

 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 D01	شماره صفحه: 1 از 38

طرح نگهداشت و افزایش تولید 27 مخزن

DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER

نگهداشت و افزایش تولید میدان نفتی بینک

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: 2

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

پروژه

BK

بسته کاری

GCS

صادرکننده

PEDCO

تسهیلات

120

رشته

IN

نوع مدرک

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سریال

0006

نسخه

D01

شماره صفحه: 2 از 38

REVISION RECORD SHEET

Page	D00	D01	D02	D03	D04
1	X	X			
2	X	X			
3	X	X			
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Page	D00	D01	D02	D03	D04
65					
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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

D01

شماره صفحه: 3 از 38

D01

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 (Golghari)	BK-GCS-PEDCO-120-PR-PI-0003
P&ID - Slug Catcher System	BK-GCS-PEDCO-120-PR-PI-0004
P&ID - Gas Compression Inlet Knock Out Drum	BK-GCS-PEDCO-120-PR-PI-0005
P&ID - 1st Stage Gas Compression Suction Drums	BK-GCS-PEDCO-120-PR-PI-0006
P&ID - 1st Stage Gas Compression Compressors	BK-GCS-PEDCO-120-PR-PI-0007
P&ID - 1st Stage Gas Compression Air Coolers	BK-GCS-PEDCO-120-PR-PI-0008
P&ID - 2nd Stage Gas Compression Suction Drums	BK-GCS-PEDCO-120-PR-PI-0009
P&ID - 2nd Stage Gas Compression Compressors	BK-GCS-PEDCO-120-PR-PI-0010
P&ID - 2nd Stage Gas Compression Air Coolers	BK-GCS-PEDCO-120-PR-PI-0011
P&ID - 2nd Stage Gas Compression Discharge Drum	BK-GCS-PEDCO-120-PR-PI-0012
P&ID - Gas Compression Dehydration Package	BK-GCS-PEDCO-120-PR-PI-0013
P&ID - Lean Glycol Storage Tank	BK-GCS-PEDCO-120-PR-PI-0014
P&ID - Instrument & Plant Air System	BK-GCS-PEDCO-120-PR-PI-0015
P&ID - Nitrogen Generation System	BK-GCS-PEDCO-120-PR-PI-0016
P&ID - Close Drain System	BK-GCS-PEDCO-120-PR-PI-0017
P&ID - Corrosion Inhibitor Package	BK-GCS-PEDCO-120-PR-PI-0018
P&ID - Methanol Injection Package	BK-GCS-PEDCO-120-PR-PI-0019
P&ID - LP Flare System	BK-GCS-PEDCO-120-PR-PI-0020
P&ID - Oily Water Sewer	BK-GCS-PEDCO-120-PR-PI-0021
P&ID - Fuel Gas System	BK-GCS-PEDCO-120-PR-PI-0022
P&ID - Diesel Oil System	BK-GCS-PEDCO-120-PR-PI-0023
P&ID - Potable Water System	BK-GCS-PEDCO-120-PR-PI-0024
P&ID - Glycol Sump Drum	BK-GCS-PEDCO-120-PR-PI-0025
P&ID - Fire Water Network	BK-GCS-PEDCO-120-SA-PI-0001
P&ID - Total Flooding System For Extension of Existing Elect. Building	BK-GCS-PEDCO-120-SA-PI-0002

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	DATA 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	D01	شماره صفحه: 4 از 38

GENERAL NOTES:

D01

- 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



نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری سنک



DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER

شماره پیمان:

053 - 073 - 9184

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شماره صفحه: 5 از 38

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)

GENERAL	1 Tag Number			LIT-2111		
	2 Service			Slug Catcher Drum		
	3 Location			V-2104		
	4 Mounting Type			External		
	5 Application			Level Control		
	6 P&ID No.			BK-GCS-PEDCO-120-PR-PI-0004 (1 of 3)		
PROCESS CONDITIONS	7 Upper Liquid			Process Gas		
	8 Lower Liquid			Hydrocarbon Drain		
	9 Density Lower		Density Upper	694.9 Kg/m3	8.35 Kg/m3	
	10 Design Pressure		Normal Pressure	9 barg	5.5 barg	
	11 Design Temp.		Normal Temp.	85 °C	32 °C	
	12 Viscosity Low.		Viscosity Up	0.44 cp	0.010 cp	
BODY / GAGE	13 Body/Cage Material			C.S.		
	14 Body/Cage Rating			300#		
	15 Connection Size & Location			2" , ANSI Flange, 300#RF side		
	16 -			-		
	17 Flange Material			C.S.		
	18 Length of Center To Center			3048 mm (120") (Note1)		
	19 Case Mounting			VTA		
	20 Rotatable Head			Yes		
	21 Orientation			Side, Side with vent/drain connection		
	22 Cooling Extension			N.A.		
DISPLACER	23 Sensor Type			Displacer		
	24 Sensor Quantity			1		
	25 Sensor Dimention			VTA		
	26 Selected Standard Span			VTA		
	27 Insertion Depth			N/A		
	28 Displacer Extension Material			N/A		
	29 Displacer or Float Material			S.S. 316L		
	30 Spring Material		Torque Tube Mtrl.	VTA	Inconel	
	31 Trim Material			S.S. 316L		
	TRANSMITTER	32 Function			Level Transmitter	
33 Output			4~20 mA, HART			
34 Set Range		Min.	Max.	0	100%	
35 Ingress Protection			IP65			
36 Mounting Location			Side Mounted			
37 Connection Size & Location			VTA			
38 Ex Protection			Zone 1, EEx ia IIB T4			
39 Power Supply		Cable Entry	24 VDC, loop powered	M20x1.5		
40 Accuracy			0.5% of full scale			
41 Integral Indicator			Digital LCD			
42 Zero/Span Adjustment			VTA			
43 Termination Type			Screw terminal			
44 Case Material			VTA			
OPTIONS		45 Cable Gland			M20x1.5 , EExd	
	46 Vent/Drain Connection			3/4" NPT -with 3/4" isolation valve		
	47 Compliance Code			-		
	48 Custom Tag			S.S. permanent attached		
PURCHASE	49 Manufacturer			VTA		
	50 Model			VTA		

Notes:

VTA: Vendor to advice

1- 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.)

2- 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								
	شماره پیمان:	پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک		سریال
053 - 073 - 9184	BK	GCS	PEDCO	120	IN	DT	0006	D01	شماره صفحه: 6 از 38

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)										
GENERAL	1	Tag Number			LIT-2112			D01 Deleted		
	2	Service			Slug Catcher Drum					
	3	Location			V-2104					
	4	Mounting Type			External					
	5	Application			Level Control					
	6	P&ID No.			BK-GCS-PEDCO-120-PR-PI-0004 (1 of 3)					
PROCESS CONDITIONS	7	Upper Liquid			Process Gas					
	8	Lower Liquid			Hydrocarbon Drain					
	9	Density Lower		Density Upper	694.9 Kg/m3		8.35 Kg/m3			
	10	Design Pressure		Normal Pressure	9 barg		5.5 barg			
	11	Design Temp.		Normal Temp.	85 °C		32 °C			
	12	Viscosity Low.		Viscosity Up	0.44 cp		0.010 cp			
BODY / GAGE	13	Body/Cage Material			C.S.					
	14	Body/Cage Rating			300#					
	15	Connection Size & Location			2" ANSI Flange, 300#RF side					
	16	-			-					
	17	Flange Material			C.S.					
	18	Length of Center To Center			3048mm (120") (Note1)					
	19	Case Mounting			VTA					
	20	Rotatable Head			Yes					
	21	Orientation			Side, Side with vent/drain connection					
	22	Cooling Extension			N.A.					
DISPLACER	23	Sensor Type			Displacer					
	24	Sensor Quantity			1					
	25	Sensor Dimention			VTA					
	26	Selected Standard Span			VTA					
	27	Insertion Depth			N/A					
	28	Displacer Extension Material			N/A					
	29	Displacer or Float Material			S.S. 316L					
	30	Spring Material		Torque Tube Mtrl.	VTA		Inconel			
	31	Trim Material			S.S. 316L					
	TRANSMITTER	32	Function			Level Transmitter				
33		Output			4~20 mA, HART					
34		Set Range		Min.	Max.	0		100%		
35		Ingress Protection			IP65					
36		Mounting Location			Side Mounted					
37		Connection Size & Location			VTA					
38		Ex Protection			Zone 1, EEx ia IIB T4					
39		Power Supply		Cable Entry	24 VDC, loop powered		M20x1.5			
40		Accuracy			0.5% of full scale					
41		Integral Indicator			Digital LCD					
42		Zero/Span Adjustment			VTA					
43		Termination Type			Screw terminal					
44		Case Material			VTA					
OPTIONS		45	Cable Gland			M20x1.5 , EExd				
	46	Vent/Drain Connection			3/4" NPT -with 3/4" isolation valve					
	47	Compliance Code			-					
	48	Custom Tag			S.S. permanent attached					
PURCHASE	49	Manufacturer			VTA					
	50	Model			VTA					

Notes:

VTA: Vendor to advice

1- 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.)

2- 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	نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادرکننده	بسته کاری	پروژه
	D01	0006	DT	IN	120	PEDCO	GCS	BK

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)										
GENERAL	1	Tag Number			LIT-2116			Deleted D01		
	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					
PROCESS CONDITIONS	7	Upper Liquid			Process Gas					
	8	Lower Liquid			Hydrocarbon Drain					
	9	Density Lower		Density Upper	842.6 Kg/m3		5.96 Kg/m3			
	10	Design Pressure		Normal Pressure	9 barg		5.3 barg			
	11	Design Temp.		Normal Temp.	85 °C		37.17 °C			
	12	Viscosity Low.		Viscosity Up	0.69 cp		0.011 cp			
BODY / GAGE	13	Body/Cage Material			C.S.					
	14	Body/Cage Rating			300#					
	15	Connection Size & Location			2" , ANSI Flange, 300#RF side					
	16	-			-					
	17	Flange Material			C.S.					
	18	Length of Center To Center			813 mm (32"), (Note1)					
	19	Case Mounting			VTA					
	20	Rotatable Head			Yes					
	21	Orientation			Side, Side with vent/drain connection					
	22	Cooling Extension			N.A.					
DISPLACER	23	Sensor Type			Displacer					
	24	Sensor Quantity			1					
	25	Sensor Dimention			VTA					
	26	Selected Standard Span			VTA					
	27	Insertion Depth			N/A					
	28	Displacer Extension Material			N/A					
	29	Displacer or Float Material			S.S. 316L					
	30	Spring Material		Torque Tube Mtrl.	VTA		Inconel			
	31	Trim Material			S.S. 316L					
	TRANSMITTER	32	Function			Level Transmitter				
33		Output			4~20 mA, HART					
34		Set Range		Min.	Max.	0		100%		
35		Ingress Protection			IP65					
36		Mounting Location			Side Mounted					
37		Connection Size & Location			VTA					
38		Ex Protection			Zone 1, EEx ia IIB T4					
39		Power Supply		Cable Entry	24 VDC, loop powered		M20x1.5			
40		Accuracy			0.5% of full scale					
41		Integral Indicator			Digital LCD					
42		Zero/Span Adjustment			VTA					
43		Termination Type			Screw terminal					
44		Case Material			VTA					
OPTIONS		45	Cable Gland			M20x1.5 , EExd				
	46	Vent/Drain Connection			3/4" NPT -with 3/4" isolation valve					
	47	Compliance Code			-					
	48	Custom Tag			S.S. permanent attached					
PURCHASE	49	Manufacturer			VTA					
	50	Model			VTA					

Notes:

VTA: Vendor to advice

1- 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.)

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	DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER								
شماره پیمان:	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: 8 از 38
053 - 073 - 9184	BK	GCS	PEDCO	120	IN	DT	0006	D01	

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)									
GENERAL	1	Tag Number				LIT-2117			
	2	Service				Gas Compression Inlet K			
	3	Location				V-2105			
	4	Mounting Type				External			
	5	Application				Level Control			
	6	P&ID No.				BK-GCS-PEDCO-120-PR-PI-0005			
PROCESS CONDITIONS	7	RFI Protection		Tropicalisation		NEEDED		NEEDED	
	8	Upper Liquid				Process Gas			
	9	Lower Liquid				Hydrocarbon Drain			
	10	Density Lower		Density Upper		842.6 Kg/m3		5.96 Kg/m3	
	11	Design Pressure		Normal Pressure		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- 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.)

2- 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							
شماره پیمان: 053 - 073 - 9184	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
	BK	GCS	PEDCO	120	IN	DT	0006	D01
شماره صفحه: 9 از 38								

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)										D01	
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		5.96.16 Kg/m3			
	11	Design Pressure		Normal Pressure		F.V/9 barg		5.1			
	12	Design Temp.		Normal Temp.		85 °C		36.92			
	13	Viscosity Low.		Viscosity Up		0.68 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	شماره صفحه: 10 از 38
	BK	GCS	PEDCO	120	IN	DT	0006	D01	

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)									
GENERAL	1	Tag Number				LIT-2119			
	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			
PROCESS CONDITIONS	7	Upper Liquid				Process Gas			
	8	Lower Liquid				Hydrocarbon Drain			
	9	Density Lower		Density Upper		998.2 Kg/m3		6.16 Kg/m3	
	10	Design Pressure		Normal Pressure		9 barg		5.3 barg	
	11	Design Temp.		Normal Temp.		85 °C		37.17 °C	
	12	Viscosity Low.		Viscosity Up		0.68 cp		0.01 cp	
BODY / GAGE	13	Body/Cage Material				C.S.			
	14	Body/Cage Rating				300#			
	15	Connection Size & Location				2" , ANSI Flange, 300#RF side			
	16	-				-			
	17	Flange Material				C.S.			
	18	Length of Center To Center				356 mm (14") (Note1)			
	19	Case Mounting				VTA			
	20	Rotatable Head				Yes			
	21	Orientation				Side, Side with vent/drain connection			
	22	Cooling Extension				N.A.			
DISPLACER	23	Sensor Type				Displacer			
	24	Sensor Quantity				1			
	25	Sensor Dimention				VTA			
	26	Selected Standard Span				VTA			
	27	Insertion Depth				N/A			
	28	Displacer Extension Material				N/A			
	29	Displacer or Float Material				S.S. 316L			
	30	Spring Material		Torque Tube Mtrl.		VTA		Inconel	
	31	Trim Material				S.S. 316L			
	TRANSMITTER	32	Function				Level Transmitter		
33		Output				4~20 mA, HART			
34		Set Range		Min.		Max.		0	
35		Ingress Protection				IP65			
36		Mounting Location				Side Mounted			
37		Connection Size & Location				VTA			
38		Ex Protection				Zone 1, EEx ia IIB T4			
39		Power Supply		Cable Entry		24 VDC, loop powered		M20x1.5	
40		Accuracy				0.5% of full scale			
41		Integral Indicator				Digital LCD			
42		Zero/Span Adjustment				VTA			
43		Termination Type				Screw terminal			
44		Case Material				VTA			
OPTIONS		45	Cable Gland				M20x1.5 , EExd		
	46	Vent/Drain Connection				3/4" NPT -with 3/4" isolation valve			
	47	Compliance Code				-			
	48	Custom Tag				S.S. permanent attached			
PURCHASE	49	Manufacturer				VTA			
	50	Model				VTA			

Notes:

VTA: Vendor to advice

1- 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.)

2- 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: BK	بسته کاری: GCS	صادر کننده: PEDCO	تسهیلات: 120	رشته: IN	نوع مدرک: DT	سریال: 0006	نسخه: D01	شماره صفحه: 11 از 38

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)										D01
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		5.77 Kg/m3		
	11	Design Pressure		Normal Pressure		F.V/9 barg		4.9 barg		
	12	Design Temp.		Normal Temp.		85 °C		36.78 °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 BK	بسته کاری GCS	صادر کننده PEDCO	تسهیلات 120	رشته IN	نوع مدرک DT	سریال 0006	نسخه D01	شماره صفحه: 12 از 38

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		5.77 Kg/m3	
	11	Design Pressure		Normal Pressure		F.V/9 barg		4.9 barg	
	12	Design Temp.		Normal Temp.		85 °C		36.78 °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			
DISPLACER	23	Torque Tube Type				Yes			
	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	
TRANSMITTER	32	Trim Material				S.S. 316L			
	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		-				-			
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:	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: 13 از 38
053 - 073 - 9184	BK	GCS	PEDCO	120	IN	DT	0006	D01	

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)										D01
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		5.77 Kg/m3		
	11	Design Pressure		Normal Pressure		F.V/9 barg		4.9 barg		
	12	Design Temp.		Normal Temp.		85 °C		36.78 °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 BK	بسته کاری GCS	صادر کننده PEDCO	تسهیلات 120	رشته IN	نوع مدرک DT	سریال 0006	نسخه D01	شماره صفحه: 14 از 38

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		5.77 Kg/m3	
	11	Design Pressure		Normal Pressure		F.V/9 barg		4.9 barg	
	12	Design Temp.		Normal Temp.		85 °C		36.78 °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			
DISPLACER	23	Torque Tube Type				Yes			
	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	
TRANSMITTER	32	Trim Material				S.S. 316L			
	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		-				-			
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 BK	بسته کاری GCS	صادر کننده PEDCO	تسهیلات 120	رشته IN	نوع مدرک DT	سریال 0006	نسخه D01	شماره صفحه: 15 از 38

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		5.77 Kg/m3		
	11	Design Pressure		Normal Pressure		F.V/9 barg		4.9 barg		
	12	Design Temp.		Normal Temp.		85 °C		36.78 °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		-				-				
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	شماره صفحه: 16 از 38
	BK	GCS	PEDCO	120	IN	DT	0006	D01	

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		5.77 Kg/m3		
	11	Design Pressure		Normal Pressure		F.V/9 barg		4.9 barg		
	12	Design Temp.		Normal Temp.		85 °C		36.78 °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				
DISPLACER	23	Torque Tube Type				Yes				
	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		-				-				
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	تگداشت 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: D01	شماره صفحه: 17 از 38

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		18.08 Kg/m3			
	11	Design Pressure		Normal Pressure		F.V/22 barg		18.1 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					
DISPLACER	23	Torque Tube Type				Yes					
	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		-				-					
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	تجهداشت 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: D01	شماره صفحه: 18 از 38

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)										D01
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		18.08 Kg/m3		
	11	Design Pressure		Normal Pressure		F.V/22 barg		18.1 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		-				-				
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

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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	شماره صفحه: 19 از 38
	BK	GCS	PEDCO	120	IN	DT	0006	D01	

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		18.08 Kg/m3		
	11	Design Pressure		Normal Pressure		F.V/22 barg		18.1 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		-				-				
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

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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 BK	بسته کاری GCS	صادر کننده PEDCO	تسهیلات 120	رشته IN	نوع مدرک DT	سریال 0006	نسخه D01	شماره صفحه: 20 از 38

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		18.08 Kg/m3	
	11	Design Pressure		Normal Pressure		F.V/22 barg		18.1 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		-				-			
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

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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 BK	بسته کاری GCS	صادر کننده PEDCO	تسهیلات 120	رشته IN	نوع مدرک DT	سریال 0006	نسخه D01	شماره صفحه: 21 از 38

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		18.08 Kg/m3		
	11	Design Pressure		Normal Pressure		F.V/22 barg		18.1 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 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	-				-				
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	تجهداشت 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 D01	شماره صفحه: 22 از 38

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		18.08 Kg/m3		
	11	Design Pressure		Normal Pressure		F.V/22 barg		18.1 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				
DISPLACER	23	Torque Tube Type				Yes				
	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		-				-				
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 BK	بسته کاری GCS	صادر کننده PEDCO	تسهیلات 120	رشته IN	نوع مدرک DT	سریال 0006	نسخه D01	شماره صفحه: 23 از 38

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)										D01
GENERAL	1	Tag Number				LIT-2141				
	2	Service				2nd Stage 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		59.17 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 BK	بسته کاری GCS	صادر کننده PEDCO	تسهیلات 120	رشته IN	نوع مدرک DT	سریال 0006	نسخه D01	شماره صفحه: 24 از 38

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)									
GENERAL	1	Tag Number				LIT-2142			
	2	Service				2nd Stage 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		59.17 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			
DISPLACER	23	Torque Tube Type				Yes			
	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		-				-			
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	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: 25 از 38
	BK	GCS	PEDCO	120	IN	DT	0006	D01	

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)									
GENERAL	1	Tag Number				LIT-2221			
	2	Service				Close Drain Drum			
	3	Location				V-2202			
	4	Mounting Type				External			
	5	Application				Level Control			
	6	P&ID No.				BK-GCS-PEDCO-120-PR-PI-0017			
PROCESS CONDITIONS	7	Upper Liquid				Process Gas			
	8	Lower Liquid				Hydrocarbon Drain			
	9	Density Lower		Density Upper		979.6 Kg/m3		1.85 Kg/m3	
	10	Design Pressure		Normal Pressure		5.5 barg		0.5 barg	
	11	Design Temp.		Normal Temp.		85 °C		60 °C	
	12	Viscosity Low.		Viscosity Up		0.45 cp		0.01 cp	
BODY / GAGE	13	Body/Cage Material				C.S.			
	14	Body/Cage Rating				300#			
	15	Connection Size & Location				2" , ANSI Flange, 300#RF side			
	16	-				-			
	17	Flange Material				C.S.			
	18	Length of Center To Center				2438 mm (96") (Note1)			
	19	Case Mounting				VTA			
	20	Rotatable Head				Yes			
	21	Orientation				Side, Side with vent/drain connection			
	22	Cooling Extension				N.A.			
DISPLACER	23	Sensor Type				Displacer			
	24	Sensor Quantity				1			
	25	Sensor Dimention				VTA			
	26	Selected Standard Span				VTA			
	27	Insertion Depth				N/A			
	28	Displacer Extension Material				N/A			
	29	Displacer or Float Material				S.S. 316L			
	30	Spring Material		Torque Tube Mtrl.		VTA		Inconel	
	31	Trim Material				S.S. 316L			
	TRANSMITTER	32	Function				Level Transmitter		
33		Output				4~20 mA, HART			
34		Set Range		Min.	Max.	0		100%	
35		Ingress Protection				IP65			
36		Mounting Location				Side Mounted			
37		Connection Size & Location				VTA			
38		Ex Protection				Zone 1, EEx ia IIB T4			
39		Power Supply		Cable Entry		24 VDC, loop powered		M20x1.5	
40		Accuracy				0.5% of full scale			
41		Integral Indicator				Digital LCD			
42		Zero/Span Adjustment				VTA			
43		Termination Type				Screw terminal			
44		Case Material				VTA			
OPTIONS		45	Cable Gland				M20x1.5 , EExd		
	46	Vent/Drain Connection				3/4" NPT -with 3/4" isolation valve			
	47	Compliance Code				-			
	48	Custom Tag				S.S. permanent attached			
PURCHASE	49	Manufacturer				VTA			
	50	Model				VTA			

Notes:

VTA: Vendor to advice

1- 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.)

2- 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	شماره صفحه: 26 از 38
	BK	GCS	PEDCO	120	IN	DT	0006	D01	

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)									
GENERAL	1	Tag Number				LIT-2222			
	2	Service				Close Drain Drum			
	3	Location				V-2202			
	4	Mounting Type				External			
	5	Application				Level Control			
	6	P&ID No.				BK-GCS-PEDCO-120-PR-PI-0017			
PROCESS CONDITIONS	7	Upper Liquid				Process Gas			
	8	Lower Liquid				Hydrocarbon Drain			
	9	Density Lower		Density Upper		979.6 Kg/m3		1.85 Kg/m3	
	10	Design Pressure		Normal Pressure		5.5 barg		0.5 barg	
	11	Design Temp.		Normal Temp.		85 °C		60 °C	
	12	Viscosity Low.		Viscosity Up		0.45 cp		0.01 cp	
BODY / GAGE	13	Body/Cage Material				C.S.			
	14	Body/Cage Rating				300#			
	15	Connection Size & Location				2" , ANSI Flange, 300#RF side			
	16	-				-			
	17	Flange Material				C.S.			
	18	Length of Center To Center				813 mm (32"), (Note1)			
	19	Case Mounting				VTA			
	20	Rotatable Head				Yes			
	21	Orientation				Side, Side with vent/drain connection			
	22	Cooling Extension				N.A.			
DISPLACER	23	Sensor Type				Displacer			
	24	Sensor Quantity				1			
	25	Sensor Dimention				VTA			
	26	Selected Standard Span				VTA			
	27	Insertion Depth				N/A			
	28	Displacer Extension Material				N/A			
	29	Displacer or Float Material				S.S. 316L			
	30	Spring Material		Torque Tube Mtrl.		VTA		Inconel	
	31	Trim Material				S.S. 316L			
	TRANSMITTER	32	Function				Level Transmitter		
33		Output				4~20 mA, HART			
34		Set Range		Min.		Max.		0 100%	
35		Ingress Protection				IP65			
36		Mounting Location				Side Mounted			
37		Connection Size & Location				VTA			
38		Ex Protection				Zone 1, EEx ia IIB T4			
39		Power Supply		Cable Entry		24 VDC, loop powered		M20x1.5	
40		Accuracy				0.5% of full scale			
41		Integral Indicator				Digital LCD			
42		Zero/Span Adjustment				VTA			
43		Termination Type				Screw terminal			
44		Case Material				VTA			
OPTIONS		45	Cable Gland				M20x1.5 , EExd		
	46	Vent/Drain Connection				3/4" NPT -with 3/4" isolation valve			
	47	Compliance Code				-			
	48	Custom Tag				S.S. permanent attached			
PURCHASE	49	Manufacturer				VTA			
	50	Model				VTA			
Notes: VTA: Vendor to advice 1- 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.) 2- 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: 27 از 38
053 - 073 - 9184	BK	GCS	PEDCO	120	IN	DT	0006	D01	

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE - TOP MOUNTED)									
GENERAL	1	Tag Number				LIT-2223A			
	2	Service				LP FLARE K.O. DRUM AND CLOSER DRAIN D01 SUMP			
	3	Location				SU-2201			
	4	Mounting Type				Internal			
	5	Application				Level Control			
	6	P&ID No.				BK-GCS-PEDCO-120-PR-PI-0017			
PROCESS CONDITIONS	7	Upper Liquid				Process Gas			
	8	Lower Liquid				Hydrocarbon Drain			
	9	Density Lower		Density Upper		979.6 Kg/m3		1.85 Kg/m3	
	10	Design Pressure		Normal Pressure		5.5 barg		0.5 barg	
	11	Design Temp.		Normal Temp.		85 °C		60 °C	
	12	Viscosity Low		Viscosity Up		0.45 cp		0.01 cp	
BODY / GAGE	13	Body/Cage Material				N.A.			
	14	Body/Cage Rating				N.A.			
	15	Connection Size & Location				N.A.			
	16	-				N.A.			
	17	Flange Material				N.A.			
	18	Length of Center To Center				N.A.			
	19	Case Mounting				N.A.			
	20	Rotatable Head				N.A.			
	21	Orientation				N.A.			
	22	Cooling Extension				N.A.			
DISPLACER	23	Sensor Type				Displacer			
	24	Sensor Quantity				1			
	25	Sensor Dimention				VTA			
	26	Selected Standard Span				VTA			
	27	Insertion Depth				N/A			
	28	Displacer Extension Material				N/A			
	29	Displacer or Float Material				S.S. 316L			
	30	Spring Material		Torque Tube Mtrl.		VTA		Inconel	
	31	Trim Material				S.S. 316L			
	TRANSMITTER	32	Function				Level Transmitter		
33		Output				4~20 mA, HART			
34		Set Range		Min.		Max.		0 100%	
35		Ingress Protection				IP65			
36		Mounting Location				Top Mounted			
37		Connection Size & Location				VTA			
38		Ex Protection				Zone 1, EEx ia IIB T4			
39		Power Supply		Cable Entry		24 VDC, loop powered		M20x1.5	
40		Accuracy				0.5% of full scale			
41		Integral Indicator				Digital LCD			
42		Zero/Span Adjustment				VTA			
43		Termination Type				Screw terminal			
44		Case Material				VTA			
OPTIONS		45	Cable Gland				M20x1.5 , EExd		
	46	Vent/Drain Connection				N.A.			
	47	Compliance Code				-			
	48	Custom Tag				S.S. permanent attached			
PURCHASE	49	Manufacturer				VTA			
	50	Model				VTA			
Notes: VTA: Vendor to advice 1- 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.) 2- 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.									



نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری سنک



DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER

شماره پیمان:

053 - 073 - 9184

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شماره صفحه: 28 از 38

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE - TOP MOUNTED)

GENERAL	1	Tag Number		LIT-2223B		
	2	Service		LP FLARE K.O. DRUM AND CLOSED DRAIN		
	3	Location		SU-2201		
	4	Mounting Type		Internal		
	5	Application		Level Control		
	6	P&ID No.		BK-GCS-PEDCO-120-PR-PI-0017		
PROCESS CONDITIONS	7	Upper Liquid		Process Gas		
	8	Lower Liquid		Hydrocarbon Drain		
	9	Density Lower	Density Upper	979.6 Kg/m3	1.85 Kg/m3	
	10	Design Pressure	Normal Pressure	5.5 barg	0.5 barg	
	11	Design Temp.	Normal Temp.	85 °C	60 °C	
	12	Viscosity Low.	Viscosity Up	0.45 cp	0.01 cp	
BODY / GAGE	13	Body/Cage Material		N.A.		
	14	Body/Cage Rating		N.A.		
	15	Connection Size & Location		N.A.		
	16	-		N.A.		
	17	Flange Material		N.A.		
	18	Length of Center To Center		N.A.		
	19	Case Mounting		N.A.		
	20	Rotatable Head		N.A.		
	21	Orientation		N.A.		
	22	Cooling Extension		N.A.		
DISPLACER	23	Sensor Type		Displacer		
	24	Sensor Quantity		1		
	25	Sensor Dimention		VTA		
	26	Selected Standard Span		VTA		
	27	Insertion Depth		N/A		
	28	Displacer Extension Material		N/A		
	29	Displacer or Float Material		S.S. 316L		
	30	Spring Material	Torque Tube Mtrl.	VTA	Inconel	
	31	Trim Material		S.S. 316L		
	TRANSMITTER	32	Function		Level Transmitter	
		33	Output		4~20 mA, HART	
34		Set Range	Min.	Max.	0	100%
35		Ingress Protection		IP65		
36		Mounting Location		Top Mounted		
37		Connection Size & Location		VTA		
38		Ex Protection		Zone 1, EEx ia IIB T4		
39		Power Supply	Cable Entry	24 VDC, loop powered	M20x1.5	
40		Accuracy		0.5% of full scale		
41		Integral Indicator		Digital LCD		
42		Zero/Span Adjustment		VTA		
43		Termination Type		Screw terminal		
44		Case Material		VTA		
OPTIONS		45	Cable Gland		M20x1.5 , EEExd	
	46	Vent/Drain Connection		N.A.		
	47	Compliance Code		-		
	48	Custom Tag		S.S. permanent attached		
PURCHASE	49	Manufacturer		VTA		
	50	Model		VTA		

Notes:

VTA: Vendor to advice

- 1- 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.)
- 2- 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.



نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری سنک



DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER

شماره پیمان:

053 - 073 - 9184

۵ و ۶

کاری

صادر کنندہ

تسهيلات

روشته

عم مدرک

16

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فَسَحْ

شماره صفحه: 29 از 38

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)

GENERAL	1 Tag Number		LIT-2251		
	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 (2 of 3)		
PROCESS CONDITIONS	7 Upper Liquid		Process Gas		
	8 Lower Liquid		Hydrocarbon Drain		
	9 Density Lower	Density Upper	844.4 Kg/m3	1.46 Kg/m3	
	10 Design Pressure	Normal Pressure	5.5 barg	0.5 barg	
	11 Design Temp.	Normal Temp.	85 °C	32 °C	
	12 Viscosity Low.	Viscosity Up	0.73 cp	0.01 cp	
BODY / GAGE	13 Body/Cage Material		C.S.		
	14 Body/Cage Rating		300#		
	15 Connection Size & Location		2" , ANSI Flange, 300#RF side		
	16 -		-		
	17 Flange Material		C.S.		
	18 Length of Center To Center		813 mm (32") (Note1)		
	19 Case Mounting		VTA		
	20 Rotatable Head		Yes		
	21 Orientation		Side, Side with vent/drain connection		
	22 Cooling Extension		N.A.		
	DISPLACER	23 Sensor Type		Displacer	
		24 Sensor Quantity		1	
25 Sensor Dimention		VTA			
26 Selected Standard Span		VTA			
27 Insertion Depth		N/A			
28 Displacer Extension Material		N/A			
29 Displacer or Float Material		S.S. 316L			
30 Spring Material		Torque Tube Mtrl.	VTA	Inconel	
31 Trim Material		S.S. 316L			
TRANSMITTER		32 Function		Level Transmitter	
		33 Output		4~20 mA, HART	
	34 Set Range	Min.	Max.	0100%	
	35 Ingress Protection		IP65		
	36 Mounting Location		Side Mounted		
	37 Connection Size & Location		VTA		
	38 Ex Protection		Zone 1, EEx ia IIB T4		
	39 Power Supply	Cable Entry	24 VDC, loop powered	M20x1.5	
	40 Accuracy		0.5% of full scale		
	41 Integral Indicator		Digital LCD		
	42 Zero/Span Adjustment		VTA		
	43 Termination Type		Screw terminal		
	44 Case Material		VTA		
	OPTIONS	45 Cable Gland		M20x1.5 , EExd	
46 Vent/Drain Connection		3/4" NPT -with 3/4" isolation valve			
47 Compliance Code		-			
48 Custom Tag		S.S. permanent attached			
PURCHASE	49 Manufacturer		VTA		
	50 Model		VTA		

Notes:

~~VTA: Vendor to advice~~

- 1- 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.)
- 2- 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: 30 از 38
053 - 073 - 9184	BK	GCS	PEDCO	120	IN	DT	0006	D01	

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)										
GENERAL	1	Tag Number				LIT-2252A				
	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				
DISPLACER	23	Torque Tube Type				Yes				
	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		-				-				
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	شماره صفحه: 31 از 38
	BK	GCS	PEDCO	120	IN	DT	0006	D01	

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		0.73 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		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	-				-			
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 BK	بسته کاری GCS	صادر کننده PEDCO	تسهیلات 120	رشته IN	نوع مدرک DT	سریال 0006	نسخه D01	شماره صفحه: 32 از 38

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)										D01
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		0.73 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		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		-				-				
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 BK	بسته کاری GCS	صادر کننده PEDCO	تسهیلات 120	رشته IN	نوع مدرک DT	سریال 0006	نسخه D01	شماره صفحه: 33 از 38

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				
DISPLACER	23	Torque Tube Type				Yes				
	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.



نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری سنک



DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER

شماره پیمان:

053 - 073 - 9184

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شماره صفحه: 34 از 38

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE - TOP MOUNTED)

GENERAL	1 Tag Number		LIT-2273		D01 Deleted
	2 Service		Oily Water Sump		
	3 Location		SU-2202		
	4 Mounting Type		Internal		
	5 Application		Level Control		
	6 P&ID No.		BK-GCS-PEDCO-120-PR-PI-0021		
PROCESS CONDITIONS	7 Upper Liquid		OIL		
	8 Lower Liquid		WATER		
	9 Density Lower	Density Upper	1166 Kg/m3	850.2 Kg/m3	
	10 Design Pressure	Normal Pressure	ATM+FULL OF WATER	ATM	
	11 Design Temp.	Normal Temp.	85 °C	AMB	
	12 Viscosity Low.	Viscosity Up	0.61 cp	9.69 cp	
BODY / GAGE	13 Body/Cage Material				N.A.
	14 Body/Cage Rating				N.A.
	15 Connection Size & Location				N.A.
	16 -				N.A.
	17 Flange Material				N.A.
	18 Length of Center To Center				N.A.
	19 Case Mounting				N.A.
	20 Rotatable Head				N.A.
	21 Orientation				N.A.
	22 Cooling Extension				N.A.
DISPLACER	23 Sensor Type				Displacer
	24 Sensor Quantity				1
	25 Sensor Dimention				VTA
	26 Selected Standard Span				VTA
	27 Insertion Depth				N/A
	28 Displacer Extension Material				N/A
	29 Displacer or Float Material				S.S. 316L
	30 Spring Material	Torque Tube Mtrl.	VTA	Inconel	
	31 Trim Material				S.S. 316L
	TRANSMITTER	32 Function			
33 Output				4~20 mA, HART	
34 Set Range		Min.	Max.	0	100%
35 Ingress Protection				IP65	
36 Mounting Location				Top Mounted	
37 Connection Size & Location				VTA	
38 Ex Protection				Zone 1, EEx ia IIB T4	
39 Power Supply		Cable Entry	24 VDC, loop powered	M20x1.5	
40 Accuracy				0.5% of full scale	
41 Integral Indicator				Digital LCD	
42 Zero/Span Adjustment				VTA	
43 Termination Type				Screw terminal	
44 Case Material				VTA	
OPTIONS		45 Cable Gland			
	46 Vent/Drain Connection				N.A.
	47 Compliance Code				-
	48 Custom Tag				S.S. permanent attached
PURCHASE	49 Manufacturer				VTA
	50 Model				VTA

Notes:

VTA: Vendor to advice

- 1- 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.)
- 2- 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	D01
شماره صفحه: 35 از 38								

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	5.77 Kg/m3	
	11	Design Pressure	Normal Pressure	F.V/9 barg	4.9 barg	
	12	Design Temp.	Normal Temp.	85 °C	48 °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 BK	بسته کاری GCS	صادر کننده PEDCO	تسهیلات 120	رشته IN	نوع مدرک DT	سریال 0006	نسخه D01	شماره صفحه: 36 از 38

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)										D01
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		5.77 Kg/m3		
	11	Design Pressure		Normal Pressure		F.V/9 barg		4.9 barg		
	12	Design Temp.		Normal Temp.		85 °C		48 °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				
DISPLACER	23	Torque Tube Type				Yes				
	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.

 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: 37 از 38
053 - 073 - 9184	BK	GCS	PEDCO	120	IN	DT	0006	D01	

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE)									
GENERAL	1	Tag Number				LIT-2281			
	2	Service				Diesel Oil Drum			
	3	Location				V-2206			
	4	Mounting Type				External			
	5	Application				Level Control			
	6	P&ID No.				BK-GCS-PEDCO-120-PR-PI-0023			
PROCESS CONDITIONS	7	RFI Protection		Tropicalisation		NEEDED		NEEDED	
	8	Upper Liquid				Process Gas			
	9	Lower Liquid				Hydrocarbon Drain			
	10	Density Lower		Density Upper		860 Kg/m3		1.46	
	11	Design Pressure		Normal Pressure		ATM+FULL OF WATER		ATM	
	12	Design Temp.		Normal Temp.		85 °C		AMB	
BODY / GAGE	13	Viscosity Low.		Viscosity Up		0.06		0.01	
	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				2134 mm (84") (Note1)			
	20	Case Mounting				VTA			
	21	Rotatable Head				Yes			
	22	Orientation				Side, Side with vent/drain connection			
DISPLACER	23	Cooling Extension				N.A.			
	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			
TRANSMITTER	31	Spring Material		Torque Tube Mtrl.		VTA		Inconel	
	32	Trim Material				S.S. 316L			
	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			
	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			

D01

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Notes:

VTA: Vendor to advice

1- 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.)

2- 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: 38 از 38
053 - 073 - 9184	BK	GCS	PEDCO	120	IN	DT	0006	D01	

DATA SHEETS FOR LEVEL TRANSMITTER (DISPLACER TYPE - TOP MOUNTED)									
GENERAL	1	Tag Number				LIT-2293			
	2	Service				Glycol Sump Drum			
	3	Location				V-2107			
	4	Mounting Type				Internal			
	5	Application				Level Control			
	6	P&ID No.				BK-GCS-PEDCO-120-PR-PI-0025			
PROCESS CONDITIONS	7	Upper Liquid				Process Gas			
	8	Lower Liquid				TEG			
	9	Density Lower		Density Upper		1115 Kg/m3		-	
	10	Design Pressure		Normal Pressure		3.5 barg		0.20 barg	
	11	Design Temp.		Normal Temp.		85 °C		5/50 °C	
	12	Viscosity Low.		Viscosity Up		85.86 cp		-	
BODY / GAGE	13	Body/Cage Material				N.A.			
	14	Body/Cage Rating				N.A.			
	15	Connection Size & Location				N.A.			
	16	-				N.A.			
	17	Flange Material				N.A.			
	18	Length of Center To Center				N.A.			
	19	Case Mounting				N.A.			
	20	Rotatable Head				N.A.			
	21	Orientation				N.A.			
	22	Cooling Extension				N.A.			
DISPLACER	23	Sensor Type				Displacer			
	24	Sensor Quantity				1			
	25	Sensor Dimention				VTA			
	26	Selected Standard Span				VTA			
	27	Insertion Depth				813 mm (32") (Note1)			
	28	Displacer Extension Material				N/A			
	29	Displacer or Float Material				S.S. 316L			
	30	Spring Material		Torque Tube Mtrl.		VTA		Inconel	
	31	Trim Material				S.S. 316L			
	TRANSMITTER	32	Function				Level Transmitter		
33		Output				4~20 mA, HART			
34		Set Range		Min.		Max.		0	
35		Ingress Protection				IP65			
36		Mounting Location				Top Mounted			
37		Connection Size & Location				VTA			
38		Ex Protection				Zone 1, EEx ia IIB T4			
39		Power Supply		Cable Entry		24 VDC, loop powered		M20x1.5	
40		Accuracy				0.5% of full scale			
41		Integral Indicator				Digital LCD			
42		Zero/Span Adjusment				VTA			
43		Termination Type				Screw terminal			
44		Case Material				VTA			
OPTIONS		45	Cable Gland				M20x1.5 , EExd		
	46	Vent/Drain Connection				N.A.			
	47	Compliance Code				-			
	48	Custom Tag				S.S. permanent attached			
PURCHASE	49	Manufacturer				VTA			
	50	Model				VTA			
Notes: VTA: Vendor to advice 1- 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.) 2- 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.									