طرح نگهداشت و افزایش تولید ۲۷ مخزن

DATA SHEET FOR ON OFF & SHUTDOWN VALVES

نگهداشت و افزایش تولید میدان نفتی بینک

D02	AUG.2023	AFC	P.Hajisadeghi	M.Fakharian	A.M.Mohseni	
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: 1 | **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

REVISION RECORD SHEET

Page	D00	D01	D02	D03	D04	Page	D00	D01	D02	D03	D04
1	X	X	X			65					
2	X	X	X			66					
3	X	X				67					
4	X	X				68					
5	X	X	X			69					
6	X	X	X			70					
7	X	X	X			71					
8	X	X	X			72					
9	X	X	X			73					
10	X	X	X			74					
11	X	X	X			75					
12	X	X	X			76					
13	X	X	X			77					
14	X	X	X			78					
15	X	X	X			79					
16	X	X	X			80					
17	X	X	X			81					
18	X	X	X			82					
19	X	X	X			83					
20	X	X	X			84					
21	X	X	X			85					
22	X	X	X			86					
23	X	X	X			87					
24	X	X	X			88					
25	X	X	X			89					
26	X	X	X			90					
27	X	X	X			91					
28	X	X	X			92					
29	X	X	X			93					
30	X	X	X			94					
31	X	X	X			95					
32	X	X	X			96					
33	X	X	X			97					
34	X	X	X			98					
35	X	X	X			99					
36	X	X	X			100					
37	X	X	X			101					
38						102					
39						103					
40						104					
41						105					
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63						127					
64						128					

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

GENERAL NOTES:

1. Calculations shall be provided for each completely piped actuated valve assembly (including solenoid valve), the stroking times i.e. to close and to open.

2. The duty, failure action and stroke time shall all be approved by the Purchaser.

3. 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.

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 pnumatic 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 actoator 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

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.

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

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.

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.

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

27- Body of all On/Off Valves except ss316 body material, shall be painted with white color. Also actuator of ESDV and BDV valves shall be painted with Red color as well as actuator of XV valves shall be painted by Blue color.

NISOC

تگهداشت و افزایش تولید میدان نفتی بینک
سطح‌الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

Data Sheets For ON/OFF & Shutdown Valves

HIRGAN ENERGY

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02	D02

شماره صفحه: ۵ از ۳۸

On-Off Valve

TAG NO:	**ESDV-2101**	**P&ID NO :**	BK-GCS-PEDCO-120-PR-PI-0002_D06	**SERVICE:**	Gas Compression Inlet Gas Pipeline (Binak)
FLUID STATE:	PROCESS GAS	**PHASE:**	GAS	**AREA CLASSIFICATION:**	Zone2, IIB, T4

6.5 barg
Reply: It is based on letter number :1400/475/6953

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	7220.4928	6564	1969.23	-
	2	INLET PRESSURE	bar(g)	7.5	7.5	7.5	-
	3	OUTLET PRESSURE	bar(g)	7.5	7.5	7.5	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	18.2
	5	INLET TEMPERATURE	°C	26.67~46.11	26.67~46.11	26.67~46.11	-
	6	DENSITY	kg/m3	5.43 ~ 6.66	5.43 ~ 6.66	5.43 ~ 6.66	-
	7	VISCOSITY	CP	0.011 ~ 0.012	0.011 ~ 0.012	0.011 ~ 0.012	-
	8	VAPOR PRESSURE Pv	bar(a)	155.5	155.5	155.5	-
	9	CRITICAL PRESSURE	bar(a)	107.1	107.1	107.1	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	6" 80	6
			OUT		6" 80	
	11	LINE NO.	GAS-111-0001-AN07-6"-PT			
VALVE BODY & BONNET	12	TYPE	OUT	Full Bore Ball Valve/Trunnion Mounted		
	13	SIZE	OUT	6"		
	14	MAX PRESS./TEMP.	OUT	As per PMS		
	15	MFR. & MODEL	OUT	Will be finalized later		
	16	BODY / BONNET MATL	OUT	ASTM A216 Gr. WCB		
	17	LINER MATERIAL / ID	OUT	VTA		
	18	END CONNECTION	IN	6" /300#		
			OUT	6" /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	PTFE	Standard	
	25	ENTRY DESIGN		Top Entry		
	26	NACE REQUIREMENTNACE (MR-0175/ISO 15156)		YES		
TRIM	27	TRIM	TYPE	MATERIAL	VTA	316 SS+PTFE
	28	SIZE	RATED TRAVEL		VTA	VTA
	29	CHARACTERISTICS			On/Off	
	30	BALANCED / UNBALANCED			BALANCED	
	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			ESOV-2101	
	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	
	52	MANUAL PNEUMATIC BYPASS VALVE FOR SOLENOID VALVE			Yes	

to be checked
Reply: Because this stream is gas vapor pressure is not defined for this stream and will be deleted in next revision.

	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
				VTA
		E		6 S
				On/Off
		INDICATOR		Required
		ON		VTA
		PE		Clutchable side mounted
		IT STOP		Yes
				24VDC
				Will be finalized later
				N/A
				Will be finalized later
		OUTPUT INCR /		N/A
POSITIONER	71	GAUGES		N/A
	72	CAM CHARACTERISTIC		N/A
	73	AIR CONNECTION		N/A
LIMIT SWITCHES	74	TAG NO. :		BZSC-2110 / BZSO-2110
	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 Amulinum
	79	WEATHER PROTECTION		IP-65
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4 / ISO M20 × 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			
	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			

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.

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تگهداشت و افزایش تولید میدان نفتی بینک
سطح‌الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

Data Sheets For ON/OFF & Shutdown Valves

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
۰۵۳ - ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02

D02

شماره صفحه: ۶ از ۳۸

On-Off Valve

TAG NO:	ESDV-2102	P&ID NO :	-PR-PI-0003-D06
SERVICE:	Gas Compression Inlet Gas Pipeline (Golkhari)		
FLUID STATE:	PROCESS GAS	PHASE:	
AREA CLASSIFICATION:	Zone2, IIB, T4		

6.5 barg?
Reply: It is based on letter number :1400/475/6953

			UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	12395.9	11269.0	3380.0	-
	2	INLET PRESSURE	bar(g)	7.5	7.5	7.5	-
	3	OUTLET PRESSURE	bar(g)	7.5	7.5	7.5	90
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	-
	5	INLET TEMPERATURE	°C	15.5 ~ 32	15.5 ~ 32	15.5 ~ 32	-
	6	DENSITY	kg/m3	6.19 ~6.21	6.19 ~6.21	6.19 ~6.21	-
	7	VISCOSITY	CP	0.011	0.011	0.011	-
	8	VAPOR PRESSURE Pv	r(a)	174.6	174.6	174.6	-
	9	CRITICAL PRESSURE	r(a)	103.1	103.1	103.1	-

to be checked
Reply: Because this stream is gas vapor pressure is not defined for this stream and will be deleted in next revision.

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	8"	100
			OUT		8"	100
	11	LINE NO.			GAS-111-0001-FN07-8"-PT	
VALVE BODY & BONNET	12	TYPE			Full Bore Ball Valve/Trunnion Mounted	
	13	SIZE			8"	
	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		8" /600#	
			OUT		8" /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
	28	SIZE	RATED TRAVEL		VTA	VTA
	29	CHARACTERISTICS			On/Off	
	30	BALANCED / UNBALANCED			BALANCED	
	31	RATED Cv	FL	XT	VTA	VTA VTA
	32	PLUG / BALL / DISK MATERIAL			316 SS	
	33	SEAT	TYPE	MATERIAL	Soft Seat	RPTFE
	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	
SOLENOID VALVE	38	TAG NO			ESOV-2102	
	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	
	52	MANUAL PNEUMATIC BYPASS VALVE FOR SOLENOID VALVE			Yes	

TOR	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		9 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. :		BZSC-2110 / BZSO-2110
	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 Amulinum
	79	WEATHER PROTECTION		IP-65
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4 / ISO M20 × 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			
	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			

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

تگهداشت و افزایش تولید میدان نفتی بینک
سطح‌الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

Data Sheets For ON/OFF & Shutdown Valves

HIRGAN ENERGY

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
۰۵۳ - ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02

D02

to be revised based on PMS
Reply: Noted

On-Off Valve

TAG NO:	**ESDV-2113**	BK-GCS-PEDCO-120-PR-PI-0005-D06 (1 of 1)	**SERVICE:**
FLUID STATE:	PROCESS GAS	GAS	**AREA CLASSIFICATION:** Zone2, IIB, T4

liquid
Reply: Noted

to make an uniform format, T, density and viscosity should be given in a range
Reply: Noted

			UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	1119.5	1017.8	305.3	-
	2	INLET PRESSURE	bar(g)	5.3	5.3	5.3	-
	3	OUTLET PRESSURE	bar(g)	5.3	5.3	5.3	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	18.2
	5	INLET TEMPERATURE	°C	36.9	36.9	36.9	-
	6	DENSITY	kg/m3	842.6	842.6	842.6	-
	7	VISCOSITY	cP	0.69	0.69	0.69	-
	8	VAPOR PRESSURE Pv	bar(a)	0.612	0.612	0.612	-
	9	CRITICAL PRESSURE	bar(a)	221.4	221.4	221.4	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	C		
			OUT	ALL		
	11	LINE NO.				
VALVE BODY & BONNET	12	TYPE				
	13	SIZE				
	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	PTFE	Standard	
	25	ENTRY DESIGN		Top Entry		
	26	NACE REQUIREMENTNACE (MR-0175/ISO 15156)		YES		
TRIM	27	TRIM	TYPE	MATERIAL	VTA	316 SS+PTFE
	28	SIZE	RATED TRAVEL		VTA	VTA
	29	CHARACTERISTICS			On/Off	
	30	BALANCED / UNBALANCED			BALANCED	
	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			ESOV-2113	
	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	
	52	MANUAL PNEUMATIC BYPASS VALVE FOR SOLENOID VALVE			Yes	

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		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. :		BZSC-2110 / BZSO-2110
	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 Amulinum
	79	WEATHER PROTECTION		IP-65
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4 / ISO M20 × 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			
	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			

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

تگهداشت و افزایش تولید میدان نفتی بینک
سطح‌الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

Data Sheets For ON/OFF & Shutdown Valves

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
۰۵۳ - ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02

D02

شماره صفحه: ۸ از ۳۸

On-Off Valve

TAG NO:	ESDV-2272	P&ID NO :	BK-GCS-PEDCO-120-PR-PI-0022-D06	SERVICE:	Fuel Gas System
FLUID STATE:	FUEL GAS	PHASE:	GAS	AREA CLASSIFICATION:	Zone2, IIB, T4

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	556.3	505.8	151.7	-
	2	INLET PRESSURE	bar(g)	5.1	5.1	5.1	-
	3	OUTLET PRESSURE	bar(g)	5.1	5.1	5.1	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	18.2
	5	INLET TEMPERATURE	°C	37	37	37	-
	6	DENSITY	kg/m3	5.77	5.77	5.77	-
	7	VISCOSITY	cP	0.011	0.011	0.011	-
	8	VAPOR PRESSURE Pv	bar(a)	167.7	167.7	167.7	-
	9	CRITICAL PRESSURE	bar(a)	94.66	94.66	94.66	-

NA?
Reply: Because this stream is gas vapor pressure is not defined for this stream and will be deleted in next revision.

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	3"
			OUT		3"
	11	LINE NO.			GAS-111-0
VALVE BODY & BONNET	12	TYPE			Full Bore B
	13	SIZE			3"
	14	MAX PRESS./TEMP.			As per PMS
	15	MFR. & MODEL			Will be fina
	16	BODY / BONNET MATL			ASTM A21
	17	LINER MATERIAL / ID			VTA
	18	END CONNECTION	IN		3" /300#
			OUT		3" /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	PTFE / Standard
	25	ENTRY DESIGN			Top Entry
	26	NACE REQUIREMENTNACE (MR-0175/ISO 15156)			YES
TRIM	27	TRIM	TYPE	MATERIAL	VTA / 316 SS+PTFE
	28	SIZE	RATED TRAVEL		VTA / VTA
	29	CHARACTERISTICS			On/Off
	30	BALANCED / UNBALANCED			BALANCED
	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			ESOV-2272
	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
	52	MANUAL PNEUMATIC BYPASS VALVE FOR SOLENOID VALVE			Yes

ATOR	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		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. :		BZSC-2110 / BZSO-2110	
	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 Amulinum	
	79	WEATHER PROTECTION		IP-65	
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 × 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				
	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				

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
سطح‌الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

Data Sheets For ON/OFF & Shutdown Valves

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: ۹ از ۳۸
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02	

On-Off Valve

TAG NO:	**BDV-2110**	**P&ID NO :**	BK-GCS-PEDCO-120-PR-PI-0005-D06
FLUID STATE:	PROCESS GAS	**PHASE:**	GAS

ression Inlet Knock Out Drum to Flare Header

Zone2, IIB, T4

Aqueous?
Reply: will be corrected in next revision

Min. T to be checked
Reply: Based on PFD and "calculation for depressurizing"

Reply: Because this stream is gas, vapor pressure is not defined for this stream and will be deleted in next revision.

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	-	5665.4	-	-
	2	INLET PRESSURE	bar(g)	-	5.3 ~ 9	-	-
	3	OUTLET PRESSURE	bar(g)	-	5.3 ~ 9	-	-
	4	DIFFERENTIAL PRE	bar(g)	-	-	-	18.2
	5	INLET TEMPERATU	°C	-	19 ~ 37.17	-	-
	6	DENSITY	kg/m3	-	5.96 ~ 1012	-	-
	7	VISCOSITY	CP	-	0.011 ~ 1.027	-	-
	8	VAPOR PRESSURE Pv	bar(a)	-	167.7	-	-
	9	CRITICAL PRESSURE	bar(a)	-	94.65	-	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CO ALLO	
			OUT		
	11	LINE NO.			
VALVE BODY & BONNET	12	TYPE			
	13	SIZE			
	14	MAX PRESS./TEMP.			
	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"/300#	
			OUT	3"/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	PTFE	Standard
	25	ENTRY DESIGN		Top Entry	
	26	NACE REQUIREMENTNACE (MR-0175/ISO 15156)		YES	
TRIM	27	TRIM	TYPE	MATERIAL	VTA	316 SS+PTFE
	28	SIZE	RATED TRAVEL		VTA	VTA
	29	CHARACTERISTICS			On/Off	
	30	BALANCED / UNBALANCED			BALANCED	
	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-2110	
	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	MANUALPNEUMATIC BYPASS VALVE FOR SOLENOID VALVE			Yes	

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		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. :		BZSC-2110 / BZSO-2110	
	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 Amulinum	
	79	WEATHER PROTECTION		IP-65	
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 × 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	نگهداشت و افزایش تولید میدان نفتی بینک سطح‌الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک Data Sheets For ON/OFF & Shutdown Valves	HIRGAN ENERGY

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02	شماره صفحه: ۱۰ از ۳۸

D02

On-Off Valve

TAG NO:	BDV-2122A	P&ID NO :	BK-GCS-PEDCO-120-PR-PI-0007-D06(1/3)	SERVICE:	Gas Compression Inlet Knock Out Drum to Flare Header
FLUID STATE:	PROCESS GAS	PHASE:	GAS	AREA CLASSIFICATION:	Zone2, IIB, T4

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	-	300.0	-	-
	2	INLET PRESSURE	bar(g)	4.9	4.9	4.9	-
	3	OUTLET PRESSURE	bar(g)	4.9	4.9	4.9	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	18.2
	5	INLET TEMPERATURE	°C	-	18.9 ~ 36.78	-	-
	6	DENSITY	kg/m3	-	5.37 ~ 5.77	-	-
	7	VISCOSITY	CP	-	0.011	-	-
	8	VAPOR PRESSURE Pv	bar(a)	-	167.5	-	-
	9	CRITICAL PRESSURE	bar(a)	-	94.65	-	-

Pin and Pout ?
Reply: pressure drop is not defined for this valve

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	2" 80	6
			OUT		2" 80	
	11	LINE NO.	GAS-111-0035A-CN05-2"-PT			
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	PTFE	Standard	
	25	ENTRY DESIGN	Top Entry			
	26	NACE REQUIREMENTNACE (MR-0175/ISO 15156)	YES			
TRIM	27	TRIM	TYPE	MATERIAL	VTA	316 SS+PTFE
	28	SIZE	RATED TRAVEL		VTA	VTA
	29	CHARACTERISTICS	On/Off			
	30	BALANCED / UNBALANCED	BALANCED			
	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-2110			
	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	MANUALPNEUMATIC BYPASS VALVE FOR SOLENOID VALVE	Yes			

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	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. :	BZSC-2110 / BZSO-2110	
	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 Amulinum	
	79	WEATHER PROTECTION	IP-65	
	80	ELEC. CERTIFICATE / ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 × 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	نگهداشت و افزایش تولید میدان نفتی بینک سطح‌الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک Data Sheets For ON/OFF & Shutdown Valves	شرکت توسعه نیروگاهی ایران HIRGAN ENERGY

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02	شماره صفحه: ۱۱ از ۳۸

D02

On-Off Valve

TAG NO:	BDV-2122B	P&ID NO :	BK-GCS-PEDCO-120-PR-PI-0007-D06(2/3)	SERVICE:	Gas Compression Inlet Knock Out Drum to Flare Header
FLUID STATE:	PROCESS GAS	PHASE:	GAS	AREA CLASSIFICATION:	Zone2, IIB, T4

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	-	300.0	-	-
	2	INLET PRESSURE	bar(g)	4.9	4.9	4.9	-
	3	OUTLET PRESSURE	bar(g)	4.9	4.9	4.9	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	18.2
	5	INLET TEMPERATURE	°C	-	18.9 ~ 36.78	-	-
	6	DENSITY	kg/m3	-	5.37 ~ 5.77	-	-
	7	VISCOSITY	CP	-	0.011	-	-
	8	VAPOR PRESSURE Pv	bar(a)	-	167.5	-	-
	9	CRITICAL PRESSURE	bar(a)	-	94.65	-	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	2" 80	6
			OUT		2" 80	
	11	LINE NO.	GAS-111-0035A-CN05-2"-PT			
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	PTFE	Standard	
	25	ENTRY DESIGN	Top Entry			
	26	NACE REQUIREMENTNACE (MR-0175/ISO 15156)	YES			
TRIM	27	TRIM	TYPE	MATERIAL	VTA	316 SS+PTFE
	28	SIZE	RATED TRAVEL		VTA	VTA
	29	CHARACTERISTICS	On/Off			
	30	BALANCED / UNBALANCED	BALANCED			
	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-2110			
	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	MANUALPNEUMATIC BYPASS VALVE FOR SOLENOID VALVE	Yes			

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	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. :	BZSC-2110 / BZSO-2110	
	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 Amulinum	
	79	WEATHER PROTECTION	IP-65	
	80	ELEC. CERTIFICATE / ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 × 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	نگهداشت و افزایش تولید میدان نفتی بینک سطح‌الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک Data Sheets For ON/OFF & Shutdown Valves	HIRGAN ENERGY

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02	شماره صفحه: ۱۲ از ۳۸

D02

On-Off Valve

TAG NO:	BDV-2122C	P&ID NO :	BK-GCS-PEDCO-120-PR-PI-0007-D06(2/3)	SERVICE:	Gas Compression Inlet Knock Out Drum to Flare Header
FLUID STATE:	PROCESS GAS	PHASE:	GAS	AREA CLASSIFICATION:	Zone2, IIB, T4

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	-	300.0	-	-
	2	INLET PRESSURE	bar(g)	4.9	4.9	4.9	-
	3	OUTLET PRESSURE	bar(g)	4.9	4.9	4.9	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	18.2
	5	INLET TEMPERATURE	°C	-	18.9 ~ 36.78	-	-
	6	DENSITY	kg/m3	-	5.37 ~ 5.77	-	-
	7	VISCOSITY	CP	-	0.011	-	-
	8	VAPOR PRESSURE Pv	bar(a)	-	167.5	-	-
	9	CRITICAL PRESSURE	bar(a)	-	94.65	-	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	2" 80	6
			OUT		2" 80	
	11	LINE NO.	GAS-111-0035A-CN05-2"-PT			
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	PTFE	Standard	
	25	ENTRY DESIGN	Top Entry			
	26	NACE REQUIREMENTNACE (MR-0175/ISO 15156)	YES			
TRIM	27	TRIM	TYPE	MATERIAL	VTA	316 SS+PTFE
	28	SIZE	RATED TRAVEL		VTA	VTA
	29	CHARACTERISTICS	On/Off			
	30	BALANCED / UNBALANCED	BALANCED			
	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-2110			
	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	MANUALPNEUMATIC BYPASS VALVE FOR SOLENOID VALVE	Yes			

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	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. :	BZSC-2110 / BZSO-2110	
	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 Amulinum	
	79	WEATHER PROTECTION	IP-65	
	80	ELEC. CERTIFICATE / ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 × 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

نگهداشت و افزایش تولید میدان نفتی بینک
سطح‌الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

Data Sheets For ON/OFF & Shutdown Valves

شرکت توسعه نیروی ایران

HIRGAN ENERGY

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02	شماره صفحه: ۱۳ از ۳۸

On-Off Valve

D02

TAG NO:	**BDV-2134A**	**P&ID NO :**	BK-GCS-PEDCO-120-PR-PI-0009-D06 (1 of 3)	**SERVICE:**	2nd Stage Gas Compression Suction Drums
FLUID STATE:	VENT GAS	**PHASE:**	GAS	**AREA CLASSIFICATION:**	Zone2, IIB, T4

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	-	796	-	-
	2	INLET PRESSURE	bar(g)	-	18.1~ 22	-	-
	3	OUTLET PRESSURE	bar(g)	-	18.1~ 22	-	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	47.7
	5	INLET TEMPERATURE	°C	-	22 ~ 59.88	-	-
	6	DENSITY	kg/m3	-	18.08~1011	-	-
	7	VISCOSITY	CP	-	0.013 ~0.98	-	-
	8	VAPOR PRESSURE Pv	bar(a)	-	-	-	-
	9	CRITICAL PRESSURE	bar(a)	-	94.65	-	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	2" 80	6
			OUT		2" 80	
	11	LINE NO.			GAS-111-0160A-CN05-2"-PT	
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 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	PTFE	Standard
	25	ENTRY DESIGN			Top Entry	
	26	NACE REQUIREMENTNACE (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			BALANCED	
	31	RATED Cv	FL	XT	VTA	VTA VTA
	32	PLUG / BALL / DISK MATERIAL			316 SS	
	33	SEAT	TYPE	MATERIAL	Soft Seat	RPTFE
	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-2134A , PSOV-2134A	
	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
	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
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. :			BZSC-2110 / BZSO-2110
	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 Amulinum
	79	WEATHER PROTECTION			IP-65
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 × 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 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

تگهداشت و افزایش تولید میدان نفتی بینک
سطح‌الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

Data Sheets For ON/OFF & Shutdown Valves

HIRGAN ENERGY

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02

D02

On-Off Valve

TAG NO:	BDV-2134B	P&ID NO :	BK-GCS-PEDCO-120-PR-PI-0009-D06 (2 of 3)	SERVICE:	2nd Stage Gas Compression Suction Drums
FLUID STATE:	VENT GAS	PHASE:	GAS	AREA CLASSIFICATION:	Zone2, IIB, T4

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	-	796	-	-
	2	INLET PRESSURE	bar(g)	-	18.1~ 22	-	-
	3	OUTLET PRESSURE	bar(g)	-	18.1~ 22	-	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	47.7
	5	INLET TEMPERATURE	°C	-	22 ~ 59.88	-	-
	6	DENSITY	kg/m3	-	18.08~ 1011	-	-
	7	VISCOSITY	CP	-	0.013 ~0.98	-	-
	8	VAPOR PRESSURE Pv	bar(a)	-	-	-	-
	9	CRITICAL PRESSURE	bar(a)	-	94.65	-	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	2" 80	6
			OUT		2" 80	
	11	LINE NO.			GAS-111-0160B-CN05-2"-PT	
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" /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	PTFE	Standard
	25	ENTRY DESIGN			Top Entry	
	26	NACE REQUIREMENTNACE (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			BALANCED	
	31	RATED Cv	FL	XT	VTA	VTA VTA
	32	PLUG / BALL / DISK MATERIAL			316 SS	
	33	SEAT	TYPE	MATERIAL	Soft Seat	RPTFE
	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-2134B , PSOV-2134B	
	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
	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
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. :			BZSC-2110 / BZSO-2110
	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 Amulinum
	79	WEATHER PROTECTION			IP-65
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 × 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 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
سطح‌الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

Data Sheets For ON/OFF & Shutdown Valves

HIRGAN ENERGY

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02

D02

On-Off Valve

TAG NO:	BDV-2134C	P&ID NO :	BK-GCS-PEDCO-120-PR-PI-0009-D06 (3 of 3)	SERVICE:	2nd Stage Gas Compression Suction Drums
FLUID STATE:	VENT GAS	PHASE:	GAS	AREA CLASSIFICATION:	Zone2, IIB, T4

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	-	796	-	-
	2	INLET PRESSURE	bar(g)	-	18.1~ 22	-	-
	3	OUTLET PRESSURE	bar(g)	-	18.1~ 22	-	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	47.7
	5	INLET TEMPERATURE	°C	-	22 ~ 59.88	-	-
	6	DENSITY	kg/m3	-	18.08~ 1011	-	-
	7	VISCOSITY	CP	-	0.013 ~0.98	-	-
	8	VAPOR PRESSURE Pv	bar(a)	-	-	-	-
	9	CRITICAL PRESSURE	bar(a)	-	94.65	-	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	2" 80	6
			OUT		2" 80	
	11	LINE NO.			GAS-111-0160C-CN05-2"-PT	
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 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	PTFE	Standard
	25	ENTRY DESIGN			Top Entry	
	26	NACE REQUIREMENTNACE (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			BALANCED	
	31	RATED Cv	FL	XT	VTA	VTA VTA
	32	PLUG / BALL / DISK MATERIAL			316 SS	
	33	SEAT	TYPE	MATERIAL	Soft Seat	RPTFE
	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-2134C , PSOV-2134C	
	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
	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
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. :			BZSC-2110 / BZSO-2110
	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 Amulinum
	79	WEATHER PROTECTION			IP-65
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 × 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 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
سطح‌الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

Data Sheets For ON/OFF & Shutdown Valves

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02

D02

On-Off Valve

TAG NO:	**BDV-2132A**	**P&ID NO :**	BK-GCS-PEDCO-120-PR-PI-0011-D06 (1 of 3)	**SERVICE:**	2nd Stage Gas Compression Air Coolers
FLUID STATE:	VENT GAS	**PHASE:**	GAS	**AREA CLASSIFICATION:**	Zone2, IIB, T4

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	-	1414	-	-
	2	INLET PRESSURE	bar(g)	-	54.1 ~ 62	-	-
	3	OUTLET PRESSURE	bar(g)	-	54.1 ~ 62	-	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	62.4
	5	INLET TEMPERATURE	°C	-	22 ~ 60	-	-
	6	DENSITY	kg/m3	-	59.63~ 1012	-	-
	7	VISCOSITY	CP	-	0.014 ~ 0.976	-	-
	8	VAPOR PRESSURE Pv	bar(a)	-	-	-	-
	9	CRITICAL PRESSURE	bar(a)	-	94.65	-	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	1 1/2"	40S	0
			OUT		1 1/2"	40S	
	11	LINE NO.	GAS-111-0054A-FS00-1 1/2"-NP				
VALVE BODY & BONNET	12	TYPE			Full Bore Ball Valve/ Floating Type		
	13	SIZE			1 1/2"		
	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		1 1/2" /600#		
			OUT		1 1/2" /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	PTFE		Standard
	25	ENTRY DESIGN			Top Entry		
	26	NACE REQUIREMENTNACE (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			BALANCED		
	31	RATED Cv	FL	XT	VTA	VTA	VTA
	32	PLUG / BALL / DISK MATERIAL			316 SS		
	33	SEAT	TYPE	MATERIAL	Soft Seat		RPTFE
	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-2132A , PSOV-2132A		
	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
	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
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. :		BZSC-2110 / BZSO-2110
	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 Amulinum
	79	WEATHER PROTECTION		IP-65
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4 / ISO M20 × 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 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
سطح‌الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

Data Sheets For ON/OFF & Shutdown Valves

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02

D02

On-Off Valve

TAG NO:	**BDV-2132B**	**P&ID NO :**	BK-GCS-PEDCO-120-PR-PI-0011-D06 (2 of 3)	**SERVICE:**	2nd Stage Gas Compression Air Coolers
FLUID STATE:	VENT GAS	**PHASE:**	GAS	**AREA CLASSIFICATION:**	Zone2, IIB, T4

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	-	1414	-	-
	2	INLET PRESSURE	bar(g)	-	54.1 ~ 62	-	-
	3	OUTLET PRESSURE	bar(g)	-	54.1 ~ 62	-	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	62.4
	5	INLET TEMPERATURE	°C	-	22 ~ 60	-	-
	6	DENSITY	kg/m3	-	59.63~ 1012	-	-
	7	VISCOSITY	CP	-	0.014 ~ 0.976	-	-
	8	VAPOR PRESSURE Pv	bar(a)	-	-	-	-
	9	CRITICAL PRESSURE	bar(a)	-	94.65	-	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	1 1/2"	40S	0
			OUT		1 1/2"	40S	
	11	LINE NO.	GAS-111-0054B-FS00-1 1/2"-NP				
VALVE BODY & BONNET	12	TYPE			Full Bore Ball Valve/ Floating Type		
	13	SIZE			1 1/2"		
	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		1 1/2" /600#		
			OUT		1 1/2" /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	PTFE		Standard
	25	ENTRY DESIGN			Top Entry		
	26	NACE REQUIREMENTNACE (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			BALANCED		
	31	RATED Cv	FL	XT	VTA	VTA	VTA
	32	PLUG / BALL / DISK MATERIAL			316 SS		
	33	SEAT	TYPE	MATERIAL	Soft Seat		RPTFE
	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
	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
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. :		BZSC-2110 / BZSO-2110
	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 Amulinum
	79	WEATHER PROTECTION		IP-65
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4 / ISO M20 × 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 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
سطح‌الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

Data Sheets For ON/OFF & Shutdown Valves

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02

D02

On-Off Valve

TAG NO:	**BDV-2132C**	**P&ID NO :**	BK-GCS-PEDCO-120-PR-PI-0011-D06 (3 of 3)	**SERVICE:**	2nd Stage Gas Compression Air Coolers
FLUID STATE:	VENT GAS	**PHASE:**	GAS	**AREA CLASSIFICATION:**	Zone2, IIB, T4

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	-	1414	-	-
	2	INLET PRESSURE	bar(g)	-	54.1 ~ 62	-	-
	3	OUTLET PRESSURE	bar(g)	-	54.1 ~ 62	-	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	62.4
	5	INLET TEMPERATURE	°C	-	22 ~ 60	-	-
	6	DENSITY	kg/m3	-	59.63~ 1012	-	-
	7	VISCOSITY	CP	-	0.014 ~ 0.976	-	-
	8	VAPOR PRESSURE Pv	bar(a)	-	-	-	-
	9	CRITICAL PRESSURE	bar(a)	-	94.65	-	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	1 1/2"	40S	0
			OUT		1 1/2"	40S	
	11	LINE NO.	GAS-111-0054C-FS00-1 1/2"-NP				
VALVE BODY & BONNET	12	TYPE			Full Bore Ball Valve/ Floating Type		
	13	SIZE			1 1/2"		
	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		1 1/2" /600#		
			OUT		1 1/2" /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	PTFE		Standard
	25	ENTRY DESIGN			Top Entry		
	26	NACE REQUIREMENTNACE (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			BALANCED		
	31	RATED Cv	FL	XT	VTA	VTA	VTA
	32	PLUG / BALL / DISK MATERIAL			316 SS		
	33	SEAT	TYPE	MATERIAL	Soft Seat		RPTFE
	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
	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
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. :		BZSC-2110 / BZSO-2110
	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 Amulinum
	79	WEATHER PROTECTION		IP-65
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4 / ISO M20 × 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 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
سطح‌الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

Data Sheets For ON/OFF & Shutdown Valves

HIRGAN ENERGY

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02	D02

On-Off Valve

TAG NO:	BDV-2141	P&ID NO :	BK-GCS-PEDCO-120-PR-PI-0012-D06	SERVICE:	2nd Stage Gas Compression Discharge Drum
FLUID STATE:	FLARE GAS	PHASE:	GAS	AREA CLASSIFICATION:	Zone2, IIB, T4

N.A.
Reply: Because this stream is gas vapor pressure is not defined for this stream and will be deleted in next revision.

			UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h		1825		-
	2	INLET PRESSURE	bar(g)	53.9 ~ 62	53.9 ~ 62	53.9 ~ 62	-
	3	OUTLET PRESSURE	bar(g)	53.9 ~ 62	53.9 ~ 62	53.9 ~ 62	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	90
	5	INLET TEMPERATURE	°C	21 ~ 59.89	21 ~ 59.89	21 ~ 59.89	-
	6	DENSITY	kg/m3	59.17 ~ 1012	59.17 ~ 1012	59.17 ~ 1012	-
	7	VISCOSITY	CP	0.014 ~ 0.976	0.014 ~ 0.976	0.014 ~ 0.976	-
	8	VAPOR PRESSURE Pv	bar(a)	3.25	3.25	3.25	-
	9	CRITICAL PRESSURE	bar(a)	106	106	106	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	1 1/2" 160	3
			OUT		1 1/2" 160	
	11	LINE NO.	GAS-111-0065-FN05-1 1/2"-PT			
VALVE BODY & BONNET	12	TYPE	Full Bore Ball Valve/ Floating Type			
	13	SIZE	1 1/2"			
	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	1 1/2" /600#		
			OUT	1 1/2" /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	PTFE	Standard	
	25	ENTRY DESIGN	Top Entry			
	26	NACE REQUIREMENTNACE (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	BALANCED			
	31	RATED Cv	FL	XT	VTA	VTA VTA
	32	PLUG / BALL / DISK MATERIAL	316 SS			
	33	SEAT	TYPE	MATERIAL	Soft Seat	RPTFE
	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-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			
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	
	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	
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. :		BZSC-2110 / BZSO-2110	
	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 Amulinum	
	79	WEATHER PROTECTION		IP-65	
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 × 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 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 سطح‌الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک Data Sheets For ON/OFF & Shutdown Valves	شرکت توسعه نیروگاهی ایران HIRGAN ENERGY TS

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه		
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02	D02	شماره صفحه: ۲۰ از ۳۸

On-Off Valve

TAG NO:	BDV-2151	P&ID NO :	BK-GCS-PEDCO-120-PR-PI-0013-D06	SERVICE:	Dehydration Package
FLUID STATE:	VENT GAS	PHASE:	GAS	AREA CLASSIFICATION:	Zone2, IIB, T4

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	-	4843	-	-
	2	INLET PRESSURE	bar(g)	-	52.9 ~ 62	-	-
	3	OUTLET PRESSURE	bar(g)	-	52.9 ~ 62	-	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	90
	5	INLET TEMPERATURE	°C	-	22~ 59.4	-	-
	6	DENSITY	kg/m3	-	58.06 ~ 1012	-	-
	7	VISCOSITY	CP	-	0.013 ~ 0.964	-	-
	8	VAPOR PRESSURE Pv	bar(a)	-	3.234	-	-
	9	CRITICAL PRESSURE	bar(a)	-	105.9	-	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	3" 80	6
			OUT		3" 80	
	11	LINE NO.	GAS-111-0071-FN05-3"-PT			
VALVE BODY & BONNET	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	PTFE	Standard
	25	ENTRY DESIGN			Top Entry	
	26	NACE REQUIREMENTNACE (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			BALANCED	
	31	RATED Cv	FL	XT	VTA	VTA / VTA
	32	PLUG / BALL / DISK MATERIAL			316 SS	
	33	SEAT	TYPE	MATERIAL	Soft Seat	RPTFE
	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-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/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			Declutchable side mounted
	65	ADJUSTABLE LIMIT STOP			No
	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. :			BZSC-2110 / BZSO-2110
	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 Amulinum
	79	WEATHER PROTECTION			IP-65
	80	ELEC. CERTIFICATE	ELEC. CONNECTION		EEx "d" ,IIB T4 / ISO M20 × 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 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
سطح‌الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

Data Sheets For ON/OFF & Shutdown Valves

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
۰۵۳ - ۰۷۳ - ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02

D02

On-Off Valve

TAG NO: XV-2112	**P&ID NO :** BK-GCS-PEDCO-120-PR-PI-0004-D06 (2 of 2)	**SERVICE:** Slug Catcher System	
FLUID STATE: PROCESS GAS	**PHASE:** GAS	**AREA CLASSIFICATION:** Zone2, IIB, T4	

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	Kg/H	7873.8	7158.0	2505.3	-
	2	INLET PRESSURE	bar(g)	18.5	18.5	18.5	-
	3	OUTLET PRESSURE	bar(g)	18.5	18.5	18.5	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	47.7
	5	INLET TEMPERATURE	°C	15.2~ 32.0	15.2~ 32.0	15.2~ 32.0	-
	6	DENSITY	kg/m3	715	715	715	-
	7	VISCOSITY	CP	0.58	0.58	0.58	-
	8	VAPOR PRESSURE Pv	bar(a)	6.487	6.487	6.487	-
	9	CRITICAL PRESSURE	bar(a)	78	78	78	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	4" 40	6
			OUT		4" 40	
	11	LINE NO.	CDH-112-0015-CN07-4"-PT			
VALVE BODY & BONNET	12	TYPE	Full Bore Ball Valve/Trunnion Mounted			
	13	SIZE	4"			
	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	4"/300#		
			OUT	4"/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	PTFE	Standard	
	25	ENTRY DESIGN	Top Entry			
	26	NACE REQUIREMENTNACE (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	BALANCED			
	31	RATED Cv	FL	XT	VTA	VTA VTA
	32	PLUG / BALL / DISK MATERIAL	316 SS			
	33	SEAT	TYPE	MATERIAL	Soft Seat	RPTFE
	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-2110			
	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	MANUALPNEUMATIC BYPASS VALVE FOR SOLENOID VALVE	Yes			

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		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. :		BZSC-2110 / BZSO-2110	
	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 Amulinum	
	79	WEATHER PROTECTION		IP-65	
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 × 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

نگهداشت و افزایش تولید میدان نفتی بینک
سطح‌الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

Data Sheets For ON/OFF & Shutdown Valves

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02

D02

On-Off Valve

TAG NO: XV-2121A	**P&ID NO :** BK-GCS-PEDCO-120-PR-PI-0006-D06 (1 of 3)	**SERVICE:** 1st Stage Gas Compression Suction Drums	
FLUID STATE: PROCESS GAS	**PHASE:** GAS	**AREA CLASSIFICATION:** Zone2, IIB, T4	

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	9530.4	8664.0	3032.4	-
	2	INLET PRESSURE	bar(g)	5.1	5.1	5.1	-
	3	OUTLET PRESSURE	bar(g)	5.1	5.1	5.1	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	18.2
	5	INLET TEMPERATURE	°C	19.02~ 36.92	19.02~ 36.92	19.02~ 36.92	-
	6	DENSITY	kg/m3	5.56 ~ 5.96	5.56 ~ 5.96	5.56 ~ 5.96	-
	7	VISCOSITY	CP	0.011	0.011	0.011	-
	8	VAPOR PRESSURE Pv	bar(a)	167.7	167.7	167.7	-
	9	CRITICAL PRESSURE	bar(a)	94.65	94.65	94.65	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	8" 60	6
			OUT		8" 60	
	11	LINE NO.			GAS-111-0026A-AN07-8"-PT	
VALVE BODY & BONNET	12	TYPE			Full Bore Ball Valve/Trunnion Mounted	
	13	SIZE			8"	
	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		8"/300#	
			OUT		8"/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	PTFE	Standard
	25	ENTRY DESIGN			Top Entry	
	26	NACE REQUIREMENTNACE (MR-0175/ISO 15156)			YES	
TRIM	27	TRIM	TYPE	MATERIAL	VTA	316 SS+PTFE
	28	SIZE	RATED TRAVEL		VTA	VTA
	29	CHARACTERISTICS			On/Off	
	30	BALANCED / UNBALANCED			BALANCED	
	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-2121A , ESOV-2121A	
	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	MANUALPNEUMATIC BYPASS VALVE FOR SOLENOID VALVE			Yes	

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		9 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. :		BZSC-2110 / BZSO-2110
	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 Amulinum
	79	WEATHER PROTECTION		IP-65
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4 / ISO M20 × 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

نگهداشت و افزایش تولید میدان نفتی بینک
سطح‌الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

Data Sheets For ON/OFF & Shutdown Valves

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02

D02

On-Off Valve

TAG NO:	XV-2121B	**P&ID NO :**	BK-GCS-PEDCO-120-PR-PI-0006-D06 (2 of 3)
SERVICE:	1st Stage Gas Compression Suction Drums		
FLUID STATE:	PROCESS GAS	**PHASE:**	GAS
AREA CLASSIFICATION:	Zone2, IIB, T4		

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	9530.4	8664.0	3032.4	-
	2	INLET PRESSURE	bar(g)	5.1	5.1	5.1	-
	3	OUTLET PRESSURE	bar(g)	5.1	5.1	5.1	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	18.2
	5	INLET TEMPERATURE	°C	19.02~ 36.92	19.02~ 36.92	19.02~ 36.92	-
	6	DENSITY	kg/m3	5.56 ~ 5.96	5.56 ~ 5.96	5.56 ~ 5.96	-
	7	VISCOSITY	CP	0.011	0.011	0.011	-
	8	VAPOR PRESSURE Pv	bar(a)	167.7	167.7	167.7	-
	9	CRITICAL PRESSURE	bar(a)	94.65	94.65	94.65	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	8" 60	6
			OUT		8" 60	
	11	LINE NO.	GAS-111-0026B-AN27-8"-PT			
VALVE BODY & BONNET	12	TYPE	Full Bore Ball Valve/Trunnion Mounted			
	13	SIZE	8"			
	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	8"/300#		
			OUT	8"/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	PTFE	Standard	
	25	ENTRY DESIGN	Top Entry			
	26	NACE REQUIREMENTNACE (MR-0175/ISO 15156)	YES			
TRIM	27	TRIM	TYPE	MATERIAL	VTA	316 SS+PTFE
	28	SIZE	RATED TRAVEL		VTA	VTA
	29	CHARACTERISTICS	On/Off			
	30	BALANCED / UNBALANCED	BALANCED			
	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-2121B, ESOV-2121B			
	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	MANUALPNEUMATIC BYPASS VALVE FOR SOLENOID VALVE	Yes			

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	9 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. :	BZSC-2110 / BZSO-2110	
	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 Amulinum	
	79	WEATHER PROTECTION	IP-65	
	80	ELEC. CERTIFICATE / ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 × 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

نگهداشت و افزایش تولید میدان نفتی بینک
سطح‌الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

Data Sheets For ON/OFF & Shutdown Valves

شرکت توسعه نیروگاهی ایران

HIRGAN ENERGY

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02

D02

شماره صفحه: ۲۴ از ۳۸

On-Off Valve

TAG NO:	XV-2121C	**P&ID NO :**	BK-GCS-PEDCO-120-PR-PI-0006-D06 (3 of 3)	**SERVICE:**	1st Stage Gas Compression Suction Drums
FLUID STATE:	PROCESS GAS	**PHASE:**	GAS	**AREA CLASSIFICATION:**	Zone2, IIB, T4

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	9530.4	8664.0	3032.4	-
	2	INLET PRESSURE	bar(g)	5.1	5.1	5.1	-
	3	OUTLET PRESSURE	bar(g)	5.1	5.1	5.1	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	18.2
	5	INLET TEMPERATURE	°C	19.02~ 36.92	19.02~ 36.92	19.02~ 36.92	-
	6	DENSITY	kg/m3	5.56 ~ 5.96	5.56 ~ 5.96	5.56 ~ 5.96	-
	7	VISCOSITY	CP	0.011	0.011	0.011	-
	8	VAPOR PRESSURE Pv	bar(a)	167.7	167.7	167.7	-
	9	CRITICAL PRESSURE	bar(a)	94.65	94.65	94.65	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	8" 60	6
			OUT		8" 60	
	11	LINE NO.			GAS-111-0026C-AN07-8"-PT	
VALVE BODY & BONNET	12	TYPE			Full Bore Ball Valve/Trunnion Mounted	
	13	SIZE			8"	
	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		8"/300#	
			OUT		8"/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	PTFE	Standard
	25	ENTRY DESIGN			Top Entry	
	26	NACE REQUIREMENTNACE (MR-0175/ISO 15156)			YES	
TRIM	27	TRIM	TYPE	MATERIAL	VTA	316 SS+PTFE
	28	SIZE	RATED TRAVEL		VTA	VTA
	29	CHARACTERISTICS			On/Off	
	30	BALANCED / UNBALANCED			BALANCED	
	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-2121C, ESOV-2121C	
	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	MANUALPNEUMATIC BYPASS VALVE FOR SOLENOID VALVE			Yes	

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		9 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. :		BZSC-2110 / BZSO-2110	
	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 Amulinum	
	79	WEATHER PROTECTION		IP-65	
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 × 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	نگهداشت و افزایش تولید میدان نفتی بینک سطح‌الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک Data Sheets For ON/OFF & Shutdown Valves	شرکت توسعه نیروگاهی ایران HIRGAN ENERGY

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02	D02

شماره صفحه: ۲۵ از ۳۸

On-Off Valve

TAG NO:	XV-2122A	**P&ID NO :**	BK-GCS-PEDCO-120-PR-PI-0006-D06 (1 of 3)	**SERVICE:**	1st Stage Gas Compression Suction Drums
FLUID STATE:	PROCESS GAS	**PHASE:**	GAS	**AREA CLASSIFICATION:**	Zone2, IIB, T4

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	-	10000	-	-
	2	INLET PRESSURE	bar(g)	-	4.9	-	-
	3	OUTLET PRESSURE	bar(g)	-	4.9	-	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	13.9
	5	INLET TEMPERATURE	°C	-	36.78	-	-
	6	DENSITY	kg/m3	-	998.5	-	-
	7	VISCOSITY	CP	-	0.69	-	-
	8	VAPOR PRESSURE Pv	bar(a)	0.61	0.61	0.61	-
	9	CRITICAL PRESSURE	bar(a)	221.3	221.3	221.3	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	2" 10S	0
			OUT		2" 10S	
	11	LINE NO.			CDH-112-0021A-AS00-2"-NP	
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	PTFE	Standard
	25	ENTRY DESIGN			Top Entry	
	26	NACE REQUIREMENTNACE (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			BALANCED	
	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-2122A , ESOV-2122A	
	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	MANUALPNEUMATIC BYPASS VALVE FOR SOLENOID VALVE			Yes	

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		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. :		BZSC-2110 / BZSO-2110	
	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 Amulinum	
	79	WEATHER PROTECTION		IP-65	
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 × 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

نگهداشت و افزایش تولید میدان نفتی بینک
سطح‌الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

Data Sheets For ON/OFF & Shutdown Valves

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02

D02

On-Off Valve

TAG NO:	XV-2122B	**P&ID NO :**	BK-GCS-PEDCO-120-PR-PI-0006-D06 (2 of 3)	**SERVICE:**	1st Stage Gas Compression Suction Drums
FLUID STATE:	PROCESS GAS	**PHASE:**	GAS	**AREA CLASSIFICATION:**	Zone2, IIB, T4

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	-	10000	-	-
	2	INLET PRESSURE	bar(g)	-	4.9	-	-
	3	OUTLET PRESSURE	bar(g)	-	4.9	-	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	13.9
	5	INLET TEMPERATURE	°C	-	36.78	-	-
	6	DENSITY	kg/m3	-	998.5	-	-
	7	VISCOSITY	CP	-	0.69	-	-
	8	VAPOR PRESSURE Pv	bar(a)	0.61	0.61	0.61	-
	9	CRITICAL PRESSURE	bar(a)	221.3	221.3	221.3	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	2" 10S	0
			OUT		2" 10S	
	11	LINE NO.			CDH-112-0021B-AS00-2"-NP	
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	PTFE	Standard
	25	ENTRY DESIGN			Top Entry	
	26	NACE REQUIREMENTNACE (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			BALANCED	
	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-2122B , ESOV-2122B	
	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	MANUALPNEUMATIC BYPASS VALVE FOR SOLENOID VALVE			Yes	

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		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. :		BZSC-2110 / BZSO-2110	
	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 Amulinum	
	79	WEATHER PROTECTION		IP-65	
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 × 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

نگهداشت و افزایش تولید میدان نفتی بینک
سطح‌الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

Data Sheets For ON/OFF & Shutdown Valves

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02

D02

On-Off Valve

TAG NO:	XV-2122C	**P&ID NO :**	BK-GCS-PEDCO-120-PR-PI-0006-D06 (3 of 3)	**SERVICE:**	1st Stage Gas Compression Suction Drums
FLUID STATE:	PROCESS GAS	**PHASE:**	GAS	**AREA CLASSIFICATION:**	Zone2, IIB, T4

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	-	10000	-	-
	2	INLET PRESSURE	bar(g)	-	4.9	-	-
	3	OUTLET PRESSURE	bar(g)	-	4.9	-	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	13.9
	5	INLET TEMPERATURE	°C	-	36.78	-	-
	6	DENSITY	kg/m3	-	998.5	-	-
	7	VISCOSITY	CP	-	0.69	-	-
	8	VAPOR PRESSURE Pv	bar(a)	0.61	0.61	0.61	-
	9	CRITICAL PRESSURE	bar(a)	221.3	221.3	221.3	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	2" 10S	0
			OUT		2" 10S	
	11	LINE NO.			CDH-112-0021C-AS00-2"-NP	
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	PTFE	Standard
	25	ENTRY DESIGN			Top Entry	
	26	NACE REQUIREMENTNACE (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			BALANCED	
	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	MANUALPNEUMATIC BYPASS VALVE FOR SOLENOID VALVE			Yes	

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			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. :			BZSC-2110 / BZSO-2110
	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 Amulinum
	79	WEATHER PROTECTION			IP-65
	80	ELEC. CERTIFICATE	ELEC. CONNECTION		EEx "d" ,IIB T4 / ISO M20 × 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

نگهداشت و افزایش تولید میدان نفتی بینک
سطح‌الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

Data Sheets For ON/OFF & Shutdown Valves

HIRGAN ENERGY

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02

D02

On-Off Valve

TAG NO:	XV-2131A	**P&ID NO :**	BK-GCS-PEDCO-120-PR-PI-0009-D06 (1 of 3)	**SERVICE:**	2nd Stage Gas Compression Suction Drums
FLUID STATE:	PROCESS GAS	**PHASE:**	GAS	**AREA CLASSIFICATION:**	Zone2, IIB, T4

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	-	10000	-	-
	2	INLET PRESSURE	bar(g)	-	18.1	-	-
	3	OUTLET PRESSURE	bar(g)	-	18.1	-	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	30.3
	5	INLET TEMPERATURE	°C	-	59.88	-	-
	6	DENSITY	kg/m3	-	981.1	-	-
	7	VISCOSITY	CP	-	0.496	-	-
	8	VAPOR PRESSURE Pv	bar(a)	-	3.23	-	-
	9	CRITICAL PRESSURE	bar(a)	221.5	221.5	221.5	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	2" 10S	0
			OUT		2" 10S	
	11	LINE NO.			CDH-111-0023A-CS00-2"-NP	
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	PTFE	Standard
	25	ENTRY DESIGN			Top Entry	
	26	NACE REQUIREMENTNACE (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			BALANCED	
	31	RATED Cv	FL	XT	VTA	VTA / VTA
	32	PLUG / BALL / DISK MATERIAL			316 SS	
	33	SEAT	TYPE	MATERIAL	Soft Seat	RPTFE
	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-2131A , ESOV-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	
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	MANUALPNEUMATIC BYPASS VALVE FOR SOLENOID VALVE			Yes	

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		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. :		BZSC-2110 / BZSO-2110	
	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 Amulinum	
	79	WEATHER PROTECTION		IP-65	
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 × 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

نگهداشت و افزایش تولید میدان نفتی بینک
سطح‌الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

Data Sheets For ON/OFF & Shutdown Valves

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02

D02

On-Off Valve

TAG NO:	XV-2131B	**P&ID NO :**	BK-GCS-PEDCO-120-PR-PI-0009-D06 (2 of 3)	**SERVICE:**	2nd Stage Gas Compression Suction Drums
FLUID STATE:	PROCESS GAS	**PHASE:**	GAS	**AREA CLASSIFICATION:**	Zone2, IIB, T4

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	-	10000	-	-
	2	INLET PRESSURE	bar(g)	-	18.1	-	-
	3	OUTLET PRESSURE	bar(g)	-	18.1	-	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	30.3
	5	INLET TEMPERATURE	°C	-	59.88	-	-
	6	DENSITY	kg/m3	-	981.1	-	-
	7	VISCOSITY	CP	-	0.496	-	-
	8	VAPOR PRESSURE Pv	bar(a)	-	3.23	-	-
	9	CRITICAL PRESSURE	bar(a)	221.5	221.5	221.5	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	2" 10S	0
			OUT		2" 10S	
	11	LINE NO.			CDH-111-0023B-CS00-2"-NP	
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		PTFE	Standard
	25	ENTRY DESIGN			Top Entry	
	26	NACE REQUIREMENTNACE (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			BALANCED	
	31	RATED Cv	FL	XT	VTA	VTA / VTA
	32	PLUG / BALL / DISK MATERIAL			316 SS	
	33	SEAT	TYPE	MATERIAL	Soft Seat	RPTFE
	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-2131B, ESOV-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	
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	MANUALPNEUMATIC BYPASS VALVE FOR SOLENOID VALVE			Yes	

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			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. :			BZSC-2110 / BZSO-2110
	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 Amulinum
	79	WEATHER PROTECTION			IP-65
	80	ELEC. CERTIFICATE	ELEC. CONNECTION		EEx "d" ,IIB T4 / ISO M20 × 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	نگهداشت و افزایش تولید میدان نفتی بینک سطح‌الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک Data Sheets For ON/OFF & Shutdown Valves	شرکت توسعه نیروگاهی ایران HIRGAN ENERGY

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02	D02

شماره صفحه: ۳۰ از ۳۸

On-Off Valve

TAG NO:	XV-2131C	**P&ID NO :**	BK-GCS-PEDCO-120-PR-PI-0009-D06 (3 of 3)	**SERVICE:**	2nd Stage Gas Compression Suction Drums
FLUID STATE:	PROCESS GAS	**PHASE:**	GAS	**AREA CLASSIFICATION:**	Zone2, IIB, T4

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	-	10000	-	-
	2	INLET PRESSURE	bar(g)	-	18.1	-	-
	3	OUTLET PRESSURE	bar(g)	-	18.1	-	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	30.3
	5	INLET TEMPERATURE	°C	-	59.88	-	-
	6	DENSITY	kg/m3	-	981.1	-	-
	7	VISCOSITY	CP	-	0.496	-	-
	8	VAPOR PRESSURE Pv	bar(a)	-	3.23	-	-
	9	CRITICAL PRESSURE	bar(a)	221.5	221.5	221.5	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	2" 10S	0
			OUT		2" 10S	
	11	LINE NO.			CDH-111-0023C-CS00-2"-NP	
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	PTFE	Standard
	25	ENTRY DESIGN			Top Entry	
	26	NACE REQUIREMENTNACE (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			BALANCED	
	31	RATED Cv	FL	XT	VTA	VTA / VTA
	32	PLUG / BALL / DISK MATERIAL			316 SS	
	33	SEAT	TYPE	MATERIAL	Soft Seat	RPTFE
	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-2131C, ESOV-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	
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	MANUALPNEUMATIC BYPASS VALVE FOR SOLENOID VALVE			Yes	

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			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. :			BZSC-2110 / BZSO-2110
	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 Amulinum
	79	WEATHER PROTECTION			IP-65
	80	ELEC. CERTIFICATE	ELEC. CONNECTION		EEx "d" ,IIB T4 / ISO M20 × 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	نگهداشت و افزایش تولید میدان نفتی بینک سطح‌الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک Data Sheets For ON/OFF & Shutdown Valves	شرکت توسعه نیروگاهی ایران HIRGAN ENERGY

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02	شماره صفحه: ۳۱ از ۳۸

D02

On-Off Valve

TAG NO:	XV-2133A	**P&ID NO :**	BK-GCS-PEDCO-120-PR-PI-0011-D06 (1 of 3)	**SERVICE:**	2nd Stage Gas Compression Air Coolers
FLUID STATE:	PROCESS GAS	**PHASE:**	GAS	**AREA CLASSIFICATION:**	Zone2, IIB, T4

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	9530.4	8664	3032.4	-
	2	INLET PRESSURE	bar(g)	54.1	54.1	54.1	-
	3	OUTLET PRESSURE	bar(g)	54.1	54.1	54.1	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	62.4
	5	INLET TEMPERATURE	°C	-	60	-	-
	6	DENSITY	kg/m3	49.41 ~ 59.63	49.41 ~ 59.63	49.41 ~ 59.63	-
	7	VISCOSITY	CP	0.014	0.014	0.014	-
	8	VAPOR PRESSURE Pv	bar(a)	-	-	-	-
	9	CRITICAL PRESSURE	bar(a)	94.66	94.66	94.66	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	6" 40S	0	
			OUT		6" 40S		
	11	LINE NO.			GAS-111-0058A-FS00-6"-NP		
VALVE BODY & BONNET	12	TYPE			Full Bore Ball Valve/Trunnion Mounted		
	13	SIZE			6"		
	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		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)			No		
TRIM	27	TRIM	TYPE	MATERIAL	VTA	316 SS+RPTFE	
	28	SIZE	RATED TRAVEL		VTA	VTA	
	29	CHARACTERISTICS			On/Off		
	30	BALANCED / UNBALANCED			BALANCED		
	31	RATED Cv	FL	XT	VTA	VTA	VTA
	32	PLUG / BALL / DISK MATERIAL			316 SS		
	33	SEAT	TYPE	MATERIAL	Soft Seat	RPTFE	
	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-2133A, ESOV-2133A		
	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	MANUALPNEUMATIC BYPASS VALVE FOR SOLENOID VALVE			Yes		

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
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. :		BZSC-2110 / BZSO-2110
	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 Amulinum
	79	WEATHER PROTECTION		IP-65
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4 / ISO M20 × 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	نگهداشت و افزایش تولید میدان نفتی بینک سطح‌الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک Data Sheets For ON/OFF & Shutdown Valves	شرکت توسعه نیروگاهی ایران HIRGAN ENERGY

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02	شماره صفحه: ۳۲ از ۳۸

D02

On-Off Valve

TAG NO:	XV-2133B	**P&ID NO :**	BK-GCS-PEDCO-120-PR-PI-0011-D06 (2 of 3)	**SERVICE:**	2nd Stage Gas Compression Air Coolers
FLUID STATE:	PROCESS GAS	**PHASE:**	GAS	**AREA CLASSIFICATION:**	Zone2, IIB, T4

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	9530.4	8664	3032.4	-
	2	INLET PRESSURE	bar(g)	54.1	54.1	54.1	-
	3	OUTLET PRESSURE	bar(g)	54.1	54.1	54.1	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	62.4
	5	INLET TEMPERATURE	°C	-	60	-	-
	6	DENSITY	kg/m3	49.41 ~ 59.63	49.41 ~ 59.63	49.41 ~ 59.63	-
	7	VISCOSITY	CP	0.014	0.014	0.014	-
	8	VAPOR PRESSURE Pv	bar(a)	-	-	-	-
	9	CRITICAL PRESSURE	bar(a)	94.66	94.66	94.66	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	6" 40S	0	
			OUT		6" 40S		
	11	LINE NO.			GAS-111-0058B-FS00-6"-NP		
VALVE BODY & BONNET	12	TYPE			Full Bore Ball Valve/Trunnion Mounted		
	13	SIZE			6"		
	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		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)			No		
TRIM	27	TRIM	TYPE	MATERIAL	VTA	316 SS+RPTFE	
	28	SIZE	RATED TRAVEL		VTA	VTA	
	29	CHARACTERISTICS			On/Off		
	30	BALANCED / UNBALANCED			BALANCED		
	31	RATED Cv	FL	XT	VTA	VTA	VTA
	32	PLUG / BALL / DISK MATERIAL			316 SS		
	33	SEAT	TYPE	MATERIAL	Soft Seat	RPTFE	
	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-2133B, ESOV-2133B		
	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	MANUALPNEUMATIC BYPASS VALVE FOR SOLENOID VALVE			Yes		

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	
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. :		BZSC-2110 / BZSO-2110	
	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 Amulinum	
	79	WEATHER PROTECTION		IP-65	
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 × 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	نگهداشت و افزایش تولید میدان نفتی بینک سطح‌الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک Data Sheets For ON/OFF & Shutdown Valves	شرکت توسعه نیروگاهی ایران HIRGAN ENERGY

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02	D02

شماره صفحه: ۳۳ از ۳۸

On-Off Valve

TAG NO:	XV-2133C	**P&ID NO :**	BK-GCS-PEDCO-120-PR-PI-0011-D06 (3 of 3)	**SERVICE:**	2nd Stage Gas Compression Air Coolers
FLUID STATE:	PROCESS GAS	**PHASE:**	GAS	**AREA CLASSIFICATION:**	Zone2, IIB, T4

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	9530.4	8664	3032.4	-
	2	INLET PRESSURE	bar(g)	54.1	54.1	54.1	-
	3	OUTLET PRESSURE	bar(g)	54.1	54.1	54.1	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	62.4
	5	INLET TEMPERATURE	°C	-	60	-	-
	6	DENSITY	kg/m3	49.41 ~ 59.63	49.41 ~ 59.63	49.41 ~ 59.63	-
	7	VISCOSITY	CP	0.014	0.014	0.014	-
	8	VAPOR PRESSURE Pv	bar(a)	-	-	-	-
	9	CRITICAL PRESSURE	bar(a)	94.66	94.66	94.66	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	6" 40S	0	
			OUT		6" 40S		
	11	LINE NO.			GAS-111-0058C-FS00-6"-NP		
VALVE BODY & BONNET	12	TYPE			Full Bore Ball Valve/Trunnion Mounted		
	13	SIZE			6"		
	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		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)			No		
TRIM	27	TRIM	TYPE	MATERIAL	VTA	316 SS+RPTFE	
	28	SIZE	RATED TRAVEL		VTA	VTA	
	29	CHARACTERISTICS			On/Off		
	30	BALANCED / UNBALANCED			BALANCED		
	31	RATED Cv	FL	XT	VTA	VTA	VTA
	32	PLUG / BALL / DISK MATERIAL			316 SS		
	33	SEAT	TYPE	MATERIAL	Soft Seat	RPTFE	
	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	MANUALPNEUMATIC BYPASS VALVE FOR SOLENOID VALVE			Yes		

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
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. :		BZSC-2110 / BZSO-2110
	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 Amulinum
	79	WEATHER PROTECTION		IP-65
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4 / ISO M20 × 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.

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(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
سطح‌الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

Data Sheets For ON/OFF & Shutdown Valves

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02

D02

On-Off Valve

TAG NO:	XV-2142	**P&ID NO :**	BK-GCS-PEDCO-120-PR-PI-0012-D06	**SERVICE:**	2nd Stage Gas Compression Discharge Drum
FLUID STATE:	PROCESS GAS	**PHASE:**	GAS	**AREA CLASSIFICATION:**	Zone2, IIB, T4

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	18977.7	17252.5	6038.4	-
	2	INLET PRESSURE	bar(g)	53.9	53.9	53.9	-
	3	OUTLET PRESSURE	bar(g)	53.9	53.9	53.9	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	90
	5	INLET TEMPERATURE	°C	59.89	59.89	59.89	-
	6	DENSITY	kg/m3	49.41~ 59.17	49.41~ 59.17	49.41~ 59.17	-
	7	VISCOSITY	CP	0.014	0.014	0.014	-
	8	VAPOR PRESSURE Pv	bar(a)	3.23	3.23	3.23	-
	9	CRITICAL PRESSURE	bar(a)	106	106	106	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	6" 80	3
			OUT		6" 80	
	11	LINE NO.	GAS-111-0066-FN05-6"-PT			
VALVE BODY & BONNET	12	TYPE			Full Bore Ball Valve/Trunnion Mounted	
	13	SIZE			6"	
	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		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)			No	
TRIM	27	TRIM	TYPE	MATERIAL	VTA	316 SS+RPTFE
	28	SIZE	RATED TRAVEL		VTA	VTA
	29	CHARACTERISTICS			On/Off	
	30	BALANCED / UNBALANCED			BALANCED	
	31	RATED Cv	FL	XT	VTA	VTA / VTA
	32	PLUG / BALL / DISK MATERIAL			316 SS	
	33	SEAT	TYPE	MATERIAL	Soft Seat	RPTFE
	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-2142, ESOV-2142	
	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	MANUALPNEUMATIC BYPASS VALVE FOR SOLENOID VALVE			Yes	

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
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. :			BZSC-2110 / BZSO-2110
	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 Amulinum
	79	WEATHER PROTECTION			IP-65
	80	ELEC. CERTIFICATE	ELEC. CONNECTION		EEx "d" ,IIB T4 / ISO M20 × 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

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(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
سطح‌الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

Data Sheets For ON/OFF & Shutdown Valves

شرکت توسعه نیروی ایران

HIRGAN ENERGY

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	
۰۵۳ - ۰۷۳ - ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02	D02

On-Off Valve

TAG NO:	**XV-2143**	**P&ID NO :**	BK-GCS-PEDCO-120-PR-PI-0012-D06	**SERVICE:**	Slug Catcher System
FLUID STATE:	PROCESS GAS	**PHASE:**	GAS	**AREA CLASSIFICATION:**	Zone2, IIB, T4

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	-	1500.0	-	-
	2	INLET PRESSURE	bar(g)	53.9	53.9	53.9	-
	3	OUTLET PRESSURE	bar(g)	53.9	53.9	53.9	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	90
	5	INLET TEMPERATURE	°C	59.89	59.89	59.89	-
	6	DENSITY	kg/m3	49.41~ 59.17	49.41~ 59.17	49.41~ 59.17	-
	7	VISCOSITY	CP	0.014	0.014	0.014	-
	8	VAPOR PRESSURE Pv	bar(a)	3.23	3.23	3.23	-
	9	CRITICAL PRESSURE	bar(a)	106	106	106	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	2"	80	3	ACTUATOR	53	TYPE: Single Acting, Spring Return
			OUT		2"	80			54	SIZE: VTA
	11	LINE NO.	GAS-111-0366-FN05-2"-PT						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 A216 Gr. WCB				60	TRAVELING TIME: 7 S
	17	LINER MATERIAL / ID			VTA				61	FUNCTION: On/Off
	18	END CONNECTION	IN		2" /600#				62	LOCAL POSITION INDICATOR: Required
			OUT		2" /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			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)			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			LIMIT SWITCHES	74	TAG NO. : BZSC-2110 / BZSO-2110
	30	BALANCED / UNBALANCED			BALANCED				75	TYPE: Magnetically operated 'REED' contacts; QUANTITY: 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		RPTFE		78	ENCLOSURE MATERIAL: Die Cast Amulinum
	34	CAGE / GUIDE MATERIAL			VTA				79	WEATHER PROTECTION: IP-65
	35	STEM	TYPE	MATERIAL	Anti-Blow Out		316 SS		80	ELEC. CERTIFICATE: EEx "d" ,IIB T4; ELEC. CONNECTION: 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			ESOV-2143, PSOV-2143				83	PNEUMATIC CONNECTION: 1/4" NPT
	39	TYPE			3 Way				84	GAUGES: Required; 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	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				90	
	46	BLOCK RELAY			No				91	
	47	QUICK EXHUST			Yes			FIRE PROOF DESIGN	92	PASSIVE FIRE PROTECTION: Yes
	49	FILTER REGULATOR			Yes				93	API 6FA REQUIREMENTS: Yes
	50	VOLUME TANK			No				94	SIL 3 REQUIREMENTS: Yes
	51	MECHANICAL POSITION INDICATOR			Required				95	PARTIAL STROKING VALVE TEST: Yes
	52	MANUAL PNEUMATIC BYPASS VALVE FOR SOLENOID VALVE			Yes				96	

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

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

NISOC

نگهداشت و افزایش تولید میدان نفتی بینک
سطح‌الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

Data Sheets For ON/OFF & Shutdown Valves

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02

D02

On-Off Valve

TAG NO:	XV-2144	**P&ID NO :**	BK-GCS-PEDCO-120-PR-PI-0012-D06	**SERVICE:**	2nd Stage Gas Compression Discharge Drum
FLUID STATE:	CLOSED DRAIN	**PHASE:**	LIQUID	**AREA CLASSIFICATION:**	Zone2, IIB, T4

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	1	FLOW RATE	kg/h	-	11500	-	-
	2	INLET PRESSURE	bar(g)	-	53.9	-	-
	3	OUTLET PRESSURE	bar(g)	-	53.9	-	-
	4	DIFFERENTIAL PRESSURE	bar(g)	-	-	-	62.4
	5	INLET TEMPERATURE	°C	-	58.9	-	-
	6	DENSITY	kg/m3	-	830~ 982	-	-
	7	VISCOSITY	CP	-	0.442~ 0.495	-	-
	8	VAPOR PRESSURE Pv	bar(a)	16.58	16.58	16.58	-
	9	CRITICAL PRESSURE	bar(a)	221.9	221.9	221.9	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	2" 40S	0
			OUT		2" 40S	
	11	LINE NO.			CDH-112-0025-FS00-2"-NP	
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	PTFE	Standard
	25	ENTRY DESIGN			Top Entry	
	26	NACE REQUIREMENTNACE (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			BALANCED	
	31	RATED Cv	FL	XT	VTA	VTA / VTA
	32	PLUG / BALL / DISK MATERIAL			316 SS	
	33	SEAT	TYPE	MATERIAL	Soft Seat	RPTFE
	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	MANUALPNEUMATIC BYPASS VALVE FOR SOLENOID VALVE			Yes	

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			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. :			BZSC-2110 / BZSO-2110
	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 Amulinum
	79	WEATHER PROTECTION			IP-65
	80	ELEC. CERTIFICATE	ELEC. CONNECTION		EEx "d" ,IIB T4 / ISO M20 × 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	نگهداشت و افزایش تولید میدان نفتی بینک سطح‌الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک Data Sheets For ON/OFF & Shutdown Valves	شرکت توسعه نیروگاهی ایران HIRGAN ENERGY

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	
۰۵۳ – ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02	D02

شماره صفحه: ۳۷ از ۳۸

On-Off Valve

TAG NO:	XV-2271	**P&ID NO :**	BK-GCS-PEDCO-120-PR-PI-0022-D06	**SERVICE:**	Fuel Gas System
FLUID STATE:	Fuel Gas	**PHASE:**	GAS	**AREA CLASSIFICATION:**	Zone2, IIB, T4

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	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)	-	-	-	18.2
	5	INLET TEMPERATURE	°C	-	18.88~ 36.7	-	-
	6	DENSITY	kg/m3	-	842~ 852	-	-
	7	VISCOSITY	CP	-	0.6934 ~ 1.03	-	-
	8	VAPOR PRESSURE Pv	bar(a)	-	0.6	-	-
	9	CRITICAL PRESSURE	bar(a)	-	221.3	-	-

LINE	10	PIPE LINE SIZE & SCHEDULE	IN	CORROSION ALLOWANCE (mm)	2" 160	6
			OUT		2" 160	
	11	LINE NO.			CDH-112-0039-AN07-2"-PT	
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	PTFE	Standard
	25	ENTRY DESIGN			Top Entry	
	26	NACE REQUIREMENTNACE (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			BALANCED	
	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	MANUALPNEUMATIC BYPASS VALVE FOR SOLENOID VALVE			Yes	

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		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. :		BZSC-2110 / BZSO-2110	
	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 Amulinum	
	79	WEATHER PROTECTION		IP-65	
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 × 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.

NIS OC

نگهداشت و افزایش تولید میدان نفتی بینک
سطح‌الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

Data Sheets For ON/OFF & Shutdown Valves

HIRGAN ENERGY

شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
۰۵۳ - ۰۷۳ – ۹۰۳۸	BK	GCS	PEDCO	120	IN	DT	0010	D02

D02

شماره صفحه: ۳۸ از ۳۸

On-Off Valve

TAG NO:	**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

		ITEM	UNITS	Max Flow	Norm. Flow	Min. Flow	Shut-Off
SERVICE CONDITION	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	CORROSION ALLOWANCE (mm)	3" 40	3
			OUT		3" 40	
	11	LINE NO.	FWA-112-0007-AN04-3"-PT			
VALVE BODY & BONNET	12	TYPE	Full Bore Ball Valve/Trunnion Mounted			
	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" /300#		
			OUT	3" /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	PTFE	Standard	
	25	ENTRY DESIGN	Top Entry			
	26	NACE REQUIREMENTNACE (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	BALANCED			
	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-2301			
	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	No			
	52	MANUALPNEUMATIC BYPASS VALVE FOR SOLENOID VALVE	No			

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	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. :	BZSC-2110 / BZSO-2110		
	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 Amulinum		
	79	WEATHER PROTECTION	IP-65		
	80	ELEC. CERTIFICATE	ELEC. CONNECTION	EEx "d" ,IIB T4	ISO M20 × 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		

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