		N/A		
	28	SIZE	RATED TRAVEL		VTA	VTA		72	CAM CHARACTERISTIC		N/A		
	29	CHARACTERISTICS		On/Off			73	AIR CONNECTION		N/A			
	30	BALANCED / UNBALANCED		VTA			74	TAG NO. :		XZSC-2133A/ XZSO-2133A			
	31	RATED Cv	FL	XT	VTA	VTA		VTA	75	TYPE	QUANTITY	Magnetically operated 'REED' contacts 2	
	32	PLUG / BALL / DISK MATERIAL		316 SS			76	CONTACTS / RATING		110V DC , 10A			
	33	SEAT	TYPE	MATERIAL	Soft Seat	PTFE		77	ACTUATION POINT		Fully Open/Close		
	34	CAGE / GUIDE MATERIAL		VTA			78	ENCLOSURE MATERIAL		Die Cast Aluminlum			
	35	STEM	TYPE	MATERIAL	Anti-Blow Out	316 SS		79	WEATHER PROTECTION		IP-65		
SOLENOID VALVE	36	LEAKAGE CLASS		ANSI Class VI			80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 × 1.5		
	37	VALVE STEM EXTENSION REQUIREMENT		YES			81	MFR. & MODEL		Will be finalized later			
	38	TAG NO		PSOV-2133A, ESOV-2133A			AIR SET	82	SET PRESSURE		Yes		
	39	TYPE		3 Way				83	PNEUMATIC CONNECTION		1/4" NPT		
	40	BODY MATERIAL	WEATHER IP.		AISI 316 S.S	IP-65		84	GAUGES	FILTER	Required	Required	
	41	ELE. CERTIFICATE	ELE. CONNECTION		EEx "d" ,IIB T4	ISO M20 × 1.5	TEST	85	MFR. & MODEL		Will be finalized later		
	42	MANUAL RESET		Yes				86	ANSI/FCI LEAKAGE CLASS		Required		
	43	Power Supply		24 VDC				87	HYDRO PRESSURE		Required		
	44	Pnu. Connection		1/4" NPT				88	FUNCTIONAL TEST		Required		
45	FUSIBLE LEAKAGE		No										
SPECIAL / ACCESS.	46	BLOCK RELAY		No									
	47	QUICK EXHUST		Yes									
	49	FILTER REGULATOR		Yes									
	50	VOLUME TANK		Yes									
	51	MECHANICAL POSITION INDICATOR		Required									
	52	MANUAL/PNEUMATIC BYPASS VALVE FOR SOLENOID VALVE		Yes									
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONIFRM (1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage. (4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID													

 NISOC		تکه‌داشت و افزایش تولید میدان نفتی بینک سطح الارض							 						
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک													
		Data Sheets For ON/OFF & Shutdown Valves													
شماره پیمان:		نسخه	سریال	نوع مدرک	رشته	تهیلات	صادر کننده	پسته کاری	پروژه	شماره صفحه: 26 از 37					
053 - 073 - 9038		D01	0010	DT	IN	120	PEDCO	GCS	BK						
On-Off Valve															
TAG NO:  XV-2133B		P&ID NO :		BK-GCS-PEDCO-120-PR-PI-0011-D04 (2 of 3)						SERVICE: 2nd Stage Gas Compression Air Coolers					
FLUID STATE: PROCESS GAS		PHASE:		GAS						AREA CLASSIFICATION: Zone2, IIB, T4					
SERVICE CONDITION										UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off	
	1	FLOW RATE								kg/h	-	8664	-	-	
	2	INLET PRESSURE								bar(g)	-	54.1	-	-	
	3	OUTLET PRESSURE								bar(g)	-	54.1	-	-	
	4	DIFFERENTIAL PRESSURE								bar(g)	-	-	-	62	
	5	INLET TEMPERATURE								°C	-	60	-	-	
	6	DENSITY								kg/m3	-	59.63	-	-	
	7	VISCOSITY								CP	-	-	-	-	
	8	VAPOR PRESSURE Pv								bar(a)	-	-	-	-	
9	CRITICAL PRESSURE								bar(a)	-	-	-	-		
LINE	10	PIPE LINE SIZE & SCHEDULE		IN	6"	40S			ACTUATOR	53	TYPE		Double Acting , Spring Return		
				OUT	6"	40S				54	SIZE	VTA	VTA		
	11	PIPING CLASS/PIPE LINE INSULATION		FS00 / Painted (Brilliant Green)						55	SPRING FAIL ACTION		Fail to Close		
VALVE BODY & BONNET	12	TYPE		Full Bore Ball Valve/Trunnion Mounted					56	MAX ALLOWABLE PRESSURE		VTA			
	13	SIZE		6"					57	MIN REQUIRES PRESSURE		VTA			
	14	MAX PRESS./TEMP		As per PMS					58	AVAILABLE AIR SUPPLY PRESSURE		MAX/NOR/MIN: 10/7/3 bar-g			
	15	MFR. & MODEL		Will be finalized later					59	BENCH RANGE		VTA			
	16	BODY / BONNET MATL		ASTM A351 GR.CF3M					60	TRAVELING TIME		7 S			
	17	LINER MATERIAL / ID		VTA					61	FUNCTION		On/Off			
	18	END CONNECTION	IN	6"x600#						62	LOCAL POSITION INDICATOR		Required		
		OUT	6"x600#							63	ACT. ORIENTATION		VTA		
	19	FLG FACE FINISH		RF					64	HAND WHEEL TYPE		Clutchable side mounted			
	20	END EXT./MATL		N/A					65	ADJUSTABLE LIMIT STOP		Yes			
	21	FLOW DIRECTION		(Note 18 in Page 4)					66	INPUT SIGNAL		24VDC			
	22	TYPE OF BONNET		Standard					67	MFR. & MODEL		Will be finalized later			
	23	LUBE & ISO VALVE		No					POSITIONER	68	TYPE		N/A		
	24	PACKING MATERIAL	PACKING TYPE		PTE	Standard				69	MFR. & MODEL		Will be finalized later		
25	ENTRY DESIGN		Top Entry							70	ON INCR SIGNAL OUTPUT INCR / DECR		N/A		
26	NACE REQUIREMENT/NACE (MR-0175/ISO 15156)		No					71	GAUGES		N/A				
TRIM	27	TRIM	TYPE	MATERIAL	VTA	316 SS-RPTFE			72	CAM CHARACTERISTIC		N/A			
	28	SIZE	RATED TRAVEL		VTA	VTA			73	AIR CONNECTION		N/A			
	29	CHARACTERISTICS		On/Off					LIMIT SWITCHES	74	TAG NO. :		XZSC-2133B/ XZSO-2133B		
	30	BALANCED / UNBALANCED		VTA						75	TYPE	QUANTITY	Magnetically operated 'REED' contacts	2	
	31	RATED Cv	FL	XT	VTA	VTA		VTA		76	CONTACTS / RATING		110V DC , 10A		
	32	PLUG / BALL / DISK MATERIAL		316 SS						77	ACTUATION POINT		Fully Open/Close		
	33	SEAT	TYPE	MATERIAL	Soft Seat	PTFE				78	ENCLOSURE MATERIAL		Die Cast Alumilum		
	34	CAGE / GUIDE MATERIAL		VTA						79	WEATHER PROTECTION		IP-65		
	35	STEM	TYPE	MATERIAL	Anti-Blow Out	316 SS				80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 × 1.5	
36	LEAKAGE CLASS		ANSI Class VI					81	MFR. & MODEL		Will be finalized later				
37	VALVE STEM EXTENSION REQUIREMENT		YES					AIR SET	82	SET PRESSURE		Yes			
38	TAG NO		PSOV-2133B, ESOV-2133B						83	PNEUMATIC CONNECTION		1/4" NPT			
39	TYPE		3 Way						84	GAUGES	FILTER	Required	Required		
40	BODY MATERIAL	WEATHER IP.		AISI 316 S.S	IP-65				85	MFR. & MODEL		Will be finalized later			
41	ELE. CERTIFICATE	ELE. CONNECTION		EEx "d" ,IIB T4	ISO M20 × 1.5				TEST	86	ANSI/FCI LEAKAGE CLASS		Required		
42	MANUAL RESET		Yes							87	HYDRO PRESSURE		Required		
43	Power Supply		24 VDC							88	FUNCTIONAL TEST		Required		
44	Pnu. Connection		1/4" NPT												
SPECIAL / ACCESS.	45	FUSIBLE LEAKAGE		No											
	46	BLOCK RELAY		No											
	47	QUICK EXHUST		Yes											
	49	FILTER REGULATOR		Yes											
	50	VOLUME TANK		Yes											
	51	MECHANICAL POSITION INDICATOR		Required											
	52	MANUAL/PNEUMATIC BYPASS VALVE FOR SOLENOID VALVE		Yes											
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONIFRM (1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage. (4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID															

 NISOC		تکه‌داشت و افزایش تولید میدان نفتی بینک سطح الارض							 			
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک Data Sheets For ON/OFF & Shutdown Valves										
شماره پیمان: 053 - 073 - 9038		نسخه: D01	سریال: 0010	تولید مدرک: DT	رشته: IN	تهیه‌کننده: PEDCO	پسته کاری: GCS	پروژه: BK	شماره صفحه: 27 از 37			
On-Off Valve												
TAG NO: XV-2133C D01		P&ID NO: BK-GCS-PEDCO-120-PR-PI-0011-D04 (3 of 3)			SERVICE: 2nd Stage Gas Compression Air Coolers							
FLUID STATE: PROCESS GAS		PHASE: GAS			AREA CLASSIFICATION: Zone2, IIB, T4							
SERVICE CONDITION	1	FLOW RATE				UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off		
	2	INLET PRESSURE				kg/h	-	8664	-	-		
	3	OUTLET PRESSURE				bar(g)	-	54.1	-	-		
	4	DIFFERENTIAL PRESSURE				bar(g)	-	54.1	-	-		
	5	INLET TEMPERATURE				bar(g)	-	-	-	62		
	6	DENSITY				°C	-	60	-	-		
	7	VISCOSITY				kg/m3	-	59.63	-	-		
	8	VAPOR PRESSURE Pv				CP	-	-	-	-		
	9	CRITICAL PRESSURE				bar(a)	-	-	-	-		
LINE	10	PIPE LINE SIZE & SCHEDULE		IN	6"	40S	ACTUATOR	53	TYPE		Double Acting , Spring Return	
	11	PIPING CLASS/PIPE LINE INSULATION		OUT	6"	40S		54	SIZE		VTA	VTA
	12	PIPE CLASS/PIPE LINE INSULATION		FS00 / Painted (Brilliant Green)				55	SPRING FAIL ACTION		Fail to Close	
VALVE BODY & BONNET	13	TYPE		Full Bore Ball Valve/Trunnion Mounted			56	MAX ALLOWABLE PRESSURE		VTA		
	14	SIZE		6"			57	MIN REQUIRES PRESSURE		VTA		
	15	MAX PRESS./TEMP		As per PMS			58	AVAILABLE AIR SUPPLY PRESSURE		MAX/NOR/MIN: 10/7/3 bar-g		
	16	MFR. & MODEL		Will be finalized later			59	BENCH RANGE		VTA		
	17	BODY / BONNET MATL		ASTM A351 GR.CF3M			60	TRAVELING TIME		7 S		
	18	LINER MATERIAL / ID		VTA			61	FUNCTION		On/Off		
	19	END CONNECTION		IN	6"x600#	POSITIONER	62	LOCAL POSITION INDICATOR		Required		
	20	OUT		6"x600#	63		ACT. ORIENTATION		VTA			
	21	FLG FACE FINISH		RF			64	HAND WHEEL TYPE		Clutchable side mounted		
	22	END EXT./MATL		N/A			65	ADJUSTABLE LIMIT STOP		Yes		
	23	FLOW DIRECTION		(Note 18 in Page 4)			66	INPUT SIGNAL		24VDC		
	24	TYPE OF BONNET		Standard			67	MFR. & MODEL		Will be finalized later		
	25	LUBE & ISO VALVE		No			68	TYPE		N/A		
	26	PACKING MATERIAL		PACKING TYPE	PTE	Standard	69	MFR. & MODEL		Will be finalized later		
27	ENTRY DESIGN		Top Entry			70	ON INCR SIGNAL OUTPUT INCR / DECR		N/A			
28	NACE REQUIREMENT/NACE (MR-0175/ISO 15156)		No			71	GAUGES		N/A			
TRIM	29	TRIM		TYPE	MATERIAL	VTA	316 SS-RPTFE	72	CAM CHARACTERISTIC		N/A	
	30	SIZE		RATED TRAVEL		VTA	VTA	73	AIR CONNECTION		N/A	
	31	CHARACTERISTICS		On/Off			74	TAG NO. :		XZSC-2133C/ XZSO-2133C		
	32	BALANCED / UNBALANCED		VTA			75	TYPE	QUANTITY	Magnetically operated 'REED' contacts	2	
	33	RATED Cv		FL	XT	VTA	VTA	76	CONTACTS / RATING		110V DC , 10A	
	34	PLUG / BALL / DISK MATERIAL		316 SS			77	ACTUATION POINT		Fully Open/Close		
	35	SEAT		TYPE	MATERIAL	Soft Seat	PTFE	78	ENCLOSURE MATERIAL		Die Cast Aluminum	
	36	CAGE / GUIDE MATERIAL		VTA			79	WEATHER PROTECTION		IP-65		
SOLENOID VALVE	37	STEM		TYPE	MATERIAL	Anti-Blow Out	316 SS	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 x 1.5
	38	LEAKAGE CLASS		ANSI Class VI			81	MFR. & MODEL		Will be finalized later		
	39	VALVE STEM EXTENSION REQUIREMENT		YES			82	SET PRESSURE		Yes		
	40	TAG NO		PSOV-2133C, ESOV-2133C			83	PNEUMATIC CONNECTION		1/4" NPT		
	41	TYPE		3 Way			84	GAUGES	FILTER	Required	Required	
	42	BODY MATERIAL		WEATHER IP.		AISI 316 S.S	IP-65	85	MFR. & MODEL		Will be finalized later	
	43	ELE. CERTIFICATE		ELE. CONNECTION		EEx "d" ,IIB T4	ISO M20 x 1.5	86	ANSI/FCI LEAKAGE CLASS		Required	
	44	MANUAL RESET		Yes			87	HYDRO PRESSURE		Required		
SPECIAL / ACCESS.	45	Power Supply		24 VDC			88	FUNCTIONAL TEST		Required		
	46	Pnu. Connection		1/4" NPT								
	47	FUSIBLE LEAKAGE		No								
	48	BLOCK RELAY		No								
	49	QUICK EXHUST		Yes								
	50	FILTER REGULATOR		Yes								
	51	VOLUME TANK		Yes								
52	MECHANICAL POSITION INDICATOR		Required									
53	MANUAL/PNEUMATIC BYPASS VALVE FOR SOLENOID VALVE		Yes									
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONIFRM (1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage. (4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID												

 NISOC		تجهاد است و افزایش تولید میدان نفتی بینک سطح الارض							 	
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک Data Sheets For ON/OFF & Shutdown Valves								
شماره پیمان:		نسخه	سریال	نوع مدرک	رشته	تهیلات	صادر کننده	پسته کاری	پروژه	شماره صفحه: 29 از 37
053 - 073 - 9038		D01	0010	DT	IN	120	PEDCO	GCS	BK	
On-Off Valve										
TAG NO:  BDV-2141		P&ID NO :		BK-GCS-PEDCO-120-PR-PI-0012-D04				SERVICE: 2nd Stage Gas Compression Discharge Drum		
FLUID STATE: FLARE GAS		PHASE: GAS				AREA CLASSIFICATION: Zone2, IIB, T4				
SERVICE CONDITION				UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off		
	1	FLOW RATE		kg/h	-	17252.49	-	-		
	2	INLET PRESSURE		bar(g)	-	53.9	-	-		
	3	OUTLET PRESSURE		bar(g)	-	53.9	-	-		
	4	DIFFERENTIAL PRESSURE		bar(g)	-	-	-	-	62	
	5	INLET TEMPERATURE		°C	-	59.89	-	-		
	6	DENSITY		kg/m3	-	59.17	-	-		
	7	VISCOSITY		CP	-	0.014	-	-		
	8	VAPOR PRESSURE Pv		bar(a)	-	-	-	-		
9	CRITICAL PRESSURE		bar(a)	-	-	-	-			
LINE	10	PIPE LINE SIZE & SCHEDULE		IN	2"	160				
				OUT	2"	160				
VALVE BODY & BONNET	11	PIPING CLASS/PIPE LINE INSULATION		FN05 / Painted (Brilliant Green)						
	12	TYPE		Full Bore Ball Valve Floating Type						
	13	SIZE		2"						
	14	MAX PRESS./TEMP		As per PMS						
	15	MFR. & MODEL		Will be finalized later						
	16	BODY / BONNET MATL		ASTM A216 Gr. WCB						
	17	LINER MATERIAL / ID		VTA						
	18	END CONNECTION	IN	2"	/600#					
		OUT	2"	/600#						
	19	FLG FACE FINISH		RF						
	20	END EXT./MATL		N/A						
	21	FLOW DIRECTION		(Note 18 in Page 4)						
	22	TYPE OF BONNET		Standard						
	TRIM	23	LUBE & ISO VALVE		No					
24		PACKING MATERIAL	PACKING TYPE	PTEF	Standard					
25		ENTRY DESIGN		Top Entry						
26		NACE REQUIREMENT/NACE (MR-0175/ISO 15156)		YES						
SOLENOID VALVE	27	TRIM	TYPE	MATERIAL	VTA	316 SS-RPTFE				
	28	SIZE	RATED TRAVEL		VTA	VTA				
	29	CHARACTERISTICS		On/Off						
	30	BALANCED / UNBALANCED		VTA						
	31	RATED Cv	FL	XT	VTA	VTA			VTA	
	32	PLUG / BALL / DISK MATERIAL		316 SS						
	33	SEAT	TYPE	MATERIAL	Soft Seat	PTFE				
	34	CAGE / GUIDE MATERIAL		VTA						
	35	STEM	TYPE	MATERIAL	Anti-Blow Out	Forged, 13% chromium steel				
	36	LEAKAGE CLASS		ANSI Class VI						
	37	VALVE STEM EXTENSION REQUIREMENT		YES						
SPECIAL / ACCESS.	38	TAG NO		BSOV-2141						
	39	TYPE		3 Way						
	40	BODY MATERIAL	WEATHER IP.		AISI 316 S.S	IP-65				
	41	ELE. CERTIFICATE	ELE. CONNECTION		EEx "d", IIB T4	ISO M20 x 1.5				
	42	MANUAL RESET		Yes						
	43	Power Supply		24 VDC						
	44	Pnu. Connection		1/4" NPT						
ACTUATOR	53	TYPE		Single Acting , Spring Return						
	54	SIZE		VTA						
	55	SPRING FAIL ACTION		Fail to Open						
	56	MAX ALLOWABLE PRESSURE		VTA						
	57	MIN REQUIRES PRESSURE		VTA						
	58	AVAILABLE AIR SUPPLY PRESSURE		MAX/NOR/MIN: 10/7/3 bar-g						
	59	BENCH RANGE		VTA						
	60	TRAVELING TIME		5 S						
	61	FUNCTION		On/Off						
	62	LOCAL POSITION INDICATOR		Required						
	63	ACT. ORIENTATION		VTA						
POSITIONER	64	HAND WHEEL TYPE		Detachable side mounted						
	65	ADJUSTABLE LIMIT STOP		No						
	66	INPUT SIGNAL		24VDC						
	67	MFR. & MODEL		Will be finalized later						
LIMIT SWITCHES	68	TYPE		N/A						
	69	MFR. & MODEL		Will be finalized later						
	70	ON INCR SIGNAL OUTPUT INCR / DECR		N/A						
	71	GAUGES		N/A						
AIR SET	72	CAM CHARACTERISTIC		N/A						
	73	AIR CONNECTION		N/A						
	74	TAG NO. :		BZSC-2141/ BZSO-2141						
	75	TYPE	QUANTITY	Magnetically operated 'REED' contacts				2		
	76	CONTACTS / RATING		110V DC , 10A						
	77	ACTUATION POINT		Fully Open/Close						
	78	ENCLOSURE MATERIAL		Die Cast Amulium						
	79	WEATHER PROTECTION		IP-65						
	80	ELEC. CERTIFICATE	ELEC. CONNECTION		EEx "d", IIB T4				ISO M20 x 1.5	
	81	MFR. & MODEL		Will be finalized later						
	TEST	82	SET PRESSURE		Yes					
83		PNEUMATIC CONNECTION		1/4" NPT						
84		GAUGES	FILTER	Required				Required		
85		MFR. & MODEL		Will be finalized later						
FIRE PROOF DESIGN	86	ANSI/FCI LEAKAGE CLASS		Required						
	87	HYDRO PRESSURE		Required						
	88	FUNCTIONAL TEST		Required						
	89									
	90									
91	PASSIVE FIRE PROTECTION		No							
92	API 6FA REQUIREMENTS		Yes							
93	SIL 3 REQUIREMENTS		Yes							
94	PARTIAL STROKING VALVE TEST		Yes							
95										
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONFIRM (1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage. (4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID										

 NISOC		تجهاد است و افزایش تولید میدان نفتی بینک سطح الارض							 			
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک Data Sheets For ON/OFF & Shutdown Valves										
شماره پیمان: 053 - 073 - 9038		نسخه	0010	DT	IN	120	PEDCO	صادر کننده	پسته کاری	پروژه	BK	GCS
شماره صفحه: 30 از 37												
On-Off Valve												
TAG NO:  XV-2142		P&ID NO :		BK-GCS-PEDCO-120-PR-PI-0012-D04				SERVICE: 2nd Stage Gas Compression Discharge Drum				
FLUID STATE: PROCESS GAS		PHASE:		GAS				AREA CLASSIFICATION: Zone2, IIB, T4				
SERVICE CONDITION					UNITS				Max Flow	Norm. Flow	Min. Flow	Shut-Off
	1	FLOW RATE				kg/h	-		17252.49	-	-	-
	2	INLET PRESSURE				bar(g)	-		53.9	-	-	-
	3	OUTLET PRESSURE				bar(g)	-		53.9	-	-	-
	4	DIFFERENTIAL PRESSURE				bar(g)	-		-	-	-	62
	5	INLET TEMPERATURE				°C	-		59.89	-	-	-
	6	DENSITY				kg/m3	-		59.17	-	-	-
	7	VISCOSITY				CP	-		0.014	-	-	-
	8	VAPOR PRESSURE Pv				bar(a)	-		-	-	-	-
9	CRITICAL PRESSURE				bar(a)	-		-	-	-	-	
LINE	10	PIPE LINE SIZE & SCHEDULE		IN	6"	80			53	TYPE		Double Acting , Spring Return
				OUT	6"	80			54	SIZE		VTA
VALVE BODY & BONNET	11	PIPING CLASS/PIPE LINE INSULATION		FN05 / Painted (Brilliant Green)				55	SPRING FAIL ACTION		Fail to Close	
	12	TYPE		Full Bore Ball Valve/Trunnion Mounted				56	MAX ALLOWABLE PRESSURE		VTA	
	13	SIZE		6"				57	MIN REQUIRES PRESSURE		VTA	
	14	MAX PRESS./TEMP		As per PMS				58	AVAILABLE AIR SUPPLY PRESSURE		MAX/NOR/MIN: 10/7/3 bar-g	
	15	MFR. & MODEL		Will be finalized later				59	BENCH RANGE		VTA	
	16	BODY / BONNET MATL		ASTM A216 Gr. WCB				60	TRAVELING TIME		7 S	
	17	LINER MATERIAL / ID		VTA				61	FUNCTION		On/Off	
	18	END CONNECTION	IN	6" /600#					62	LOCAL POSITION INDICATOR		Required
			OUT	6" /600#					63	ACT. ORIENTATION		VTA
	19	FLG FACE FINISH		RF				64	HAND WHEEL TYPE		Clutchable side mounted	
	20	END EXT./MATL		N/A				65	ADJUSTABLE LIMIT STOP		Yes	
	21	FLOW DIRECTION		(Note 18 in Page 4)				66	INPUT SIGNAL		24VDC	
	22	TYPE OF BONNET		Standard				67	MFR. & MODEL		Will be finalized later	
	TRIM	23	LUBE & ISO VALVE		No				68	TYPE		N/A
24		PACKING MATERIAL	PACKING TYPE		PTFE	Standard		69	MFR. & MODEL		Will be finalized later	
25		ENTRY DESIGN		Top Entry				70	ON INCR SIGNAL OUTPUT INCR / DECR		N/A	
26		NACE REQUIREMENT/NACE (MR-0175/ISO 15156)		No				71	GAUGES		N/A	
SOLENOID VALVE	27	TRIM	TYPE	MATERIAL	VTA	316 SS-RPTFE		72	CAM CHARACTERISTIC		N/A	
	28	SIZE	RATED TRAVEL		VTA	VTA		73	AIR CONNECTION		N/A	
	29	CHARACTERISTICS		On/Off				74	TAG NO. :		XZSC-2142/ XZSO-2142	
	30	BALANCED / UNBALANCED		VTA				75	TYPE	QUANTITY	Magnetically operated 'REED' contacts	
	31	RATED Cv	FL	XT	VTA	VTA		VTA	76	CONTACTS / RATING		110V DC , 10A
	32	PLUG / BALL / DISK MATERIAL		316 SS				77	ACTUATION POINT		Fully Open/Close	
	33	SEAT	TYPE	MATERIAL	Soft Seat	PTFE		78	ENCLOSURE MATERIAL		Die Cast Aluminum	
	34	CAGE / GUIDE MATERIAL		VTA				79	WEATHER PROTECTION		IP-65	
	35	STEM	TYPE	MATERIAL	Anti-Blow Out	Forged, 13% chromium steel		80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	
	36	LEAKAGE CLASS		ANSI Class VI				81	MFR. & MODEL		Will be finalized later	
SPECIAL / ACCESS.	37	VALVE STEM EXTENSION REQUIREMENT		YES				82	SET PRESSURE		Yes	
	38	TAG NO		PSOV-2142, ESOV-2142				83	PNEUMATIC CONNECTION		1/4" NPT	
	39	TYPE		3 Way				84	GAUGES	FILTER	Required	
	40	BODY MATERIAL	WEATHER IP.		AISI 316 S.S	IP-65		85	MFR. & MODEL		Will be finalized later	
	41	ELE. CERTIFICATE	ELE. CONNECTION		EEx "d" ,IIB T4	ISO M20 x 1.5		86	ANSI/FCI LEAKAGE CLASS		Required	
	42	MANUAL RESET		Yes				87	HYDRO PRESSURE		Required	
	43	Power Supply		24 VDC				88	FUNCTIONAL TEST		Required	
	44	Pnu. Connection		1/4" NPT								
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONIFRM (1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage. (4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID												

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض							 					
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک												
شماره پیمان: 053 - 073 - 9038		Data Sheets For ON/OFF & Shutdown Valves							شماره صفحه: 31 از 37					
		نسخه	سریال	نوع مدرک	رشته	تهیهات	صادر کننده	بسته کاری					پروژه	
		D01	BK	GCS	PEDCO	120	IN	DT	0010	D01				
On-Off Valve														
TAG NO: XV-2143		P&ID NO: BK-GCS-PEDCO-120-PR-PI-0012-D04		SERVICE: Slug Catcher System										
FLUID STATE: PROCESS GAS		PHASE: GAS		AREA CLASSIFICATION: Zone2, IIB, T4										
SERVICE CONDITION					UNITS		Max Flow		Norm. Flow		Min. Flow		Shut-Off	
	1	FLOW RATE			kg/h		-		17252.49		-		-	
	2	INLET PRESSURE			bar(g)		-		53.9		-		-	
	3	OUTLET PRESSURE			bar(g)		-		53.9		-		-	
	4	DIFFERENTIAL PRESSURE			bar(g)		-		-		-		62	
	5	INLET TEMPERATURE			°C		-		59.89		-		-	
	6	DENSITY			kg/m3		-		59.17		-		-	
	7	VISCOSITY			CP		-		0.014		-		-	
	8	VAPOR PRESSURE Pv			bar(a)		-		-		-		-	
9	CRITICAL PRESSURE			bar(a)		-		-		-		-		
LINE	10		PIPE LINE SIZE & SCHEDULE		IN		6"		80		ACTUATOR 53 TYPE Single Acting , Spring Return 54 SIZE VTA 55 SPRING FAIL ACTION Fail to Close 56 MAX ALLOWABLE PRESSURE VTA 57 MIN REQUIRES PRESSURE VTA 58 AVAILABLE AIR SUPPLY PRESSURE MAX/NOR/MIN: 10/7/3 bar-g 59 BENCH RANGE VTA 60 TRAVELING TIME 7 S 61 FUNCTION On/Off 62 LOCAL POSITION INDICATOR Required 63 ACT. ORIENTATION VTA 64 HAND WHEEL TYPE Clutchable side mounted 65 ADJUSTABLE LIMIT STOP Yes 66 INPUT SIGNAL 24VDC 67 MFR. & MODEL Will be finalized later			
					OUT		6"		80					
	11		PIPING CLASS/PIPE LINE INSULATION		FN05 / Painted (Brilliant Green)									
VALVE BODY & BONNET	12		TYPE		Full Bore Ball Valve/Trunnion Mounted						POSITIONER 68 TYPE N/A 69 MFR. & MODEL Will be finalized later 70 ON INCR SIGNAL OUTPUT INCR / DECR N/A 71 GAUGES N/A 72 CAM CHARACTERISTIC N/A 73 AIR CONNECTION N/A LIMIT SWITCHES 74 TAG NO. : XZSC-2143 /XZSO-2143 75 TYPE QUANTITY Magnetically operated "REED" contacts 2 76 CONTACTS / RATING 110V DC , 10A 77 ACTUATION POINT Fully Open/Close 78 ENCLOSURE MATERIAL Die Cast Amulium 79 WEATHER PROTECTION IP-65 80 ELEC. CERTIFICATE ELEC. CONNECTION EEx "d" ,IIB T4 ISO M20 x 1.5 81 MFR. & MODEL Will be finalized later 82 SET PRESSURE Yes 83 PNEUMATIC CONNECTION 1/4" NPT 84 GAUGES FILTER Required Required 85 MFR. & MODEL Will be finalized later 86 ANSI/FCI LEAKAGE CLASS Required 87 HYDRO PRESSURE Required 88 FUNCTIONAL TEST Required 89 90 91 FIRE PROOF DESIGN 92 PASSIVE FIRE PROTECTION Yes 93 API 6FA REQUIREMENTS Yes 94 SIL 3 REQUIREMENTS Yes 95 PARTIAL STROKING VALVE TEST Yes 96			
	13		SIZE		6"									
	14		MAX PRESS./TEMP		As per PMS									
	15		MFR. & MODEL		Will be finalized later									
	16		BODY / BONNET MATL		ASTIM A216 Gr. WCB									
	17		LINER MATERIAL / ID		VTA									
	18		END CONNECTION		IN 6" /600#		OUT 6" /600#							
	19		FLG FACE FINISH		RF									
	20		END EXT./MATL.		N/A									
	21		FLOW DIRECTION		(Note 18 in Page 4)									
	22		TYPE OF BONNET		Standard									
	23		LUBE & ISO VALVE		No									
	24		PACKING MATERIAL		PACKING TYPE PTFE		Standard							
	25		ENTRY DESIGN		Top Entry									
26		NACE REQUIREMENTNACE (MR-0175/ISO 15156)		YES										
TRIM	27		TRIM		TYPE MATERIAL VTA		316 SS+RPTFE				AIR SET 86 ANSI/FCI LEAKAGE CLASS Required 87 HYDRO PRESSURE Required 88 FUNCTIONAL TEST Required 89 90 91 FIRE PROOF DESIGN 92 PASSIVE FIRE PROTECTION Yes 93 API 6FA REQUIREMENTS Yes 94 SIL 3 REQUIREMENTS Yes 95 PARTIAL STROKING VALVE TEST Yes 96			
	28		SIZE		RATED TRAVEL VTA		VTA							
	29		CHARACTERISTICS		On/Off									
	30		BALANCED / UNBALANCED		VTA									
	31		RATED Cv		FL XT		VTA VTA		VTA					
	32		PLUG / BALL / DISK MATERIAL		316 SS									
	33		SEAT		TYPE MATERIAL Soft Seat		PTFE							
	34		CAGE / GUIDE MATERIAL		VTA									
	35		STEM		TYPE MATERIAL Anti-Blow Out		Forged, 13% chromium steel							
	36		LEAKAGE CLASS		ANSI Class V1									
	37		VALVE STEM EXTENSION REQUIREMENT		YES									
SOLENOID VALVE	38		TAG NO		ESOV-2143, PSOV-2143						TEST 89 90 91 FIRE PROOF DESIGN 92 PASSIVE FIRE PROTECTION Yes 93 API 6FA REQUIREMENTS Yes 94 SIL 3 REQUIREMENTS Yes 95 PARTIAL STROKING VALVE TEST Yes 96			
	39		TYPE		3 Way									
	40		BODY MATERIAL		WEATHER IP. AISI 316 S.S		IP-65							
	41		ELE. CERTIFICATE		ELE. CONNECTION EEx "d" ,IIB T4		ISO M20 x 1.5							
	42		MANUAL RESET		Yes									
	43		Power Supply		24 VDC									
	44		Pno. Connection		1/4" NPT									
	45		FUSIBLE LEAKAGE		No									
SPECIAL / ACCESS.	46		BLOCK RELAY		No						FIRE PROOF DESIGN 92 PASSIVE FIRE PROTECTION Yes 93 API 6FA REQUIREMENTS Yes 94 SIL 3 REQUIREMENTS Yes 95 PARTIAL STROKING VALVE TEST Yes 96			
	47		QUICK EXHUST		Yes									
	48		FILTER REGULATOR		Yes									
	49		VOLUME TANK		No									
	50		MECHANICAL POSITION INDICATOR		Required									
	51		MANUAL PNEUMATIC BYPASS VALVE FOR SOLENOID VALVE		Yes									
	52													
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONFIRM (1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage. (4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID														

 NISOC		تکه‌داشت و افزایش تولید میدان نفتی بینک سطح الارض							 	
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک Data Sheets For ON/OFF & Shutdown Valves								
شماره پیمان: 053 - 073 - 9038		نسخه	سرپال	تور مدرک	رشته	تهیلات	صادر کننده	پسته کاری	پروژه	شماره پیمان:
		D01	0010	DT	IN	120	PEDCO	GCS	BK	
شماره صفحه: 32 از 37										
On-Off Valve										
TAG NO:  XV-2144		P&ID NO: BK-GCS-PEDCO-120-PR-PI-0012-D04			SERVICE: 2nd Stage Gas Compression Discharge Drum					
FLUID STATE: CLOSED DRAIN		PHASE: LIQUID			AREA CLASSIFICATION: Zone2, IIB, T4					
SERVICE CONDITION				UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off		
	1	FLOW RATE		kg/h	-	74.84	-	-		
	2	INLET PRESSURE		bar(g)	-	53.9	-	-		
	3	OUTLET PRESSURE		bar(g)	-	53.9	-	-		
	4	DIFFERENTIAL PRESSURE		bar(g)	-	-	-	-	62	
	5	INLET TEMPERATURE		°C	-	59.89	-	-		
	6	DENSITY		kg/m3	-	982	-	-		
	7	VISCOSITY		CP	-	0.495	-	-		
	8	VAPOR PRESSURE Pv		bar(a)	-	-	-	-		
9	CRITICAL PRESSURE		bar(a)	-	-	-	-			
LINE	10	PIPE LINE SIZE & SCHEDULE		IN	2"	40S				
				OUT	2"	40S				
	11	PIPING CLASS/PIPE LINE INSULATION		FS00 / Painted (Brilliant Green)						
VALVE BODY & BONNET	12	TYPE		Full Bore Ball Valve/Trunnion Mounted						
	13	SIZE		2"						
	14	MAX PRESS./TEMP		As per PMS						
	15	MFR. & MODEL		Will be finalized later						
	16	BODY / BONNET MATL		ASTM A351 GR.CF3M						
	17	LINER MATERIAL / ID		VTA						
	18	END CONNECTION	IN	2"	600#					
		OUT	2"	600#						
	19	FLG FACE FINISH		RF						
	20	END EXT./MATL		N/A						
	21	FLOW DIRECTION		(Note 18 in Page 4)						
	22	TYPE OF BONNET		Standard						
	23	LUBE & ISO VALVE		No						
	24	PACKING MATERIAL	PACKING TYPE	PTEF	Standard					
25	ENTRY DESIGN		Top Entry							
26	NACE REQUIREMENT/NACE (MR-0175/ISO 15156)		No							
TRIM	27	TRIM	TYPE	MATERIAL	VTA	316 SS-RPTFE				
	28	SIZE	RATED TRAVEL		VTA	VTA				
	29	CHARACTERISTICS		On/Off						
	30	BALANCED / UNBALANCED		VTA						
	31	RATED Cv	FL	XT	VTA	VTA				
	32	PLUG / BALL / DISK MATERIAL		316 SS						
	33	SEAT	TYPE	MATERIAL	Soft Seat	PTFE				
	34	CAGE / GUIDE MATERIAL		VTA						
35	STEM	TYPE	MATERIAL	Anti-Blow Out	316 SS					
36	LEAKAGE CLASS		ANSI Class VI							
37	VALVE STEM EXTENSION REQUIREMENT		YES							
SOLENOID VALVE	38	TAG NO		PSOV-2133C, ESOV-2133C						
	39	TYPE		3 Way						
	40	BODY MATERIAL	WEATHER IP.		AISI 316 S.S	IP-65				
	41	ELE. CERTIFICATE	ELE. CONNECTION		EEx "d", IIB T4	ISO M20 x 1.5				
	42	MANUAL RESET		Yes						
	43	Power Supply		24 VDC						
	44	Pnu. Connection		1/4" NPT						
SPECIAL / ACCESS.	45	FUSIBLE LEAKAGE		No						
	46	BLOCK RELAY		No						
	47	QUICK EXHUST		Yes						
	49	FILTER REGULATOR		Yes						
	50	VOLUME TANK		Yes						
	51	MECHANICAL POSITION INDICATOR		Required						
	52	MANUAL/PNEUMATIC BYPASS VALVE FOR SOLENOID VALVE		Yes						
ACTUATOR	53	TYPE		Double Acting , Spring Return						
	54	SIZE		VTA		VTA				
	55	SPRING FAIL ACTION		Fail to Close						
	56	MAX ALLOWABLE PRESSURE		VTA						
	57	MIN REQUIRES PRESSURE		VTA						
	58	AVAILABLE AIR SUPPLY PRESSURE		MAX/NOR/MIN: 10/7/3 bar-g						
	59	BENCH RANGE		VTA						
	60	TRAVELING TIME		5 S						
	61	FUNCTION		On/Off						
	62	LOCAL POSITION INDICATOR		Required						
63	ACT. ORIENTATION		VTA							
64	HAND WHEEL TYPE		Clutchable side mounted							
65	ADJUSTABLE LIMIT STOP		Yes							
66	INPUT SIGNAL		24VDC							
67	MFR. & MODEL		Will be finalized later							
POSITIONER	68	TYPE		N/A						
	69	MFR. & MODEL		Will be finalized later						
	70	ON INCR SIGNAL OUTPUT INCR / DECR		N/A						
	71	GAUGES		N/A						
72	CAM CHARACTERISTIC		N/A							
73	AIR CONNECTION		N/A							
LIMIT SWITCHES	74	TAG NO. :		XZSC-2144/ XZSO-2144						
	75	TYPE	QUANTITY	Magnetically operated 'REED' contacts				2		
	76	CONTACTS / RATING		110V DC , 10A						
	77	ACTUATION POINT		Fully Open/Close						
	78	ENCLOSURE MATERIAL		Die Cast Amulium						
	79	WEATHER PROTECTION		IP-65						
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d", IIB T4				ISO M20 x 1.5		
	81	MFR. & MODEL		Will be finalized later						
AIR SET	82	SET PRESSURE		Yes						
	83	PNEUMATIC CONNECTION		1/4" NPT						
	84	GAUGES	FILTER	Required				Required		
	85	MFR. & MODEL		Will be finalized later						
	86	ANSI/FCI LEAKAGE CLASS		Required						
TEST	87	HYDRO PRESSURE		Required						
	88	FUNCTIONAL TEST		Required						
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONFIRM (1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage. (4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID										

 NISOC		تجهیزات و افزایش تولید میدان نفتی بینک سطح الارض								 		
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک Data Sheets For ON/OFF & Shutdown Valves										
شماره پیمان:		شماره پیمان:	پروژه	پسته کاری	صادر کننده	تهیهات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: 33 از 37	
053 - 073 - 9038			BK	GCS	PEDCO	120	IN	DT	0010	D01		
On-Off Valve												
TAG NO:  BDV-2151			P&ID NO :			BK-GCS-PEDCO-120-PR-PI-0013-D04			SERVICE: Dehydration Package			
FLUID STATE: VENT GAS			PHASE: GAS						AREA CLASSIFICATION: Zone2, IIB, T4			
SERVICE CONDITION								UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
	1	FLOW RATE						kg/h	-	17170.8	-	-
	2	INLET PRESSURE						bar(g)	-	52.9	-	-
	3	OUTLET PRESSURE						bar(g)	-	52.9	-	-
	4	DIFFERENTIAL PRESSURE						bar(g)	-	-	-	62
	5	INLET TEMPERATURE						°C	-	59.4	-	-
	6	DENSITY						kg/m3	-	58.06	-	-
	7	VISCOSITY						CP	-	0.013	-	-
	8	VAPOR PRESSURE Pv						bar(a)	-	-	-	-
9	CRITICAL PRESSURE						bar(a)	-	-	-	-	
LINE	10	PIPE LINE SIZE & SCHEDULE	IN		3"	80						
			OUT		3"	80						
VALVE BODY & BONNET	11	PIPING CLASS/PIPE LINE INSULATION	FN05 / Painted (Brilliant Green)									
	12	TYPE	Full Bore Ball Valve/ Floating Type									
	13	SIZE	3"									
	14	MAX PRESS./TEMP	As per PMS									
	15	MFR. & MODEL	Will be finalized later									
	16	BODY / BONNET MATL	ASTM A216 Gr. WCB									
	17	LINER MATERIAL / ID	VTA									
	18	END CONNECTION	IN	3" /600#								
			OUT	3" /600#								
	19	FLG FACE FINISH	RF									
	20	END EXT. MATL	N/A									
	21	FLOW DIRECTION	(Note 18 in Page 4)									
	22	TYPE OF BONNET	Standard									
	23	LUBE & ISO VALVE	No									
	24	PACKING MATERIAL	PACKING TYPE		PTE	Standard						
	25	ENTRY DESIGN	Top Entry									
	26	NACE REQUIREMENT	NACE (MR-0175/ISO 15156)		YES							
TRIM	27	TRIM	TYPE	MATERIAL	VTA	316 SS+RPTFE						
	28	SIZE	RATED TRAVEL		VTA	VTA						
	29	CHARACTERISTICS	On/Off									
	30	BALANCED / UNBALANCED	VTA									
	31	RATED Cv	FL	XT	VTA	VTA			VTA			
	32	PLUG / BALL / DISK MATERIAL	316 SS									
	33	SEAT	TYPE	MATERIAL	Soft Seat	PTFE						
	34	CAGE / GUIDE MATERIAL	VTA									
	35	STEM	TYPE	MATERIAL	Anti-Blow Out	Forged, 13% chromium steel						
	36	LEAKAGE CLASS	ANSI Class V1									
37	VALVE STEM EXTENSION REQUIREMENT	YES										
SOLENOID VALVE	38	TAG NO	BSOV-2151									
	39	TYPE	3 Way									
	40	BODY MATERIAL	WEATHER IP.		AISI 316 S.S	IP-65						
	41	ELE. CERTIFICATE	ELE. CONNECTION		EEx "d", IIB T4	ISO M20 x 1.5						
	42	MANUAL RESET	Yes									
	43	Power Supply	24 VDC									
	44	Pnu. Connection	1/4" NPT									
SPECIAL / ACCESS.	45	FUSIBLE LEAKAGE	No									
	46	BLOCK RELAY	No									
	47	QUICK EXHUST	Yes									
	49	FILTER REGULATOR	Yes									
	50	VOLUME TANK	No									
	51	MECHANICAL POSITION INDICATOR	Required									
ACTUATOR	53	TYPE	Single Acting , Spring Return									
	54	SIZE	VTA									
	55	SPRING FAIL ACTION	Fail to Open									
	56	MAX ALLOWABLE PRESSURE	VTA									
	57	MIN REQUIRES PRESSURE	VTA									
	58	AVAILABLE AIR SUPPLY PRESSURE	MAX/NORM/MIN: 10/7/3 bar-g									
	59	BENCH RANGE	VTA									
	60	TRAVELING TIME	5 S									
	61	FUNCTION	On/Off									
	62	LOCAL POSITION INDICATOR	Required									
POSITIONER	63	ACT. ORIENTATION	VTA									
	64	HAND WHEEL TYPE	Declutchable side mounted									
	65	ADJUSTABLE LIMIT STOP	No									
	66	INPUT SIGNAL	24VDC									
	67	MFR. & MODEL	Will be finalized later									
	68	TYPE	N/A									
	69	MFR. & MODEL	Will be finalized later									
	70	ON INCR SIGNAL OUTPUT INCR / DECR	N/A									
	71	GAUGES	N/A									
	72	CAM CHARACTERISTIC	N/A									
LIMIT SWITCHES	73	AIR CONNECTION	N/A									
	74	TAG NO. :	BZSC-2151/ BZSO-2151									
	75	TYPE	QUANTITY	Magnetically operated 'REED' contacts		2						
	76	CONTACTS / RATING	110V DC , 10A									
	77	ACTUATION POINT	Fully Open/Close									
	78	ENCLOSURE MATERIAL	Die Cast Amulium									
	79	WEATHER PROTECTION	IP-65									
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d", IIB T4	ISO M20 x 1.5							
	81	MFR. & MODEL	Will be finalized later									
	AIR SET	82	SET PRESSURE	Yes								
83		PNEUMATIC CONNECTION	1/4" NPT									
84		GAUGES	FILTER	Required		Required						
85		MFR. & MODEL	Will be finalized later									
TEST		86	ANSI/FCI LEAKAGE CLASS	Required								
	87	HYDRO PRESSURE	Required									
	88	FUNCTIONAL TEST	Required									
	89											
	90											
FIRE PROOF DESIGN	91	PASSIVE FIRE PROTECTION	No									
	92	API 6FA REQUIREMENTS	Yes									
	93	SIL 3 REQUIREMENTS	Yes									
	94	PARTIAL STROKING VALVE TEST	Yes									
	95											
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONFIRM (1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage. (4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID												

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض						 					
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک											
شماره پیمان: 053 - 073 - 9038		Data Sheets For ON/OFF & Shutdown Valves						شماره صفحه: 34 از 37					
		نسخه	سریال	نوع مدرک	رشته	تجهیزات	صادر کننده					بسته کاری	پروژه
		BK	GCS	PEDCO	120	IN	DT	0010					
On-Off Valve													
TAG NO: ESDV-2231		P&ID NO :		BK-GCS-PEDCO-120-PR-PI-0015 (1 of 2)				SERVICE: Slug Catcher System					
FLUID STATE: INSTRUMENT AIR		PHASE:		GAS				AREA CLASSIFICATION: Zone2, IIB, T4					
SERVICE CONDITION								UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off	
	1	FLOW RATE						kg/h	-	38.75	-	-	
	2	INLET PRESSURE						bar(g)	-	4.5	-	-	
	3	OUTLET PRESSURE						bar(g)	-	4.5	-	-	
	4	DIFFERENTIAL PRESSURE						bar(g)	-	-	-	62	
	5	INLET TEMPERATURE						°C	-	60	-	-	
	6	DENSITY						kg/m3	-	5.7	-	-	
	7	VISCOSITY						CP	-	0.012	-	-	
	8	VAPOR PRESSURE Pv						bar(a)	-	-	-	-	
9	CRITICAL PRESSURE						bar(a)	-	-	-	-		
LINE	10	PIPE LINE SIZE & SCHEDULE		IN	1 1/2" 80		ACTUATOR	53	TYPE		Single Acting , Spring Return		
				OUT	1 1/2" 80			54	SIZE		VTA		
	11	PIPING CLASS/PIPE LINE INSULATION		AN04 / Painted (Brilliant Green)				55	SPRING FAIL ACTION		Fail to Close		
VALVE BODY & BONNET	12	TYPE		Full Bore Ball Valve/Trunnion Mounted				56	MAX ALLOWABLE PRESSURE		VTA		
	13	SIZE		1 1/2"				57	MIN REQUIRES PRESSURE		VTA		
	14	MAX PRESS./TEMP		As per PMS				58	AVAILABLE AIR SUPPLY PRESSURE		MAX/NOR/MIN: 10/7/3 bar-g		
	15	MFR. & MODEL		Will be finalized later				59	BENCH RANGE		VTA		
	16	BODY / BONNET MATL		ASTM A216 WCB				60	TRAVELING TIME		5 S		
	17	LINER MATERIAL / ID		VTA				61	FUNCTION		On/Off		
	18	END CONNECTION	IN	1 1/2" /800#		POSITIONER	62	LOCAL POSITION INDICATOR		Required			
		OUT	1 1/2" /800#		63		ACT. ORIENTATION		VTA				
	19	FLG FACE FINISH		RF				64	HAND WHEEL TYPE		Clutchable side mounted		
	20	END EXT./MATL.		N/A				65	ADJUSTABLE LIMIT STOP		Yes		
		21	FLOW DIRECTION		(Note 18 in Page 4)				66	INPUT SIGNAL		24VDC	
		22	TYPE OF BONNET		Standard				67	MFR. & MODEL		Will be finalized later	
		23	LUBE & ISO VALVE		No				68	TYPE		N/A	
		24	PACKING MATERIAL	PACKING TYPE	PTFE		Standard	69	MFR. & MODEL		Will be finalized later		
	25	ENTRY DESIGN		Top Entry				70	ON INCR SIGNAL OUTPUT INCR / DECR		N/A		
	26	NACE REQUIREMENTNACE (MR-0175/ISO 15156)		YES				71	GAUGES		N/A		
TRIM	27	TRIM	TYPE	MATERIAL	VTA		316 SS+ PTFE	72	CAM CHARACTERISTIC		N/A		
	28	SIZE	RATED TRAVEL		VTA		VTA	73	AIR CONNECTION		N/A		
	29	CHARACTERISTICS		On/Off				74	TAG NO. :		EZSC-2231 / EZSO-2231		
	30	BALANCED / UNBALANCED		VTA				75	TYPE	QUANTITY	Magnetically operated "REED" contacts 2		
	31	RATED Cv	FL	XT	VTA		VTA	VTA	76	CONTACTS / RATING		110V DC , 10A	
	32	PLUG / BALL / DISK MATERIAL		316 SS				77	ACTUATION POINT		Fully Open/Close		
	33	SEAT	TYPE	MATERIAL	Soft Seat		PTFE	78	ENCLOSURE MATERIAL		Die Cast Aluminum		
	34	CAGE / GUIDE MATERIAL		VTA				79	WEATHER PROTECTION		IP-65		
	35	STEM	TYPE	MATERIAL	Anti-Blow Out		Forged, 13% chromium steel	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" , IIB T4	ISO M20 x 1.5	
	36	LEAKAGE CLASS		ANSI Class VI				81	MFR. & MODEL		Will be finalized later		
	SOLENOID VALVE	38	TAG NO		ESOV-2231				AIR SET	82	SET PRESSURE		Yes
39		TYPE		3 Way				83		PNEUMATIC CONNECTION		1/4" NPT	
40		BODY MATERIAL		WEATHER IP.		AISI 316 S.S	IP-65	84		GAUGES	FILTER	Required	Required
41		ELE. CERTIFICATE	ELE. CONNECTION	EEx "d" , IIB T4		ISO M20 x 1.5	85	MFR. & MODEL		Will be finalized later			
42		MANUAL RESET		Yes				TEST	86	ANSI/FCI LEAKAGE CLASS		Required	
43		Power Supply		24 VDC					87	HYDRO PRESSURE		Required	
44		Pno. Connection		1/4" NPT					88	FUNCTIONAL TEST		Required	
45		FUSIBLE LEAKAGE		No					89				
SPECIAL / ACCESS.	46	BLOCK RELAY		No				FIRE PROOF DESIGN	90				
	47	QUICK EXHUST		Yes					91				
	48	FILTER REGULATOR		Yes					92	PASSIVE FIRE PROTECTION		Yes	
	49	VOLUME TANK		No					93	API 6FA REQUIREMENTS		Yes	
	50	MECHANICAL POSITION INDICATOR		Required					94	SIL 3 REQUIREMENTS		Yes	
	51	MANUAL PNEUMATIC BYPASS VALVE FOR SOLENOID VALVE		Yes					95	PARTIAL STROKING VALVE TEST		Yes	
	52								96				
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONFIRM (1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage. (4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID													

 NISOC		تکه‌داشت و افزایش تولید میدان نفتی بینک سطح الارض							 				
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک											
		Data Sheets For ON/OFF & Shutdown Valves											
شماره پیمان:		نسخه	سریال	نوع مدرک	رشته	تهیلات	صادر کننده	پسته کاری	پروژه	شماره صفحه: 35 از 37			
053 - 073 - 9038		D01	0010	IN	120	PEDCO	GCS	BK					
On-Off Valve													
TAG NO:  XV-2271		P&ID NO :		BK-GCS-PEDCO-120-PR-PI-0022-D04					SERVICE: Fuel Gas System				
FLUID STATE: Fuel Gas		PHASE:		GAS					AREA CLASSIFICATION: Zone2, IIB, T4				
SERVICE CONDITION					UNITS		Max Flow	Norm. Flow	Min. Flow	Shut-Off			
	1	FLOW RATE			kg/h	-	603.15	-	-	-			
	2	INLET PRESSURE			bar(g)	-	4.9	-	-	-			
	3	OUTLET PRESSURE			bar(g)	-	4.9	-	-	-			
	4	DIFFERENTIAL PRESSURE			bar(g)	-	-	-	-	9			
	5	INLET TEMPERATURE			°C	-	36.7	-	-	-			
	6	DENSITY			kg/m3	-	998.5	-	-	-			
	7	VISCOSITY			CP	-	0.6934	-	-	-			
	8	VAPOR PRESSURE Pv			bar(a)	-	-	-	-	-			
9	CRITICAL PRESSURE			bar(a)	-	-	-	-	-				
LINE	10	PIPE LINE SIZE & SCHEDULE		IN	2"	160							
				OUT	2"	160							
	11	PIPG CLASS/PIPE LINE INSULATION		AN07 / Painted (Brilliant Green)									
VALVE BODY & BONNET	12	TYPE		Full Bore Ball Valve/Trunnion Mounted									
	13	SIZE		2"									
	14	MAX PRESS./TEMP		As per PMS									
	15	MFR. & MODEL		Will be finalized later									
	16	BODY / BONNET MATL		ASTM A216 Gr. WCB									
	17	LINER MATERIAL / ID		VTA									
	18	END CONNECTION	IN	2" /300#									
		OUT	2" /300#										
	19	FLG FACE FINISH		RF									
	20	END EXT./MATL		N/A									
	21	FLOW DIRECTION		(Note 18 in Page 4)									
	22	TYPE OF BONNET		Standard									
	23	LUBE & ISO VALVE		No									
	24	PACKING MATERIAL	PACKING TYPE	PTEF	Standard								
25	ENTRY DESIGN		Top Entry										
26	NACE REQUIREMENT/NACE (MR-0175/ISO 15156)		No										
TRIM	27	TRIM	TYPE	MATERIAL	VTA	316 SS+PTFE							
	28	SIZE	RATED TRAVEL		VTA	VTA							
	29	CHARACTERISTICS		On/Off									
	30	BALANCED / UNBALANCED		VTA									
	31	RATED Cv	FL	XT	VTA	VTA		VTA					
	32	PLUG / BALL / DISK MATERIAL		316 SS									
	33	SEAT	TYPE	MATERIAL	Soft Seat	PTFE							
	34	CAGE / GUIDE MATERIAL		VTA									
	35	STEM	TYPE	MATERIAL	Anti-Blow Out	316 SS							
	36	LEAKAGE CLASS		ANSI Class VI									
37	VALVE STEM EXTENSION REQUIREMENT		YES										
SOLENOID VALVE	38	TAG NO		PSOV-2271, ESOV-2271									
	39	TYPE		3 Way									
	40	BODY MATERIAL	WEATHER IP.		AISI 316 S.S	IP-65							
	41	ELE. CERTIFICATE	ELE. CONNECTION		EEx "d", IIB T4	ISO M20 x 1.5							
	42	MANUAL RESET		Yes									
	43	Power Supply		24 VDC									
	44	Pnu. Connection		1/4" NPT									
SPECIAL / ACCESS.	45	FUSIBLE LEAKAGE		No									
	46	BLOCK RELAY		No									
	47	QUICK EXHUST		Yes									
	49	FILTER REGULATOR		Yes									
	50	VOLUME TANK		Yes									
	51	MECHANICAL POSITION INDICATOR		Required									
	52	MANUAL/PNEUMATIC BYPASS VALVE FOR SOLENOID VALVE		Yes									
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONIFRM (1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage. (4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID													

 NISOC		تجهیزات و افزایش تولید میدان نفتی بینک سطح الارض							 					
		احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک												
شماره پیمان: 053 - 073 - 9038		نسخه	سریال	نوع مدرک	رشته	تهیهات	صادر کننده	پسته کاری	پروژه	شماره صفحه: 36 از 37				
		D01	0010	DT	IN	120	PEDCO	GCS	BK					
On-Off Valve														
TAG NO: ESDV-2272		P&ID NO: BK-GCS-PEDCO-120-PR-PI-0022-D04		SERVICE: Fuel Gas System										
FLUID STATE: FUEL GAS		PHASE: GAS		AREA CLASSIFICATION: Zone2, IIB, T4										
SERVICE CONDITION							UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off			
	1	FLOW RATE					kg/h	-	505.8	-	-			
	2	INLET PRESSURE					bar(g)	-	5.1	-	-			
	3	OUTLET PRESSURE					bar(g)	-	5.1	-	-			
	4	DIFFERENTIAL PRESSURE					bar(g)	-	-	-	9			
	5	INLET TEMPERATURE					°C	-	36.78	-	-			
	6	DENSITY					kg/m3	-	5.77	-	-			
	7	VISCOSITY					CP	-	0.011	-	-			
	8	VAPOR PRESSURE Pv					bar(a)	-	-	-	-			
9	CRITICAL PRESSURE					bar(a)	-	-	-	-				
LINE	10	PIPE LINE SIZE & SCHEDULE		IN	3"	80	ACTUATOR	53	TYPE		Single Acting , Spring Return			
				OUT	3"	80		54	SIZE		VTA			
	11	PIPG CLASS/PIPE LINE INSULATION		AN07 / Painted (Brilliant Green)				55	SPRING FAIL ACTION		Fail to Close			
VALVE BODY & BONNET	12	TYPE		Full Bore Ball Valve/Trunnion Mounted			56	MAX ALLOWABLE PRESSURE		VTA				
	13	SIZE		3"			57	MIN REQUIRES PRESSURE		VTA				
	14	MAX PRESS./TEMP		As per PMS			58	AVAILABLE AIR SUPPLY PRESSURE		MAX/NOR/MIN: 10/7/3 bar-g				
	15	MFR. & MODEL		Will be finalized later			59	BENCH RANGE		VTA				
	16	BODY / BONNET MATL		ASTM A216 Gr. WCB			60	TRAVELING TIME		5 S				
	17	LINER MATERIAL / ID		VTA			61	FUNCTION		On/Off				
	18	END CONNECTION	IN	3"	/300#		62	LOCAL POSITION INDICATOR		Required				
		OUT	3"	/300#		63	ACT. ORIENTATION		VTA					
	19	FLG FACE FINISH		RF			64	HAND WHEEL TYPE		Clutchable side mounted				
	20	END EXT./MATL.		N/A			65	ADJUSTABLE LIMIT STOP		Yes				
	21	FLOW DIRECTION		(Note 18 in Page 4)			66	INPUT SIGNAL		24VDC				
	22	TYPE OF BONNET		Standard			67	MFR. & MODEL		Will be finalized later				
	23	LUBE & ISO VALVE		No			POSITIONER	68	TYPE		N/A			
	24	PACKING MATERIAL	PACKING TYPE		PTFE			69	MFR. & MODEL		Will be finalized later			
25	ENTRY DESIGN		Top Entry			70		ON INCR SIGNAL OUTPUT INCR / DECR		N/A				
26	NACE REQUIREMENT/NACE (MR-0175/ISO 15156)		YES			71		GAUGES		N/A				
TRIM	27	TRIM	TYPE	MATERIAL	VTA	316 SS+PTFE	72	CAM CHARACTERISTIC		N/A				
	28	SIZE	RATED TRAVEL		VTA	VTA	73	AIR CONNECTION		N/A				
	29	CHARACTERISTICS		On/Off			LIMIT SWITCHES	74	TAG NO. :		EZSC-2272 /EZSO-2272			
	30	BALANCED / UNBALANCED		VTA				75	TYPE	QUANTITY	Magnetically operated 'REED' contacts	2		
	31	RATED Cv	FL	XT	VTA	VTA			VTA	76	CONTACTS / RATING		110V DC , 10A	
	32	PLUG / BALL / DISK MATERIAL		316 SS				77	ACTUATION POINT		Fully Open/Close			
	33	SEAT	TYPE	MATERIAL	Soft Seat			PTFE	78	ENCLOSURE MATERIAL		Die Cast Amulium		
	34	CAGE / GUIDE MATERIAL		VTA				79	WEATHER PROTECTION		IP-65			
	35	STEM	TYPE	MATERIAL	Anti-Blow Out			316 SS	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 x 1.5	
	36	LEAKAGE CLASS		ANSI Class VI				81	MFR. & MODEL		Will be finalized later			
	37	VALVE STEM EXTENSION REQUIREMENT		YES				82	SET PRESSURE		Yes			
SOLENOID VALVE	38	TAG NO		ESOVS-2272			AIR SET	83	PNEUMATIC CONNECTION		1/4" NPT			
	39	TYPE		3 Way				84	GAUGES	FILTER	Required	Required		
	40	BODY MATERIAL	WEATHER IP.		AISI 316 S.S			IP-65	85	MFR. & MODEL		Will be finalized later		
	41	ELE. CERTIFICATE	ELE. CONNECTION		EEx "d" ,IIB T4		ISO M20 x 1.5	86	ANSI/FCI LEAKAGE CLASS		Required			
	42	MANUAL RESET		Yes			TEST	87	HYDRO PRESSURE		Required			
	43	Power Supply		24 VDC				88	FUNCTIONAL TEST		Required			
	44	Pnu. Connection		1/4" NPT				89						
45	FUSIBLE LEAKAGE		No			90								
SPECIAL / ACCESS.	46	BLOCK RELAY		No			FIRE PROOF DESIGN	91						
	47	QUICK EXHUST		Yes				92	PASSIVE FIRE PROTECTION		Yes			
	48	FILTER REGULATOR		Yes				93	API 6FA REQUIREMENTS		Yes			
	49							94	SIL 3 REQUIREMENTS		Yes			
	50	VOLUME TANK		No				95	PARTIAL STROKING VALVE TEST		Yes			
	51	MECHANICAL POSITION INDICATOR		Required				96						
	52	MANUAL PNEUMATIC BYPASS VALVE FOR SOLENOID VALVE		Yes										
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONFIRM (1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage. (4) Manual Reset to be consider for all Emergency Shut off solenoids as per P&ID														

 NISOC		تگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک Data Sheets For ON/OFF & Shutdown Valves							 			
شماره پیمان: 053 - 073 – 9038		نسخه	سرپال	نوع مدرک	رشته	تهیهات	صادرکننده	بسته کاری	پروژه	شماره صفحه: 37 از 37		
D01		D01	0010	DT	IN	120	PEDCO	GCS	BK			
On-Off Valve												
TAG NO: D01 XV-2301		P&ID NO :		BK-GCS-PEDCO-120-SA-PI-0001-D01(1 of 2)				SERVICE: Fire Water System				
FLUID STATE: FIRE WATER		PHASE:		GAS				AREA CLASSIFICATION: Zone2, IIB, T4				
SERVICE CONDITION						UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off		
	1	FLOW RATE				kg/h	-	29910	-	-		
	2	INLET PRESSURE				bar(g)	-	1	-	-		
	3	OUTLET PRESSURE				bar(g)	-	0.95	-	-		
	4	DIFFERENTIAL PRESSURE				bar(g)	-	0.05	-	-		
	5	INLET TEMPERATURE				°C	55	AMB	5	-		
	6	DENSITY				kg/m3	-	997	-	-		
	7	VISCOSITY				CP	-	0.81	-	-		
	8	VAPOR PRESSURE Pv					-	-	-	-		
9	CRITICAL PRESSURE				bar(a)	-	-	-	-			
LINE	10	PIPE LINE SIZE & SCHEDULE	IN	3"	40	ACTUATOR	53	TYPE		Double Acting, Spring Return		
			OUT	3"	40		54	SIZE		VTA	VTA	
	11	PIPING CLASS/PIPE LINE INSULATION			AN04 / Painted (Brilliant Green)		55	SPRING FAIL ACTION		Fail to Close		
VALVE BODY & BONNET	12	TYPE			Full Bore Ball Valve/Trunnion Mounted		56	MAX ALLOWABLE PRESSURE		VTA		
	13	SIZE			3"		57	MIN REQUIRES PRESSURE		VTA		
	14	MAX PRESS./TEMP			As per PMS		58	AVAILABLE AIR SUPPLY PRESSURE		MAX/NOR/MIN: 10/7/3 bar-g		
	15	MFR. & MODEL			Will be finalized later		59	BENCH RANGE		VTA		
	16	BODY / BONNET MATL			ASTM A216 Gr. WCB		60	TRAVELING TIME		5 S		
	17	LINER MATERIAL / ID			VTA		61	FUNCTION		On/Off		
	18	END CONNECTION	IN	3" /300#			62	LOCAL POSITION INDICATOR		Required		
			OUT	3" /300#			63	ACT. ORIENTATION		VTA		
	19	FLG FACE FINISH			RF		64	HAND WHEEL TYPE		Clutchable side mounted		
	20	END EXT./MATL			N/A		65	ADJUSTABLE LIMIT STOP		Yes		
	21	FLOW DIRECTION			(Note 18 in Page 4)		66	INPUT SIGNAL		24VDC		
	22	TYPE OF BONNET			Standard		67	MFR. & MODEL		Will be finalized later		
	23	LUBE & ISO VALVE			No		POSITIONER	68	TYPE		N/A	
	24	PACKING MATERIAL	PACKING TYPE		PTFE	Standard		69	MFR. & MODEL		Will be finalized later	
25	ENTRY DESIGN			Top Entry		70		ON INCR SIGNAL OUTPUT INCR / DECR		N/A		
26	NACE REQUIREMENTNACE (MR-0175/ISO 15156)			No		71		GAUGES		N/A		
TRIM	27	TRIM	TYPE	MATERIAL	VTA	316 SS+PTFE	72	CAM CHARACTERISTIC		N/A		
	28	SIZE	RATED TRAVEL		VTA	VTA	73	AIR CONNECTION		N/A		
	29	CHARACTERISTICS			On/Off		LIMIT SWITCHES	74	TAG NO. :		XZSC-2301/ XZSO-2301	
	30	BALANCED / UNBALANCED			VTA			75	TYPE	QUANTITY	Magnetically operated 'REED' contacts	2
	31	RATED Cv	FL	XT	VTA	VTA			VTA	CONTACTS / RATING	110V DC , 10A	
	32	PLUG / BALL / DISK MATERIAL			316 SS			77	ACTUATION POINT		Fully Open/Close	
	33	SEAT	TYPE	MATERIAL	Soft Seat	PTFE		78	ENCLOSURE MATERIAL		Die Cast Amulium	
	34	CAGE / GUIDE MATERIAL			VTA			79	WEATHER PROTECTION		IP-65	
	35	STEM	TYPE	MATERIAL	Anti-Blow Out	316 SS		80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 × 1.5
	36	LEAKAGE CLASS			ANSI Class VI			81	MFR. & MODEL		Will be finalized later	
37	VALVE STEM EXTENSION REQUIREMENT			YES		AIR SET	82	SET PRESSURE		Yes		
SOLENOID VALVE	38	TAG NO			PSOV-2301		83	PNEUMATIC CONNECTION		1/4" NPT		
	39	TYPE			3 Way		84	GAUGES	FILTER	Required	Required	
	40	BODY MATERIAL	WEATHER IP.		AIISI 316 S.S		IP-65	85	MFR. & MODEL		Will be finalized later	
	41	ELE. CERTIFICATE		ELE. CONNECTION	EEx "d" ,IIB T4	ISO M20 x 1.5	TEST	86	ANSI/FCI LEAKAGE CLASS		Required	
	42	MANUAL RESET			Yes			87	HYDRO PRESSURE		Required	
	43	Power Supply			24 VDC			88	FUNCTIONAL TEST		Required	
	44	Pnu. Connection			1/4" NPT							
SPECIAL / ACCESS.	45	FUSIBLE LEAKAGE			No							
	46	BLOCK RELAY			No							
	47	QUICK EXHUST			Yes							
	49	FILTER REGULATOR			Yes							
	50	VOLUME TANK			Yes							
	51	MECHANICAL POSITION INDICATOR			No							
	52	MANUALPNEUMATIC BYPASS VALVE FOR SOLENOID VALVE			No							
NOTE: VTA : VENDOR TO ADVISE AT BIDDING STAGE VTC: VENDOR TO CONFIRM												
(1) PMS: Piping material specification (2) All material shall be suitable for minimum design metal temperature. (3) Shall be stated by vendor at quotation stage.												
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