

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد ۰۳-۰۰۰۸-۰۳-BK-HD-GCS-CO)	 HAVAYAR INDUSTRIAL GROUP																
شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴	INSTRUMENT DATASHEETS / CERTIFICATES	شماره صفحه: 1 از 39																
	<table><tr><td>نسخه</td><td>سریال</td><td>نوع</td><td>رشته</td><td>تجهیزات</td><td>صادر کنند</td><td>پسته کاری</td><td>پروژه</td></tr><tr><td>V03</td><td>0001</td><td>DS</td><td>IN</td><td>120</td><td>HY</td><td>GCS</td><td>BK</td></tr></table>	نسخه	سریال	نوع	رشته	تجهیزات	صادر کنند	پسته کاری	پروژه	V03	0001	DS	IN	120	HY	GCS	BK	
نسخه	سریال	نوع	رشته	تجهیزات	صادر کنند	پسته کاری	پروژه											
V03	0001	DS	IN	120	HY	GCS	BK											
تمامی موارد Hold در مدرك بایستی مشخص گردد. مورد تایید است. طرح نگهداشت و افزایش تولید ۲۷ مخزن																		
INSTRUMENT DATASHEETS / CERTIFICATES نگهداشت و افزایش تولید میدان نفتی بینک																		
V03	Jun.2024	IFR	Havayar CO.	M.Fakharian	M.SADEGHIAN													
V02	Dec.2023	IFR	Havayar CO.	M.Fakharian	S.Faramarzpour													
V01	Nov.2023	IFR	Havayar CO.	M.Fakharian	S.Faramarzpour													
V00	SEP.2023	IFR	Havayar CO.	M.Fakharian	M.Mehrshad													
Rev.	Date	Purpose of Issue/Status	Prepared By	Checked By	Approved By	Client Approval												
CLIENT Doc. Number:																		
status:																		
IFA: Issued For Approval																		
IFR:Issued For Review																		
IFI: Issued For Information																		
AFC: Approved For Construction																		



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شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض و ابنیه تحت الارض
خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک
(قرارداد ۰۳_۰۰۸-CO-GCS-BK)



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نسخه	سریال	نوع	رشته	تسهیلات	صادر کنند	بسته کاری	پروژه
V03	0001	DS	IN	120	HY	GCS	BK

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6	X	X	X	X	
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8	X	X	X	X	
9	X	X	X	X	
10	X	X	X	X	
11	X	X	X	X	
12	X	X	X	X	
13	X	X	X	X	
14	X	X	X	X	
15	X	X	X	X	
16	X	X	X	X	
17	X	X	X	X	
18	X	X	X	X	
19	X	X	X	X	
20	X	X	X	X	
21	X	X	X	X	
22	X	X	X	X	
23	X	X	X	X	
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26	X	X	X	X	
27	X	X	X	X	
28	X	X	X	X	
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30	X	X	X	X	
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34	X	X	X	X	
35	X	X	X	X	
36	X	X	X	X	
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42			X		
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نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض و ابنیه تحت الارض
خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک
(قرارداد ۰۳_۰۰۰۸-CO-GCS-HD-BK)



شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

INSTRUMENT DATASHEETS / CERTIFICATES

نسخه	سریال	نوع	رشته	تسهیلات	صادر کننده	بسته کاری	پروژه
V03	0001	DS	IN	120	HY	GCS	BK

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18	Flow transmitter 2121A
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20	Flow transmitter C-2206A
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33	Solenoid Data sheet
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35	Level Transmitter C-LT-2200A
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 NISOC شماره پیمان: 053 - 073 – 9184		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج های کمپرسور گاز (رقت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03) INSTRUMENT DATASHEETS / CERTIFICATES <table><tr><td>پروژه</td><td>بسته کاری</td><td>صنعت کننده</td><td>تسهیلات</td><td>رشته</td><td>نوع مدرک</td><td>سریال</td><td>نسخه</td></tr><tr><td>BK</td><td>GCS</td><td>HY</td><td>120</td><td>IN</td><td>DS</td><td>0001</td><td>V03</td></tr></table>					پروژه	بسته کاری	صنعت کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	BK	GCS	HY	120	IN	DS	0001	V03	 HAVAYAR INDUSTRIAL GROUP شماره صفحه: 4 از 39	
پروژه	بسته کاری	صنعت کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه																	
BK	GCS	HY	120	IN	DS	0001	V03																	

Data Sheet for Pressure Gauge									
1	Type :	Direct Rdg. ☒ Other ☐ liquid filled	3-15 lb Reciever ☐	11	MFR. & Model No.	Wika 233.30.160			
2	Mounting :	Surface ☐ Local ☒	Flush ☐	12	Press Element : Bourdon	☒ Bellows ☐			
3	Dial :	Diameter 160 mm	Color : White / Black Lettering , Aluminum Non Rusting Metal	13	Element Mtl. :	Other ☐ Bronze ☐ Steel ☐			
4	Case :	Cast Iron ☐ S.S ☒	Phenol ☐	14	Socket Mtl. :	SS ☒ Other ☐ 316SS ☐			
5	Ring :	Screwed ☒ Hinged ☐	Slip ☐	15	Connection-NPT :	SS ☒ Other ☐ 316SS ☐			
6	Blow-out Protection :	Solid Front ☐ None ☒	Back ☐ Disc ☒	16	Movement:	1/4 in. ☐ 1/2 in. ☒ Other ☐ NPTM (refer to note)			
7	Lens :	Glass ☒ Plastic ☐	Safety Glass (shatter proof)	17	Diaphragm Seal	Nylon ☐ As per List ☐	Stainless Steel		
8	Options :	☒ As per List			18	Ingress Protection :	IP 65		
9	Nominal Accuracy Required :	± 1% of full scale			19	Manifold S.S316 2 valve	☒		
10	Over range protection :	1.3 times the maximum scale reading							

Item	Tag No.	Range (barg)	Process Fluid/State	Design		Operating		LINE NO./EQUIPMENTNO.	P&ID NO.	Accessories	NOTE
				Press (barg)	Temp (C°)	Press (barg)	Temp (C°) Summer /Winter				
1	C-PG-2190A	0-10	Process gas Comp A	24.5	180	4.9	36.8 / 18.9	1ST STAGE SUCTION SNUBBER	BK-GCS-HY-120-PR-PI-0001 Page1A	Cooling Element Nace material Over Pressure Protector Set point 10 barg	
2	C-PG-2191A	0-40	Process gas Comp A	24.5	180	18	129/116	1ST STAGE DISCHARGE SNUBBER	BK-GCS-HY-120-PR-PI-0001 Page1A	Cooling Element Nace material	
3	C-PG-2193A	0-40	Process gas Comp A	62	180	17.1	59.9	2nd STAGE SUCTION SNUBBER	BK-GCS-HY-120-PR-PI-0001 Page1A	Cooling Element Nace material Over Pressure Protector Set point 40 barg	
4	C-PG-2194A	0-100	Process gas Comp A	62	180	54.9	148/149	2nd STAGE DISCHARGE SNUBBER	BK-GCS-HY-120-PR-PI-0001 Page1A	Cooling Element Nace material	
5	C-PG-2200A	0-16	Instrument Air Comp A	12.5	85	6	65	ISA-112-0002A-AZ00-2"-IS	BK-GCS-HY-120-PR-PI-0001 Page2A		
6	C-PG-2201A	0-10	Lube Oil Comp A	10	85	5	70	OIL-112-0004A-S.S-1.1/2"-NP	BK-GCS-HY-120-PR-PI-0001 Page3A		
7	C-PG-2202A	0-10	Lube Oil Comp A	10	85	5	70	OIL-112-0003A-S.S-2"-NP	BK-GCS-HY-120-PR-PI-0001 Page3A		
8	C-PG-2204A	0-10	Lube Oil Comp A	10	85	5	60	OIL-112-0008A-S.S-2"-IS	BK-GCS-HY-120-PR-PI-0001 Page3A		
9	C-PG-2205A	0-6	GAS	5	85	1.5	65	FLR-112-0009A-AN07-1"-IS	BK-GCS-HY-120-PR-PI-0001 Page1A	Nace material	
10	C-PG-2206A	0-10	Water console Comp A	8	85	4	70	CWS-112-0003A-C.S-3"-IS	BK-GCS-HY-120-PR-PI-0001 Page5A	Pulsation Damper (Snubber)	
11	C-PG-2207A	0-10	Water console Comp A	8	85	4	70	CWS-112-0004A-C.S-3"-IS	BK-GCS-HY-120-PR-PI-0001 Page5A	Pulsation Damper (Snubber)	
12	C-PG-2208A	0-10	Water console Comp A	8	85	3	63	CWS-112-0002A-C.S-3"-IS	BK-GCS-HY-120-PR-PI-0001 Page5A		
13	C-PG-2190B	0-10	Process gas Comp B	24.5	180	4.9	36.8 / 18.9	1ST STAGE SUCTION SNUBBER	BK-GCS-HY-120-PR-PI-0001 Page1B	Cooling Element Nace material Over Pressure Protector Set point 10 barg	
14	C-PG-2191B	0-40	Process gas Comp B	24.5	180	18	129/116	1ST STAGE DISCHARGE SNUBBER	BK-GCS-HY-120-PR-PI-0001 Page1B	Cooling Element Nace material	
15	C-PG-2193B	0-40	Process gas Comp B	62	180	17.1	59.9	2nd STAGE SUCTION SNUBBER	BK-GCS-HY-120-PR-PI-0001 Page1B	Cooling Element Nace material Over Pressure Protector Set point 40 barg	
16	C-PG-2194B	0-100	Process gas Comp B	62	180	54.9	148/149	2nd STAGE DISCHARGE SNUBBER	BK-GCS-HY-120-PR-PI-0001 Page1B	Cooling Element Nace material	
17	C-PG-2200B	0-16	Instrument Air Comp B	12.5	85	6	65	ISA-112-0002B-AZ00-2"-IS	BK-GCS-HY-120-PR-PI-0001 Page2B		
18	C-PG-2201B	0-10	Lube Oil Comp B	10	85	5	70	OIL-112-0004B-S.S-1.1/2"-NP	BK-GCS-HY-120-PR-PI-0001 Page3B		
19	C-PG-2202B	0-10	Lube Oil Comp B	10	85	5	70	OIL-112-0003B-S.S-2"-NP	BK-GCS-HY-120-PR-PI-0001 Page3B		
20	C-PG-2204B	0-10	Lube Oil Comp B	10	85	5	60	OIL-112-0008B-S.S-2"-IS	BK-GCS-HY-120-PR-PI-0001 Page3B		
21	C-PG-2205B	0-6	GAS	5	85	1.5	65	FLR-112-0009B-AN07-1"-IS	BK-GCS-HY-120-PR-PI-0001 Page1B	Nace material	
22	C-PG-2206B	0-10	Water console Comp B	8	85	4	70	CWS-112-0003B-C.S-3"-IS	BK-GCS-HY-120-PR-PI-0001 Page5B	Pulsation Damper (Snubber)	
23	C-PG-2207B	0-10	Water console Comp B	8	85	4	70	CWS-112-0004B-C.S-3"-IS	BK-GCS-HY-120-PR-PI-0001 Page5B	Pulsation Damper (Snubber)	
24	C-PG-2208B	0-10	Water console Comp B	8	85	3	63	CWS-112-0002A-C.S-3"-IS	BK-GCS-HY-120-PR-PI-0001 Page5B		
25	C-PG-2190C	0-10	Process gas Comp C	24.5	180	4.9	36.8 / 18.9	1ST STAGE SUCTION SNUBBER	BK-GCS-HY-120-PR-PI-0001 Page1C	Cooling Element Nace material Over Pressure Protector Set point 10 barg	
26	C-PG-2191C	0-40	Process gas Comp C	24.5	180	18	129/116	1ST STAGE DISCHARGE SNUBBER	BK-GCS-HY-120-PR-PI-0001 Page1C	Cooling Element Nace material	
27	C-PG-2193C	0-40	Process gas Comp C	62	180	17.1	59.9	2nd STAGE SUCTION SNUBBER	BK-GCS-HY-120-PR-PI-0001 Page1C	Cooling Element Nace material Over Pressure Protector Set point 40 barg	
28	C-PG-2194C	0-100	Process gas Comp C	62	180	54.9	148/149	2nd STAGE DISCHARGE SNUBBER	BK-GCS-HY-120-PR-PI-0001 Page1C	Cooling Element Nace material	
29	C-PG-2200C	0-16	Instrument Air Comp C	12.5	85	6	65	ISA-112-0002C-AZ00-2"-IS	BK-GCS-HY-120-PR-PI-0001 Page2C		
30	C-PG-2201C	0-10	Lube Oil Comp C	10	85	5	70	OIL-112-0004C-S.S-1.1/2"-NP	BK-GCS-HY-120-PR-PI-0001 Page3C		
31	C-PG-2202C	0-10	Lube Oil Comp C	10	85	5	70	OIL-112-0003C-S.S-2"-NP	BK-GCS-HY-120-PR-PI-0001 Page3C		
32	C-PG-2204C	0-10	Lube Oil Comp C	10	85	5	60	OIL-112-0008C-S.S-2"-IS	BK-GCS-HY-120-PR-PI-0001 Page3C		
33	C-PG-2205C	0-6	GAS	5	85	1.5	65	FLR-112-0009C-AN07-1"-IS	BK-GCS-HY-120-PR-PI-0001 Page1C	Nace material	
34	C-PG-2206C	0-10	Water console Comp C	8	85	4	70	CWS-112-0003C-C.S-3"-IS	BK-GCS-HY-120-PR-PI-0001 Page5C	Pulsation Damper (Snubber)	
35	C-PG-2207C	0-10	Water console Comp C	8	85	4	70	CWS-112-0004C-C.S-3"-IS	BK-GCS-HY-120-PR-PI-0001 Page5C	Pulsation Damper (Snubber)	
36	C-PG-2208C	0-10	Water console Comp C	8	85	3	63	CWS-112-0002C-C.S-3"-IS	BK-GCS-HY-120-PR-PI-0001 Page5C		

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنيه تحت الارض خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03)						 HAVAYAR INDUSTRIAL GROUP		
شماره پیمان: 053 - 073 – 9184		INSTRUMENT DATASHEETS / CERTIFICATES							شماره صفحه: 5 از 39	
		پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال		نسخه
		Bk	GCS	HY	120	IN	DS	0001		V03
Data Sheet for Pressure Transmitter										
GENERAL	1	Tag No.: (Refer to Next Page)	Service: (Refer to Next Page)							
	2	Function	Record ☐ Indicate ☒ Control ☐ Blind ☐ Trans ☒ Integ ☐ (Note1)							
	3	Case	MFR STD ☒ Nom Size ☐ Color MFR STD ☐ Other							
	4	Mounting	Flush ☐ Surface ☐ Yoke ☒ Other							
	5	Enclosure Class	General Purpose ☐ Weather Proof ☒ Explosion-Proof ☐ Class							
	6		For use in Intrinsically Safe System ☐ Other EExia, IIB, T4							
	7	Power Supply	Ingress Protection : IP 66 117 V 60 Hz ☐ Other: ac ☐ dc ☒ Volts : 24 VDC Loop Powered							
TRANSMITTER	8	Trans. Output	4-20mA ☒ 10-50mA ☐ 21-10 kpa(3-15 psig) ☐ Other 4-20mA Smart HART							
	9		Transmitter Accuracy : 0.1% of full scale.							
UNIT	10	Service	Gage Press ☒ Vacuum ☐ Absolute ☐ Compound ☐							
	11	Element Type	Diaphragm ☒ Helix ☐ Bourdon ☐ Bellows ☐ Fill Fluid:Silicone							
	12	Material	Body Aluminum Element 316 S.S. as minimum							
	13	Range	Fixed ☐ Adj. Range ☒ Set At (Refer to Next Page)							
	14	Rating	Overrange Protection: at least 1.5 times the maximum range							
	15	Process Data	Press: Normal Max Element Range (Refer to Next Page)							
	16	Process Conn.	½ in. NPT ☒ Other Male with wrench flats							
	17		Location: Bottom ☒ Back ☐ Other							
OPTIONS	18	Electrical Conn.	MFR STD ☐ Other ISO M20x1.5							
	19	Miscellaneous	Filt Reg. ☐ Sup. Gage ☐ Output Gage ☐ Charts							
	20	Diaphragm Seal	Diaph Seal ☐ Type : Capillary Length: Mtl : Conn. Fill Fluid : shall be Suitable for Normal and Max. Operating Temp Flushing Connection :							
	21	Manifold	Valve Manifold : See list							
	22	MFR. & Model No.	See PT list							
Notes: 1- All transmitters shall be provided complete with LCD type integral indicator . 2- Repeatability of the transmitter shall be better than 0.1% of the span. 3- All transmitters shall be reverse polarity protected. 4- Each Instrument Shall Have a S.S. Tag Plate With Purchaser's Tag Number, The Tag Plate Shall Be Permanently Attached To The Instrument . 5- NACE MR-01-75 to be considered.										



NISOC

شماره پیمان:
053 - 073 - 9184نگهداشت و افزایش تولید میدان نفتی بنگ
سطح اراضی و آبپایه تحت اراضی
خرید و پخش گاز و نفت و برآورد بنگ
(فراراد BK-HD-GCS-CQ-0008_03)

INSTRUMENT DATASHEETS / CERTIFICATES

HAVAYAR
INDUSTRIAL GROUP

شماره صفحه: 6 از 39

بطور کلی در ستون
Process سیال برای
Sour Gas بصورت
N2 برای نیترژن بصورت
و برای هوا بصورت Air و
برای Oil و Water به همین
صورت مشخص گردد.
هوایار: اعمال شد.

Sour Gas

List of P

ITEM NO.	TAG NO.	SERVICE	LINK EQUIP	FLUID / STATE	PRESSURE (Barg) Oper. / Design	TEMPERATURE (C) Norm. / Design	VISCOSITY (cP)	CALIBRATED RANGE (Barg)	ACCESSORIES Option	MFR. & Model No.	REMARKS	
1	PT-2123A	Process gas Comp A	GAS-111-0001A	Gas	4.9 / 22	36.8 / 180	0.012	0-25	Wetted Part S.S316 Nace 2 valve manifold S.S316	Rosemount 3051TG3A2B21BB41	Loose Item	
2	C-PT-2133A	Process gas Comp A	GAS-111-0001A	Gas	54.9 / 62	148 / 180	0.016	0-65	Wetted Part S.S316 Nace 2 valve manifold S.S316	Rosemount 3051TG4A2B21BB41		
3	PT-2124A	Process gas Comp A	GAS-111-0001A	Gas	18 / 22	129 / 180	0.015	0-25	Wetted Part S.S316 Nace 2 valve manifold S.S316	Rosemount 3051TG3A2B21BB41	Loose Item	
4	PT-2132A	Process gas Comp A	GAS-111-0001A	Gas	17.1 / 22	59.9 / 180	0.013	0-25	Wetted Part S.S316 Nace 2 valve manifold S.S316	Rosemount 3051TG3A2B21BB41	Loose Item	
5	C-PT-2201A	Instrument Air Comp A	ISA-112-0002A	Gas	6 / 12.5	65 / 85	0.021	0-16	2 valve manifold S.S316	Rosemount 3051TG2A2B21BB41		
6	C-PT-2200A	Lubricator Comp A	OIL-112-0008B	Liquid	6 / 10	65 / 85	40	0-10	2 valve manifold S.S316	Rosemount 3051TG2A2B21BB41		
7	C-PT-2204A	Lube Oil Comp A	OIL-112-0008B	Liquid	5 / 10	60 / 85	40	0-10	2 valve manifold S.S316	Rosemount 3051TG2A2B21BB41		
8	C-PT-2210A	N2 Gas Supply Comp A	NIT-112-0001A-SS-1"-NP	Gas	2 / 5	60 / 85	0.020	0-6	2 valve manifold S.S316	Rosemount 3051TG2A2B21BB41		
9	C-PT-2211A	N2 Gas Supply Comp A	NIT-112-0002A-SS-1"-NP	Gas	0.5 / 5	60 / 85	0.020	0-6	2 valve manifold S.S316	Rosemount 3051TG2A2B21BB41		
9	C-PT-2212A	N2 Gas	FLR-112-0012A-AN07-1.1/2"-IS	Gas	1 / 5	60 / 85	0.020	0-6	2 valve manifold S.S316	Rosemount 3051TG2A2B21BB41		
10	C-PT-2220A	Water console Comp A	CWS-112-0002A-C.S-3"-IS	Liquid	3 / 10	63 / 85	0.478	0-10	2 valve manifold S.S316	Rosemount 3051TG2A2B21BB41		
11	C-PT-2221A	Water console Comp A	CWS-112-0002A-C.S-3"-IS	Liquid	3 / 10	63 / 85	0.478	0-10	2 valve manifold S.S316	Rosemount 3051TG2A2B21BB41		
12	PT-2123B	Process gas Comp B	GAS-111-0031B-CN05-6"-ET	Gas	4.9 / 22	36.8 / 180	0.012	0-25	Wetted Part S.S316 Nace 2 valve manifold S.S316	Rosemount 3051TG3A2B21BB41	Loose Item	
13	C-PT-2133B	Process gas Comp B	GAS-111-0051B-FN05-6"-IS	Gas	54.9 / 62	148 / 180	0.016	0-65	Wetted Part S.S316 Nace 2 valve manifold S.S316	Rosemount 3051TG4A2B21BB41		
14	PT-2124B	Process gas Comp B	GAS-111-0036B-CN05-6"-PT	Gas	18 / 22	129 / 180	0.015	0-25	Wetted Part S.S316 Nace 2 valve manifold S.S316	Rosemount 3051TG3A2B21BB41	Loose Item	
15	PT-2132B	Process gas Comp B	GAS-111-0044B-CN05-6"-ET	Gas	17.1 / 22	59.9 / 180	0.013	0-25	Wetted Part S.S316 Nace 2 valve manifold S.S316	Rosemount 3051TG3A2B21BB41	Loose Item	
16	C-PT-2201B	Instrument Air Comp B	ISA-112-0002B-AZ00-2"-IS	Gas	6 / 12.5	65 / 85	0.021	0-16	2 valve manifold S.S316	Rosemount 3051TG2A2B21BB41		
17	C-PT-2200B	Lubricator Comp B	OIL-112-0008B-S.S-2"-NP	Liquid	6 / 10	65 / 85	40	0-10	2 valve manifold S.S316	Rosemount 3051TG2A2B21BB41		
18	C-PT-2204B	Lube Oil Comp B	OIL-112-0008B-S.S-2"-IS	Liquid	5 / 10	60 / 85	40	0-10	2 valve manifold S.S316	Rosemount 3051TG2A2B21BB41		
19	C-PT-2210B	N2 Gas Supply Comp B	NIT-112-0001B-SS-1"-NP	Gas	2 / 5	60 / 85	0.020	0-6	2 valve manifold S.S316	Rosemount 3051TG2A2B21BB41		
20	C-PT-2211B	N2 Gas Supply Comp B	NIT-112-0002B-SS-1"-NP	Gas	0.5 / 5	60 / 85	0.020	0-6	2 valve manifold S.S316	Rosemount 3051TG2A2B21BB41		
9	C-PT-2212B	N2 Gas	FLR-112-0012A-AN07-1.1/2"-IS	Gas	1 / 5	60 / 85	0.020	0-6	2 valve manifold S.S316	Rosemount 3051TG2A2B21BB41		
21	C-PT-2220B	Water console Comp B	CWS-112-0002B-C.S-3"-IS	Liquid	3 / 10	58 / 85	0.478	0-10	2 valve manifold S.S316	Rosemount 3051TG2A2B21BB41		
23	C-PT-2221B	Water console Comp B	CWS-112-0002B-C.S-3"-IS	Liquid	3 / 10	58 / 85	0.478	0-10	2 valve manifold S.S316	Rosemount 3051TG2A2B21BB41		
23	PT-2123C	Process gas Comp C	GAS-111-0031C-CN05-6"-ET	Gas	4.9 / 22	36.8 / 180	0.012	0-25	Wetted Part S.S316 Nace 2 valve manifold S.S316	Rosemount 3051TG3A2B21BB41	Loose Item	
24	C-PT-2133C	Process gas Comp C	GAS-111-0051C-FN05-6"-IS	Gas	54.9 / 62	148 / 180	0.016	0-65	Wetted Part S.S316 Nace 2 valve manifold S.S316	Rosemount 3051TG4A2B21BB41		
25	PT-2124C	Process gas Comp C	GAS-111-0036C-CN05-6"-PT	Gas	18 / 22	129 / 180	0.015	0-25	Wetted Part S.S316 Nace 2 valve manifold S.S316	Rosemount 3051TG3A2B21BB41	Loose Item	
26	PT-2132C	Process gas Comp C	GAS-111-0044C-CN05-6"-ET	Gas	17.1 / 22	59.9 / 180	0.013	0-25	Wetted Part S.S316 Nace 2 valve manifold S.S316	Rosemount 3051TG3A2B21BB41	Loose Item	
01C	Instrument Air Comp C	ISA-112-0002C-AZ00-2"-IS	BK-GCS-HY-120-PR-PI-0001-Page2C	1" NPT	Gas	6 / 12.5	65 / 85	0.021	0-16	2 valve manifold S.S316	Rosemount 3051TG2A2B21BB41	
00C	Lubricator Comp C	OIL-112-0008C-S.S-2"-NP	BK-GCS-HY-120-PR-PI-0001-Page3C	1/2" NPT	Liquid	6 / 10	65 / 85	40	0-10	2 valve manifold S.S316	Rosemount 3051TG2A2B21BB41	
04C	Lube Oil Comp C	OIL-112-0008C-S.S-2"-IS	BK-GCS-HY-120-PR-PI-0001-Page3C	1" NPT	Liquid	5 / 10	60 / 85	40	0-10	2 valve manifold S.S316	Rosemount 3051TG2A2B21BB41	
10C	N2 Gas Supply Comp C	NIT-112-0001C-SS-1"-NP	BK-GCS-HY-120-PR-PI-0001-Page4C	1" NPT	Gas	2 / 5	60 / 85	0.020	0-6	2 valve manifold S.S316	Rosemount 3051TG2A2B21BB41	
11C	N2 Gas Supply Comp C	NIT-112-0002C-SS-1"-NP	BK-GCS-HY-120-PR-PI-0001-Page4C	1" NPT	Gas	0.5 / 5	60 / 85	0.020	0-6	2 valve manifold S.S316	Rosemount 3051TG2A2B21BB41	
12C	N2 Gas	FLR-112-0012A-AN07-1.1/2"-IS	BK-GCS-HY-120-PR-PI-0001-Page4C	1" NPT	Gas	1 / 5	60 / 85	0.020	0-6	2 valve manifold S.S316	Rosemount 3051TG2A2B21BB41	
20C	Water console Comp C	CWS-112-0002C-C.S-3"-IS	BK-GCS-HY-120-PR-PI-0001-Page5C	1" NPT	Liquid	3 / 10	58 / 85	0.478	0-10	2 valve manifold S.S316	Rosemount 3051TG2A2B21BB41	
08	C-PT-2201G	Water console Comp C	CWS-112-0002C-C.S-3"-IS	1" NPT	Liquid	3 / 10	58 / 85	0.478	0-10	2 valve manifold S.S316	Rosemount 3051TG2A2B21BB41	

شماره رد مرتب گردد. هواپار: اعمال شد.

Gas بصورت Sour Gas
براي نيتروژن بصورت N2
و براي هوا بصورت Air و
براي Oil و Water به همين
صورت مشخص گردد.
هواپار: اعمال شد.

N2

شماره ردیف ه
مرتب گردد.
هوایار: اعمال
شد.



 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنيه تحت الارض خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03)						 HAVAYAR INDUSTRIAL GROUP		
شماره پیمان: 053 - 073 – 9184		INSTRUMENT DATASHEETS / CERTIFICATES							شماره صفحه: 10 از 39	
		پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال		نسخه
		Bk	GCS	HY	120	IN	DS	0001		V03
Data Sheet for Differential Pressure Transmitter										
GENERAL	1	Tag No.: (Refer to Next Page)	Service: (Refer to Next Page)							
	2	Function	Record ☐ Indicate ☒ Control ☐ Blind ☐ Trans ☒ Integ ☐ (Note1)							
	3	Case	MFR STD ☒ Nom Size ☐ Color MFR STD ☒ Other							
	4	Mounting	Flush ☐ Surface ☐ Yoke ☒ Other							
	5	Enclosure Class	General Purpose ☐ Weather Proof ☒ Explosion-Proof ☐ Class							
	6		For use in Intrinsically Safe System ☒ Other EExia, IIB, T4							
	7	Power Supply	Ingress Protection : IP 66 117 V 60 Hz ☒ Other: ac ☐ dc ☐ Volts : 24 VDC Loop Powered							
TRANSMITTER	8	Trans. Output	4-20mA ☒ 10-50mA ☐ 21-10 kpa(3-15 psig) ☐ Other 4-20mA Smart HART							
	9		Transmitter Accuracy : Better than 0.1% of Calibrated Span							
UNIT	10	Service	Flow ☐ Level ☐ Diff. Pressure ☒ Other							
	11	Element Type	Diaphragm ☒ Helix ☐ Bourdon ☐ Bellows ☐ Other							
	12	Material	Body Epoxy Painted Die Cast Aluminum Copper free Element 316 S.S. as minimum							
	13	Range	Fixed ☐ Adj. Range ☒ Set At (Refer to Next Page)							
	14	Rating	Overrange Protection: at least 1.5 times the maximum range							
	15	Process Data	Press: Normal Max Element Range (Refer to Next Page)							
	16	Process Conn.	1/2 in. NPT ☒ Other Male with wrench flats							
	17		Location: Bottom ☒ Back ☐ Other							
OPTIONS	18	Electrical Conn.	MFR STD ☐ Other ISO M20x1.5							
	19	Miscellaneous	Filt Reg. ☐ Sup. Gage ☐ Output Gage ☐ Charts							
	20	Diaphragm Seal	Diaph Seal ☐ (N/A) Type : Capillary Length: Mtl : Conn. Fill Fluid : Flushing Connection :							
	21	Manifold	Valve Manifold : See List							
	22	MFR. & Model No.	See list							
Notes: 1- All transmitters shall be provided complete with LCD type integral indicator . 2- Repeatability of the transmitter shall be better than 0.1% of the span. 3- All transmitters shall be reverse polarity protected. 4- All components, particularly if containing electric contacts, shall be vibration resistant. 5- Each Instrument Shall Have a S.S. Tag Plate With Purchaser's Tag Number, The Tag Plate Shall Be Permanently Attached To The Instrument .										



NISOC

شماره پیمان:
053 - 073 - 9184

نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض و ابنیه تحت الارض

خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک
(قرارداد: BK-HD-GCS-CO-0008_03)



شماره صفحه: 11 از 39

INSTRUMENT DATASHEETS / CERTIFICATES

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سپتہ کار ۹

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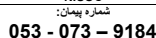
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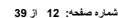
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List of DPT

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خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک
(قرارداد 03 BK-HD-GCS-CO-0008)



053 - 073 - 9184

INSTRUMENT DATASHEETS / CERTIFICATES						
نسخه	سریال	نوع مدرک	رشته	تجهیزات	صادرکننده	پست
V03	0001	DS	IN	120	HY	CS

شماره صفحه: 12 از 39

Data Sheet for Differential Pressure Gauge

[illegible]

Item	Tag No.	Range (barg)	Process Fluid/State	Design		Operating		Differential Pressure		LINE NO./EQUIPMENTNO.	P&ID NO.	Accessories	MFR.& Model	NOTES
				Press (barg)	Temp (C°)	Press (barg)	Temp (C°)	Norm. (bar)	Max. (bar)					
1	C-PDG-2204A	0~1	Lub Oil Filter	10	85	6	60	0.1	0.5	OIL-112-0004A-S.S-2"-NP	BK-GCS-HY-120-PR-PI-0001-Page3A	5 valve manifold S.S316		
2	C-PDG-2200A	0~1	N2 Gas Supply	10	85	7.5	60	0.15	0.5	OIL-112-0004A-S.S-2"-NP	BK-GCS-HY-120-PR-PI-0001-Page4A	5 valve manifold S.S316		
3	C-PDG-2201A	0~1	Instrument Air	12.5	85	6	65	0.15	0.5	ISA-112-0002A-AZ00-2"-IS	BK-GCS-HY-120-PR-PI-0001-Page2A	5 valve manifold S.S316		
4	C-PDG-2205A	0~0.6	Jacket Cooling	10	85	3	63	0.1	0.2	CWS-112-0018A-C.S-1/2"-PT	BK-GCS-HY-120-PR-PI-0001-Page6A	5 valve manifold S.S316		
5	C-PDG-2206A	0~0.6	Jacket Cooling	10	85	3	63	0.1	0.2	CWS-112-0017A-C.S-1/2"-PT	BK-GCS-HY-120-PR-PI-0001-Page6A	5 valve manifold S.S316		
6	C-PDG-2204B	0~1	Lub Oil Filter	10	85	6	60	0.1	0.5	OIL-112-0004B-S.S-2"-NP	BK-GCS-HY-120-PR-PI-0001-Page3B	5 valve manifold S.S316		
7	C-PDG-2200B	0~1	N2 Gas Supply	10	85	7.5	60	0.15	0.5	OIL-112-0004B-S.S-2"-NP	BK-GCS-HY-120-PR-PI-0001-Page4B	5 valve manifold S.S316		
8	C-PDG-2201B	0~1	Instrument Air	12.5	85	6	65	0.15	0.5	ISA-112-0002B-AZ00-2"-IS	BK-GCS-HY-120-PR-PI-0001-Page2B	5 valve manifold S.S316		
9	C-PDG-2205B	0~0.6	Jacket Cooling	10	85	3	58	0.1	0.2	CWS-112-0018B-C.S-1/2"-PT	BK-GCS-HY-120-PR-PI-0001-Page6B	5 valve manifold S.S316		
10	C-PDG-2206B	0~0.6	Jacket Cooling	10	85	3	58	0.1	0.2	CWS-112-0017B-C.S-1/2"-PT	BK-GCS-HY-120-PR-PI-0001-Page6B	5 valve manifold S.S316		
11	C-PDG-2204C	0~1	Lub Oil Filter	10	85	6	60	0.1	0.5	OIL-112-0004C-S.S-2"-NP	BK-GCS-HY-120-PR-PI-0001-Page3C	5 valve manifold S.S316		
12	C-PDG-2200C	0~1	N2 Gas Supply	10	85	7.5	60	0.15	0.5	OIL-112-0004C-S.S-2"-NP	BK-GCS-HY-120-PR-PI-0001-Page4C	5 valve manifold S.S316		
13	C-PDG-2201C	0~1	Instrument Air	12.5	85	6	65	0.15	0.5	ISA-112-0002C-AZ00-2"-IS	BK-GCS-HY-120-PR-PI-0001-Page2C	5 valve manifold S.S316		
14	C-PDG-2205C	0~0.6	Jacket Cooling	10	85	3	58	0.1	0.2	CWS-112-0018C-C.S-1/2"-PT	BK-GCS-HY-120-PR-PI-0001-Page6C	5 valve manifold S.S316		
15	C-PDG-2206C	0~0.6	Jacket Cooling	10	85	3	58	0.1	0.2	CWS-112-0017C-C.S-1/2"-PT	BK-GCS-HY-120-PR-PI-0001-Page6C	5 valve manifold S.S316		

NOTES :

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج های کمپرسور گاز (رقت و برگشتی) بینک (قرارداد 03 0008 -BK-HD-GCS-CO)						 HAVAYAR INDUSTRIAL GROUP			
شماره پیمان: 053 - 073 – 9184		INSTRUMENT DATASHEETS / CERTIFICATES								شماره صفحه: 13 از 39	
		پروژه	پسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه		
		BK	GCS	HY	120	IN	DS	0001	V03		
INSTRUMENT DATA SHEET FOR FLOW INDICATOR (ROTAMETER)											
GENERAL DATA											
1	TAG NO.		C-FI-2200A		C-FI-2201A		C-FI-2202A		C-FI-2203A		
2	QUANTITY		1		1		1		1		
3	P&ID NO.		BK-GCS-HY-120-PR-PI-0001-Page4A		BK-GCS-HY-120-PR-PI-0001-Page4A		BK-GCS-HY-120-PR-PI-0001-Page4A		BK-GCS-HY-120-PR-PI-0001-Page4A		
4	SERVICE		N2 Gas Supply		N2 Gas Supply		N2 Gas Supply		N2 Gas Supply		
5	LINE NUMBER		1/2" SS316L Tubing		1/2" SS316L Tubing		1/2" SS316L Tubing		1/2" SS316L Tubing		
6	FUNCTION		Local Indicator		Local Indicator		Local Indicator		Local Indicator		
7	MOUNTING		Inline		Inline		Inline		Inline		
FLUID DATA											
8	FLUID		N2 Gas		N2 Gas		N2 Gas		N2 Gas		
9	FLUID STATE		Gas		Gas		Gas		Gas		
10	MAXIMUM FLOW Nm3/h		3		3		3		3		
11	NORMAL FLOW Nm3/h		1.5		1.5		1.5		1.5		
12	PRESS. OPERATING / DESIGN (BARG)		2	12.5	0.5	12.5	0.5	12.5	2	12.5	
13	TEMP. OPERATING / DESIGN (°C)		60	85	60	85	60	85	60	85	
14	DENSITY AT ST. COND. (KG/m³)		1.183		1.183		1.183		1.183		
15	DENSITY AT OP.COND. (KG/m³)		3.251		2.037		2.037		3.251		
16	COMPRESSIBILITY FACTOR (Z)		1		1		1		1		
17	MOL. WEIGHT	CP/CV	28	1.40	28	1.40	28	1.40	28	1.40	
18	OPERATING VISCOSITY (Cp)		-		0.02		0.02		0.02		
19	MAX. PRESSURE DROP @ MAX. FLOW(BAR)		min (nil)		min (nil)		min (nil)		min (nil)		
ROTAMETER DETAIL											
20	TYPE		Metal Type Rotameter-Shall be fitted with Magnetic Follower System For Indication		Metal Type Rotameter-Shall be fitted with Magnetic Follower System For Indication		Metal Type Rotameter-Shall be fitted with Magnetic Follower System For Indication		Metal Type Rotameter-Shall be fitted with Magnetic Follower System For Indication		
21	FLANGE SIZE / RATING / FACING		1/2", 150# R.F		1/2", 150# R.F		1/2", 150# R.F		1/2", 150# R.F		
22	RANGE: FROM / TO (Kg/Hr)		3 Nm3/h		3 Nm3/h		3 Nm3/h		3 Nm3/h		
23	SCALE GRADUATION		Direct Scale		Direct Scale		Direct Scale		Direct Scale		
24	BODY / FLANGE MATERIAL		316 S.S	ASTM A182 F316	316 S.S	ASTM A182 F316	316 S.S	ASTM A182 F316	316 S.S	ASTM A182 F316	
25	FLOAT EXTENSION MATERIAL		316 S.S		316 S.S		316 S.S		316 S.S		
26	CONNECTION LAYOUT		Bottom-Top , Vertical		Bottom-Top , Vertical		Bottom-Top , Vertical		Bottom-Top , Vertical		
27	INGRESS PROTECTION		IP 65		IP 65		IP 65		IP 65		
28	ACCURACY		±1.6% of full scale or better.		±1.6% of full scale or better.		±1.6% of full scale or better.		±1.6% of full scale or better.		
ACCESSORIES											
29	NEEDLE VALVE		No		No		No		No		
30	SWITCH		No		No		No		No		
PURCHASE											
31	MODEL		H250		H250		H250		H250		
32	MANUFACTURE		KROHNE		KROHNE		KROHNE		KROHNE		

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد 03 0008-BK-HD-GCS-CO)						 HAVAYAR INDUSTRIAL GROUP			
شماره پیمان: 053 - 073 – 9184		INSTRUMENT DATASHEETS / CERTIFICATES								شماره صفحه: 14 از 39	
		پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه		
		BK	GCS	HY	120	IN	DS	0001	V03		
INSTRUMENT DATA SHEET FOR FLOW INDICATOR (ROTAMETER)											
GENERAL DATA											
1	TAG NO.		C-FI-2200B		C-FI-2201B		C-FI-2202B		C-FI-2203B		
2	QUANTITY		1		1		1		1		
3	P&ID NO.		BK-GCS-HY-120-PR-PI-0001-Page4B		BK-GCS-HY-120-PR-PI-0001-Page4B		BK-GCS-HY-120-PR-PI-0001-Page4B		BK-GCS-HY-120-PR-PI-0001-Page4B		
4	SERVICE		N2 Gas Supply		N2 Gas Supply		N2 Gas Supply		N2 Gas Supply		
5	LINE NUMBER		1/2" SS316L Tubing		1/2" SS316L Tubing		1/2" SS316L Tubing		1/2" SS316L Tubing		
6	FUNCTION		Local Indicator		Local Indicator		Local Indicator		Local Indicator		
7	MOUNTING		Inline		Inline		Inline		Inline		
FLUID DATA											
8	FLUID		N2 Gas		N2 Gas		N2 Gas		N2 Gas		
9	FLUID STATE		Gas		Gas		Gas		Gas		
10	MAXIMUM FLOW Nm3/h		3		3		3		3		
11	NORMAL FLOW Nm3/h		1.5		1.5		1.5		1.5		
12	PRESS. OPERATING / DESIGN (BARG)		2	12.5	0.5	12.5	0.5	12.5	2	12.5	
13	TEMP. OPERATING / DESIGN (°C)		60	85	60	85	60	85	60	85	
14	DENSITY AT ST. COND. (KG/m³)		1.183		1.183		1.183		1.183		
15	DENSITY AT OP.COND. (KG/m³)		3.251		2.037		2.037		3.251		
16	COMPRESSIBILITY FACTOR (Z)		1		1		1		1		
17	MOL. WEIGH T	CP/CV	28	1.40	28	1.40	28	1.40	28	1.40	
18	OPERATING VISCOSITY (Cp)		`		0.02		0.02		0.02		
19	MAX. PRESSURE DROP @ MAX. FLOW(BAR)		min (nil)		min (nil)		min (nil)		min (nil)		
ROTAMETER DETAIL											
20	TYPE		Metal Type Rotameter-Shall be fitted with Magnetic Follower System For Indication		Metal Type Rotameter-Shall be fitted with Magnetic Follower System For Indication		Metal Type Rotameter-Shall be fitted with Magnetic Follower System For Indication		Metal Type Rotameter-Shall be fitted with Magnetic Follower System For Indication		
21	FLANGE SIZE / RATING / FACING		1/2", 150# R.F		1/2", 150# R.F		1/2", 150# R.F		1/2", 150# R.F		
22	RANGE: FROM / TO (Kg/Hr)		3 Nm3/h		3 Nm3/h		3 Nm3/h		3 Nm3/h		
23	SCALE GRADUATION		Direct Scale		Direct Scale		Direct Scale		Direct Scale		
24	BODY / FLANGE MATERIAL		316 S.S	ASTM A182 F316	316 S.S	ASTM A182 F316	316 S.S	ASTM A182 F316	316 S.S	ASTM A182 F316	
25	FLOAT EXTENSION MATERIAL		316 S.S		316 S.S		316 S.S		316 S.S		
26	CONNECTION LAYOUT		Bottom-Top , Vertical		Bottom-Top , Vertical		Bottom-Top , Vertical		Bottom-Top , Vertical		
27	INGRESS PROTECTION		IP 65		IP 65		IP 65		IP 65		
28	ACCURACY		±1.6% of full scale or better.		±1.6% of full scale or better.		±1.6% of full scale or better.		±1.6% of full scale or better.		
ACCESSORIES											
29	NEEDLE VALVE		No		No		No		No		
30	SWITCH		No		No		No		No		
PURCHASE											
31	MODEL		H250		H250		H250		H250		
32	MANUFACTURE		KROHNE		KROHNE		KROHNE		KROHNE		

		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنيه تحت الارض خرید پکیج های کمپرسور گاز (رقت و برگشتی) بینک (قرارداد 03 BK-HD-GCS-CO-0008)									
شماره پیمان: 053 - 073 – 9184		INSTRUMENT DATASHEETS / CERTIFICATES								شماره صفحه: 15 از 39	
		پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه		
		BK	GCS	HY	120	IN	DS	0001	V03		
INSTRUMENT DATA SHEET FOR FLOW INDICATOR (ROTAMETER)											
GENERAL DATA											
1	TAG NO.		C-FI-2200C		C-FI-2201C		C-FI-2202C		C-FI-2203C		
2	QUANTITY		1		1		1		1		
3	P&ID NO.		BK-GCS-HY-120-PR-PI-0001-Page4C		BK-GCS-HY-120-PR-PI-0001-Page4C		BK-GCS-HY-120-PR-PI-0001-Page4C		BK-GCS-HY-120-PR-PI-0001-Page4C		
4	SERVICE		N2 Gas Supply		N2 Gas Supply		N2 Gas Supply		N2 Gas Supply		
5	LINE NUMBER		1/2" SS316L Tubing		1/2" SS316L Tubing		1/2" SS316L Tubing		1/2" SS316L Tubing		
6	FUNCTION		Local Indicator		Local Indicator		Local Indicator		Local Indicator		
7	MOUNTING		Inline		Inline		Inline		Inline		
FLUID DATA											
8	FLUID		N2 Gas		N2 Gas		N2 Gas		N2 Gas		
9	FLUID STATE		Gas		Gas		Gas		Gas		
10	MAXIMUM FLOW Nm3/h		3		3		3		3		
11	NORMAL FLOW Nm3/h		1.5		1.5		1.5		1.5		
12	PRESS. OPERATING / DESIGN (BARG)		2	12.5	0.5	12.5	0.5	12.5	2	12.5	
13	TEMP. OPERATING / DESIGN (°C)		60	85	60	85	60	85	60	85	
14	DENSITY AT ST. COND. (KG/m³)		1.183		1.183		1.183		1.183		
15	DENSITY AT OP.COND. (KG/m³)		3.251		2.037		2.037		3.251		
16	COMPRESSIBILITY FACTOR (Z)		1		1		1		1		
17	MOL. WEIGHT	CP/CV	28	1.40	28	1.40	28	1.40	28	1.40	
18	OPERATING VISCOSITY (Cp)		-		0.02		0.02		0.02		
19	MAX. PRESSURE DROP @ MAX. FLOW(BAR)		min (nil)		min (nil)		min (nil)		min (nil)		
ROTAMETER DETAIL											
20	TYPE		Metal Type Rotameter-Shall be fitted with Magnetic Follower System For Indication		Metal Type Rotameter-Shall be fitted with Magnetic Follower System For Indication		Metal Type Rotameter-Shall be fitted with Magnetic Follower System For Indication		Metal Type Rotameter-Shall be fitted with Magnetic Follower System For Indication		
21	FLANGE SIZE / RATING / FACING		1/2", 150# R.F		1/2", 150# R.F		1/2", 150# R.F		1/2", 150# R.F		
22	RANGE: FROM / TO (Kg/Hr)		3 Nm3/h		3 Nm3/h		3 Nm3/h		3 Nm3/h		
23	SCALE GRADUATION		Direct Scale		Direct Scale		Direct Scale		Direct Scale		
24	BODY / FLANGE MATERIAL		316 S.S	ASTM A182 F316	316 S.S	ASTM A182 F316	316 S.S	ASTM A182 F316	316 S.S	ASTM A182 F316	
25	FLOAT EXTENSION MATERIAL		316 S.S		316 S.S		316 S.S		316 S.S		
26	CONNECTION LAYOUT		Bottom-Top , Vertical		Bottom-Top , Vertical		Bottom-Top , Vertical		Bottom-Top , Vertical		
27	INGRESS PROTECTION		IP 65		IP 65		IP 65		IP 65		
28	ACCURACY		±1.6% of full scale or better.		±1.6% of full scale or better.		±1.6% of full scale or better.		±1.6% of full scale or better.		
ACCESSORIES											
29	NEEDLE VALVE		No		No		No		No		
30	SWITCH		No		No		No		No		
PURCHASE											
31	MODEL		H250		H250		H250		H250		
32	MANUFACTURE		KROHNE		KROHNE		KROHNE		KROHNE		

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد 03 BK-HD-GCS-CO-0008)						 HAVAYAR INDUSTRIAL GROUP			
شماره پیمان: 053 - 073 – 9184		INSTRUMENT DATASHEETS / CERTIFICATES							شماره صفحه: 16 از 39		
		پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال			نسخه
		BK	GCS	HY	120	IN	DS	0001			V03
INSTRUMENT DATA SHEET FOR SIGHT GLASS											
DESIGN DATA											
1	Tag Numbers					See Next Page					
2	Pipe Material Class					C.S					
3	Service					Cooling Water					
4	Operating Pressure					See List					
5	Operating Temperature					See List					
6	Rating					See List					
7	Size Range					See List					
9	P&ID Reference					See List					
SPECIFICATIONS											
10	TYPE					Rotary					
11	End Connection					Flanged R.F					
12	Cover Type					Tempered					
13	Installation Requirements					Horizontal or Vertical					
MATERIALS											
15	Body					C.S					
16	Glass Cover					TEMPERED GLASS					
17	Gasket					KLINGRIT					
18	Bolts / Studs					C.S					



خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک
(قرارداد 03 BK-HD-GCS-CO-0008)

شماره پیمان:
9184 - 073 - 53

INSTRUMENT DATASHEETS / CERTIFICATES

شماره صفحه: 17 از 39

0592

بستہ کاری

صاد: کنندہ

تسهيلات

رشته

نوعی

سریال

نسخه

V03

BK

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120

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0001

V03

List of Sight Glass

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 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنيه تحت الارض خرید پکیج های کمپرسور گاز (رقت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03)						 HAVAYAR INDUSTRIAL GROUP			
شماره پیمان: 053 - 073 - 9184	INSTRUMENT DATASHEETS / CERTIFICATES						شماره صفحه: 18 از 39			
INSTRUMENT DATA SHEET FOR FLOW TRANSMITTER										
	1	Tag Number	P&ID No.	FT-2121A			BK-GCS-HY-120-PR-PI-0001-Page1A			
	2	Service	Pipe No.	Process gas			GAS-111-0031A-CN05-8"-ET			
	3	Pipe O. D. /I. D. mm	Pipe Sch./Thk.	8"			SCH.20			
	4	Pipe Material	Pipe Insulation	ASTM A106 Gr.B			N/A			
Process Conditions	5	Fluid	State	Sour Hydrocarbon			Gas			
	6	Operating Pressure bar(g)	Design Pressure bar(g)	4.9			22			
	7	Operating Temperature °C	Design Temperature °C	36.8 / 18.9			180			
	8	Flow Rate kg/h(Liquid,Steam), Nm3/h(Gas)	Unit Nm3/h	Min. Flow 1971	Nor. Flow 7918	Max. Flow 8162.9				
	9	Operating Density kg/m3	Standard Density kg/Nm3	5.771			-			
	10	Kinetic Viscosity(mm2/s)	Dynamic Viscosity (cP)	-			0.0115			
	11	Specific Heat Ratio Cp/Cv	Compress Factor	1.245			0.975			
	12	Vapor Pressure	Vapor Density kg/m3	NA			-			
	13	Molecular Weight	Relative Humidity	24.52			97%			
	14	Allowable Pressure Drop @ Max. Flow			0~10 mbar					
	Element	15	Tag Number		FE-2121A					
		16	Measure Element Type		Orifice					
17		Measure Element Material	Thickness	S.S316-Nace			6mm			
18		Bore Diameter		Hold						
19		Connection Type	Size	Flange Weld neck			8"			
20		Flange Standard	Flange Rating	ASME B16.5			ANSI 300#			
21		Flange Material	Facing	C.S. (Nace)			RF			
22		Bolt /Nut Material	Bolt /Nut Standard	ASTM A193 Gr.B7M			ASTM A194 Gr. 2HM			
23		Gasket Type & Material		Spiral Wound,S.S 316 Winding /Graphite Filler, C.S. Outer& S.S 316L Inner Ring						
Transmitter Unit	24	Model		Diff pressure						
	25	Available Range		-623 to 623 mbar						
	26	Flowmeter Scale		0~8163Nm3/h						
	27	Full Scale Differential Pressure (bar)		0~10 mbar						
	28	Output Signal		HART 4-20mA						
	29	Accuracy		0.2 %						
	30	Load Resistance		minimum loop resistance of 250 ohms						
	31	Scale Factor		Square Root						
	32	Housing Material		Cast aluminum						
	33	Allowable Static Pressure		250Barg						
	34	Power Supply		24 V DC Loop Powered						
	35	Electrical Connection		ISO M20x1.5						
	36	Explosion Proof		Exia IIB T3						
	37	Enclosure Protection		IP66						
	38	Diaphragm Material		S.S316-Nace						
	شماره ردیف ها اصلاح گردد	38	Wetted Part Material		S.S316-Nace					
39		Drains/Vents Material		S.S316-Nace						
40		Integral Indicator / Mounting type		Yes / Direct						
Accessories	41	Valve Manifold		5 valve-S.S316						
	42	Upstream Straight Run		10X						
	43	Downstream Straight Run		5X						
Miscell.	44	Manufacturer		Rosemount 3051CD1A2B21BB41i						
	45	Requisition No.								
NOTES:										
1) Spiral Wound as per API 601, 316+Graf or CS, Thk 4.5mm with stainless steel winding and flexible graphite filter.										
2) Integral orifice with dual D.P Transmitter										
VTA:Vendor to Advise VTC:Vendor to Confirm N/A:Not Applicable										

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد 03 0008 BK-HD-GCS-CO-0008)						 HAVAYAR INDUSTRIAL GROUP		
شماره پیمان: 053 - 073 - 9184		INSTRUMENT DATASHEETS / CERTIFICATES						شماره صفحه: 19 از 39		
		پروژه	پسته کاری	صادر کننده	تسهيلات	رشته	نوع مترک			سریال
		BK	GCS	HY	120	IN	DS	0001	V03	
INSTRUMENT DATA SHEET FOR FLOW TRANSMITTER										
	1	Tag Number	P&ID No.		FT-2131A		BK-GCS-HY-120-PR-PI-0001-Page1A			
	2	Service	Pipe No.		Process gas		GAS-111-0044A-CN05-6"-ET			
	3	Pipe O. D. /I. D. mm	Pipe Sch./Thk.		6"		SCH.20			
	4	Pipe Material	Pipe Insulation		ASTM A106 Gr.B		N/A			
Process Conditions	5	Fluid	State		Sour Hydrocarbon		Gas			
	6	Operating Pressure bar(g)	Design Pressure bar(g)		17.1		22			
	7	Operating Temperature °C	Design Temperature °C		59.9		180			
	8	Flow Rate	Unit		Min. Flow	Nor. Flow	Max. Flow			
		kg/h(Liquid,Steam),Nm3/h(Gas)	Nm3/h		1971	7918	8162.9			
	9	Operating Density kg/m3	Standard Density kg/Nm3		17.35		-			
	10	Kinetic Viscosity(mm2/s)	Dynamic Viscosity (cP)		-		.0126			
	11	Specific Heat Ratio Cp/Cv	Compress Factor		1.275		0.964			
	12	Vapor Pressure	Vapor Density kg/m3		19.76		-			
	13	Molecular Weight	Relative Humidity		24.52		89%			
	14	Allowable Pressure Drop @ Max. Flow				0~10 mbar				
	Element	15	Tag Number		FE-2131A					
		16	Measure Element Type		Orifice					
17		Measure Element Material	Thickness		S.S316-Nace		3mm			
18		Bore Diameter		Hold						
19		Connection Type	Size		Flange Weld neck		6"			
20		Flange Standard	Flange Rating		ASME B16.5		ANSI 300#			
21		Flange Material	Facing		C.S. (Nace)		RF			
22		Bolt /Nut Material	Bolt /Nut Standard		ASTM A193 Gr.B7M		ASTM A194 Gr. 2HM			
23	Gasket Type & Material		Spiral Wound,S.S 316 Winding /Graphite Filler, C.S. Outer& S.S 316L Inner Ring							
Transmitter Unit	24	Model		Diff pressure						
	25	Available Range		-623 to 623 mbar						
	26	Flowmeter Scale		0~8163Nm3/h						
	27	Full Scale Differential Pressure (bar)		0~10 mbar						
	28	Output Signal		HART 4-20mA						
	29	Accuracy		0.2 %						
	30	Load Resistance		minimum loop resistance of 250 ohms						
	31	Scale Factor		Square Root						
	32	Housing Material		Cast aluminum						
	33	Allowable Static Pressure		250Barg						
	34	Power Supply		24 V DC Loop Powered						
	35	Electrical Connection		ISO M20x1.5						
	36	Explosion Proof		Exia IIB T3						
	37	Enclosure Protection		IP66						
	38	Diaphragm Material		S.S316-Nace						
	38	Wetted Part Material		S.S316-Nace						
	39	Drains/Vents Material		S.S316-Nace						
40	Integral Indicator / Mounting type		Yes / Direct							
Accessories	41	Valve Manifold		5 valve-S.S316						
	42	Upstream Straight Run		10X						
	43	Downstream Straight Run		5X						
Miscell.	44	Manufacturer		Rosemount 3051CD1A2B21BB41i						
	45	Requisition No.								
NOTES:										
1) Spiral Wound as per API 601, 316+Graf or CS, Thk 4.5mm with stainless steel winding and flexible graphite filter.										
2) Integral orifice with dual D.P Transmitter										
VTA:Vendor to Advise VTC:Vendor to Confirm N/A:Not Applicable										

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنيه تحت الارض خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد 03 0008 BK-HD-GCS-CO)						 HAVAYAR INDUSTRIAL GROUP	
شماره پیمان: 053 - 073 - 9184		INSTRUMENT DATASHEETS / CERTIFICATES						شماره صفحه: 20 از 39	
		پروژه	پسته کاری	صنایع کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
		BK	GCS	HY	120	IN	DS	0001	V03
INSTRUMENT DATA SHEET FOR FLOW TRANSMITTER									
	1	Tag Number	P&ID No.		C-FT-2206A		BK-GCS-HY-120-PR-PI-0001-Page6A		
	2	Service	Pipe No.		Water Console		CWR-112-0010A-C.S-3"-IS		
	3	Pipe O. D. / I. D. mm	Pipe Sch./Thk.		3"		SCH.20		
	4	Pipe Material	Pipe Insulation		ASTM A106 Gr.B		N/A		
Process Conditions	5	Fluid	State		Water		Liquid		
	6	Operating Pressure bar(g)	Design Pressure bar(g)		3		7		
	7	Operating Temperature °C	Design Temperature °C		58		85		
	8	Flow Rate		Unit	Min. Flow	Nor. Flow	Max. Flow		
		kg/h(Liquid,Steam),Nm3/h(Gas)		Kg/h		15300	16830		
	9	Operating Density kg/m3	Standard Density kg/Nm3		1060		-		
	10	Kinetic Viscosity(mm2/s)	Dynamic Viscosity (cP)		-		1.87		
	11	Specific Heat Ratio Cp/Cv	Compress Factor		1.1		0.0053		
	12	Vapor Pressure	Vapor Density kg/m3		-		-		
	13	Molecular Weight	Relative Humidity		~ 40		-		
	14	Allowable Pressure Drop @ Max. Flow		0~100 mbar					
Element	15	Tag Number		C-FE-2206A					
	16	Measure Element Type		Orifice					
	17	Measure Element Material	Thickness		316SS		3mm		
	18	Bore Diameter		Hold					
	19	Connection Type	Size		Flange Weld neck		3"		
	20	Flange Standard	Flange Rating		ASME B16.5		ANSI 300#		
	21	Flange Material	Facing		C.S.		RF		
	22	Bolt /Nut Material	Bolt /Nut Standard		ASTM A193 Gr.B7M		ASTM A194 Gr. 2HM		
Transmitter Unit	23	Gasket Type & Material							
	24	Model							
	25	Available Range							
	26	Flowmeter Scale							
	27	Full Scale Differential Pressure (bar)							
	28	Output Signal							
	29	Accuracy		0.2 %					
	30	Load Resistance		minimum loop resistance of 250 ohms					
	31	Scale Factor		Square Root					
	32	Housing Material		Cast aluminum					
	33	Allowable Static Pressure		250Barg					
	34	Power Supply		24 V DC Loop Powered					
	35	Electrical Connection		ISO M20x1.5					
	36	Explosion Proof		Exia IIB T3					
	37	Enclosure Protection		IP66					
	38	Diaphragm Material		S.S316					
	38	Wetted Part Material		S.S316					
	39	Drains/Vents Material		S.S316					
	40	Integral Indicator / Mounting type		Yes / Direct					
	Accessories	41	Valve Manifold		5 valve-S.S316				
42		Upstream Straight Run		10X					
43		Downstream Straight Run		5X					
Miscell.	44	Manufacturer		Rosemount 3051CD2A2B21BB41i					
	45	Requisition No.							
NOTES:									
1) Spiral Wound as per API 601, 316+Graf or CS, Thk 4.5mm with stainless steel winding and flexible graphite filter.									
2) Integral orifice with dual D.P Transmitter									
VTA:Vendor to Advise VTC:Vendor to Confirm N/A:Not Applicable									

برای سرویس
 بایستی پوشش گالوانیزه
 داشته باشند.
 هوایار: اعمال شد.

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد 03 0008 BK-HD-GCS-CO)						 HAVAYAR INDUSTRIAL GROUP		
شماره پیمان: 053 - 073 - 9184		INSTRUMENT DATASHEETS / CERTIFICATES						شماره صفحه: 21 از 39		
		پروژه	پسته کاری	صادر کننده	تسهيلات	رشته	نوع مترک	سریال	نسخه	
		BK	GCS	HY	120	IN	DS	0001	V03	
INSTRUMENT DATA SHEET FOR FLOW TRANSMITTER										
	1	Tag Number	P&ID No.		FT-2121B		BK-GCS-HY-120-PR-PI-0001-Page1B			
	2	Service	Pipe No.		Process gas		GAS-111-0031A-CN05-8"-ET			
	3	Pipe O. D. /I. D. mm	Pipe Sch./Thk.		8"		SCH.20			
	4	Pipe Material	Pipe Insulation		ASTM A106 Gr.B		N/A			
Process Conditions	5	Fluid	State		Sour Hydrocarbon		Gas			
	6	Operating Pressure bar(g)	Design Pressure bar(g)		4.9		22			
	7	Operating Temperature °C	Design Temperature °C		36.8 / 18.9		180			
	8	Flow Rate	Unit		Min. Flow	Nor. Flow	Max. Flow			
		kg/h(Liquid,Steam),Nm3/h(Gas)	Nm3/h		7887	7918	8162.9			
	9	Operating Density kg/m3	Standard Density kg/Nm3		5.771		-			
	10	Kinetic Viscosity(mm2/s)	Dynamic Viscosity (cP)		-		0.0115			
	11	Specific Heat Ratio Cp/Cv	Compress Factor		1.245		0.975			
	12	Vapor Pressure	Vapor Density kg/m3		5.102		-			
	13	Molecular Weight	Relative Humidity		24.52		97%			
	14	Allowable Pressure Drop @ Max. Flow				0~10 mbar				
	Element	15	Tag Number			FE-2121B				
		16	Measure Element Type			Orifice				
17		Measure Element Material	Thickness		S.S316-Nace		6mm			
18		Bore Diameter			Hold					
19		Connection Type	Size		Flange Weld neck		8"			
20		Flange Standard	Flange Rating		ASME B16.5		ANSI 300#			
21		Flange Material	Facing		C.S. (Nace)		RF			
22		Bolt /Nut Material	Bolt /Nut Standard		ASTM A193 Gr.B7M		ASTM A194 Gr. 2HM			
23		Gasket Type & Material				Spiral Wound,S.S 316 Winding /Graphite Filler, C.S. Outer& S.S 316L Inner Ring				
Transmitter Unit	24	Model			3051CD					
	25	Available Range			-623 to 623 mbar					
	26	Flowmeter Scale			0~8163Nm3/h					
	27	Full Scale Differential Pressure (bar)			0~10 mbar					
	28	Output Signal			HART 4-20mA					
	29	Accuracy			0.2 %					
	30	Load Resistance			minimum loop resistance of 250 ohms					
	31	Scale Factor			Square Root					
	32	Housing Material			Cast aluminum					
	33	Allowable Static Pressure			250Barg					
	34	Power Supply			24 V DC Loop Powered					
	35	Electrical Connection			ISO M20x1.5					
	36	Explosion Proof			Exia IIB T3					
	37	Enclosure Protection			IP66					
	38	Diaphragm Material			S.S316-Nace					
	38	Wetted Part Material			S.S316-Nace					
	39	Drains/Vents Material			S.S316-Nace					
40	Integral Indicator / Mounting type			Yes / Direct						
Accessories	41	Valve Manifold			5 valve-S.S316					
	42	Upstream Straight Run			10X					
	43	Downstream Straight Run			5X					
Miscell.	44	Manufacturer			Rosemount 3051CD1A2B21BB41i					
	45	Requisition No.								
NOTES:										
1) Spiral Wound as per API 601, 316+Graf or CS, Thk 4.5mm with stainless steel winding and flexible graphite filter.										
2) Integral orifice with dual D.P Transmitter										
VTA:Vendor to Advise VTC:Vendor to Confirm N/A:Not Applicable										

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد 03 0008 BK-HD-GCS-CO)						 HAVAYAR INDUSTRIAL GROUP		
شماره پیمان: 053 - 073 - 9184		INSTRUMENT DATASHEETS / CERTIFICATES						شماره صفحه: 22 از 39		
		پروژه	پسته کاری	صادر کننده	تسهيلات	رشته	نوع مترک	سریال	نسخه	
		BK	GCS	HY	120	IN	DS	0001	V03	
INSTRUMENT DATA SHEET FOR FLOW TRANSMITTER										
	1	Tag Number	P&ID No.		FT-2131B		BK-GCS-HY-120-PR-PI-0001-Page1B			
	2	Service	Pipe No.		Process gas		GAS-111-0044A-CN05-6"-ET			
	3	Pipe O. D. /I. D. mm	Pipe Sch./Thk.		6"		SCH.20			
	4	Pipe Material	Pipe Insulation		ASTM A106 Gr.B		N/A			
Process Conditions	5	Fluid	State		Sour Hydrocarbon		Gas			
	6	Operating Pressure bar(g)	Design Pressure bar(g)		17.1		22			
	7	Operating Temperature °C	Design Temperature °C		59.9		180			
	8	Flow Rate	Unit		Min. Flow	Nor. Flow	Max. Flow			
		kg/h(Liquid,Steam),Nm3/h(Gas)	Nm3/h		7887	7918	8162.9			
	9	Operating Density kg/m3	Standard Density kg/Nm3		17.35		-			
	10	Kinetic Viscosity(mm2/s)	Dynamic Viscosity (cP)		-		.0126			
	11	Specific Heat Ratio Cp/Cv	Compress Factor		1.275		0.964			
	12	Vapor Pressure	Vapor Density kg/m3		19.76		-			
	13	Molecular Weight	Relative Humidity		24.52		89%			
	14	Allowable Pressure Drop @ Max. Flow				0~10 mbar				
	Element	15	Tag Number	FE-2131B						
		16	Measure Element Type	Orifice						
17		Measure Element Material	Thickness		S.S316-Nace		3mm			
18		Bore Diameter	Hold							
19		Connection Type	Size		Flange Weld neck		6"			
20		Flange Standard	Flange Rating		ASME B16.5		ANSI 300#			
21		Flange Material	Facing		C.S. (Nace)		RF			
22		Bolt /Nut Material	Bolt /Nut Standard		ASTM A193 Gr.B7M		ASTM A194 Gr. 2HM			
23	Gasket Type & Material				Spiral Wound,S.S 316 Winding /Graphite Filler, C.S. Outer& S.S 316L Inner Ring					
Transmitter Unit	24	Model	3051CD							
	25	Available Range	-623 to 623 mbar							
	26	Flowmeter Scale	0~8163Nm3/h							
	27	Full Scale Differential Pressure (bar)	0~10 mbar							
	28	Output Signal	HART 4-20mA							
	29	Accuracy	0.2 %							
	30	Load Resistance	minimum loop resistance of 250 ohms							
	31	Scale Factor	Square Root							
	32	Housing Material	Cast aluminum							
	33	Allowable Static Pressure	250Barg							
	34	Power Supply	24 V DC Loop Powered							
	35	Electrical Connection	ISO M20x1.5							
	36	Explosion Proof	Exia IIB T3							
	37	Enclosure Protection	IP66							
	38	Diaphragm Material	S.S316-Nace							
	38	Wetted Part Material	S.S316-Nace							
	39	Drains/Vents Material	S.S316-Nace							
40	Integral Indicator / Mounting type	Yes / Direct								
Accessories	41	Valve Manifold	5 valve-S.S316							
	42	Upstream Straight Run	10X							
	43	Downstream Straight Run	5X							
Miscell.	44	Manufacturer	Rosemount 3051CD1A2B21BB41i							
	45	Requisition No.								
NOTES:										
1) Spiral Wound as per API 601, 316+Graf or CS, Thk 4.5mm with stainless steel winding and flexible graphite filter.										
2) Integral orifice with dual D.P Transmitter										
VTA:Vendor to Advise VTC:Vendor to Confirm N/A:Not Applicable										

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنيه تحت الارض خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03)						 HAVAYAR INDUSTRIAL GROUP		
شماره پیمان: 053 - 073 - 9184		INSTRUMENT DATASHEETS / CERTIFICATES							شماره صفحه: 23 از 39	
		پروژه BK	بسته کاری GCS	صادر کننده HY	تسهیلات 120	رشته IN	نوع مدرک DS	سریال 0001		نسخه V03
INSTRUMENT DATA SHEET FOR FLOW TRANSMITTER										
	1	Tag Number	P&ID No.		C-FT-2206B		BK-GCS-HY-120-PR-PI-0001-Page6B			
	2	Service	Pipe No.		Water Console		CWR-112-0010A-C.S-3"-IS			
	3	Pipe O. D. /I. D. mm	Pipe Sch./Thk.		3"		SCH.20			
	4	Pipe Material	Pipe Insulation		ASTM A106 Gr.B		N/A			
Process Conditions	5	Fluid	State		Water		Liquid			
	6	Operating Pressure bar(g)	Design Pressure bar(g)		3		7			
	7	Operating Temperature °C	Design Temperature °C		58		85			
	8	Flow Rate	Unit	Min. Flow	Nor. Flow	Max. Flow				
		kg/h(Liquid, Steam), Nm3/h(Gas)	m3/h		15300	16830				
	9	Operating Density kg/m3	Standard Density kg/Nm3		1060		-			
	10	Kinetic Viscosity(mm2/s)	Dynamic Viscosity (cP)		-		1.87			
	11	Specific Heat Ratio Cp/Cv	Compress Factor		1.1		0.0053			
	12	Vapor Pressure	Vapor Density kg/m3		-		-			
	13	Molecular Weight	Relative Humidity		~ 40		-			
Element	14	Allowable Pressure Drop @ Max. Flow			0~100 mbar					
	15	Tag Number	C-FE-2206B							
	16	Measure Element Type	Orifice							
	17	Measure Element Material	Thickness		316SS		3mm			
	18	Bore Diameter	Hold							
	19	Connection Type	Size	Flange Weld neck		3"				
	20	Flange Standard	Flange Rating	ASME B16.5		ANSI 300#				
	21	Flange Material	Facing	C.S		RF				
Transmitter Unit	22	Bolt /Nut Material	Bolt /Nut Standard		ASTM A193 Gr.B7M		ASTM A194 Gr. 2HM			
	23	Gasket Type & Material								
	24	Model	3051CD							
	25	Available Range	-623 to 623 mbar							
	26	Flowmeter Scale	0~16830m3/h							
	27	Full Scale Differential Pressure (bar)	0~100 mbar							
	28	Output Signal	HART 4-20mA							
	29	Accuracy	0.2 %							
	30	Load Resistance	minimum loop resistance of 250 ohms							
	31	Scale Factor	Square Root							
	32	Housing Material	Cast aluminum							
	33	Allowable Static Pressure	250Barg							
Accessories	34	Power Supply	24 V DC Loop Powered							
	35	Electrical Connection	ISO M20x1.5							
	36	Explosion Proof	Exia IIB T3							
	37	Enclosure Protection	IP66							
	38	Diaphragm Material	S.S316							
	39	Wetted Part Material	S.S316							
	40	Drains/Vents Material	S.S316							
	41	Integral Indicator / Mounting type	Yes / Direct							
	42	Valve Manifold	5 valve-S.S316							
	Miscell.	43	Upstream Straight Run	10X						
44		Downstream Straight Run	5X							
	45	Manufacturer	Rosemount 3051CD2A2B21BB41i							
	46	Requisition No.								
NOTES:										
1) Spiral Wound as per API 601, 316+Graf or CS, Thk 4.5mm with stainless steel winding and flexible graphite filler.										
2) Integral orifice with dual D.P Transmitter										
VTA:Vendor to Advise VTC:Vendor to Confirm N/A:Not Applicable										

رای سرویس Water
 یستی پوشش گالوانیزه
 شته باشند.
 وایار: اعمال شد.

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03)						 HAVAYAR INDUSTRIAL GROUP		
		INSTRUMENT DATASHEETS / CERTIFICATES						شماره صفحه: 24 از 39		
شماره پیمان: 053 - 073 - 9184		پروژه BK	بسته کاری GCS	صادر کننده HY	تسهیلات 120	رشته IN	نوع مترک DS	سریال 0001	نسخه V03	
INSTRUMENT DATA SHEET FOR FLOW TRANSMITTER										
	1	Tag Number	P&ID No.		FT-2121C		BK-GCS-HY-120-PR-PI-0001-Page1C			
	2	Service	Pipe No.		Process gas		GAS-111-0031A-CN05-8"-ET			
	3	Pipe O. D. / I. D. mm	Pipe Sch./Thk.		8"		SCH.20			
	4	Pipe Material	Pipe Insulation		ASTM A106 Gr.B		N/A			
Process Conditions	5	Fluid	State		Sour Hydrocarbon		Gas			
	6	Operating Pressure bar(g)	Design Pressure bar(g)		4.9		22			
	7	Operating Temperature °C	Design Temperature °C		36.8 / 18.9		180			
	8	Flow Rate	Unit		Min. Flow	Nor. Flow	Max. Flow			
		kg/h(Liquid,Steam),Nm3/h(Gas)	Nm3/h		7887	7918	8162.9			
	9	Operating Density kg/m3	Standard Density kg/Nm3		5.771		-			
	10	Kinetic Viscosity(mm2/s)	Dynamic Viscosity (cP)		-		0.0115			
	11	Specific Heat Ratio Cp/Cv	Compress Factor		1.245		0.975			
	12	Vapor Pressure	Vapor Density kg/m3		5.102		-			
	13	Molecular Weight	Relative Humidity		24.52		97%			
	14	Allowable Pressure Drop @ Max. Flow				0~10 mbar				
	Element	15	Tag Number			FE-2121C				
		16	Measure Element Type			Orifice				
		17	Measure Element Material	Thickness		S.S316-Nace		6mm		
18		Bore Diameter			Hold					
19		Connection Type	Size		Flange Weld neck		8"			
20		Flange Standard	Flange Rating		ASME B16.5		ANSI 300#			
21		Flange Material	Facing		C.S. (Nace)		RF			
22		Bolt /Nut Material	Bolt /Nut Standard		ASTM A193 Gr.B7M		ASTM A194 Gr. 2HM			
23		Gasket Type & Material				Spiral Wound,S.S 316 Winding /Graphite Filler, C.S. Outer& S.S 316L Inner Ring				
Transmitter Unit	24	Model			3051CD					
	25	Available Range			-623 to 623 mbar					
	26	Flowmeter Scale			0~8163Nm3/h					
	27	Full Scale Differential Pressure (bar)			0~10 mbar					
	28	Output Signal			HART 4-20mA					
	29	Accuracy			0.2 %					
	30	Load Resistance			minimum loop resistance of 250 ohms					
	31	Scale Factor			Square Root					
	32	Housing Material			Cast aluminum					
	33	Allowable Static Pressure			250Barg					
	34	Power Supply			24 V DC Loop Powered					
	35	Electrical Connection			ISO M20x1.5					
	36	Explosion Proof			Exia IIB T3					
	37	Enclosure Protection			IP66					
	38	Diaphragm Material			S.S316-Nace					
	38	Wetted Part Material			S.S316-Nace					
	39	Drains/Vents Material			S.S316-Nace					
	Accessories	40	Integral Indicator / Mounting type			Yes / Direct				
41		Valve Manifold			5 valve-S.S316					
42		Upstream Straight Run			10X					
Miscell.	43	Downstream Straight Run			5X					
	44	Manufacturer			Rosemount 3051CD1A2B21BB41i					
	45	Requisition No.								
NOTES:										
1) Spiral Wound as per API 601, 316+Graf or CS, Thk 4.5mm with stainless steel winding and flexible graphite filter.										
2) Integral orifice with dual D.P Transmitter										
VTA:Vendor to Advise VTC:Vendor to Confirm N/A:Not Applicable										

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد 03_0008-BK-HD-GCS-CO)						 HAVAYAR INDUSTRIAL GROUP			
		INSTRUMENT DATASHEETS / CERTIFICATES						شماره صفحه: 25 از 39			
شماره پیمان: 053 - 073 - 9184		پروژه BK	بسته کاری GCS	صادر کننده HY	تسهیلات 120	رشته IN	نوع مترک DS	سریال 0001	نسخه V03		
INSTRUMENT DATA SHEET FOR FLOW TRANSMITTER											
	1	Tag Number	P&ID No.		FT-2131C		BK-GCS-HY-120-PR-PI-0001-Page1C				
	2	Service	Pipe No.		Process gas		GAS-111-0044A-CN05-6"-ET				
	3	Pipe O. D. / I. D. mm	Pipe Sch./Thk.		6"		SCH.20				
	4	Pipe Material	Pipe Insulation		ASTM A106 Gr.B		N/A				
Process Conditions	5	Fluid	State		Sour Hydrocarbon		Gas				
	6	Operating Pressure bar(g)	Design Pressure bar(g)		17.1		22				
	7	Operating Temperature °C	Design Temperature °C		59.9		180				
	8	Flow Rate	Unit		Min. Flow	Nor. Flow	Max. Flow				
		kg/h(Liquid,Steam),Nm3/h(Gas)	Nm3/h		7887	7918	8162.9				
	9	Operating Density kg/m3	Standard Density kg/Nm3		17.35		-				
	10	Kinetic Viscosity(mm2/s)	Dynamic Viscosity (cP)		-		.0126				
	11	Specific Heat Ratio Cp/Cv	Compress Factor		1.275		0.964				
	12	Vapor Pressure	Vapor Density kg/m3		19.76		-				
	13	Molecular Weight	Relative Humidity		24.52		89%				
	14	Allowable Pressure Drop @ Max. Flow			0~10 mbar						
	Element	15	Tag Number			FE-2197C					
		16	Measure Element Type			Orifice					
17		Measure Element Material	Thickness		S.S316-Nace		3mm				
18		Bore Diameter			Hold						
19		Connection Type	Size		Flange Weld neck		6"				
20		Flange Standard	Flange Rating		ASME B16.5		ANSI 300#				
21		Flange Material	Facing		C.S. (Nace)		RF				
22		Bolt /Nut Material	Bolt /Nut Standard		ASTM A193 Gr.B7M		ASTM A194 Gr. 2HM				
23	Gasket Type & Material			Spiral Wound,S.S 316 Winding /Graphite Filler, C.S. Outer& S.S 316L Inner Ring							
Transmitter Unit	24	Model			3051CD						
	25	Available Range			-623 to 623 mbar						
	26	Flowmeter Scale			0~8163Nm3/h						
	27	Full Scale Differential Pressure (bar)			0~10 mbar						
	28	Output Signal			HART 4-20mA						
	29	Accuracy			0.2 %						
	30	Load Resistance			minimum loop resistance of 250 ohms						
	31	Scale Factor			Square Root						
	32	Housing Material			Cast aluminum						
	33	Allowable Static Pressure			250Barg						
	34	Power Supply			24 V DC Loop Powered						
	35	Electrical Connection			ISO M20x1.5						
	36	Explosion Proof			Exia IIB T3						
	37	Enclosure Protection			IP66						
	38	Diaphragm Material			S.S316-Nace						
	38	Wetted Part Material			S.S316-Nace						
	39	Drains/Vents Material			S.S316-Nace						
	40	Integral Indicator / Mounting type			Yes / Direct						
Accessories	41	Valve Manifold			5 valve-S.S316						
	42	Upstream Straight Run			10X						
	43	Downstream Straight Run			5X						
Miscell.	44	Manufacturer			Rosemount 3051CD1A2B21BB41i						
	45	Requisition No.									
NOTES:											
1) Spiral Wound as per API 601, 316+Graf or CS, Thk 4.5mm with stainless steel winding and flexible graphite filter.											
2) Integral orifice with dual D.P Transmitter											
VTA:Vendor to Advise VTC:Vendor to Confirm N/A:Not Applicable											

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنيه تحت الارض خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد 03-0008-BK-HD-GCS-CO)						 HAVAYAR INDUSTRIAL GROUP		
شماره پیمان: 053 - 073 - 9184		INSTRUMENT DATASHEETS / CERTIFICATES						شماره صفحه: 26 از 39		
		پروژه	بسته کاری	صادر کننده	تجهیزات	رشته	نوع مترک	سریال	نسخه	
		BK	GCS	HY	120	IN	DS	0001	V03	
INSTRUMENT DATA SHEET FOR FLOW TRANSMITTER										
	1	Tag Number	P&ID No.		C-FT-2206C		BK-GCS-HY-120-PR-PI-0001-Page0C			
	2	Service	Pipe No.		Water Console		CWR-112-0010A-C.S-3"-IS			
	3	Pipe O. D. / I. D. mm	Pipe Sch./Thk.		3"					
	4	Pipe Material	Pipe Insulation							
Process Conditions	5	Fluid	State		Water		Liquid			
	6	Operating Pressure bar(g)	Design Pressure bar(g)		3		7			
	7	Operating Temperature °C	Design Temperature °C		58		85			
	8	Flow Rate	Unit	Min. Flow	Nor. Flow	Max. Flow				
		kg/h(Liquid,Steam),Nm3/h(Gas)	m3/h		15300	16830				
	9	Operating Density kg/m3	Standard Density kg/Nm3		1060		-			
	10	Kinetic Viscosity(mm2/s)	Dynamic Viscosity (cP)		-		1.87			
	11	Specific Heat Ratio Cp/Cv	Compress Factor		1.1		0.0053			
	12	Vapor Pressure	Vapor Density kg/m3		-		-			
	13	Molecular Weight	Relative Humidity		~ 40		-			
	14	Allowable Pressure Drop @ Max. Flow			0~100 mbar					
	Element	15	Tag Number			C-FE-2206C				
		16	Measure Element Type			Orifice				
		17	Measure Element Material	Thickness		31				
18		Bore Diameter								
19		Connection Type	Size		Flange					
20		Flange Standard	Flange Rating		ASME					
21		Flange Material	Facing		CS					
22		Bolt /Nut Material	Bolt /Nut Standard		ASTM A193 Gr.B7M		ASTM A194 Gr. 2HM			
23		Gasket Type & Material			Spiral Wound,S.S 316 Winding /Graphite Filler, C.S. Outer& S.S 316L Inner Ring					
Transmitter Unit	24	Model			3051CD					
	25	Available Range			-623 to 623 mbar					
	26	Flowmeter Scale			0~16830m3/h					
	27	Full Scale Differential Pressure (bar)			0~100 mbar					
	28	Output Signal			HART 4-20mA					
	29	Accuracy			0.2 %					
	30	Load Resistance			minimum loop resistance of 250 ohms					
	31	Scale Factor			Square Root					
	32	Housing Material			Cast aluminum					
	33	Allowable Static Pressure			250Barg					
	34	Power Supply			24 V DC Loop Powered					
	35	Electrical Connection			ISO M20x1.5					
	36	Explosion Proof			Exia IIB T3					
	37	Enclosure Protection			IP66					
	38	Diaphragm Material			S.S316					
	39	Wetted Part Material			S.S316					
	40	Drains/Vents Material			S.S316					
	Accessories	41	Integral Indicator / Mounting type			Yes / Direct				
42		Valve Manifold			5 valve-S.S316					
43		Upstream Straight Run			10X					
Miscell.	44	Downstream Straight Run			5X					
	45	Manufacturer			Rosemount 3051CD2A2B21BB41i					
	45	Requisition No.								
NOTES:										
1) Spiral Wound as per API 601, 316*Gr or CS, Thk 4.5mm with stainless steel winding and flexible graphite filter.										
2) Integral orifice with dual D.P Transmitter										
VTA:Vendor to Advise VTC:Vendor to Confirm N/A:Not Applicable										

برای سرویس
 بایستی پوشش گالوانیزه
 داشته باشند.
 هوایار: اعمال شد.

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03)						 HAVAYAR INDUSTRIAL GROUP	
		INSTRUMENT DATASHEETS / CERTIFICATES						شماره صفحه: 27 از 39	
شماره پیمان: 053 - 073 - 9184		پروژه	پسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک		
		BK	GCS	HY	120	IN	DS	0001	V03
General	1	Instrument Name				Level gauge			
	2	Tag Number	P&ID No.		C-LG-2213A		BK-GCS-HY-120-PR-PI-0001-Page5A		
	3	Service	Equipment No.				TK-2101-WR A		
	4	Pipe Class	Vessel Material						
	5	Vessel Class							
Process Conditions	6	Upper Fluid	Lower Fluid		Air		Water / Glycol		
	7	Upper Density kg/m3	Lower Density kg/m3		1.225		1063		
	8	Operating Pressure bar(g)	Design Pressure bar(g)		ATM		3.5		
	9	Operating Temperature °C	Design Temperature °C		70		85		
	10	Upper/Lower Kinetic Viscosity (mm2/S)				-			
	11	Upper/Lower Dynamic Viscosity (cP)				0.0209 / 1.87			
Body & Cage	12	Model/Type				Magnetic			
	13	C to C mm				1350mm			
	14	Allowable Oper. Temp. °C	Pressure Rating						
	15	Mounting Style	Connection Orientation		External		Side-Side		
	16	Visible Length mm			1250mm				
	17	Scale Unit/Material	Accuracy		Cm		5mm		
	18	Indicator Type	Indicator Colour		Magnetic		Flag/White & red		
	19	Chamber Material	Float Material		S.S		S.S		
	20	Connection Type	Connection Size		Flange		2"		
	21	Flange Standard	Flange Rating		ASME		300		
	22	Flange Material	Facing		C.S		RF		
	Transmitter/Switch	23	Other Wetted Parts Material				S.S		
24		Float Dimension	Indicator Housing Material		HOLD		S.S		
25		Output Signal	Load Resistance		N/A		N/A		
26		Switch Type	Switch Quantity		N/A		N/A		
27		Contact Form	Contact Rating		N/A		N/A		
28		Switch 1 Contact Action				N/A			
29		Switch 2 Contact Action				N/A			
30		Calibration Value (for Switch)				N/A			
31		Power Supply	Electrical Connection		N/A		N/A		
32		Explosion Proof	Enclosure Protection		N/A		N/A		
Accessories	33	Housing Material	Integral Indicator		N/A		N/A		
	34								
	35								
	36	Drain Valve	Drain Valve Material		1/2"NPT		S.S		
	37	Vent Valve	Vent Valve Material		N/A		N/A		
	38	Vent Valve Connection	Vent Valve Size		N/A		N/A		
	39	Drain Plug	Vent Plug		N/A		N/A		
	40	Protective Heat Shield				N/A			
	41	Steam Jacket	Jacket Connection Size		N/A		N/A		
	42	Steam Pressure bar(g)				N/A			
Miscell	43	Non Frosting Extension				N/A			
	44	Stilling Well				N/A			
	45	Surge Protection Device				N/A			
	46								
	47	Manufacturer				AZARSAM (Eyvaz Technic)			
	48	Requisition No.							

NOTES: VTA : Vendor to advise VTC : Vendor to confirm N/A : Not Applicable
 1. Vendor shall supply and install Swage Nipple 11/2"THREAD(L) × 3/4" PE(S) for vent and drain connections
 2. COMPABILITY WITH NACE MR0175/ISO 15156 TO BE CONSIDERED FOR WETTED EQUIPEMNT.

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03)						 HAVAYAR INDUSTRIAL GROUP	
		INSTRUMENT DATASHEETS / CERTIFICATES						شماره صفحه: 28 از 39	
شماره پیمان: 053 - 073 - 9184		پروژه	پسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک		
		BK	GCS	HY	120	IN	DS	0001	V03
General	1	Instrument Name				Level gauge			
	2	Tag Number	P&ID No.		C-LG-2213B		BK-GCS-HY-120-PR-PI-0001-Page5B		
	3	Service	Equipment No.				TK-2101-WR B		
	4	Pipe Class	Vessel Material						
	5	Vessel Class							
Process Conditions	6	Upper Fluid	Lower Fluid		Air		Water / Gloycol		
	7	Upper Density kg/m3	Lower Density kg/m3		1.225		1063		
	8	Operating Pressure bar(g)	Design Pressure bar(g)		ATM		3.5		
	9	Operating Temperature °C	Design Temperature °C		70		85		
	10	Upper/Lower Kinetic Viscosity (mm2/S)				-			
	11	Upper/Lower Dynamic Viscosity (cP)				0.0209 / 1.87			
Body & Cage	12	Model/Type				Magnetic			
	13	C to C mm				1350mm			
	14	Allowable Oper. Temp. °C	Pressure Rating						
	15	Mounting Style	Connection Orientation		External		Side-Side		
	16	Visible Length mm			1250mm				
	17	Scale Unit/Material	Accuracy		Cm		5mm		
	18	Indicator Type	Indicator Colour		Magnetic		Flag/White & red		
	19	Chamber Material	Float Material		S.S		S.S		
	20	Connection Type	Connection Size		Flange		2"		
	21	Flange Standard	Flange Rating		ASME		300		
	22	Flange Material	Facing		C.S		RF		
	Transmitter/Switch	23	Other Wetted Parts Material				S.S		
24		Float Dimension	Indicator Housing Material		HOLD		S.S		
25		Output Signal	Load Resistance		N/A		N/A		
26		Switch Type	Switch Quantity		N/A		N/A		
27		Contact Form	Contact Rating		N/A		N/A		
28		Switch 1 Contact Action				N/A			
29		Switch 2 Contact Action				N/A			
30		Calibration Value (for Switch)				N/A			
31		Power Supply	Electrical Connection		N/A		N/A		
32		Explosion Proof	Enclosure Protection		N/A		N/A		
33		Housing Material	Integral Indicator		N/A		N/A		
Accessories		34							
	35								
	36	Drain Valve	Drain Valve Material		1/2"NPT		S.S		
	37	Vent Valve	Vent Valve Material		N/A		N/A		
	38	Vent Valve Connection	Vent Valve Size		N/A		N/A		
	39	Drain Plug	Vent Plug		N/A		N/A		
	40	Protective Heat Shield				N/A			
	41	Steam Jacket	Jacket Connection Size		N/A		N/A		
	42	Steam Pressure bar(g)				N/A			
	43	Non Frosting Extension				N/A			
Miscell	44	Stilling Well				N/A			
	45	Surge Protection Device				N/A			
	46								
	47	Manufacturer				AZARSAM (Eyvaz Technic)			
	48	Requisition No.							
NOTES: VTA : Vendor to advise VTC : Vendor to confirm N/A : Not Applicable 1. Vendor shall supply and install Swage Nipple 11/2"THREAD(L) × 3/4" PE(S) for vent and drain connections 2. COMPABILITY WITH NACE MR0175/ISO 15156 TO BE CONSIDERED FOR WETTED EQUIPEMNT.									

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03)						 HAVAYAR INDUSTRIAL GROUP	
		INSTRUMENT DATASHEETS / CERTIFICATES						شماره صفحه: 29 از 39	
شماره پیمان: 053 - 073 - 9184		پروژه	پسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک		
		BK	GCS	HY	120	IN	DS	0001	V03
General	1	Instrument Name				Level gauge			
	2	Tag Number	P&ID No.		C-LG-2213C		BK-GCS-HY-120-PR-PI-0001-Page5C		
	3	Service	Equipment No.				TK-2101-WR C		
	4	Pipe Class	Vessel Material						
	5	Vessel Class							
Process Conditions	6	Upper Fluid	Lower Fluid		Air		Water / Glycol		
	7	Upper Density kg/m3	Lower Density kg/m3		1.225		1063		
	8	Operating Pressure bar(g)	Design Pressure bar(g)		ATM		3.5		
	9	Operating Temperature °C	Design Temperature °C		70		85		
	10	Upper/Lower Kinetic Viscosity (mm2/S)				-			
Body & Cage	11	Upper/Lower Dynamic Viscosity (cP)				0.0209 / 1.87			
	12	Model/Type				Magnetic			
	13	C to C mm				1350mm			
	14	Allowable Oper. Temp. °C	Pressure Rating						
	15	Mounting Style	Connection Orientation		External		Side-Side		
	16	Visible Length mm			1250mm				
	17	Scale Unit/Material	Accuracy		Cm		5mm		
	18	Indicator Type	Indicator Colour		Magnetic		Flag/White & red		
	19	Chamber Material	Float Material		S.S		S.S		
	20	Connection Type	Connection Size		Flange		2"		
	21	Flange Standard	Flange Rating		ASME		300		
	22	Flange Material	Facing		C.S		RF		
	23	Other Wetted Parts Material				S.S			
	24	Float Dimension	Indicator Housing Material		HOLD		S.S		
	Transmitter/Switch	25	Output Signal	Load Resistance		N/A		N/A	
26		Switch Type	Switch Quantity		N/A		N/A		
27		Contact Form	Contact Rating		N/A		N/A		
28		Switch 1 Contact Action				N/A			
29		Switch 2 Contact Action				N/A			
30		Calibration Value (for Switch)				N/A			
31		Power Supply	Electrical Connection		N/A		N/A		
32		Explosion Proof	Enclosure Protection		N/A		N/A		
33		Housing Material	Integral Indicator		N/A		N/A		
34									
Accessories		35							
	36	Drain Valve	Drain Valve Material		1/2"NPT		S.S		
	37	Vent Valve	Vent Valve Material		N/A		N/A		
	38	Vent Valve Connection	Vent Valve Size		N/A		N/A		
	39	Drain Plug	Vent Plug		N/A		N/A		
	40	Protective Heat Shield				N/A			
	41	Steam Jacket	Jacket Connection Size		N/A		N/A		
	42	Steam Pressure bar(g)				N/A			
	43	Non Frosting Extension				N/A			
	44	Stilling Well				N/A			
Miscell	45	Surge Protection Device				N/A			
	46								
Miscell	47	Manufacturer				AZARSAM (Eyvaz Technic)			
	48	Requisition No.							

NOTES: VTA : Vendor to advise VTC : Vendor to confirm N/A : Not Applicable

1. Vendor shall supply and install Swage Nipple 11/2"THREAD(L) × 3/4" PE(S) for vent and drain connections

2. COMPABILITY WITH NACE MR0175/ISO 15156 TO BE CONSIDERED FOR WETTED EQUIPEMNT.

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03)					 HAVAYAR INDUSTRIAL GROUP		
شماره پیمان: 053 - 073 - 9184		INSTRUMENT DATASHEETS / CERTIFICATES							شماره صفحه: 30 از 39
		نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	
		V03	0001	DS	IN	120	HY	GCS	BK
General	1	Instrument Name			Diff. Press. Level Transmitter				
	2	Tag Number	P&ID No.		C-LT-2213A		BK-GCS-HY-120-PR-PI-0001-Page5A		
	3	Service	Pipe / Equipment No.		1601-CC-001A		TK-2101-WR C		
	4	Pipe Class	Vessel Material		-				
	5	Vessel Class							
	6	Upper Fluid / Phase	Lower Fluid / Phase		Air / Gas		Water-Glycol / Liquid		
	7	Upper Density(kg/m3)	Lower Density(kg/m3)		1.225		1063		
	8	Operating Pressure bar(g)	Design Pressure bar(g)		ATM		3.5		
	9	Operating Temperature °C	Design Temperature °C		70		85		
	10	Upper/Lower Dynamic Viscosity (cP)				0.0209 / 1.87			
	11	C to C mm				-			
Transmitter	12	Model			3051				
	13	Type	Accuracy		DP level Transmitter		+/- 0.1% Full Scale		
	14	Available Range	Calibration Range (bar)		-6350~6350 mmH2O		0-1350mmH2O		
	15	Output Signal	Power Supply		HART 4-20mA		24VDC Loop Powered		
	16	Load Resistance(Ω)			250 ohms				
	17	Zero Elevation & Suppression				Yes			
	18	Electrical Connection			ISO M20				
	19	Explosion Proof	Enclosure Protection		EXia (Zone 2 IIB T4)		IP65		
	20	Response Time	Housing Material		N/A		Epoxy Painted Die Cast Aluminum Copper Free		
	21	Failure Mode Alarm			Up Scale				
	22	Element Type	Element Material		Diaphragm (VTC)		316SS		
	23	Max. Static Pressure (barg)	Allowable Oper. Temp. °C		135barg		85 °C		
	24	Body Material	Flange Material		316SS		ASTM A105		
Sensing & Body	25	Process Connection	Flange Standard		2"		ASME B16.5		
	26	Overrange Protection	Connector Material		130 %		316SS		
	27	Vent/Drain Type&Size	Vent/Drain Material		1/4"NPT		316SS		
	28	Gasket/O-Ring Material	Bolts Material		PTFE		ASTM A449		
Diaphragm Seal	29	Seal Type			N/A		N/A		
	30	Extended Length	Extended Material		N/A		N/A		
	31	Diaphragm Diameter	Diaphragm Material		N/A		N/A		
	32	Capillary Material	Capillary Length H/L		N/A		N/A		
	33	Capillary Armor Material	Fill Fluid		N/A		N/A		
	34	Fill Fluid Temperature Limits	Fill Fluid Density		N/A		N/A		
	35	Connection Type	Size		N/A		N/A		
	36	Flange Standard	Flange Rating		N/A		N/A		
	37	Flange Material	Facing		N/A		N/A		
	38	Flushing Connection			N/A		N/A		
Indicator	39	Indicator Type	Display		Integral LCD type		Digital		
	40	Mounting Bracket	Remo. Indic. Connection		No		YES		
Manifold	41	Manifold Model	Manifold Type		VTA		5 Way		
	42	Manifold Rating	Manifold Material		Min. CL 3000		316 SS		
	43	Manifold Connection			1/2" PROCESS SIDE/FLANG INST SIDE				
Accessories	44	Mounting Bracket	Bracket Material		Yes / 2" Pipe		316SS		
	45	Add Corrosive Envir. Enclosure	Surge Protected Device		N/A		N/A		
	46								
Miscell	47	Manufacturer	Rosemount 3051CD2A2B21BB411						
	48	Requisition No.							

متريال پيچ و مهره بايستي مطابق PMS پروژه باشد
 هوايار: پيچ و مهره اشاره شده مربوط به اجزای خود ترنسميزر است و طبق PMS نمی باشد

NOTES:

VTa : Vendor To Advise

VTC : Vendor To Confirm

N/A : Not Applicable

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03)						 HAVAYAR INDUSTRIAL GROUP	
		شماره صفحه: 31 از 39							
شماره پیمان: 053 - 073 - 9184		INSTRUMENT DATASHEETS / CERTIFICATES						نسخه V03	
		پروژه BK	بسته کاری GCS	صادر کننده HY	تسهیلات 120	رشته IN	نوع مدرک DS		
General	1	Instrument Name			Diff. Press. Level Transmitter				
	2	Tag Number		P&ID No.		C-LT-2213B		BK-GCS-HY-120-PR-PI-0001-Page5B	
	3	Service		Pipe / Equipment No.				TK-2101-WR B	
	4	Pipe Class		Vessel Material		-			
	5	Vessel Class							
	6	Upper Fluid / Phase		Lower Fluid / Phase		Air / Gas		Water-Glycol / Liquid	
	7	Upper Density(kg/m3)		Lower Density(kg/m3)		1.225		1063	
	8	Operating Pressure bar(g)		Design Pressure bar(g)		ATM		3.5	
	9	Operating Temperature °C		Design Temperature °C		70		85	
	10	Upper/Lower Dynamic Viscosity (cP)						0.0209 / 1.87	
	11	C to C mm						-	
Transmitter	12	Model				3051			
	13	Type		Accuracy		DP level Transmitter		+/- 0.1% Full Scale	
	14	Available Range		Calibration Range (bar)		-6350~6350 mmH2O		0-1350mmH2O	
	15	Output Signal		Power Supply		HART 4-20mA		24VDC Loop Powered	
	16	Load Resistance(Ω)				250 ohms			
	17	Zero Elevation & Suppression						Yes	
	18	Electrical Connection				ISO M20			
	19	Explosion Proof		Enclosure Protection		EXia (Zone 2 IIB T4)		IP65	
	20	Response Time		Housing Material		N/A		Epoxy Painted Die Cast Aluminum Copper Free	
	21	Failure Mode Alarm				Up Scale			
	22	Element Type		Element Material		Diaphragm (VTC)		316SS	
Sensing & Body	23	Max. Static Pressure (barg)		Allowable Oper. Temp. °C		135barg		85 °C	
	24	Body Material		Flange Material		316SS		ASTM A105	
	25	Process Connection		Flange Standard		2"		ASME B16.5	
	26	Overrange Protection		Connector Material		130 %		316SS	
Diaphragm Seal	27	Vent/Drain Type&Size		Vent/Drain Material		1/4"NPT		316SS	
	28	Gasket/O-Ring Material		Bolts Material		PTFE		ASTM A449	
	29	Seal Type				N/A		N/A	
	30	Extended Length		Extended Material		N/A		N/A	
	31	Diaphragm Diameter		Diaphragm Material		N/A		N/A	
	32	Capillary Material		Capillary Length H/L		N/A		N/A	
	33	Capillary Armor Material		Fill Fluid		N/A		N/A	
	34	Fill Fluid Temperature Limits		Fill Fluid Density		N/A		N/A	
	35	Connection Type		Size		N/A		N/A	
	36	Flange Standard		Flange Rating		N/A		N/A	
	37	Flange Material		Facing		N/A		N/A	
	38	Flushing Connection				N/A		N/A	
Indicator	39	Indicator Type		Display		Integral LCD type		Digital	
	40	Mounting Bracket		Remo. Indic. Connection		No		YES	
Manifold	41	Manifold Model		Manifold Type		VTA		5 Way	
	42	Manifold Rating		Manifold Material		Min. CL 3000		316 SS	
	43	Manifold Connection				1/2" PROCESS SIDE/FLANG INST SIDE			
Accessories	44	Mounting Bracket		Bracket Material		Yes / 2" Pipe		316SS	
	45	Add Corrosive Envir. Enclosure		Surge Protected Device		N/A		N/A	
	46								
Miscell	47	Manufacturer				Rosemount 3051CD2A2B21BB411			
	48	Requisition No.							

ریال پیچ و مهره بایستی
 مطابق PMS پروژه باشد
 ایار: پیچ و مهره اشاره
 ه مربوط به اجزای خود
 نسیمتر است و طبق
 PM نمی باشد

NOTES:

VTA : Vendor To Advise

VTC : Vendor To Confirm

N/A : Not Applicable

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد 03-BK-HD-GCS-CO-0008)						 HAVAYAR INDUSTRIAL GROUP		
		INSTRUMENT DATASHEETS / CERTIFICATES								
شماره پیمان: 053 - 073 - 9184		نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	پروژه	شماره صفحه: 32 از 39
		V03	0001	DS	IN	120	HY	GCS	BK	
General	1	Instrument Name			Diff. Press. Level Transmitter					
	2	Tag Number	P&ID No.		C-LT-2213C		BK-GCS-HY-120-PR-PI-0001-Page5C			
	3	Service	Pipe / Equipment No.				TK-2101-WR C			
	4	Pipe Class	Vessel Material		-					
	5	Vessel Class								
	6	Upper Fluid / Phase	Lower Fluid / Phase		Air / Gas		Water-Glycol / Liquid			
	7	Upper Density(kg/m3)	Lower Density(kg/m3)		1.225		1063			
	8	Operating Pressure bar(g)	Design Pressure bar(g)		ATM		3.5			
	9	Operating Temperature °C	Design Temperature °C		70		85			
	10	Upper/Lower Dynamic Viscosity (cP)				0.0209 / 1.87				
	11	C to C mm				-				
Transmitter	12	Model			3051					
	13	Type	Accuracy		DP level Transmitter		+/- 0.1% Full Scale			
	14	Available Range	Calibration Range (bar)		-6350~6350 mmH2O		0-1350mmH2O			
	15	Output Signal	Power Supply		HART 4-20mA		24VDC Loop Powered			
	16	Load Resistance(Ω)			250 ohms					
	17	Zero Elevation & Suppression				Yes				
	18	Electrical Connection			ISO M20					
	19	Explosion Proof	Enclosure Protection		EXia (Zone 2 IIB T4)		IP65			
Sensing & Body	20	Response Time	Housing Material		N/A		Epoxy Painted Die Cast Aluminum Copper Free			
	21	Failure Mode Alarm			Up Scale					
	22	Element Type	Element Material		Diaphragm (VTC)		316SS			
	23	Max. Static Pressure (barg)	Allowable Oper. Temp. °C		135barg		85 °C			
	24	Body Material	Flange Material		316SS		ASTM A105			
	25	Process Connection	Flange Standard		2"		ASME B16.5			
	26	Overrange Protection	Connector Material		130 %		316SS			
	27	Vent/Drain Type&Size	Vent/Drain Material		1/4"NPT		316SS			
Diaphragm Seal	28	Gasket/O-Ring Material	Bolts Material		PTFE		ASTM A449			
	29	Seal Type			N/A		N/A			
	30	Extended Length	Extended Material		N/A		N/A			
	31	Diaphragm Diameter	Diaphragm Material		N/A		N/A			
	32	Capillary Material	Capillary Length H/L		N/A		N/A			
	33	Capillary Armor Material	Fill Fluid		N/A		N/A			
	34	Fill Fluid Temperature Limits	Fill Fluid Density		N/A		N/A			
	35	Connection Type	Size		N/A		N/A			
	36	Flange Standard	Flange Rating		N/A		N/A			
	37	Flange Material	Facing		N/A		N/A			
Indicator	38	Flushing Connection			N/A		N/A			
	39	Indicator Type	Display		Integral LCD type					
Manifold	40	Mounting Bracket	Remo. Indic. Connection		No					
	41	Manifold Model	Manifold Type		VTA					
	42	Manifold Rating	Manifold Material		Min. CL 3000					
Accessories	43	Manifold Connection			1/2" PROCESS SIDE/FLANG INST SIDE					
	44	Mounting Bracket	Bracket Material		Yes / 2" Pipe		316SS			
Miscell	45	Add Corrosive Envir. Enclosure	Surge Protected Device		N/A		N/A			
	46									
	47	Manufacturer			Rosemount 3051CD2A2B21BB411					
	48	Requisition No.								

متریاال پیچ و مهره بایستی مطابق PMS پروژه باشد
 هوایار: پیچ و مهره اشاره شده مربوط به اجزای خود ترنسmitter است و طبق PMS نمی باشد.

NOTES:

VTA : Vendor To Advise VTC : Vendor To Confirm N/A : Not Applicable

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03)						 HAVAYAR INDUSTRIAL GROUP		
شماره پیمان: 053 - 073 - 9184		INSTRUMENT DATASHEETS / CERTIFICATES							شماره صفحه: 33 از 39	
		پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال		نسخه
		BK	GCS	HY	120	IN	DS	0001		V03
Data Sheet for Solenoid Valve										
GENERAL	1	TAG NO .	See List							
	2	SERVICE	Instrument Air							
	3	LINE NO,	See List							
	4	QUANTITY	See List							
VALVE BODY	5	TYPE	For single acting							
	6	SIZE- BODY /PORT	See List							
	7	RATING & TYPE CONN.	NPTF							
	8	MATERIAL -BODY	Brass							
	9	MATERIAL -SEAT	MFR STD							
	10	MATERIAL -DIAPHRAGM	N/A							
	11	OPERATION DIRECT / PILOT	Pilot operated							
	12	MANUAL RESET	N/A							
	13	MANUAL OPERATOR	N/A							
	14	PAINTING	N/A							
WHEN DEENERGIZED	15	2 WAY VALVE/3 Way	3Way							
	16	NORMALLY OPEN/CLOSE	TAG C-SV-2201~4A/B/C N.C TAG C-SV-2205A/B/C N.O							
	17	EXTERNAL OVERRIDE	No							
SOLENOID	18	ENCLOSURE	IP 66							
	19	VOLTAGE/POWER	24 VDC /11W							
	20	STYLE OF COIL	MFR STD							
	21	SINGLE OR DOUBLE COIL	SINGLE							
	22	INSULATION CLASS	F							
	23	ENCLOSURE MATERIAL	ALUMINUM							
	24	CERTIFICATION	Eex 'd'-IIB-T4							
	25	ELEC. ENTRY	M20x1.5 ISO							
SERVICE CONDITIONS	26	FLUID	Instrument Air							
	27	OPER.DIFF.MIN (BAR)	See List							
	28	OPER.DIFF.MAX (BAR)	See List							
	29	TEMP. NORMAL /MAX	See List							
	30	SP.GR	1.0							
	31	VISCOSITY	N/A							
	32	VALVE CV	V.T.A							
	33	MANUFACTURER	ASCO							
	34	MODEL NO.								
NOTE: VTA:Vendor To Advise N/A:Not Applicable										

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03)							 HAVAYAR INDUSTRIAL GROUP		
شماره پیمان: 053 - 073 – 9184		INSTRUMENT DATASHEETS / CERTIFICATES							شماره صفحه: 34 از 39		
		پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال			نسخه
		BK	GCS	HY	120	IN	DS	0001			V03
List of SOV											
ITEM NO.	TAG NO.	SERVICE	LINE NO. / EQUIPMENT NO.	P&ID No.	OPERATING/DESIGN NPRESSURE (Barg)	TEMPERATURE (C)		SOLENOID VALVE SIZE	REMARKS		
					Min. / Des.	Norm. / Design					
1	C-SV-2201A	Instrument Air	3/8" SS316L Tubing	BK-GCS-HY-120-PR-PI-0001-Page2A	6 / 12.5	65 / 85		3/8"			
2	C-SV-2202A	Instrument Air	3/8" SS316L Tubing	BK-GCS-HY-120-PR-PI-0001-Page2A	6 / 12.5	65 / 85		3/8"			
3	C-SV-2203A	Instrument Air	3/8" SS316L Tubing	BK-GCS-HY-120-PR-PI-0001-Page2A	6 / 12.5	65 / 85		3/8"			
4	C-SV-2204A	Instrument Air	3/8" SS316L Tubing	BK-GCS-HY-120-PR-PI-0001-Page2A	6 / 12.5	65 / 85		3/8"			
5	C-SV-2205A	Instrument Air	1/2" SS316L Tubing	BK-GCS-HY-120-PR-PI-0001-Page2A	6 / 12.5	65 / 85		1/2"			
6	C-SV-2201B	Instrument Air	3/8" SS316L Tubing	BK-GCS-HY-120-PR-PI-0001-Page2B	6 / 12.5	65 / 85		3/8"			
7	C-SV-2202B	Instrument Air	3/8" SS316L Tubing	BK-GCS-HY-120-PR-PI-0001-Page2B	6 / 12.5	65 / 85		3/8"			
8	C-SV-2203B	Instrument Air	3/8" SS316L Tubing	BK-GCS-HY-120-PR-PI-0001-Page2B	6 / 12.5	65 / 85		3/8"			
9	C-SV-2204B	Instrument Air	3/8" SS316L Tubing	BK-GCS-HY-120-PR-PI-0001-Page2B	6 / 12.5	65 / 85		3/8"			
10	C-SV-2205B	Instrument Air	1/2" SS316L Tubing	BK-GCS-HY-120-PR-PI-0001-Page2B	6 / 12.5	65 / 85		1/2"			
11	C-SV-2201C	Instrument Air	3/8" SS316L Tubing	BK-GCS-HY-120-PR-PI-0001-Page2C	6 / 12.5	65 / 85		3/8"			
12	C-SV-2202C	Instrument Air	3/8" SS316L Tubing	BK-GCS-HY-120-PR-PI-0001-Page2C	6 / 12.5	65 / 85		3/8"			
13	C-SV-2203C	Instrument Air	3/8" SS316L Tubing	BK-GCS-HY-120-PR-PI-0001-Page2C	6 / 12.5	65 / 85		3/8"			
14	C-SV-2204C	Instrument Air	3/8" SS316L Tubing	BK-GCS-HY-120-PR-PI-0001-Page2C	6 / 12.5	65 / 85		3/8"			
15	C-SV-2205C	Instrument Air	1/2" SS316L Tubing	BK-GCS-HY-120-PR-PI-0001-Page2C	6 / 12.5	65 / 85		1/2"			

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03)						 HAVAYAR INDUSTRIAL GROUP	
		INSTRUMENT DATASHEETS / CERTIFICATES							
شماره پیمان: 053 - 073 - 9184		شماره صفحه: 35 از 39							
		نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	پروژه
		V03	0001	DS	IN	120	HY	GCS	BK
General	1	Instrument Name			Diff. Press. Level Transmitter				
	2	Tag Number	P&ID No.		C-LT-2200A		BK-GCS-HY-120-PR-PI-0001-Page3A		
	3	Service	Pipe / Equipment No.		crankcase				
	4	Pipe Class	Vessel Material		-				
	5	Vessel Class							
	6	Upper Fluid / Phase	Lower Fluid / Phase		Air / Gas		Lubricant Oil / Liquid		
	7	Upper Density(kg/m3)	Lower Density(kg/m3)		1.225		890		
	8	Operating Pressure bar(g)	Design Pressure bar(g)		6		10		
	9	Operating Temperature °C	Design Temperature °C		70		85		
	10	U/L Dynamic Viscosity (cP)			0.021/0.89				
	11	C to C mm							
	12	Model	3051						
	13	Type	Accuracy		DP level Transmitter		+/- 0.1% Full Scale		
	14	Available Range	Calibration Range (bar)		-635~635mmH2O		425mmH2O		
	15	Output Signal	Power Supply		HART 4-20MA		24VDC Loop Powered		
Transmitter	16	Load Resistance(Ω)			250 ohms				
	17	Zero Elevation & Suppression	Yes						
	18	Electrical Connection			ISO M20x1.5				
	19	Explosion Proof	Enclosure Protection		EXia (Zone 2 IIB T4)		IP65		
	20	Response Time	Housing Material		N/A		Epoxy Painted Die Cast Aluminum Copper Free		
	21	Failure Mode Alarm	Up Scale						
	22	Element Type	Element Material		Diaphragm		316SS		
	23	Max. Static Pressure (barg)	Allowable Oper. Temp. °C		135barg		85 °C		
	24	Body Material	Flange Material		316SS		ASTM A105		
	25	Process Connection	Flange Standard		1/2"		ASME B16.5		
Sensing & Body	26	Overrange Protection	Connector Material		130 %		316SS		
	27	Vent/Drain Type&Size	Vent/Drain Material		1/4"NPT		316SS		
	28	Gasket/O-Ring Material	Bolts Material		P		A449		
	29	Seal Type							
	30	Extended Length	Extended Material						
Diaphragm Seal	31	Diaphragm Diameter	Diaphragm Material						
	32	Capillary Material	Capillary Length H/L						
	33	Capillary Armor Material	Fill Fluid						
	34	Fill Fluid Temperature Limits	Fill Fluid Density						
	35	Connection Type	Size						
	36	Flange Standard	Flange Rating						
	37	Flange Material	Facing		N/A		N/A		
	38	Flushing Connection			N/A		N/A		
	39	Indicator Type	Display		Integral LCD type		Digital		
	40	Mounting Bracket	Remo. Indic. Connection		No		YES		
Manifold	41	Manifold Model	Manifold Type		VTA		5 Way		
	42	Manifold Rating	Manifold Material		Min. CL 3000		316 SS		
	43	Manifold Connection			1/2" PROCESS SIDE/FLANG INST SIDE				
Accessories	44	Mounting Bracket	Bracket Material		Yes / 2" Pipe		316SS		
	45	Add Corrosive Envir. Enclosure	Surge Protected Device		N/A		N/A		
	46								
Miscell	47	Manufacturer	Rosemount 3051CD1A2B21BB411						
	48	Requisition No.							

متزیل پیچ و مهره بایستی مطابق PMS پروژه باشد
هواپار: پیچ و مهره اشاره شده مربوط به اجزای خود ترنسmitter است و طبق PMS نمی باشد

NOTES:
VTA : Vendor To Advise VTC : Vendor To Confirm N/A : Not Applicable

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد 03-BK-HD-GCS-CO-0008)						 HAVAYAR INDUSTRIAL GROUP	
شماره پیمان: 053 - 073 - 9184		INSTRUMENT DATASHEETS / CERTIFICATES							شماره صفحه: 36 از 39
		نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	
		V03	0001	DS	IN	120	HY	GCS	BK
General	1	Instrument Name			Diff. Press. Level Transmitter				
	2	Tag Number	P&ID No.		C-LT-2200B		BK-GCS-HY-120-PR-PI-0001-Page3B		
	3	Service	Pipe / Equipment No.		crankcase				
	4	Pipe Class	Vessel Material		-				
	5	Vessel Class							
	6	Upper Fluid / Phase	Lower Fluid / Phase		Air / Gas		Lubricant Oil / Liquid		
	7	Upper Density(kg/m3)	Lower Density(kg/m3)		1.225		890		
	8	Operating Pressure bar(g)	Design Pressure bar(g)		6		10		
	9	Operating Temperature °C	Design Temperature °C		70		85		
	10	U/L Dynamic Viscosity (cP)					0.021/0.89		
	11	C to C mm	-						
	12	Model	3051						
	13	Type	Accuracy		DP level Transmitter		+/- 0.1% Full Scale		
	14	Available Range	Calibration Range (bar)		-635~635mmH2O		425mmH2O		
	15	Output Signal	Power Supply		HART 4-20MA		24VDC Loop Powered		
Transmitter	16	Load Resistance(Ω)			250 ohms				
	17	Zero Elevation & Suppression	Yes						
	18	Electrical Connection			ISO M20x1.5				
	19	Explosion Proof	Enclosure Protection		EXia (Zone 2 IIB T4)		IP65		
	20	Response Time	Housing Material		N/A		Epoxy Painted Die Cast Aluminum Copper Free		
	21	Failure Mode Alarm			Up Scale				
	22	Element Type	Element Material		Diaphragm		316SS		
	23	Max. Static Pressure (barg)	Allowable Oper. Temp. °C		135barg		85 °C		
	24	Body Material	Flange Material		316SS		ASTM A105		
	25	Process Connection	Flange Standard		1/2"		ASME B16.5		
Sensing & Body	26	Overrange Protection	Connector Material		130 %		316SS		
	27	Vent/Drain Type&Size	Vent/Drain Material		1/4"NPT		316SS		
	28	Gasket/O-Ring Material	Bolts Material		PTFE		ASTM A449		
	29	Seal Type			N/A				
	30	Extended Length	Extended Material		N/A		N/A		
Diaphragm Seal	31	Diaphragm Diameter	Diaphragm Material		N/A		N/A		
	32	Capillary Material	Capillary Length H/L		N/A		N/A		
	33	Capillary Armor Material	Fill Fluid		N/A				
	34	Fill Fluid Temperature Limits	Fill Fluid Density		N/A				
	35	Connection Type	Size		N/A				
	36	Flange Standard	Flange Rating		N/A				
	37	Flange Material	Facing		N/A				
	38	Flushing Connection			N/A				
	39	Indicator Type	Display		Integral LCD type				
	40	Mounting Bracket	Remo. Indic. Connection		No				
Manifold	41	Manifold Model	Manifold Type		VTA				
	42	Manifold Rating	Manifold Material		Min. CL 3000				
	43	Manifold Connection			1/2" PROCESS SIDE/FLANG INST SIDE				
Accessories	44	Mounting Bracket	Bracket Material		Yes / 2" Pipe		316SS		
	45	Add Corrosive Envir. Enclosure	Surge Protected Device		N/A		N/A		
Miscell	46	Manufacturer	Rosemount 3051CD1A2B21BB411						
	47	Requisition No.							
NOTES: VTA : Vendor To Advise VTC : Vendor To Confirm N/A : Not Applicable									

متریل پیچ و مهره بایستی
 مطابق PMS پروژه باشد
 هواپار: پیچ و مهره اشاره
 شده مربوط به اجزای خود
 ترنسmitter است و طبق
 PMS نمی باشد

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد 03 BK-HD-GCS-CO-0008)						 HAVAYAR INDUSTRIAL GROUP	
		INSTRUMENT DATASHEETS / CERTIFICATES						شماره صفحه: 37 از 39	
شماره پیمان: 053 - 073 - 9184		پروژه BK	بسته کاری GCS	صادر کننده HY	تسهیلات 120	رشته IN	نوع مدرک DS		
General	1	Instrument Name				Diff. Press. Level Transmitter			
	2	Tag Number		P&ID No.		C-LT-2200C		BK-GCS-HY-120-PR-PI-0001-Page3C	
	3	Service		Pipe / Equipment No.		crankcase			
	4	Pipe Class		Vessel Material		-			
	5	Vessel Class							
	6	Upper Fluid / Phase		Lower Fluid / Phase		Air / Gas		Lubricant Oil / Liquid	
	7	Upper Density(kg/m3)		Lower Density(kg/m3)		1.225		890	
	8	Operating Pressure bar(g)		Design Pressure bar(g)		6		10	
	9	Operating Temperature °C		Design Temperature °C		70		85	
	10	U/L Dynamic Viscosity (cP)				0.021/0.89			
	11	C to C mm				-			
Transmitter	12	Model				3051			
	13	Type		Accuracy		DP level Transmitter		+/- 0.1% Full Scale	
	14	Available Range		Calibration Range (bar)		-635~635mmH2O		425mmH2O	
	15	Output Signal		Power Supply		HART 4-20MA		24VDC Loop Powered	
	16	Load Resistance(Ω)				250 ohms			
	17	Zero Elevation & Suppression				Yes			
	18	Electrical Connection				ISO M20x1.5			
	19	Explosion Proof		Enclosure Protection		EXia (Zone 2 IIB T4)		IP65	
	20	Response Time		Housing Material		N/A		Epoxy Painted Die Cast Aluminum Copper Free	
	21	Failure Mode Alarm				Up Scale			
	22	Element Type		Element Material		Diaphragm		316SS	
	23	Max. Static Pressure (barg)		Allowable Oper. Temp. °C		135barg		85 °C	
	24	Body Material		Flange Material		316SS		ASTM A105	
	25	Process Connection		Flange Standard		1/2"		ASME B16.5	
Sensing & Body	26	Overrange Protection		Connector Material		130 %		316SS	
	27	Vent/Drain Type&Size		Vent/Drain Material		1/4"NPT		316SS	
	28	Gasket/O-Ring Material		Bolts Material		PTFE		ASTM A449	
Diaphragm Seal	29	Seal Type				N/A			
	30	Extended Length		Extended Material		N/A		N/A	
	31	Diaphragm Diameter		Diaphragm Material		N/A		N/A	
	32	Capillary Material		Capillary Length H/L		N/A		N/A	
	33	Capillary Armor Material		Fill Fluid		N/A		N/A	
	34	Fill Fluid Temperature Limits		Fill Fluid Density		N/A		N/A	
	35	Connection Type		Size		N/A		N/A	
	36	Flange Standard		Flange Rating		N/A		N/A	
	37	Flange Material		Facing		N/A		N/A	
	38	Flushing Connection				N/A		N/A	
Indicator	39	Indicator Type		Display		Integral LCD type		Digital	
	40	Mounting Bracket		Remo. Indic. Connection		No		YES	
Manifold	41	Manifold Model		Manifold Type		VTA		5 Way	
	42	Manifold Rating		Manifold Material		Min. CL 3000		316 SS	
	43	Manifold Connection				1/2" PROCESS SIDE/FLANG INST SIDE			
Accessories	44	Mounting Bracket		Bracket Material		Yes / 2" Pipe		316SS	
	45	Add Corrosive Envir. Enclosure		Surge Protected Device		N/A		N/A	
Miscell	46	Manufacturer				Rosemount			
	47	Requisition No.				3051CD1A2B21BB411			

تریال پیچ و مهره بایستی مطابق PMS پروژه باشد

NOTES:

VTA : Vendor To Advise

VTC : Vendor To Confirm

N/A : Not Applicable

		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنيه تحت الارض خرید پکیج های کمپرسور گاز (رقت و برگشتی) بینک (فرار داد BK-HD-GCS-CO-0008_03)							
شماره پیمان: 053 - 073 - 9184		INSTRUMENT DATASHEETS / CERTIFICATES						شماره صفحه: 38 از 39	
		پروژه	بسته کاری	صادر کننده	تجهیزات	رشته	نوع مدارک	سریال	نسخه
		BK	GCS	HY	120	IN	DS	0001	V03
Instrument Data Sheet For Pressure Switch									
GENERAL					SWITCH				
1	Press. ●	Vacuum ○			8	Type:	Mercury ○	Snap ●	
	Comp. ○	Diff. Press. ○					Other :		
2	Set In Field ●	Factory Set			9	Quantity:	Single ○	Dual	●
	Internal ●	External ○	Dial		10	Form:	SPST ○	SPDT ○	DPDT ●
3	Fixed	Adj. ●	Min. ○			Other:			
ELEMENT					11	Max Rating:	10 Amps	24vdc	
4	Diaphragm ●	Bourdon ○	Bellows ○			Other:			
					12	Load:	Inductive ○	Non-Inductive ●	
5	Material	Aluminum			13	IP	IP66 Exd/IIB T4	SIL Certified	
6	Connection 1/2"NPT ●	Other Size :			14	Electrical Connection:	M20x1.5		
	Bottom ●	Back			15	Manufacturer & Model No.	Wika		
7	Local ●	Surface ○	Flush		16	Accessories	Manifold 2Valve		
Tag No.	Process Connection	Adj. Range (Bar G)	Set Point (Bar G)	Pressure		Service or Line Number		Remark	
PS-2133A	1 " NPT	10~100	57	Design	Working	GAS-111-0051A-FN05-6"-IS		Nace material Loose item	
C-PS-2204A	1 " NPT	0~10	1.2	10Bar	5 Bar	OIL-112-0008A-S.S-2"-IS			
C-PS-2220A	1 " NPT	0~10	2	10Bar	3 Bar	CWS-112-0002A-C.S-3"-IS			
PS-2133B	1 " NPT	10~100	57	62Bar	54.9Bar	GAS-111-0051A-FN05-6"-IS		Nace material Loose item	
C-PS-2204B	1 " NPT	0~10	1.2	10Bar	5 Bar	OIL-112-0008A-S.S-2"-IS			
C-PS-2220B	1 " NPT	0~10	2	10Bar	3Bar	CWS-112-0002A-C.S-3"-IS			
PS-2133C	1 " NPT	10~100	57	62Bar	54.9Bar	GAS-111-0051A-FN05-6"-IS		Nace material Loose item	
C-PS-2204C	1 " NPT	0~10	1.2	10Bar	5 Bar	OIL-112-0008A-S.S-2"-IS			
C-PS-2220C	1 " NPT	0~10	2	10Bar	3Bar	CWS-112-0002A-C.S-3"-IS			

		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج های کمپرسور گاز (رفت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03)					
شماره پیمان: 053 - 073 - 9184		INSTRUMENT DATASHEETS / CERTIFICATES				شماره صفحه: 39 از 39	
		پروژه	پسینه کاری	صادر کننده	تسهیلات	رشته	نوع مدرک
		BK	GCS	HY	120	IN	DS
							0001
							V03
Instrument Data Sheet For Temperature Switch							
GENERAL							
1.TAG.NO		C-TS-2191A	C-TS-2194A	C-TS-2191B	C-TS-2194B	C-TS-2191C	C-TS-2194C
2.Equipment		1ST STAGE DISCHARGE SNUBBER	2ND STAGE DISCHARGE SNUBBER	1ST STAGE DISCHARGE SNUBBER	2ND STAGE DISCHARGE SNUBBER	1ST STAGE DISCHARGE SNUBBER	2ND STAGE DISCHARGE SNUBBER
3.ENCLOSURE MATERIAL		Cast Aluminum	Cast Aluminum	Cast Aluminum	Cast Aluminum	Cast Aluminum	Cast Aluminum
4.SERVICE		Gas	Gas	Gas	Gas	Gas	Gas
5.RANGE		0-200C	0-200'C	0-200'C	0-200'C	0-200'C	0-200'C
6.Ingress Protection		IP 66/Exd-IIB-T4 SIL Certified					
THERMOWELL							
7.TYPE SYSTEM		Flnager/Rf	Flange/Rf	Flange/Rf	Flange/Rf	Flange/Rf	Flange/Rf
8 MATERIAL		AISI 316/Nace	AISI 316/Nace	AISI 316/Nace	AISI 316/Nace	AISI 316/Nace	AISI 316/Nace
9.CONNECTION LOCATION		Bottom	Bottom	Bottom	Bottom	Bottom	Bottom
10.TUBING LENGTH		N/A	N/A	N/A	N/A	N/A	N/A
11.TUBING TYPE & MATERIAL		N/A	N/A	N/A	N/A	N/A	N/A
12.WELL CONN.SIZE & TYPE		2"#300	2"#600	2"#300	2"#600	2"#300	2"#600
13.WELL MATERIAL		316 S.S	316 S.S	316 S.S	316 S.S	316 S.S	316 S.S
14.'U' DIMENSION(NOMINAL)		500mm	500mm	500mm	500mm	500mm	500mm
SWITCH							
15.TYPE		Snap Action	Snap Action	Snap Action	Snap Action	Snap Action	Snap Action
16.QUANTITY	FORM	1/DPDT	1/DPDT	1/DPDT	1/DPDT	1/DPDT	1/DPDT
17.ENCLOSURE		IP66	IP66	IP66	IP66	IP66	IP66
18.RATING:VOLTS		24 VDC	24 VDC	24 VDC	24 VDC	24 VDC	24 VDC
19.AMPS		2	2	2	2	2	5
20.LOAD TYPE		INDUCTIVE	INDUCTIVE	INDUCTIVE	INDUCTIVE	INDUCTIVE	INDUCTIVE
21.DIFF.:FIXED	ADJUST	YES/-	YES/-	YES/-	YES/-	YES/-	YES/-
22.ELECTRICAL CONNECTION		M20*1.5	M20*1.5	M20*1.5	M20*1.5	M20*1.5	M20*1.5
23.Accuracy		1% Of Spna	1% Of Spna	1% Of Spna	1% Of Spna	1% Of Spna	1% Of Spna
SERVICE CONDITIONS							
27.TEMP.:OPER 'C		129'C	148'C	129'C	148'C	129'C	148'C
28.PRESS.:OPER BARG		18	54.9	18	54.9	18	54.9
29.TRIP POINT 'C		150	170	150	170	150	170
30.MANUFACTURER'S MODEL NO.		Ashcroft	Ashcroft	Ashcroft	Ashcroft	Ashcroft	Ashcroft

Design pressure to be specified.
 HY: Will be added.
 1St 24.5 barg
 2St 62barg