



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	IFA	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



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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

نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادرکننده	بسته کاری	پروژه
D02	0006	DT	IN	120	PEDCO	GCS	BK

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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	نسخه	شماره صفحه: 4 از 27
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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

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	DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER								
شماره پیمان:	پروژه	یسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: 5 از 27
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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.

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	DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER								
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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
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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							
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	BK	GCS	PEDCO	120	IN	DT	0006	D02
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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

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 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

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 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

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 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.