



NISOC

نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER

شماره پیمان:

053 - 073 - 9184

پروژه

BK

بسته کاری

GCS

صادر کننده

PEDCO

تسهیلات

120

رشته

IN

نوع مدرک

DT

سریال

0006

نسخه

D02

شماره صفحه: 1 از 27

طرح نگهداشت و افزایش تولید 27 مخزن

DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER

نگهداشت و افزایش تولید میدان نفتی بینک

D02	MAY.2023	AFC	P.Hajisadeghi	M.Fakharian	A.M.Mohseni	
D01	DEC.2022	IFA	P.Hajisadeghi	M.Fakharian	M.Mehrshad	
D00	MAR.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-708927

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



NISOC

نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER

شماره پیمان:

053 - 073 - 9184

پروژه

BK

بسته کاری

GCS

صادر کننده

PEDCO

تسهیلات

120

رشته

IN

نوع مدرک

DT

سریال

0006

نسخه

D02

شماره صفحه: 2 از 27

REVISION RECORD SHEET

Page	D00	D01	D02	D03	D04
1	X	X	X		
2	X	X	X		
3	X	X			
4	X	X			
5	X	X	X		
6	X	X	X		
7	X	X	X		
8	X	X	X		
9	X	X	X		
10	X	X	X		
11	X	X	X		
12	X	X	X		
13	X	X	X		
14	X	X	X		
15	X	X	X		
16	X	X	X		
17	X	X	X		
18	X	X	X		
19	X	X	X		
20	X	X	X		
21	X	X	X		
22	X	X	X		
23	X	X	X		
24	X	X	X		
25	X	X	X		
26	X	X	X		
27	X	X	X		
28	X	X			
29	X	X			
30	X	X			
31	X	X			
32	X	X			
33	X	X			
34	X	X			
35	X	X			
36	X	X			
37	X	X			
38	X	X			
39					
40					
41					
42					
43					
44					
45					
46					
47					
48					
49					
50					
51					
52					
53					
54					
55					
56					
57					
58					
59					
60					
61					
62					
63					
64					

Page	D00	D01	D02	D03	D04
65					
66					
67					
68					
69					
70					
71					
72					
73					
74					
75					
76					
77					
78					
79					
80					
81					
82					
83					
84					
85					
86					
87					
88					
89					
90					
91					
92					
93					
94					
95					
96					
97					
98					
99					
100					
101					
102					
103					
104					
105					
106					
107					
108					
109					
110					
111					
112					
113					
114					
115					
116					
117					
118					
119					
120					
121					
122					
123					
124					
125					
126					
127					
128					



NISOC

نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER

شماره پیمان:

053 - 073 - 9184

پروژه

BK

بسته کاری

GCS

صادرکننده

PEDCO

تسهیلات

120

رشته

IN

نوع مدرک

DT

سریال

0006

نسخه

D02

شماره صفحه: 3 از 27

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
Hazardous Area Classification Layout	BK-GCS-PEDCO-120-SA-PY-0002
Instrument & Control System Design Criteria	BK-GCS-PEDCO-120-IN-DC-0002
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

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک								
	DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER								
	شماره پیمان:	پروژه	بسته کاری	صادر کننده	تجهیزات	رشته	نوع مدرک		سریال
053 - 073 - 9184	BK	GCS	PEDCO	120	IN	DT	0006	D02	شماره صفحه: 4 از 27

GENERAL NOTES:

- 1- Wetted part shall be in according to NACE MR-0175/ISO 15156.
- 2- The torque tube connection with the displacer chamber shall be flanged.
- 3- All transmitters shall be equipped with internal diagnostics software.
- 4- Vendor to follow materials indicated in the Data Sheets, related wetted parts, these materials can be as the minimum and shall be verified by vendor.
- 5- A material certificate to EN 10204: 2004 type 3.1 shall be provided for each process wetted part.
- 6- Any pressure bearing welds shall be subject to 100% radiography inspection by qualified welding NDT inspectors.
- 7- All transmitters shall have output short circuit & reverse polarity protection.
- 8- The transmitter digital electronics shall have a non-volatile EEPROM memory to be used for storing the configuration data of sensor.
- 9- Material Test Certificates and Calibration shall submit for each Level Transmitter by vendor.
- 10- Sunshade to be considered for all electronic parts.
- 11- An internal stilling well should be supplied by VENDOR, and have an internal diameter of at least 25 mm larger than the displacer diameter for internal type displacer.
- 12- Environmental condition for field instrumentation of Binak oilfield shall be considered as per the following (According to "BK-GNRL-PEDCO-000-PR-DB-0001: Process Basis Of Design":

Maximum ambient temperature: 50 (°C)
 Minimum ambient temperature: 5 (°C)
 Maximum steel surface exposed to sun: 85 (°C)
 Maximum summer dry bulb: - (°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

- 13- Tag plate as per Specification for Instrumentation, shall be stainless steel 304 SS (VTC). Following details shall be engraved on them:

- Tag Number
- Range Limit
- Service
- Manufacture Model

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک								
	DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER								
شماره پیمان:	پروژه	یسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: 5 از 27
053 - 073 - 9184	BK	GCS	PEDCO	120	IN	DT	0006	D02	

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)										D02	
GENERAL	1	Tag Number				LIT-2117					
	2	Service				Gas Compression Inlet Knock Out Drum					
	3	Location				V-2105					
	4	Mounting Type				External					
	5	Application				Level Control					
	6	P&ID No.				BK-GCS-PEDCO-120-PR-PI-0005					
	7	RFI Protection		Tropicalisation		NEEDED			NEEDED		
PROCESS CONDITIONS	8	Upper Liquid				Process Gas					
	9	Lower Liquid				Hydrocarbon Drain					
	10	Density Lower		Density Upper		842.6 Kg/m3			6.165 Kg/m3		
	11	Design Pressure		Normal Pressure		Fv/9 barg			5.3 barg		
	12	Design Temp.		Normal Temp.		85 °C			37.17 °C		
	13	Viscosity Low.		Viscosity Up		0.69 cp			0.011 cp		
BODY / GAGE	14	Body/Cage Material				C.S.					
	15	Body/Cage Rating				300#					
	16	Connection Size & Location				2" , ANSI Flange, 300#RF side					
	17	-				-					
	18	Flange Material				C.S.					
	19	Length of Center To Center				813 mm (32"), (Note1)					
	20	Case Mounting				VTA					
	21	Rotatable Head				Yes					
	22	Orientation				Side, Side with vent/drain connection					
	23	Cooling Extension				N.A.					
DISPLACER	24	Sensor Type				Displacer					
	25	Sensor Quantity				1					
	26	Sensor Dimention				VTA					
	27	Selected Standard Span				VTA					
	28	Insertion Depth				N/A					
	29	Displacer Extension Material				N/A					
	30	Displacer or Float Material				S.S. 316L					
	31	Spring Material		Torque Tube Mtrl.		VTA			Inconel		
	32	Trim Material				S.S. 316L					
TRANSMITTER	33	Function				Level Transmitter					
	34	Output				4~20 mA, HART					
	35	Set Range		Min.		Max.		0		100%	
	36	Ingress Protection				IP65					
	37	Mounting Location				Side Mounted					
	38	Connection Size & Location				VTA					
	39	Ex Protection				Zone 2, EEx ia IIB T4					
	40	Power Supply		Cable Entry		24 VDC, loop powered			M20x1.5		
	41	Accuracy				±0.1% of calibrated span					
	42	Integral Indicator		Write Protection		Digital LCD			Yes		
	43	Zero/Span Adjustment				VTA					
	44	Termination Type				Screw terminal					
	45	Case Material				VTA					
	OPTIONS	46	Cable Gland				M20x1.5 , EExd				
47		Vent/Drain Connection				3/4" NPT -with 3/4" isolation valve					
48		Compliance Code				-					
49		Custom Tag				S.S. permanent attached					
PURCHASE	50	Manufacturer				VTA					
	51	Model				VTA					

Notes:

VTA: Vendor to advice

1- An internal stilling well should be supplied by VENDOR, and have an internal diameter of at least 25 mm larger than the displacer diameter for internal type displacer.

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							 	
	DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER								
	شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
053 - 073 - 9184	BK	GCS	PEDCO	120	IN	DT	0006	D02	

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)									
GENERAL	1	Tag Number				LIT-2118			
	2	Service				Gas Compression Inlet Knock Out Drum			
	3	Location				V-2105			
	4	Mounting Type				External			
	5	Application				Level Control			
	6	P&ID No.				BK-GCS-PEDCO-120-PR-PI-0005-D04			
	7	RFI Protection		Tropicalisation		NEEDED		NEEDED	
PROCESS CONDITIONS	8	Upper Liquid				Process Gas			
	9	Lower Liquid				Hydrocarbon Drain			
	10	Density Lower		Density Upper		842.6 Kg/m3		6.165 Kg/m3	
	11	Design Pressure		Normal Pressure		Fv/9 barg		5.3 barg	
	12	Design Temp.		Normal Temp.		85 °C		37.17 °C	
	13	Viscosity Low.		Viscosity Up		0.69 cp		0.011 cp	
BODY / GAGE	14	Body/Cage Material				C.S.			
	15	Body/Cage Rating				300#			
	16	Connection Size & Location				2" , ANSI Flange, 300#RF side			
	17	-				-			
	18	Flange Material				C.S.			
	19	Length of Center To Center				356 mm (14")			
	20	Case Mounting				VTA			
	21	Rotatable Head				Yes			
	22	Orientation				Side, Side with vent/drain connection			
	23	Torque Tube Type				Yes			
DISPLACER	24	Sensor Type				Displacer			
	25	Sensor Quantity				1			
	26	Sensor Dimention				VTA			
	27	Selected Standard Span				VTA			
	28	Insertion Depth				N/A			
	29	Displacer Extension Material				N/A			
	30	Displacer or Float Material				S.S. 316L			
	31	Spring Material		Torque Tube Mtrl.		VTA		Inconel	
	32	Trim Material				S.S. 316L			
TRANSMITTER	33	Function				Level Transmitter			
	34	Output				4~20 mA, HART			
	35	Set Range	Min.	Max.	0		100%		
	36	Calibration Range				0-250 mm			
	37	Ingress Protection				IP65			
	38	Mounting Location				Side Mounted			
	39	Connection Size & Location				VTA			
	40	Ex Protection				Zone 2, EEx ia IIB T4			
	41	Power Supply		Cable Entry		24 VDC, loop powered		M20x1.5	
	42	Accuracy				±0.1% of calibrated span			
	43	Integral Indicator		Write Protection		Digital LCD		Yes	
	44	Zero/Span Adjustment				Required			
	45	Termination Type				Screw terminal			
	46	Case Material				Low copper die-cast aluminum(VTC)			
OPTIONS	47	Cable Gland				M20x1.5 , EExd			
	48	Vent/Drain Connection				3/4" NPT -with 3/4" isolation valve			
	49	-				-			
	50	Custom Tag				S.S. permanent attached			
PURCHASE	51	Manufacturer				Will be finalized later			
	52	Model				Will be finalized later			

Notes:

VTA: Vendor to advice

1- An internal stilling well should be supplied by VENDOR, and have an internal diameter of at least 25 mm larger than the displacer diameter for internal type displacer.

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک								
	DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER								
شماره پیمان:	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: 7 از 27
053 - 073 - 9184	BK	GCS	PEDCO	120	IN	DT	0006	D02	

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)										
GENERAL	1	Tag Number				LIT-2121A				
	2	Service				1st Stage Gas Compression Suction Drums				
	3	Location				V-2101-A				
	4	Mounting Type				External				
	5	Application				Level Control				
	6	P&ID No.				BK-GCS-PEDCO-120-PR-PI-0006-D04 (1 of 3)				
	7	RFI Protection				Tropicalisation		NEEDED		NEEDED
PROCESS CONDITIONS	8	Upper Liquid				Process Gas				
	9	Lower Liquid				Hydrocarbon Drain				
	10	Density Lower		Density Upper		842.7 Kg/m3		5.97 Kg/m3		
	11	Design Pressure		Normal Pressure		F.V/22 barg		4.9 barg		
	12	Design Temp.		Normal Temp.		85 °C		36.92 °C		
	13	Viscosity Low.		Viscosity Up		0.69 cp		0.01 cp		
BODY / GAGE	14	Body/Cage Material				C.S.				
	15	Body/Cage Rating				300#				
	16	Connection Size & Location				2" , ANSI Flange, 300#RF side				
	17	-				-				
	18	Flange Material				C.S.				
	19	Length of Center To Center				813 mm (32")				
	20	Case Mounting				VTA				
	21	Rotatable Head				Yes				
	22	Orientation				Side, Side with vent/drain connection				
	23	Torque Tube Type				Yes				
DISPLACER	24	Sensor Type				Displacer				
	25	Sensor Quantity				1				
	26	Sensor Dimention				VTA				
	27	Selected Standard Span				VTA				
	28	Insertion Depth				N/A				
	29	Displacer Extension Material				N/A				
	30	Displacer or Float Material				S.S. 316L				
	31	Spring Material		Torque Tube Mtrl.		VTA		Inconel		
	32	Trim Material				S.S. 316L				
TRANSMITTER	33	Function				Level Transmitter				
	34	Output				4~20 mA, HART				
	35	Set Range	Min.	Max.		0		100%		
	36	Calibration Range				0-700 mm				
	37	Ingress Protection				IP65				
	38	Mounting Location				Side Mounted				
	39	Connection Size & Location				VTA				
	40	Ex Protection				Zone 2, EEx ia IIB T4				
	41	Power Supply		Cable Entry		24 VDC, loop powered		M20x1.5		
	42	Accuracy				±0.1% of calibrated span				
	43	Integral Indicator		Write Protection		Digital LCD		No		
	44	Zero/Span Adjusment				Required				
	45	Termination Type				Screw terminal				
	46	Case Material				Low copper die-cast aluminum(VTC)				
	OPTIONS	47	Cable Gland				M20x1.5 , EExd			
		48	Vent/Drain Connection				3/4" NPT -with 3/4" isolation valve			
49		-				-				
PURCHASE	50	Custom Tag				S.S. permanent attached				
	51	Manufacturer				Will be finalized later				
	52	Model				Will be finalized later				

Notes:

VTA: Vendor to advice

1- An internal stilling well should be supplied by VENDOR, and have an internal diameter of at least 25 mm larger than the displacer diameter for internal type displacer.

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							
	DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER							
شماره پیمان: 053 - 073 - 9184	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
	BK	GCS	PEDCO	120	IN	DT	0006	D02
شماره صفحه: 8 از 27								

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)							
GENERAL	1	Tag Number			LIT-2122A		
	2	Service			1st Stage Gas Compression Suction Drums		
	3	Location			V-2101-A		
	4	Mounting Type			External		
	5	Application			Level Control		
	6	P&ID No.			BK-GCS-PEDCO-120-PR-PI-0006-D04 (1 of 3)		
	7	RFI Protection		Tropicalisation	NEEDED		NEEDED
PROCESS CONDITIONS	8	Upper Liquid			Process Gas		
	9	Lower Liquid			Hydrocarbon Drain		
	10	Density Lower		Density Upper	842.7 Kg/m3		5.97 Kg/m3
	11	Design Pressure		Normal Pressure	F.V/22 barg		4.9 barg
	12	Design Temp.		Normal Temp.	85 °C		36.92 °C
	13	Viscosity Low.		Viscosity Up	0.69 cp		0.01 cp
BODY / GAGE	14	Body/Cage Material			C.S.		
	15	Body/Cage Rating			300#		
	16	Connection Size & Location			2" , ANSI Flange, 300#RF side		
	17	-			-		
	18	Flange Material			C.S.		
	19	Length of Center To Center			1219 mm (48")		
	20	Case Mounting			VTA		
	21	Rotatable Head			Yes		
	22	Orientation			Side, Side with vent/drain connection		
	23	Torque Tube Type			Yes		
DISPLACER	24	Sensor Type			Displacer		
	25	Sensor Quantity			1		
	26	Sensor Dimention			VTA		
	27	Selected Standard Span			VTA		
	28	Insertion Depth			N/A		
	29	Displacer Extension Material			N/A		
	30	Displacer or Float Material			S.S. 316L		
	31	Spring Material		Torque Tube Mtrl.	VTA		Inconel
	32	Trim Material			S.S. 316L		
	TRANSMITTER	33	Function			Level Transmitter	
34		Output			4~20 mA, HART		
35		Set Range	Min.	Max.	0		100%
36		Calibration Range			0-1100 mm		
37		Ingress Protection			IP65		
38		Mounting Location			Side Mounted		
39		Connection Size & Location			VTA		
40		Ex Protection			Zone 2, EEx ia IIB T4		
41		Power Supply		Cable Entry	24 VDC, loop powered		M20x1.5
42		Accuracy			±0.1% of calibrated span		
43		Integral Indicator		Write Protection	Digital LCD		Yes
44		Zero/Span Adjusment			Required		
45		Termination Type			Screw terminal		
46		Case Material			Low copper die-cast aluminum(VTC)		
OPTIONS	47	Cable Gland			M20x1.5 , EExd		
	48	Vent/Drain Connection			3/4" NPT -with 3/4" isolation valve		
	49	-			-		
	50	Custom Tag			S.S. permanent attached		
PURCHASE	51	Manufacturer			Will be finalized later		
	52	Model			Will be finalized later		

Notes:

VTA: Vendor to advice

1- An internal stilling well should be supplied by VENDOR, and have an internal diameter of at least 25 mm larger than the displacer diameter for internal type displacer.

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							
	DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER							
شماره پیمان: 053 - 073 - 9184	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
	BK	GCS	PEDCO	120	IN	DT	0006	D02
شماره صفحه: 9 از 27								

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)							
GENERAL	1	Tag Number			LIT-2121B		
	2	Service			1st Stage Gas Compression Suction Drums		
	3	Location			V-2101-B		
	4	Mounting Type			External		
	5	Application			Level Control		
	6	P&ID No.			BK-GCS-PEDCO-120-PR-PI-0006-D04 (2 of 3)		
	7	RFI Protection		Tropicalisation	NEEDED		NEEDED
PROCESS CONDITIONS	8	Upper Liquid			Process Gas		
	9	Lower Liquid			Hydrocarbon Drain		
	10	Density Lower		Density Upper	842.7 Kg/m3		5.97 Kg/m3
	11	Design Pressure		Normal Pressure	F.V/22 barg		4.9 barg
	12	Design Temp.		Normal Temp.	85 °C		36.92 °C
	13	Viscosity Low.		Viscosity Up	0.69 cp		0.01 cp
BODY / GAGE	14	Body/Cage Material			C.S.		
	15	Body/Cage Rating			300#		
	16	Connection Size & Location			2" , ANSI Flange, 300#RF side		
	17	-			-		
	18	Flange Material			C.S.		
	19	Length of Center To Center			813 mm (32")		
	20	Case Mounting			VTA		
	21	Rotatable Head			Yes		
	22	Orientation			Side, Side with vent/drain connection		
	23	Torque Tube Type			Yes		
DISPLACER	24	Sensor Type			Displacer		
	25	Sensor Quantity			1		
	26	Sensor Dimention			VTA		
	27	Selected Standard Span			VTA		
	28	Insertion Depth			N/A		
	29	Displacer Extension Material			N/A		
	30	Displacer or Float Material			S.S. 316L		
	31	Spring Material		Torque Tube Mtrl.	VTA		Inconel
	32	Trim Material			S.S. 316L		
TRANSMITTER	33	Function			Level Transmitter		
	34	Output			4~20 mA, HART		
	35	Set Range	Min.	Max.	0		100%
	36	Calibration Range			0-700 mm		
	37	Ingress Protection			IP65		
	38	Mounting Location			Side Mounted		
	39	Connection Size & Location			VTA		
	40	Ex Protection			Zone 2, EEx ia IIB T4		
	41	Power Supply		Cable Entry	24 VDC, loop powered		M20x1.5
	42	Accuracy			±0.1% of calibrated span		
	43	Integral Indicator		Write Protection	Digital LCD		No
	44	Zero/Span Adjusment			Required		
	45	Termination Type			Screw terminal		
	46	Case Material			Low copper die-cast aluminum(VTC)		
OPTIONS	47	Cable Gland			M20x1.5 , EExd		
	48	Vent/Drain Connection			3/4" NPT -with 3/4" isolation valve		
	49	-			-		
	50	Custom Tag			S.S. permanent attached		
PURCHASE	51	Manufacturer			Will be finalized later		
	52	Model			Will be finalized later		

Notes:

VTA: Vendor to advice

1- An internal stilling well should be supplied by VENDOR, and have an internal diameter of at least 25 mm larger than the displacer diameter for internal type displacer.

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							
	DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER							
شماره پیمان: 053 - 073 - 9184	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
	BK	GCS	PEDCO	120	IN	DT	0006	D02
شماره صفحه: 10 از 27								

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)										
GENERAL	1	Tag Number			LIT-2122B					
	2	Service			1st Stage Gas Compression Suction Drums					
	3	Location			V-2101-B					
	4	Mounting Type			External					
	5	Application			Level Control					
	6	P&ID No.			BK-GCS-PEDCO-120-PR-PI-0006-D04 (2 of 3)					
	7	RFI Protection		Tropicalisation	NEEDED			NEEDED		
PROCESS CONDITIONS	8	Upper Liquid			Process Gas					
	9	Lower Liquid			Hydrocarbon Drain					
	10	Density Lower		Density Upper	842.7 Kg/m3			5.97 Kg/m3		
	11	Design Pressure		Normal Pressure	F.V/22 barg			4.9 barg		
	12	Design Temp.		Normal Temp.	85 °C			36.92 °C		
	13	Viscosity Low.		Viscosity Up	0.69 cp			0.01 cp		
BODY / GAGE	14	Body/Cage Material			C.S.					
	15	Body/Cage Rating			300#					
	16	Connection Size & Location			2" , ANSI Flange, 300#RF side					
	17	-			-					
	18	Flange Material			C.S.					
	19	Length of Center To Center			1219 mm (48")					
	20	Case Mounting			VTA					
	21	Rotatable Head			Yes					
	22	Orientation			Side, Side with vent/drain connection					
	23	Torque Tube Type			Yes					
DISPLACER	24	Sensor Type			Displacer					
	25	Sensor Quantity			1					
	26	Sensor Dimention			VTA					
	27	Selected Standard Span			VTA					
	28	Insertion Depth			N/A					
	29	Displacer Extension Material			N/A					
	30	Displacer or Float Material			S.S. 316L					
	31	Spring Material		Torque Tube Mtrl.	VTA			Inconel		
	32	Trim Material			S.S. 316L					
TRANSMITTER	33	Function			Level Transmitter					
	34	Output			4~20 mA, HART					
	35	Set Range	Min.	Max.	0			100%		
	36	Calibration Range			0-1100mm					
	37	Ingress Protection			IP65					
	38	Mounting Location			Side Mounted					
	39	Connection Size & Location			VTA					
	40	Ex Protection			Zone 2, EEx ia IIB T4					
	41	Power Supply		Cable Entry	24 VDC, loop powered			M20x1.5		
	42	Accuracy			±0.1% of calibrated span					
	43	Integral Indicator		Write Protection	Digital LCD			Yes		
	44	Zero/Span Adjusment			Required					
	45	Termination Type			Screw terminal					
	46	Case Material			Low copper die-cast aluminum(VTC)					
OPTIONS	47	Cable Gland			M20x1.5 , EExd					
	48	Vent/Drain Connection			3/4" NPT -with 3/4" isolation valve					
	49	-			-					
	50	Custom Tag			S.S. permanent attached					
PURCHASE	51	Manufacturer			Will be finalized later					
	52	Model			Will be finalized later					

Notes:

VTA: Vendor to advice

1- An internal stilling well should be supplied by VENDOR, and have an internal diameter of at least 25 mm larger than the displacer diameter for internal type displacer.

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							
	DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER							
شماره پیمان: 053 - 073 - 9184	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
	BK	GCS	PEDCO	120	IN	DT	0006	D02
شماره صفحه: 11 از 27								

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)						
GENERAL	1	Tag Number		LIT-2121C		
	2	Service		1st Stage Gas Compression Suction Drums		
	3	Location		V-2101-C		
	4	Mounting Type		External		
	5	Application		Level Control		
	6	P&ID No.		BK-GCS-PEDCO-120-PR-PI-0006-D04 (3 of 3)		
	7	RFI Protection	Tropicalisation	NEEDED	NEEDED	
PROCESS CONDITIONS	8	Upper Liquid		Process Gas		
	9	Lower Liquid		Hydrocarbon Drain		
	10	Density Lower	Density Upper	842.7 Kg/m3	5.97 Kg/m3	
	11	Design Pressure	Normal Pressure	F.V/22 barg	4.9 barg	
	12	Design Temp.	Normal Temp.	85 °C	36.92 °C	
	13	Viscosity Low.	Viscosity Up	0.69 cp	0.01 cp	
BODY / GAGE	14	Body/Cage Material		C.S.		
	15	Body/Cage Rating		300#		
	16	Connection Size & Location		2" , ANSI Flange, 300#RF side		
	17	-		-		
	18	Flange Material		C.S.		
	19	Length of Center To Center		813 mm (32")		
	20	Case Mounting		VTA		
	21	Rotatable Head		Yes		
	22	Orientation		Side, Side with vent/drain connection		
	23	Torque Tube Type		Yes		
DISPLACER	24	Sensor Type		Displacer		
	25	Sensor Quantity		1		
	26	Sensor Dimention		VTA		
	27	Selected Standard Span		VTA		
	28	Insertion Depth		N/A		
	29	Displacer Extension Material		N/A		
	30	Displacer or Float Material		S.S. 316L		
	31	Spring Material	Torque Tube Mtrl.	VTA	Inconel	
	32	Trim Material		S.S. 316L		
TRANSMITTER	33	Function		Level Transmitter		
	34	Output		4~20 mA, HART		
	35	Set Range	Min.	Max.	0	100%
	36	Calibration Range		0-700 mm		
	37	Ingress Protection		IP65		
	38	Mounting Location		Side Mounted		
	39	Connection Size & Location		VTA		
	40	Ex Protection		Zone 2, EEx ia IIB T4		
	41	Power Supply	Cable Entry	24 VDC, loop powered	M20x1.5	
	42	Accuracy		±0No.1% of calibrated span		
	43	Integral Indicator	Write Protection	Digital LCD	No	
	44	Zero/Span Adjusment		Required		
	45	Termination Type		Screw terminal		
	46	Case Material		Low copper die-cast aluminum(VTC)		
OPTIONS	47	Cable Gland		M20x1.5 , EExd		
	48	Vent/Drain Connection		3/4" NPT -with 3/4" isolation valve		
	49	-		-		
	50	Custom Tag		S.S. permanent attached		
PURCHASE	51	Manufacturer		Will be finalized later		
	52	Model		Will be finalized later		

Notes:

VTA: Vendor to advice

1- An internal stilling well should be supplied by VENDOR, and have an internal diameter of at least 25 mm larger than the displacer diameter for internal type displacer.

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							
	DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER							
شماره پیمان: 053 - 073 - 9184	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
	BK	GCS	PEDCO	120	IN	DT	0006	D02
شماره صفحه: 12 از 27								

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)						
GENERAL	1	Tag Number		LIT-2122C		
	2	Service		1st Stage Gas Compression Suction Drums		
	3	Location		V-2101-C		
	4	Mounting Type		External		
	5	Application		Level Control		
	6	P&ID No.		BK-GCS-PEDCO-120-PR-PI-0006-D04 (3 of 3)		
	7	RFI Protection	Tropicalisation	NEEDED	NEEDED	
PROCESS CONDITIONS	8	Upper Liquid		Process Gas		
	9	Lower Liquid		Hydrocarbon Drain		
	10	Density Lower	Density Upper	842.7 Kg/m3	5.97 Kg/m3	
	11	Design Pressure	Normal Pressure	F.V/22 barg	4.9 barg	
	12	Design Temp.	Normal Temp.	85 °C	36.92 °C	
	13	Viscosity Low.	Viscosity Up	0.69 cp	0.01 cp	
BODY / GAGE	14	Body/Cage Material		C.S.		
	15	Body/Cage Rating		300#		
	16	Connection Size & Location		2" , ANSI Flange, 300#RF side		
	17	-		-		
	18	Flange Material		C.S.		
	19	Length of Center To Center		1219 mm (48")		
	20	Case Mounting		VTA		
	21	Rotatable Head		Yes		
	22	Orientation		Side, Side with vent/drain connection		
	23	Torque Tube Type		Yes		
DISPLACER	24	Sensor Type		Displacer		
	25	Sensor Quantity		1		
	26	Sensor Dimention		VTA		
	27	Selected Standard Span		VTA		
	28	Insertion Depth		N/A		
	29	Displacer Extension Material		N/A		
	30	Displacer or Float Material		S.S. 316L		
	31	Spring Material	Torque Tube Mtrl.	VTA	Inconel	
	32	Trim Material		S.S. 316L		
TRANSMITTER	33	Function		Level Transmitter		
	34	Output		4~20 mA, HART		
	35	Set Range	Min.	Max.	0	100%
	36	Calibration Range		0-1100mm		
	37	Ingress Protection		IP65		
	38	Mounting Location		Side Mounted		
	39	Connection Size & Location		VTA		
	40	Ex Protection		Zone 2, EEx ia IIB T4		
	41	Power Supply	Cable Entry	24 VDC, loop powered	M20x1.5	
	42	Accuracy		±0.1% of calibrated span		
	43	Integral Indicator	Write Protection	Digital LCD	Yes	
	44	Zero/Span Adjusment		Required		
	45	Termination Type		Screw terminal		
	46	Case Material		Low copper die-cast aluminum(VTC)		
OPTIONS	47	Cable Gland		M20x1.5 , EExd		
	48	Vent/Drain Connection		3/4" NPT -with 3/4" isolation valve		
	49	-		-		
	50	Custom Tag		S.S. permanent attached		
PURCHASE	51	Manufacturer		Will be finalized later		
	52	Model		Will be finalized later		

Notes:

VTA: Vendor to advice

1- An internal stilling well should be supplied by VENDOR, and have an internal diameter of at least 25 mm larger than the displacer diameter for internal type displacer.

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							
	DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER							
شماره پیمان: 053 - 073 - 9184	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
	BK	GCS	PEDCO	120	IN	DT	0006	D02
شماره صفحه: 13 از 27								

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)						
GENERAL	1	Tag Number		LIT-2131A		
	2	Service		2nd Stage Gas Compression Suction Drums		
	3	Location		V-2102-A		
	4	Mounting Type		External		
	5	Application		Level Control		
	6	P&ID No.		BK-GCS-PEDCO-120-PR-PI-0009-D04 (1 of 3)		
	7	RFI Protection	Tropicalisation	NEEDED	NEEDED	
PROCESS CONDITIONS	8	Upper Liquid		Process Gas		
	9	Lower Liquid		Hydrocarbon Drain		
	10	Density Lower	Density Upper	829.1 Kg/m3	18.28 Kg/m3	
	11	Design Pressure	Normal Pressure	F.V/22 barg	18.3 barg	
	12	Design Temp.	Normal Temp.	115.4 °C	60 °C	
	13	Viscosity Low.	Viscosity Up	0.44 cp	0.01 cp	
BODY / GAGE	14	Body/Cage Material		C.S.		
	15	Body/Cage Rating		300#		
	16	Connection Size & Location		2" , ANSI Flange, 300#RF side		
	17	-		-		
	18	Flange Material		C.S.		
	19	Length of Center To Center		813 mm (32")		
	20	Case Mounting		VTA		
	21	Rotatable Head		Yes		
	22	Orientation		Side, Side with vent/drain connection		
	23	Torque Tube Type		Yes		
DISPLACER	24	Sensor Type		Displacer		
	25	Sensor Quantity		1		
	26	Sensor Dimention		VTA		
	27	Selected Standard Span		VTA		
	28	Insertion Depth		N/A		
	29	Displacer Extension Material		N/A		
	30	Displacer or Float Material		S.S. 316L		
	31	Spring Material	Torque Tube Mtrl.	VTA	Inconel	
	32	Trim Material		S.S. 316L		
TRANSMITTER	33	Function		Level Transmitter		
	34	Output		4~20 mA, HART		
	35	Set Range	Min.	Max.	0	100%
	36	Calibration Range		0-700mm		
	37	Ingress Protection		IP65		
	38	Mounting Location		Side Mounted		
	39	Connection Size & Location		VTA		
	40	Ex Protection		Zone 2, EEx ia IIB T4		
	41	Power Supply	Cable Entry	24 VDC, loop powered	M20x1.5	
	42	Accuracy		±0.1% of calibrated span		
	43	Integral Indicator	Write Protection	Digital LCD	No	
	44	Zero/Span Adjusment		Required		
	45	Termination Type		Screw terminal		
	46	Case Material		Low copper die-cast aluminum(VTC)		
OPTIONS	47	Cable Gland		M20x1.5 , EExd		
	48	Vent/Drain Connection		3/4" NPT -with 3/4" isolation valve		
	49	-		-		
	50	Custom Tag		S.S. permanent attached		
PURCHASE	51	Manufacturer		Will be finalized later		
	52	Model		Will be finalized later		

Notes:

VTA: Vendor to advice

1- An internal stilling well should be supplied by VENDOR, and have an internal diameter of at least 25 mm larger than the displacer diameter for internal type displacer.

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							
	DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER							
شماره پیمان: 053 - 073 - 9184	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
	BK	GCS	PEDCO	120	IN	DT	0006	D02
شماره صفحه: 14 از 27								

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)						
GENERAL	1	Tag Number		LIT-2132A		
	2	Service		2nd Stage Gas Compression Suction Drums		
	3	Location		V-2102-A		
	4	Mounting Type		External		
	5	Application		Level Control		
	6	P&ID No.		BK-GCS-PEDCO-120-PR-PI-0009-D04 (1 of 3)		
	7	RFI Protection	Tropicalisation	NEEDED	NEEDED	
PROCESS CONDITIONS	8	Upper Liquid		Process Gas		
	9	Lower Liquid		Hydrocarbon Drain		
	10	Density Lower	Density Upper	829.1 Kg/m3	18.28 Kg/m3	
	11	Design Pressure	Normal Pressure	F.V/22 barg	18.3 barg	
	12	Design Temp.	Normal Temp.	115.4 °C	60 °C	
	13	Viscosity Low.	Viscosity Up	0.44 cp	0.01 cp	
BODY / GAGE	14	Body/Cage Material		C.S.		
	15	Body/Cage Rating		300#		
	16	Connection Size & Location		2" , ANSI Flange, 300#RF side		
	17	-		-		
	18	Flange Material		C.S.		
	19	Length of Center To Center		1219 mm (48")		
	20	Case Mounting		VTA		
	21	Rotatable Head		Yes		
	22	Orientation		Side, Side with vent/drain connection		
	23	Torque Tube Type		Yes		
DISPLACER	24	Sensor Type		Displacer		
	25	Sensor Quantity		1		
	26	Sensor Dimention		VTA		
	27	Selected Standard Span		VTA		
	28	Insertion Depth		N/A		
	29	Displacer Extension Material		N/A		
	30	Displacer or Float Material		S.S. 316L		
	31	Spring Material	Torque Tube Mtrl.	VTA	Inconel	
	32	Trim Material		S.S. 316L		
TRANSMITTER	33	Function		Level Transmitter		
	34	Output		4~20 mA, HART		
	35	Set Range	Min.	Max.	0	100%
	36	Calibration Range		0-1100mm		
	37	Ingress Protection		IP65		
	38	Mounting Location		Side Mounted		
	39	Connection Size & Location		VTA		
	40	Ex Protection		Zone 2, EEx ia IIB T4		
	41	Power Supply	Cable Entry	24 VDC, loop powered	M20x1.5	
	42	Accuracy		±0.1% of calibrated span		
	43	Integral Indicator	Write Protection	Digital LCD	Yes	
	44	Zero/Span Adjusment		Required		
	45	Termination Type		Screw terminal		
	46	Case Material		Low copper die-cast aluminum(VTC)		
OPTIONS	47	Cable Gland		M20x1.5 , EExd		
	48	Vent/Drain Connection		3/4" NPT -with 3/4" isolation valve		
	49	-		-		
	50	Custom Tag		S.S. permanent attached		
PURCHASE	51	Manufacturer		Will be finalized later		
	52	Model		Will be finalized later		

Notes:

VTA: Vendor to advice

1- An internal stilling well should be supplied by VENDOR, and have an internal diameter of at least 25 mm larger than the displacer diameter for internal type displacer.

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							
	DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER							
شماره پیمان: 053 - 073 - 9184	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
	BK	GCS	PEDCO	120	IN	DT	0006	D02
شماره صفحه: 15 از 27								

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)						
GENERAL	1	Tag Number			LIT-2131B	
	2	Service			2nd Stage Gas Compression Suction Drums	
	3	Location			V-2102-B	
	4	Mounting Type			External	
	5	Application			Level Control	
	6	P&ID No.			BK-GCS-PEDCO-120-PR-PI-0009-D04 (2 of 3)	
	7	RFI Protection	Tropicalisation	NEEDED	NEEDED	
PROCESS CONDITIONS	8	Upper Liquid			Process Gas	
	9	Lower Liquid			Hydrocarbon Drain	
	10	Density Lower	Density Upper	829.1 Kg/m3	18.28 Kg/m3	
	11	Design Pressure	Normal Pressure	F.V/22 barg	18.3 barg	
	12	Design Temp.	Normal Temp.	115.4 °C	60 °C	
	13	Viscosity Low.	Viscosity Up	0.44 cp	0.01 cp	
BODY / GAGE	14	Body/Cage Material			C.S.	
	15	Body/Cage Rating			300#	
	16	Connection Size & Location			2" , ANSI Flange, 300#RF side	
	17	-			-	
	18	Flange Material			C.S.	
	19	Length of Center To Center			813 mm (32")	
	20	Case Mounting			VTA	
	21	Rotatable Head			Yes	
	22	Orientation			Side, Side with vent/drain connection	
	23	Torque Tube Type			Yes	
DISPLACER	24	Sensor Type			Displacer	
	25	Sensor Quantity			1	
	26	Sensor Dimention			VTA	
	27	Selected Standard Span			VTA	
	28	Insertion Depth			N/A	
	29	Displacer Extension Material			N/A	
	30	Displacer or Float Material			S.S. 316L	
	31	Spring Material	Torque Tube Mtrl.	VTA	Inconel	
	32	Trim Material			S.S. 316L	
TRANSMITTER	33	Function			Level Transmitter	
	34	Output			4~20 mA, HART	
	35	Set Range	Min.	Max.	0	100%
	36	Calibration Range			0-700mm	
	37	Ingress Protection			IP65	
	38	Mounting Location			Side Mounted	
	39	Connection Size & Location			VTA	
	40	Ex Protection			Zone 2, EEx ia IIB T4	
	41	Power Supply	Cable Entry	24 VDC, loop powered	M20x1.5	
	42	Accuracy			±0.1% of calibrated span	
	43	Integral Indicator	Write Protection	Digital LCD	No	
	44	Zero/Span Adjusment			Required	
	45	Termination Type			Screw terminal	
	46	Case Material			Low copper die-cast aluminum(VTC)	
OPTIONS	47	Cable Gland			M20x1.5 , EExd	
	48	Vent/Drain Connection			3/4" NPT -with 3/4" isolation valve	
	49	-			-	
	50	Custom Tag			S.S. permanent attached	
PURCHASE	51	Manufacturer			Will be finalized later	
	52	Model			Will be finalized later	

Notes:

VTA: Vendor to advice

1- An internal stilling well should be supplied by VENDOR, and have an internal diameter of at least 25 mm larger than the displacer diameter for internal type displacer.

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							
	DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER							
شماره پیمان: 053 - 073 - 9184	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
	BK	GCS	PEDCO	120	IN	DT	0006	D02
شماره صفحه: 16 از 27								

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)						
GENERAL	1	Tag Number		LIT-2132B		
	2	Service		2nd Stage Gas Compression Suction Drums		
	3	Location		V-2102-B		
	4	Mounting Type		External		
	5	Application		Level Control		
	6	P&ID No.		BK-GCS-PEDCO-120-PR-PI-0009-D04 (2 of 3)		
	7	RFI Protection	Tropicalisation	NEEDED	NEEDED	
PROCESS CONDITIONS	8	Upper Liquid		Process Gas		
	9	Lower Liquid		Hydrocarbon Drain		
	10	Density Lower	Density Upper	829.1 Kg/m3	18.28 Kg/m3	
	11	Design Pressure	Normal Pressure	F.V/22 barg	18.3 barg	
	12	Design Temp.	Normal Temp.	115.4 °C	60 °C	
	13	Viscosity Low.	Viscosity Up	0.44 cp	0.01 cp	
BODY / GAGE	14	Body/Cage Material		C.S.		
	15	Body/Cage Rating		300#		
	16	Connection Size & Location		2" , ANSI Flange, 300#RF side		
	17	-		-		
	18	Flange Material		C.S.		
	19	Length of Center To Center		1219 mm (48")		
	20	Case Mounting		VTA		
	21	Rotatable Head		Yes		
	22	Orientation		Side, Side with vent/drain connection		
	23	Torque Tube Type		Yes		
DISPLACER	24	Sensor Type		Displacer		
	25	Sensor Quantity		1		
	26	Sensor Dimention		VTA		
	27	Selected Standard Span		VTA		
	28	Insertion Depth		N/A		
	29	Displacer Extension Material		N/A		
	30	Displacer or Float Material		S.S. 316L		
	31	Spring Material	Torque Tube Mtrl.	VTA	Inconel	
	32	Trim Material		S.S. 316L		
TRANSMITTER	33	Function		Level Transmitter		
	34	Output		4~20 mA, HART		
	35	Set Range	Min.	Max.	0	100%
	36	Calibration Range		0-1100mm		
	37	Ingress Protection		IP65		
	38	Mounting Location		Side Mounted		
	39	Connection Size & Location		VTA		
	40	Ex Protection		Zone 1, EEx ia IIB T4		
	41	Power Supply	Cable Entry	24 VDC, loop powered	M20x1.5	
	42	Accuracy		±0.1% of calibrated span		
	43	Integral Indicator	Write Protection	Digital LCD	Yes	
	44	Zero/Span Adjusment		Required		
	45	Termination Type		Screw terminal		
	46	Case Material		Low copper die-cast aluminum(VTC)		
OPTIONS	47	Cable Gland		M20x1.5 , EExd		
	48	Vent/Drain Connection		3/4" NPT -with 3/4" isolation valve		
	49	-		-		
	50	Custom Tag		S.S. permanent attached		
PURCHASE	51	Manufacturer		Will be finalized later		
	52	Model		Will be finalized later		

Notes:

VTA: Vendor to advice

1- An internal stilling well should be supplied by VENDOR, and have an internal diameter of at least 25 mm larger than the displacer diameter for internal type displacer.

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							
	DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER							
شماره پیمان: 053 - 073 - 9184	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
	BK	GCS	PEDCO	120	IN	DT	0006	D02
شماره صفحه: 17 از 27								

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)						
GENERAL	1	Tag Number		LIT-2131C		
	2	Service		2nd Stage Gas Compression Suction Drums		
	3	Location		V-2102-C		
	4	Mounting Type		External		
	5	Application		Level Control		
	6	P&ID No.		BK-GCS-PEDCO-120-PR-PI-0009-D04 (3 of 3)		
	7	RFI Protection	Tropicalisation	NEEDED	NEEDED	
PROCESS CONDITIONS	8	Upper Liquid		Process Gas		
	9	Lower Liquid		Hydrocarbon Drain		
	10	Density Lower	Density Upper	829.1 Kg/m3	18.28 Kg/m3	
	11	Design Pressure	Normal Pressure	F.V/22 barg	18.3 barg	
	12	Design Temp.	Normal Temp.	115.4 °C	60 °C	
	13	Viscosity Low.	Viscosity Up	0.44 cp	0.01 cp	
BODY / GAGE	14	Body/Cage Material		C.S.		
	15	Body/Cage Rating		300#		
	16	Connection Size & Location		2" , ANSI Flange, 300#RF side		
	17	-		-		
	18	Flange Material		C.S.		
	19	Length of Center To Center		813 mm (32")		
	20	Case Mounting		VTA		
	21	Rotatable Head		Yes		
	22	Orientation		Side, Side with vent/drain connection		
	23	Torque Tube Type		Yes		
DISPLACER	24	Sensor Type		Displacer		
	25	Sensor Quantity		1		
	26	Sensor Dimention		VTA		
	27	Selected Standard Span		VTA		
	28	Insertion Depth		N/A		
	29	Displacer Extension Material		N/A		
	30	Displacer or Float Material		S.S. 316L		
	31	Spring Material	Torque Tube Mtrl.	VTA	Inconel	
	32	Trim Material		S.S. 316L		
TRANSMITTER	33	Function		Level Transmitter		
	34	Output		4~20 mA, HART		
	35	Set Range	Min.	Max.	0	100%
	36	Calibration Range		0-700mm		
	37	Ingress Protection		IP65		
	38	Mounting Location		Side Mounted		
	39	Connection Size & Location		VTA		
	40	Ex Protection		Zone 2, EEx ia IIB T4		
	41	Power Supply	Cable Entry	24 VDC, loop powered	M20x1.5	
	42	Accuracy		±0.1% of calibrated span		
	43	Integral Indicator	Write Protection	Digital LCD	No	
	44	Zero/Span Adjusment		Required		
	45	Termination Type		Screw terminal		
	46	Case Material		Low copper die-cast aluminum(VTC)		
OPTIONS	47	Cable Gland		M20x1.5 , EExd		
	48	Vent/Drain Connection		3/4" NPT -with 3/4" isolation valve		
	49	-		-		
	50	Custom Tag		S.S. permanent attached		
PURCHASE	51	Manufacturer		Will be finalized later		
	52	Model		Will be finalized later		

Notes:

VTA: Vendor to advice

1- An internal stilling well should be supplied by VENDOR, and have an internal diameter of at least 25 mm larger than the displacer diameter for internal type displacer.

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							
	DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER							
شماره پیمان: 053 - 073 - 9184	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
	BK	GCS	PEDCO	120	IN	DT	0006	D02
شماره صفحه: 18 از 27								

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)							
GENERAL	1	Tag Number			LIT-2132C		
	2	Service			2nd Stage Gas Compression Suction Drums		
	3	Location			V-2102-C		
	4	Mounting Type			External		
	5	Application			Level Control		
	6	P&ID No.			BK-GCS-PEDCO-120-PR-PI-0009-D04 (3 of 3)		
	7	RFI Protection		Tropicalisation	NEEDED		NEEDED
PROCESS CONDITIONS	8	Upper Liquid			Process Gas		
	9	Lower Liquid			Hydrocarbon Drain		
	10	Density Lower		Density Upper	829.1 Kg/m3		18.28 Kg/m3
	11	Design Pressure		Normal Pressure	F.V/22 barg		18.3 barg
	12	Design Temp.		Normal Temp.	115.4 °C		60 °C
	13	Viscosity Low.		Viscosity Up	0.44 cp		0.01 cp
BODY / GAGE	14	Body/Cage Material			C.S.		
	15	Body/Cage Rating			300#		
	16	Connection Size & Location			2" , ANSI Flange, 300#RF side		
	17	-			-		
	18	Flange Material			C.S.		
	19	Length of Center To Center			1219 mm (48")		
	20	Case Mounting			VTA		
	21	Rotatable Head			Yes		
	22	Orientation			Side, Side with vent/drain connection		
	23	Torque Tube Type			Yes		
DISPLACER	24	Sensor Type			Displacer		
	25	Sensor Quantity			1		
	26	Sensor Dimention			VTA		
	27	Selected Standard Span			VTA		
	28	Insertion Depth			N/A		
	29	Displacer Extension Material			N/A		
	30	Displacer or Float Material			S.S. 316L		
	31	Spring Material		Torque Tube Mtrl.	VTA		Inconel
	32	Trim Material			S.S. 316L		
TRANSMITTER	33	Function			Level Transmitter		
	34	Output			4~20 mA, HART		
	35	Set Range	Min.	Max.	0		100%
	36	Calibration Range			0-1100 mm		
	37	Ingress Protection			IP65		
	38	Mounting Location			Side Mounted		
	39	Connection Size & Location			VTA		
	40	Ex Protection			Zone 2, EEx ia IIB T4		
	41	Power Supply		Cable Entry	24 VDC, loop powered		M20x1.5
	42	Accuracy			±0.1% of calibrated span		
	43	Integral Indicator		Write Protection	Digital LCD		Yes
	44	Zero/Span Adjusment			Required		
	45	Termination Type			Screw terminal		
	46	Case Material			Low copper die-cast aluminum(VTC)		
OPTIONS	47	Cable Gland			M20x1.5 , EExd		
	48	Vent/Drain Connection			3/4" NPT -with 3/4" isolation valve		
	49	-			-		
	50	Custom Tag			S.S. permanent attached		
PURCHASE	51	Manufacturer			Will be finalized later		
	52	Model			Will be finalized later		

Notes:

VTA: Vendor to advice

1- An internal stilling well should be supplied by VENDOR, and have an internal diameter of at least 25 mm larger than the displacer diameter for internal type displacer.

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							
	DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER							
شماره پیمان: 053 - 073 - 9184	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
	BK	GCS	PEDCO	120	IN	DT	0006	D02
شماره صفحه: 19 از 27								

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)						
GENERAL	1	Tag Number			LIT-2141	
	2	Service			Gas Compression Discharge Drum	
	3	Location			V-2103	
	4	Mounting Type			External	
	5	Application			Level Control	
	6	P&ID No.			BK-GCS-PEDCO-120-PR-PI-0012-D04	
	7	RFI Protection	Tropicalisation		NEEDED	NEEDED
PROCESS CONDITIONS	8	Upper Liquid			Process Gas	
	9	Lower Liquid			Hydrocarbon Drain	
	10	Density Lower	Density Upper	982 Kg/m3	59.63 Kg/m3	
	11	Design Pressure	Normal Pressure	F.V/62 barg	53.90 barg	
	12	Design Temp.	Normal Temp.	130 °C	60 °C	
	13	Viscosity Low.	Viscosity Up	0.49 cp	0.01 cp	
BODY / GAGE	14	Body/Cage Material			C.S.	
	15	Body/Cage Rating			300#	
	16	Connection Size & Location			2" , ANSI Flange, 300#RF side	
	17	-			-	
	18	Flange Material			C.S.	
	19	Length of Center To Center			813 mm (32")	
	20	Case Mounting			VTA	
	21	Rotatable Head			Yes	
	22	Orientation			Side, Side with vent/drain connection	
	23	Torque Tube Type			Yes	
DISPLACER	24	Sensor Type			Displacer	
	25	Sensor Quantity			1	
	26	Sensor Dimention			VTA	
	27	Selected Standard Span			VTA	
	28	Insertion Depth			N/A	
	29	Displacer Extension Material			N/A	
	30	Displacer or Float Material			S.S. 316L	
	31	Spring Material	Torque Tube Mtrl.	VTA	Inconel	
	32	Trim Material			S.S. 316L	
TRANSMITTER	33	Function			Level Transmitter	
	34	Output			4~20 mA, HART	
	35	Set Range	Min.	Max.	0	100%
	36	Calibration Range			0-700mm	
	37	Ingress Protection			IP65	
	38	Mounting Location			Side Mounted	
	39	Connection Size & Location			VTA	
	40	Ex Protection			Zone 2, EEx ia IIB T4	
	41	Power Supply	Cable Entry	24 VDC, loop powered	M20x1.5	
	42	Accuracy			±0.1% of calibrated span	
	43	Integral Indicator	Write Protection	Digital LCD	No	
	44	Zero/Span Adjusment			Required	
	45	Termination Type			Screw terminal	
	46	Case Material			Low copper die-cast aluminum(VTC)	
OPTIONS	47	Cable Gland			M20x1.5 , EExd	
	48	Vent/Drain Connection			3/4" NPT -with 3/4" isolation valve	
	49	-			-	
	50	Custom Tag			S.S. permanent attached	
PURCHASE	51	Manufacturer			Will be finalized later	
	52	Model			Will be finalized later	

Notes:

VTA: Vendor to advice

1- An internal stilling well should be supplied by VENDOR, and have an internal diameter of at least 25 mm larger than the displacer diameter for internal type displacer.

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							
	DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER							
شماره پیمان: 053 - 073 - 9184	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
	BK	GCS	PEDCO	120	IN	DT	0006	D02
شماره صفحه: 20 از 27								

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)						
GENERAL	1	Tag Number			LIT-2142	
	2	Service			Compression Discharge Drum	
	3	Location			V-2103	
	4	Mounting Type			External	
	5	Application			Level Control	
	6	P&ID No.			BK-GCS-PEDCO-120-PR-PI-0012-D04	
	7	RFI Protection	Tropicalisation		NEEDED	NEEDED
PROCESS CONDITIONS	8	Upper Liquid			Process Gas	
	9	Lower Liquid			Hydrocarbon Drain	
	10	Density Lower	Density Upper	982 Kg/m3	59.63 Kg/m3	
	11	Design Pressure	Normal Pressure	F.V/62 barg	53.90 barg	
	12	Design Temp.	Normal Temp.	130 °C	60 °C	
	13	Viscosity Low.	Viscosity Up	0.49 cp	0.01 cp	
BODY / GAGE	14	Body/Cage Material			C.S.	
	15	Body/Cage Rating			300#	
	16	Connection Size & Location			2" , ANSI Flange, 300#RF side	
	17	-			-	
	18	Flange Material			C.S.	
	19	Length of Center To Center			1219 mm (48")	
	20	Case Mounting			VTA	
	21	Rotatable Head			Yes	
	22	Orientation			Side, Side with vent/drain connection	
	23	Torque Tube Type			Yes	
DISPLACER	24	Sensor Type			Displacer	
	25	Sensor Quantity			1	
	26	Sensor Dimention			VTA	
	27	Selected Standard Span			VTA	
	28	Insertion Depth			N/A	
	29	Displacer Extension Material			N/A	
	30	Displacer or Float Material			S.S. 316L	
	31	Spring Material	Torque Tube Mtrl.	VTA	Inconel	
	32	Trim Material			S.S. 316L	
TRANSMITTER	33	Function			Level Transmitter	
	34	Output			4~20 mA, HART	
	35	Set Range	Min.	Max.	0	100%
	36	Calibration Range			0-1100 mm	
	37	Ingress Protection			IP65	
	38	Mounting Location			Side Mounted	
	39	Connection Size & Location			VTA	
	40	Ex Protection			Zone 2, EEx ia IIB T4	
	41	Power Supply	Cable Entry	24 VDC, loop powered	M20x1.5	
	42	Accuracy			±0.1% of calibrated span	
	43	Integral Indicator	Write Protection	Digital LCD	Yes	
	44	Zero/Span Adjusment			Required	
	45	Termination Type			Screw terminal	
	46	Case Material			Low copper die-cast aluminum(VTC)	
OPTIONS	47	Cable Gland			M20x1.5 , EExd	
	48	Vent/Drain Connection			3/4" NPT -with 3/4" isolation valve	
	49	-			-	
	50	Custom Tag			S.S. permanent attached	
PURCHASE	51	Manufacturer			Will be finalized later	
	52	Model			Will be finalized later	

Notes:

VTA: Vendor to advice

1- An internal stilling well should be supplied by VENDOR, and have an internal diameter of at least 25 mm larger than the displacer diameter for internal type displacer.

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							
	DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER							
شماره پیمان: 053 - 073 - 9184	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
	BK	GCS	PEDCO	120	IN	DT	0006	D02
شماره صفحه: 21 از 27								

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)						D02	
GENERAL	1	Tag Number			LIT-2223		
	2	Service			LP Flare K.O. Drum And Closed Drain Drum Sump		
	3	Location			SU-2201		
	4	Mounting Type			External		
	5	Application			Level Control		
	6	P&ID No.			BK-GCS-PEDCO-120-PR-PI-0020-D04 (2 of 3)		
	7	RFI Protection		Tropicalisation	NEEDED		NEEDED
PROCESS CONDITIONS	8	Upper Liquid			Air		
	9	Lower Liquid			H ₂ O		
	10	Density Lower		Density Upper	997 Kg/m3		1.225
	11	Design Pressure		Normal Pressure	3.5		ATM
	12	Design Temp.		Normal Temp.	85		AMB
	13	Viscosity Low.		Viscosity Up	0.89		0.01
BODY / GAGE	14	Body/Cage Material			N/A		
	15	Body/Cage Rating			N/A		
	16	Connection Size & Location			TOP /PLATE MOUNTED		
	17	-			N/A		
	18	Flange Material			N/A		
	19	Length of Center To Center			N/A		
	20	Case Mounting			N/A		
	21	Rotatable Head			N/A		
	22	Orientation			N/A		
	23	Torque Tube Type			N/A		
DISPLACER	24	Sensor Type			Float Type		
	25	Sensor Quantity			1		
	26	Sensor Dimention			VTA		
	27	Selected Standard Span			VTA		
	28	Insertion Depth			3000 m		
	29	Float Extension Material			N/A		
	30	Displacer or Float Material			S.S. 316L		
	31	Spring Material		Torque Tube Mtrl.	VTA		S.S. 316L(VTC)
	32	Trim Material			S.S. 316L(VTC)		
TRANSMITTER	33	Function			Level Transmitter		
	34	Output			4~20 mA, HART		
	35	Set Range	Min.	Max.	0		100%
	36	Calibration Range			0-250 mm		
	37	Ingress Protection			IP65		
	38	Mounting Location			Side Mounted		
	39	Connection Size & Location			VTA		
	40	Ex Protection			Zone 2, EEx ia IIB T4		
	41	Power Supply		Cable Entry	24 VDC, loop powered		M20x1.5
	42	Accuracy			±0.1% of calibrated span		
	43	Integral Indicator		Write Protection	Digital LCD		Yes
	44	Zero/Span Adjusment			Required		
	45	Termination Type			Screw terminal		
	46	Case Material			Low copper die-cast aluminum(VTC)		
OPTIONS	47	Cable Gland			M20x1.5 , EExd		
	48	Vent/Drain Connection			3/4" NPT -with 3/4" isolation valve		
	49	-			-		
	50	Custom Tag			S.S. permanent attached		
PURCHASE	51	Manufacturer			Will be finalized later		
	52	Model			Will be finalized later		

Notes:

VTA: Vendor to advice

1- An internal stilling well should be supplied by VENDOR, and have an internal diameter of at least 25 mm larger than the displacer diameter for internal type displacer.

2- Mounted on a plate as per Project Hook- up diagram (Required plate and accessories for connect to concrete wall of sump to be supplied by Civil department.)

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							
	DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER							
شماره پیمان: 053 - 073 - 9184	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
	BK	GCS	PEDCO	120	IN	DT	0006	D02
								شماره صفحه: 22 از 27

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)						
GENERAL	1	Tag Number			LIT-2223	
	2	Service			LP Flare K.O. Drum	
	3	Location			V-2201	
	4	Mounting Type			External	
	5	Application			Level Control	
	6	P&ID No.			BK-GCS-PEDCO-120-PR-PI-0020-D04 (2 of 3)	
	7	RFI Protection	Tropicalisation	NEEDED	NEEDED	
PROCESS CONDITIONS	8	Upper Liquid			Process Gas	
	9	Lower Liquid			Hydrocarbon Drain	
	10	Density Lower	Density Upper	844.4 Kg/m3	1.46 Kg/m3	
	11	Design Pressure	Normal Pressure	F.V/7.5 barg	0.5 barg	
	12	Design Temp.	Normal Temp.	85 °C	32 °C	
	13	Viscosity Low.	Viscosity Up	0.46 cp	0.01 cp	
BODY / GAGE	14	Body/Cage Material			C.S.	
	15	Body/Cage Rating			300#	
	16	Connection Size & Location			2" , ANSI Flange, 300#RF side	
	17	-			-	
	18	Flange Material			C.S.	
	19	Length of Center To Center			356 mm (14")	
	20	Case Mounting			VTA	
	21	Rotatable Head			Yes	
	22	Orientation			Side, Side with vent/drain connection	
	23	Torque Tube Type			Yes	
DISPLACER	24	Sensor Type			Displacer	
	25	Sensor Quantity			1	
	26	Sensor Dimention			VTA	
	27	Selected Standard Span			VTA	
	28	Insertion Depth			N/A	
	29	Displacer Extension Material			N/A	
	30	Displacer or Float Material			S.S. 316L	
	31	Spring Material	Torque Tube Mtrl.	VTA	Inconel	
	32	Trim Material			S.S. 316L	
TRANSMITTER	33	Function			Level Transmitter	
	34	Output			4~20 mA, HART	
	35	Set Range	Min.	Max.	0	100%
	36	Calibration Range			0-250 mm	
	37	Ingress Protection			IP65	
	38	Mounting Location			Side Mounted	
	39	Connection Size & Location			VTA	
	40	Ex Protection			Zone 2, EEx ia IIB T4	
	41	Power Supply	Cable Entry	24 VDC, loop powered	M20x1.5	
	42	Accuracy			±0.1% of calibrated span	
	43	Integral Indicator	Write Protection	Digital LCD	Yes	
	44	Zero/Span Adjusment			Required	
	45	Termination Type			Screw terminal	
	46	Case Material			Low copper die-cast aluminum(VTC)	
OPTIONS	47	Cable Gland			M20x1.5 , EExd	
	48	Vent/Drain Connection			3/4" NPT -with 3/4" isolation valve	
	49	-			-	
	50	Custom Tag			S.S. permanent attached	
PURCHASE	51	Manufacturer			Will be finalized later	
	52	Model			Will be finalized later	

Notes:

VTA: Vendor to advice

1- An internal stilling well should be supplied by VENDOR, and have an internal diameter of at least 25 mm larger than the displacer diameter for internal type displacer.

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							
	DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER							
شماره پیمان: 053 - 073 - 9184	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
	BK	GCS	PEDCO	120	IN	DT	0006	D02
								شماره صفحه: 23 از 27

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)						
GENERAL	1	Tag Number			LIT-2252B	
	2	Service			LP Flare K.O. Drum	
	3	Location			V-2201	
	4	Mounting Type			External	
	5	Application			Level Control	
	6	P&ID No.			BK-GCS-PEDCO-120-PR-PI-0020-D04 (2 of 3)	
	7	RFI Protection	Tropicalisation	NEEDED	NEEDED	
PROCESS CONDITIONS	8	Upper Liquid		Process Gas		
	9	Lower Liquid		Hydrocarbon Drain		
	10	Density Lower	Density Upper	844.4 Kg/m3	1.46 Kg/m3	
	11	Design Pressure	Normal Pressure	F.V/7.5 barg	0.5 barg	
	12	Design Temp.	Normal Temp.	85 °C	32 °C	
	13	Viscosity Low.	Viscosity Up	0.46 cp	0.01 cp	
BODY / GAGE	14	Body/Cage Material			C.S.	
	15	Body/Cage Rating			300#	
	16	Connection Size & Location			2" , ANSI Flange, 300#RF side	
	17	-			-	
	18	Flange Material			C.S.	
	19	Length of Center To Center			356 mm (14")	
	20	Case Mounting			VTA	
	21	Rotatable Head			Yes	
	22	Orientation			Side, Side with vent/drain connection	
	23	Torque Tube Type			Yes	
DISPLACER	24	Sensor Type			Displacer	
	25	Sensor Quantity			1	
	26	Sensor Dimention			VTA	
	27	Selected Standard Span			VTA	
	28	Insertion Depth			N/A	
	29	Displacer Extension Material			N/A	
	30	Displacer or Float Material			S.S. 316L	
	31	Spring Material	Torque Tube Mtrl.	VTA	Inconel	
	32	Trim Material			S.S. 316L	
TRANSMITTER	33	Function			Level Transmitter	
	34	Output			4~20 mA, HART	
	35	Set Range	Min.	Max.	0	100%
	36	Calibration Range			0-250 mm	
	37	Ingress Protection			IP65	
	38	Mounting Location			Side Mounted	
	39	Connection Size & Location			VTA	
	40	Ex Protection			Zone 2, EEx ia IIB T4	
	41	Power Supply	Cable Entry	24 VDC, loop powered	M20x1.5	
	42	Accuracy			±0.1% of calibrated span	
	43	Integral Indicator	Write Protection	Digital LCD	Yes	
	44	Zero/Span Adjusment			Required	
	45	Termination Type			Screw terminal	
	46	Case Material			Low copper die-cast aluminum(VTC)	
OPTIONS	47	Cable Gland			M20x1.5 , EExd	
	48	Vent/Drain Connection			3/4" NPT -with 3/4" isolation valve	
	49	-			-	
	50	Custom Tag			S.S. permanent attached	
PURCHASE	51	Manufacturer			Will be finalized later	
	52	Model			Will be finalized later	

Notes:

VTA: Vendor to advice

1- An internal stilling well should be supplied by VENDOR, and have an internal diameter of at least 25 mm larger than the displacer diameter for internal type displacer.

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							
	DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER							
شماره پیمان: 053 - 073 - 9184	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
	BK	GCS	PEDCO	120	IN	DT	0006	D02
شماره صفحه: 24 از 27								

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)						
GENERAL	1	Tag Number		LIT-2252C		
	2	Service		LP Flare K.O. Drum		
	3	Location		V-2201		
	4	Mounting Type		External		
	5	Application		Level Control		
	6	P&ID No.		BK-GCS-PEDCO-120-PR-PI-0020-D04 (2 of 3)		
	7	RFI Protection	Tropicalisation	NEEDED	NEEDED	
PROCESS CONDITIONS	8	Upper Liquid		Process Gas		
	9	Lower Liquid		Hydrocarbon Drain		
	10	Density Lower	Density Upper	844.4 Kg/m3	1.46 Kg/m3	
	11	Design Pressure	Normal Pressure	F.V/7.5 barg	0.5 barg	
	12	Design Temp.	Normal Temp.	85 °C	32 °C	
	13	Viscosity Low.	Viscosity Up	0.46 cp	0.01 cp	
BODY / GAGE	14	Body/Cage Material		C.S.		
	15	Body/Cage Rating		300#		
	16	Connection Size & Location		2" , ANSI Flange, 300#RF side		
	17	-		-		
	18	Flange Material		C.S.		
	19	Length of Center To Center		356 mm (14")		
	20	Case Mounting		VTA		
	21	Rotatable Head		Yes		
	22	Orientation		Side, Side with vent/drain connection		
	23	Torque Tube Type		Yes		
DISPLACER	24	Sensor Type		Displacer		
	25	Sensor Quantity		1		
	26	Sensor Dimention		VTA		
	27	Selected Standard Span		VTA		
	28	Insertion Depth		N/A		
	29	Displacer Extension Material		N/A		
	30	Displacer or Float Material		S.S. 316L		
	31	Spring Material	Torque Tube Mtrl.	VTA	Inconel	
	32	Trim Material		S.S. 316L		
TRANSMITTER	33	Function		Level Transmitter		
	34	Output		4~20 mA, HART		
	35	Set Range	Min.	Max.	0	100%
	36	Calibration Range		0-250 mm		
	37	Ingress Protection		IP65		
	38	Mounting Location		Side Mounted		
	39	Connection Size & Location		VTA		
	40	Ex Protection		Zone 2, EEx ia IIB T4		
	41	Power Supply	Cable Entry	24 VDC, loop powered	M20x1.5	
	42	Accuracy		±0.1% of calibrated span		
	43	Integral Indicator	Write Protection	Digital LCD	Yes	
	44	Zero/Span Adjusment		Required		
	45	Termination Type		Screw terminal		
	46	Case Material		Low copper die-cast aluminum(VTC)		
OPTIONS	47	Cable Gland		M20x1.5 , EExd		
	48	Vent/Drain Connection		3/4" NPT -with 3/4" isolation valve		
	49	-		-		
	50	Custom Tag		S.S. permanent attached		
PURCHASE	51	Manufacturer		Will be finalized later		
	52	Model		Will be finalized later		

Notes:

VTA: Vendor to advice

1- An internal stilling well should be supplied by VENDOR, and have an internal diameter of at least 25 mm larger than the displacer diameter for internal type displacer.

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							
	DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER							
شماره پیمان: 053 - 073 - 9184	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
	BK	GCS	PEDCO	120	IN	DT	0006	D02
شماره صفحه: 25 از 27								

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)										
GENERAL	1	Tag Number			LIT-2253					
	2	Service			LP Flare K.O. Drum					
	3	Location			V-2201					
	4	Mounting Type			External					
	5	Application			Level Control					
	6	P&ID No.			BK-GCS-PEDCO-120-PR-PI-0020-D04 (2 of 3)					
	7	RFI Protection		Tropicalisation	NEEDED			NEEDED		
PROCESS CONDITIONS	8	Upper Liquid			Process Gas					
	9	Lower Liquid			Hydrocarbon Drain					
	10	Density Lower		Density Upper	844.4 Kg/m3			1.46 Kg/m3		
	11	Design Pressure		Normal Pressure	F.V/7.5 barg			0.5 barg		
	12	Design Temp.		Normal Temp.	85 °C			32 °C		
	13	Viscosity Low.		Viscosity Up	0.73 cp			0.01 cp		
BODY / GAGE	14	Body/Cage Material			C.S.					
	15	Body/Cage Rating			300#					
	16	Connection Size & Location			2" , ANSI Flange, 300#RF side					
	17	-			-					
	18	Flange Material			C.S.					
	19	Length of Center To Center			356 mm (14")					
	20	Case Mounting			VTA					
	21	Rotatable Head			Yes					
	22	Orientation			Side, Side with vent/drain connection					
	23	Torque Tube Type			Yes					
DISPLACER	24	Sensor Type			Displacer					
	25	Sensor Quantity			1					
	26	Sensor Dimention			VTA					
	27	Selected Standard Span			VTA					
	28	Insertion Depth			N/A					
	29	Displacer Extension Material			N/A					
	30	Displacer or Float Material			S.S. 316L					
	31	Spring Material		Torque Tube Mtrl.	VTA			Inconel		
	32	Trim Material			S.S. 316L					
TRANSMITTER	33	Function			Level Transmitter					
	34	Output			4~20 mA, HART					
	35	Set Range	Min.	Max.	0			100%		
	36	Calibration Range			0-250 mm					
	37	Ingress Protection			IP65					
	38	Mounting Location			Side Mounted					
	39	Connection Size & Location			VTA					
	40	Ex Protection			Zone 2, EEx ia IIB T4					
	41	Power Supply		Cable Entry	24 VDC, loop powered			M20x1.5		
	42	Accuracy			±0.1% of calibrated span					
	43	Integral Indicator			Digital LCD			Yes		
	44	Zero/Span Adjusment			Required					
	45	Termination Type			Screw terminal					
	46	Case Material			Low copper die-cast aluminum(VTC)					
OPTIONS	47	Cable Gland			M20x1.5 , EExd					
	48	Vent/Drain Connection			3/4" NPT -with 3/4" isolation valve					
	49	-			-					
	50	Custom Tag			S.S. permanent attached					
PURCHASE	51	Manufacturer			Will be finalized later					
	52	Model			Will be finalized later					

Notes:

VTA: Vendor to advice

1- An internal stilling well should be supplied by VENDOR, and have an internal diameter of at least 25 mm larger than the displacer diameter for internal type displacer.

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							
	DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER							
شماره پیمان: 053 - 073 - 9184	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
	BK	GCS	PEDCO	120	IN	DT	0006	D02
شماره صفحه: 26 از 27								

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)						
GENERAL	1	Tag Number		LIT-2271		
	2	Service		Fuel Gas K.O. Drum		
	3	Location		V-2205		
	4	Mounting Type		External		
	5	Application		Level Control		
	6	P&ID No.		BK-GCS-PEDCO-120-PR-PI-0022-D04		
	7	RFI Protection	Tropicalisation	NEEDED	NEEDED	
PROCESS CONDITIONS	8	Upper Liquid		Process Gas		
	9	Lower Liquid		Hydrocarbon Drain		
	10	Density Lower	Density Upper	842.7 Kg/m3	505.8 Kg/m3	
	11	Design Pressure	Normal Pressure	F.V/9 barg	4.9 barg	
	12	Design Temp.	Normal Temp.	85 °C	36.8 °C	
	13	Viscosity Low.	Viscosity Up	0.69 cp	0.01 cp	
BODY / GAGE	14	Body/Cage Material		C.S.		
	15	Body/Cage Rating		300#		
	16	Connection Size & Location		2" , ANSI Flange, 300#RF side		
	17	-		-		
	18	Flange Material		C.S.		
	19	Length of Center To Center		813 mm (32")		
	20	Case Mounting		VTA		
	21	Rotatable Head		Yes		
	22	Orientation		Side, Side with vent/drain connection		
	23	Torque Tube Type		Yes		
DISPLACER	24	Sensor Type		Displacer		
	25	Sensor Quantity		1		
	26	Sensor Dimention		VTA		
	27	Selected Standard Span		VTA		
	28	Insertion Depth		N/A		
	29	Displacer Extension Material		N/A		
	30	Displacer or Float Material		S.S. 316L		
	31	Spring Material	Torque Tube Mtrl.	VTA	Inconel	
	32	Trim Material		S.S. 316L		
	TRANSMITTER	33	Function		Level Transmitter	
34		Output		4~20 mA, HART		
35		Set Range	Min.	Max.	0	100%
36		Calibration Range		0-700 mm		
37		Ingress Protection		IP65		
38		Mounting Location		Side Mounted		
39		Connection Size & Location		VTA		
40		Ex Protection		Zone 2, EEx ia IIB T4		
41		Power Supply	Cable Entry	24 VDC, loop powered	M20x1.5	
42		Accuracy		±0.1% of calibrated span		
43		Integral Indicator	Write Protection	Digital LCD		
44		Zero/Span Adjusment		Required		
45		Termination Type		Screw terminal		
46		Case Material		Low copper die-cast aluminum(VTC)		
OPTIONS	47	Cable Gland		M20x1.5 , EExd		
	48	Vent/Drain Connection		3/4" NPT -with 3/4" isolation valve		
	49	-		-		
	50	Custom Tag		S.S. permanent attached		
PURCHASE	51	Manufacturer		Will be finalized later		
	52	Model		Will be finalized later		

Notes:

VTA: Vendor to advice

1- An internal stilling well should be supplied by VENDOR, and have an internal diameter of at least 25 mm larger than the displacer diameter for internal type displacer.

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							
	DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER							
شماره پیمان: 053 - 073 - 9184	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
	BK	GCS	PEDCO	120	IN	DT	0006	D02
شماره صفحه: 27 از 27								

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)						
GENERAL	1	Tag Number			LIT-2272	
	2	Service			Fuel Gas K.O. Drum	
	3	Location			V-2205	
	4	Mounting Type			External	
	5	Application			Level Control	
	6	P&ID No.			BK-GCS-PEDCO-120-PR-PI-0022-D04	
	7	RFI Protection	Tropicalisation	NEEDED	NEEDED	
PROCESS CONDITIONS	8	Upper Liquid			Fuel Gas	
	9	Lower Liquid			Hydrocarbon Drain	
	10	Density Lower	Density Upper	842.7 Kg/m3	505.8 Kg/m3	
	11	Design Pressure	Normal Pressure	F.V/9 barg	4.9 barg	
	12	Design Temp.	Normal Temp.	85 °C	36.8 °C	
	13	Viscosity Low.	Viscosity Up	0.69 cp	0.01 cp	
BODY / GAGE	14	Body/Cage Material			C.S.	
	15	Body/Cage Rating			300#	
	16	Connection Size & Location			2" , ANSI Flange, 300#RF side	
	17	-			-	
	18	Flange Material			C.S.	
	19	Length of Center To Center			1219 mm (48")	
	20	Case Mounting			VTA	
	21	Rotatable Head			Yes	
	22	Orientation			Side, Side with vent/drain connection	
	23	Torque Tube Type			Yes	
DISPLACER	24	Sensor Type			Displacer	
	25	Sensor Quantity			1	
	26	Sensor Dimention			VTA	
	27	Selected Standard Span			VTA	
	28	Insertion Depth			N/A	
	29	Displacer Extension Material			N/A	
	30	Displacer or Float Material			S.S. 316L	
	31	Spring Material	Torque Tube Mtrl.	VTA	Inconel	
	32	Trim Material			S.S. 316L	
TRANSMITTER	33	Function			Level Transmitter	
	34	Output			4~20 mA, HART	
	35	Set Range	Min.	Max.	0	100%
	36	Calibration Range			0-1100 mm	
	37	Ingress Protection			IP65	
	38	Mounting Location			Side Mounted	
	39	Connection Size & Location			VTA	
	40	Ex Protection			Zone 2, EEx ia IIB T4	
	41	Power Supply	Cable Entry	24 VDC, loop powered	M20x1.5	
	42	Accuracy			±0.1% of calibrated span	
	43	Integral Indicator	Write Protection	Digital LCD	No	
	44	Zero/Span Adjusment			Required	
	45	Termination Type			Screw terminal	
	46	Case Material			Low copper die-cast aluminum(VTC)	
OPTIONS	47	Cable Gland			M20x1.5 , EExd	
	48	Vent/Drain Connection			3/4" NPT -with 3/4" isolation valve	
	49	-			-	
	50	Custom Tag			S.S. permanent attached	
PURCHASE	51	Manufacturer			Will be finalized later	
	52	Model			Will be finalized later	

Notes:

VTA: Vendor to advice

1- An internal stilling well should be supplied by VENDOR, and have an internal diameter of at least 25 mm larger than the displacer diameter for internal type displacer.