



NISOC

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_۰۰۰۸-CO-GCS-HD-BK)



INSTRUMENT DATASHEETS / CERTIFICATES

نسخه	سریال	نوع	رشته	تسهیلات	صادرکننده	بسته کاری	پروژه
V02	0001	DS	IN	120	HY	GCS	BK

شماره صفحه: 1 از 42

طرح نگهداشت و افزایش تولید ۲۷ مخزن

INSTRUMENT DATASHEETS / CERTIFICATES

نگهداشت و افزایش تولید میدان نفتی بینک

V02	Dec..2023	IFR	Havayar	M.Fakharian	S.Faramarzpour	
V01	Nov.2023	IFR	Havayar	M.Fakharian	S.Faramarzpour	
V00	SEP.2023	IFR	Havayar	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



NISOC

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)



INSTRUMENT DATASHEETS / CERTIFICATES

نسخه	سریال	نوع	رشته	تسهیلات	صادر کنند	بسته کاری	پروژه
V02	0001	DS	IN	120	HY	GCS	BK

شماره صفحه: 2 از 42

REVISION RECORD SHEET

Page	V00	V01	V02	V03	V04
1	X	X	X		
2	X	X	X		
3	X	X	X		
4	X	X	X		
5	X	X	X		
6	X	X	X		
7	X	X	X		
8	X	X	X		
9	X	X	X		
10	X	X	X		
11	X	X	X		
12	X	X	X		
13	X	X	X		
14	X	X	X		
15	X	X	X		
16	X	X	X		
17	X	X	X		
18	X	X	X		
19	X	X	X		
20	X	X	X		
21	X	X	X		
22	X	X	X		
23	X	X	X		
24	X	X	X		
25	X	X	X		
26	X	X	X		
27	X	X	X		
28	X	X	X		
29	X	X	X		
30	X	X	X		
31	X	X	X		
32	X	X	X		
33	X	X	X		
34	X	X	X		
35	X	X	X		
36	X	X	X		
37	X	X	X		
38	X	X	X		
39	X	X	X		
40	X	X	X		
41	X	X	X		
42			X		
43					
44					

Page	V00	V01	V02	V03	V04
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41					
42					
43					
44					



NISOC

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)



INSTRUMENT DATASHEETS / CERTIFICATES

شماره صفحه: 3 از 42

نسخه	سریال	نوع	رشته	تسهیلات	صادر کننده	بسته کاری	پروژه
V02	0001	DS	IN	120	HY	GCS	BK

Table of Content

Page	Content
1	Cover
2	Revised Pages
3	Table of Content
4	Pressure Gauge
5	Pressure trasmitter data sheet
6	Pressure trasmitter List
7	Tempearture Gauge
8	Tempearture Trasmitter data sheet
9	Tempearture Trasmitter List
10	Diff Pressure trasmitter data sheet
11	Diff Pressure trasmitter List
12	Diff Pressure Gauge data sheet
13	Flow indicator Comp C-2101A
14	Flow indicator Comp C-2101B
15	Flow indicator Comp C-2101C
16	Sight Glass data sheet
17	Sight Glass data List
18	Flow transmitter 2121A
19	Flow transmitter 2131A
20	Flow transmitter C-2206A
21	Flow transmitter 2121B
22	Flow transmitter 2131B
23	Flow transmitter C-2206B
24	Flow transmitter 2121C
25	Flow transmitter 2131C
26	Flow transmitter C-2206C
27	Level gauge C-LG-2213A
28	Level gauge C-LG-2213B
29	Level gauge C-LG-2213C
30	Level Transmitter C-LT-2213A
31	Level Transmitter C-LT-2213B
32	Level Transmitter C-LT-2213C
33	Solenoid Data sheet
34	Solenoid List
35	Vibration & rod drop data sheet C-2101A
36	Vibration & rod drop data sheet C-2101B
37	Vibration & rod drop data sheet C-2101C
38	Level Transmitter C-LT-2200A
39	Level Transmitter C-LT-2200B
40	Level Transmitter C-LT-2200C
41	Pressure switch data Sheet
42	Temp switch data Sheet
43	
44	

Page	V00	V01	V02	V03	V04
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41					
42					
43					
44					



شماره پیمان:
053 - 073 - 9184

نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض و ابنيه تحت الارض
خرید پنکیج های کمپرسور گاز (رقت و برگشتی) بینک
(قرارداد BK-HD-GCS-CO-0008_03)



شماره صفحه: 4 از 42

INSTRUMENT DATASHEETS / CERTIFICATES

نسخه	سربرگ	نوع مدرک	رشته	تسهلات	صنعت کننده	پشته کاری	پروژه
V02	0001	DS	IN	120	HY	GCS	BK

Data Sheet for Pressure Gauge

1	Type :	Direct Rdg. ☒ Other ☐ liquid filled	3-15 lb Reciever ☐	11	MFR. & Model No.	SANGAN PG-20	
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 ☐ 316SS	Steel ☐
4	Case :	Cast Iron ☐ S.S. ☒	Phenol ☐	14	Socket Mtl. :	Other ☐ Bronze ☐ 316SS	Steel ☐
5	Ring :	Screwed ☒ Hinged ☐ Std ☐ Other ☐	Slip ☐	15	Connection-NPT :	1/4 in. ☐ 1/2 in. ☒ Other ☐ NPTM (refer to note)	
6	Blow-out Protection :	Solid Front ☒ Plastic ☐	Back ☐ Disc ☒	16	Movement:	Other ☐ Stainless Steel	
7	Lens :	Glass ☒ Plastic ☐	Other ☐ Safety Glass (shatter proof)	17	Diaphragm Seal	Nylon ☐ As per List ☐	Type ☐ Other Mtl. ☐
8	Options :	☒ As per List		18	Ingress Protection :	IP 65	
9	Nominal Accuracy Required :	± 0.5% of full scale		19	Manifold S.S.316 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°)				
1	C-PG-2190A	0-10	Process gas Comp A	24.5	180	4.9	36.8	1ST STAGE SUCTION SNUBBER	BK-GCS-HY-120-PR-PI-0001 Page1	Nace material Over protector Snubber Set point 10 barg	
2	C-PG-2191A	0-40	Process gas Comp A	24.5	180	18	129	1ST STAGE DISCHARGE SNUBBER	BK-GCS-HY-120-PR-PI-0001 Page1	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 Page1	Nace material Over protector Snubber Set point 40 barg	
4	C-PG-2194A	0-100	Process gas Comp A	62	180	54.9	148	2nd STAGE DISCHARGE SNUBBER	BK-GCS-HY-120-PR-PI-0001 Page1	Cooling Element Nace material	
5	C-PG-2200A	0-16	Instrument Air Comp A	12.5	85	8	65	ISA-112-0002A-AZ00-2"-IS	BK-GCS-HY-120-PR-PI-0001 Page2		
6	C-PG-2201A	0-16	Lube Oil Comp A	10	85	6	70	OIL-112-0004A-S.S-1.1/2"-NP	BK-GCS-HY-120-PR-PI-0001 Page3		
7	C-PG-2202A	0-16	Lube Oil Comp A	10	85	6	70	OIL-112-0003A-S.S-2"-NP	BK-GCS-HY-120-PR-PI-0001 Page3		
8	C-PG-2204A	0-16	Lube Oil Comp A	10	85	6	60	OIL-112-0008A-S.S-2"-IS	BK-GCS-HY-120-PR-PI-0001 Page3		
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 Page1	Nace material	
10	C-PG-2206A	0-6	Water console Comp A	7	85	3	65	CWS-112-0003A-C.S-3"-IS	BK-GCS-HY-120-PR-PI-0001 Page5	Pulsation Damper (Snubber)	
11	C-PG-2207A	0-6	Water console Comp A	7	85	3	65	CWS-112-0004A-C.S-3"-IS	BK-GCS-HY-120-PR-PI-0001 Page5	Pulsation Damper (Snubber)	
12	C-PG-2208A	0-6	Water console Comp A	7	85	3	58	CWS-112-0002A-C.S-3"-IS	BK-GCS-HY-120-PR-PI-0001 Page5		
13	C-PG-2190B	0-10	Process gas Comp B	24.5	180	4.9	36.8	1ST STAGE SUCTION SNUBBER	BK-GCS-HY-120-PR-PI-0001 Page1	Nace material Over protector Snubber Set point 10barg	
14	C-PG-2191B	0-40				18	129	1ST STAGE DISCHARGE SNUBBER	BK-GCS-HY-120-PR-PI-0001 Page1	Nace material	
15	C-PG-2193B	0-40				17.1	59.9	2nd STAGE SUCTION SNUBBER	BK-GCS-HY-120-PR-PI-0001 Page1	Nace material Over protector Snubber Set point 40 barg	
16	C-PG-2194B	0-100				54.9	148	2nd STAGE DISCHARGE SNUBBER	BK-GCS-HY-120-PR-PI-0001 Page1	Cooling Element Nace material	
17	C-PG-2200B	0-16				8	65	ISA-112-0002A-AZ00-2"-IS	BK-GCS-HY-120-PR-PI-0001 Page2		
18	C-PG-2201B	0-16				6	70	OIL-112-0004A-S.S-1.1/2"-NP	BK-GCS-HY-120-PR-PI-0001 Page3		
19	C-PG-2202B	0-16				6	70	OIL-112-0003A-S.S-2"-NP	BK-GCS-HY-120-PR-PI-0001 Page3		
20	C-PG-2204B	0-16				6	60	OIL-112-0008A-S.S-2"-IS	BK-GCS-HY-120-PR-PI-0001 Page3		
21	C-PG-2205B	0-6	GAS	5	85	1.5	65	FLR-112-0009A-AN07-1"-IS	BK-GCS-HY-120-PR-PI-0001 Page1	Nace material	
22	C-PG-2206B	0-6	Water console Comp B	7	85	3	65	CWS-112-0003A-C.S-3"-IS	BK-GCS-HY-120-PR-PI-0001 Page5	Pulsation Damper (Snubber)	
23	C-PG-2207B	0-6	Water console Comp B	7	85	3	65	CWS-112-0004A-C.S-3"-IS	BK-GCS-HY-120-PR-PI-0001 Page5	Pulsation Damper (Snubber)	
24	C-PG-2208B	0-6	Water console Comp B	7	85	3	58	CWS-112-0002A-C.S-3"-IS	BK-GCS-HY-120-PR-PI-0001 Page5		
25	C-PG-2190C	0-10	Process gas Comp C	24.5	180	4.9	36.8	1ST STAGE SUCTION SNUBBER	BK-GCS-HY-120-PR-PI-0001 Page1	Nace material Over protector Snubber Set point 10barg	
26	C-PG-2191C	0-40	Process gas Comp C	24.5	180	18	129	1ST STAGE DISCHARGE SNUBBER	BK-GCS-HY-120-PR-PI-0001 Page1	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 Page1	Nace material Over protector Snubber Set point 40 barg	
28	C-PG-2194C	0-100	Process gas Comp C	62	180	54.9	148	2nd STAGE DISCHARGE SNUBBER	BK-GCS-HY-120-PR-PI-0001 Page1	Cooling Element Nace material	
29	C-PG-2200C	0-16	Instrument Air Comp C	12.5	85	8	65	ISA-112-0002A-AZ00-2"-IS	BK-GCS-HY-120-PR-PI-0001 Page2		
30	C-PG-2201C	0-16	Lube Oil Comp C	10	85	6	70	OIL-112-0004A-S.S-1.1/2"-NP	BK-GCS-HY-120-PR-PI-0001 Page3		
31	C-PG-2202C	0-16	Lube Oil Comp C	10	85	6	70	OIL-112-0003A-S.S-2"-NP	BK-GCS-HY-120-PR-PI-0001 Page3		
32	C-PG-2204C	0-16	Lube Oil Comp C	10	85	6	60	OIL-112-0008A-S.S-2"-IS	BK-GCS-HY-120-PR-PI-0001 Page3		
33	C-PG-2205C	0-6	GAS	5	85	1.5	65	FLR-112-0009A-AN07-1"-IS	BK-GCS-HY-120-PR-PI-0001 Page1	Nace material	
34	C-PG-2206C	0-6	Water console Comp C	7	85	3	65	CWS-112-0003A-C.S-3"-IS	BK-GCS-HY-120-PR-PI-0001 Page5	Pulsation Damper (Snubber)	
35	C-PG-2207C	0-6	Water console Comp C	7	85	3	65	CWS-112-0004A-C.S-3"-IS	BK-GCS-HY-120-PR-PI-0001 Page5	Pulsation Damper (Snubber)	
36	C-PG-2208C	0-6	Water console Comp C	7	85	3	58	CWS-112-0002A-C.S-3"-IS	BK-GCS-HY-120-PR-PI-0001 Page5		

با توجه به اینکه این خطوط مربوط به قسمت B می باشد لذا مطابق با P&ID حروف A به تغییر یابد هوایار: اصلاح شد.

با توجه به اینکه این خطوط مربوط به قسمت C می باشد لذا مطابق با P&ID حروف C به تغییر یابد هوایار: اصلاح 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 BK-HD-GCS-CO-0008)						 HAVAYAR INDUSTRIAL GROUP			
شماره پیمان: 053 - 073 – 9184		INSTRUMENT DATASHEETS / CERTIFICATES							شماره صفحه: 5 از 42		
		پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال			نسخه
		Bk	GCS	HY	120	IN	DS	0001			V02
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) ☐ 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 : Valve Manifold : See list								
	21	Manifold									
	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 - 9184		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و آبنمایه تحت الارض خرید پکیج های کمپرسور گاز (فوت و برکنش) بینک (فرماد BK-HD-GCS-CO-0008_03) INSTRUMENT DATASHEETS / CERTIFICATES							 HAVAYAR INDUSTRIAL GROUP				
		شماره صفحه: 6 از 42											
		پروژه	بسته کاری	صنایع کننده	تجهیزات	رشته	نوع مدرک	سریال	نسخه				
Bk	GCS	HY	120	IN	DS	0001	V02						
List of PT													
ITEM NO.	TAG NO.	SERVICE	LINE NO. / EQUIPMENT NO.	P&ID No.	PROCESS CONNECTION	FLUID/ STATE	PRESSURE (Barg)	TEMPERATURE (C)	VISCOSITY (cP)	CALIBRATED RANGE (Barg)	ACCESSORIES Option	MFR. & Model No.	REMARKS
							Oper. / Design	Norm. / Design					
1	PT-2123A	Process gas Comp A	GAS-111-0031A-AN05-8"-ET	BK-GCS-HY-120-PR-PI-0001-Page1	1" NPT	Gas	4.9 / 24.5	36.8 / 180	0.012	0-16	Nace material 2 valve manifold S.S316		Loose Item
2	C-PT-2133A	Process gas Comp A	GAS-111-0051A-FN05-6"-IS	BK-GCS-HY-120-PR-PI-0001-Page1	1" NPT	Gas	54.9 / 62	148 / 180	0.016	0-65	Nace material 2 valve manifold S.S316		
3	PT-2124A	Process gas Comp A	GAS-111-0036A-CN05-6"-PT	BK-GCS-HY-120-PR-PI-0001-Page1	1" NPT	Gas	18 / 24.5	129 / 180	0.015	0-30	Nace material 2 valve manifold S.S316		Loose Item
4	PT-2132A	Process gas Comp A	GAS-111-0044A-CN05-6"-ET	BK-GCS-HY-120-PR-PI-0001-Page1	1/2" NPT	Gas	17.1 / 24.5	59.9 / 180	0.013	0-25	Nace material 2 valve manifold S.S316		Loose Item
5	C-PT-2201A	Instrument Air Comp A	ISA-112-0002A-AZ00-2"-IS	BK-GCS-HY-120-PR-PI-0001-Page2	1" NPT	Gas	6 / 12.5	65 / 85	0.021	0-16	2 valve manifold S.S316		
6	C-PT-2200A	Lubricator Comp A	OIL-112-0008A-S.S-2"-NP	BK-GCS-HY-120-PR-PI-0001-Page3	1/2" NPT	Liquid	6 / 10	65 / 85	40	0-10	2 valve manifold S.S316		
7	C-PT-2204A	Lube Oil Comp A	OIL-112-0008A-S.S-2"-IS	BK-GCS-HY-120-PR-PI-0001-Page3	1" NPT	Liquid	6 / 10	60 / 85	40	0-10	2 valve manifold S.S316		
8	C-PT-2210A	N2 Gas Supply Comp A	NIT-112-0001A-SS-1"-NP	BK-GCS-HY-120-PR-PI-0001-Page4	1" NPT	Gas	2.2 / 10	60 / 85	0.020	0-4	2 valve manifold S.S316		
9	C-PT-2211A	N2 Gas Supply Comp A	NIT-112-0002A-SS-1"-NP	BK-GCS-HY-120-PR-PI-0001-Page4	1" NPT	Gas	1 / 10	60 / 85	0.020	0-2	2 valve manifold S.S316		
10	C-PT-2220A	Water console Comp A	CWS-112-0002A-C.S-3"-IS	BK-GCS-HY-120-PR-PI-0001-Page5	1" NPT	Liquid	3 / 10	58 / 85	0.478	0-6	2 valve manifold S.S316		
11	C-PT-2221A	Water console Comp A	CWS-112-0002A-C.S-3"-IS	BK-GCS-HY-120-PR-PI-0001-Page5	1" NPT	Liquid	3 / 10	58 / 85			S316		
12	PT-2123B	Process gas Comp B	GAS-111-0031A-AN05-8"-ET	BK-GCS-HY-120-PR-PI-0001-Page1	1" NPT	Gas	4.9 / 24.5	36.8 / 180			S316		Loose Item
13	C-PT-2133B	Process gas Comp B	GAS-111-0051A-FN05-6"-IS	BK-GCS-HY-120-PR-PI-0001-Page1	1" NPT	Gas	54.9 / 62	148 / 180			S316		
14	PT-2124B	Process gas Comp B	GAS-111-0036A-CN05-6"-PT	BK-GCS-HY-120-PR-PI-0001-Page1	1" NPT	Gas	18 / 24.5	129 / 180			S316		Loose Item
15	PT-2132B	Process gas Comp B	GAS-111-0044A-CN05-6"-ET	BK-GCS-HY-120-PR-PI-0001-Page1	1" NPT	Gas	17.1 / 24.5	59.9 / 180			S316		Loose Item
16	C-PT-2201B	Instrument Air Comp B	ISA-112-0002A-AZ00-2"-IS	BK-GCS-HY-120-PR-PI-0001-Page2	1" NPT	Gas	6 / 12.5	65 / 85			S316		
17	C-PT-2200B	Lubricator Comp B	OIL-112-0008A-S.S-2"-NP	BK-GCS-HY-120-PR-PI-0001-Page3	1/2" NPT	Liquid	6 / 10	65 / 85	40	0-10	2 valve manifold S.S316		
18	C-PT-2204B	Lube Oil Comp B	OIL-112-0008A-S.S-2"-IS	BK-GCS-HY-120-PR-PI-0001-Page3	1" NPT	Liquid	6 / 10	60 / 85	40	0-10	2 valve manifold S.S316		
19	C-PT-2210B	N2 Gas Supply Comp B	NIT-112-0001A-SS-1"-NP	BK-GCS-HY-120-PR-PI-0001-Page4	1" NPT	Gas	2.2 / 10	60 / 85	0.020	0-4	2 valve manifold S.S316		
20	C-PT-2211B	N2 Gas Supply Comp B	NIT-112-0002A-SS-1"-NP	BK-GCS-HY-120-PR-PI-0001-Page4	1" NPT	Gas	1 / 10	60 / 85	0.020	0-2	2 valve manifold S.S316		
21	C-PT-2220B	Water console Comp B	CWS-112-0002A-C.S-3"-IS	BK-GCS-HY-120-PR-PI-0001-Page5	1" NPT	Liquid	3 / 10	58 / 85	0.478	0-6	2 valve manifold S.S316		
22	C-PT-2221B	Water console Comp B	CWS-112-0002A-C.S-3"-IS	BK-GCS-HY-120-PR-PI-0001-Page5	1" NPT	Liquid	3 / 10	58 / 85	0.478	0-6	2 valve manifold S.S316		
23	PT-2123C	Process gas Comp C	GAS-111-0031A-AN05-8"-ET	BK-GCS-HY-120-PR-PI-0001-Page1	1" NPT	Gas	4.9 / 24.5	36.8 / 180	0.012	0-16	Nace material 2 valve manifold S.S316		Loose Item
24	C-PT-2133C	Process gas Comp C	GAS-111-0051A-FN05-6"-IS	BK-GCS-HY-120-PR-PI-0001-Page1	1" NPT	Gas	S	148 / 180	0.016	0-65	Nace material 2 valve manifold S.S316		
25	PT-2124C	Process gas Comp C	GAS-111-0036A-CN05-6"-PT	BK-GCS-HY-120-PR-PI-0001-Page1	1" NPT	Gas	18 / 24.5	129 / 180	0.015	0-30	Nace material 2 valve manifold S.S316		Loose Item
26	PT-2132	Process gas Comp C	GAS-111-0044A-CN05-6"-ET	BK-GCS-HY-120-PR-PI-0001-Page1	1" NPT	Gas	17.1 / 24.5	59.9 / 180	0.013	0-25	Nace material 2 valve manifold S.S316		Loose Item
27	C-PT-2201C	Instrument Air Comp C	ISA-112-0002A-AZ00-2"-IS	BK-GCS-HY-120-PR-PI-0001-Page2	1" NPT	Gas	6 / 12.5	65 / 85	0.021	0-16	2 valve manifold S.S316		
28	C-PT-2200C	Lubricator Comp C	OIL-112-0008A-S.S-2"-NP	BK-GCS-HY-120-PR-PI-0001-Page3	1/2" NPT	Liquid	6 / 10	65 / 85	40	0-10	2 valve manifold S.S316		
29	C-PT-2204C	Lube Oil Comp C	OIL-112-0008A-S.S-2"-IS	BK-GCS-HY-120-PR-PI-0001-Page3	1" NPT	Liquid	6 / 10	60 / 85	40	0-10	2 valve manifold S.S316		
30	C-PT-2210C	N2 Gas Supply Comp C	NIT-112-0001A-SS-1"-NP	BK-GCS-HY-120-PR-PI-0001-Page4	1" NPT	Gas	2.2 / 10	60 / 85	0.020	0-4	2 valve manifold S.S316		
31	C-PT-2211C	N2 Gas Supply Comp C	NIT-112-0002A-SS-1"-NP	BK-GCS-HY-120-PR-PI-0001-Page4	1" NPT	Gas	1 / 10	60 / 85	0.020	0-2	2 valve manifold S.S316		
32	C-PT-2220C	Water console Comp C	CWS-112-0002A-C.S-3"-IS	BK-GCS-HY-120-PR-PI-0001-Page5	1" NPT	Liquid	3 / 10	58 / 85	0.478	0-6	2 valve manifold S.S316		
33	C-PT-2221C	Water console Comp C	CWS-112-0002A-C.S-3"-IS	BK-GCS-HY-120-PR-PI-0001-Page5	1" NPT	Liquid	3 / 10	58 / 85	0.478	0-6	2 valve manifold S.S316		

با توجه به اینکه این خطوط مربوط به قسمت B می باشد لذا مطابق با P&ID حروف A به تغییر یابد هوایار:اصلاح شد.

با توجه به اینکه این خطوط مربوط به قسمت C می باشد لذا مطابق با P&ID حروف C به تغییر یابد. هوایار:اصلاح شد.

با توجه به اینکه این خطوط مربوط به قسمت B می باشد لذا مطابق با P&ID حروف A به تغییر یابد هوایار:اصلاح شد.

با توجه به اینکه این خطوط مربوط به قسمت C می باشد لذا مطابق با P&ID حروف C به تغییر یابد. هوایار:اصلاح شد.

		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و انبیه تحت الارض خرید پکیج های کمپرسور گاز (زفت و برکشش) بینک (قرارداد BK-HD-GCS-CO-0008_03)					 HAVAYAR INDUSTRIAL GROUP						
NISOC		INSTRUMENT DATASHEETS / CERTIFICATES											
شماره پیمان: 053 - 073 - 9184		پروژه	بسته کاری	صنایع کننده	نصبیات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: 7 از 42			
BK		GCS	HY	120	IN	DS	0001	V02					
BI-METALLIC THERMOMETER WITH WELL (Complete Assembly)													
THERMOMETER										WELL			
1	ELEMENT TYPE		BI-METAL ■		GAS FILLED CAPILLARY □		15	NONE □		INCLUDED ■			
2	STEM		THREADED (NPTM) ■		UNION □		16	MATERIAL :		304 SS □ 316 SS ■ OTHER			
MATERIAL		S.S				17	CONSTRUCTION		BUILT-UP □		DRILLED BAR STOCK ■		
3	STEM OR UNION THREADED :		1/2 IN. ■		3/4 IN. □		OTHER						
4	STEM DIAMETER		MFR. STD □		6 mm. ■ 8 mm. □		TAPERED ■		STRAIGHT □				
5	CASE MATERIAL :		MFR. STD □		OTHER		S.S		INTERNAL CONNECTION NOMINAL SIZE 1/2" PIPE THREAD				
6	DIAL :		SIZE 160 mm		COLOR		White / Black Lettering Aluminum,Non Rusting Metal						
7	SCALE TYPE :		°C		POINTER ADJUSTMENT		YES						
8	SCALE LENGTH :		MFR. STD.		COLOR		MFR.STD						
9	FORM :		FIG NO.		EVERY ANGLE				FLANGE RATING REFER TO BELOW TABLE				
10	EXTERNAL CALIBRATOR ■												
11	PROTECTION CLASS :				IP65		23		MANUFACTURER		SANGAN		
12	ACCURACY :				±1 % OF FULL SCALE RANGE		24		MODEL NO.		TE18		
13	WINDOW MATERIAL :				SHATTER PROOF TYPE								
14	RING TYPE/MATERIAL :				SCREWED/S316								
ITEM NO.	TAG NO.	LINE SIZE	WELL "U" mm (") (NOTE 1)	STEM LENGTH (mm) (")	OPER. TEMP. ("C)	DESIGN TEMP.(°C)/ PRESSURE (BAR(G))	RANGE ("C)	PRESSURE (barg) Norm./ Max.	PROCESS/WELL CONNECTION & RATING (ANSI)	Max VELOCITY (CP)	SERVICE	P&ID NO.	NOTES
1	C-TG-2190A	1ST STAGE SUCTION SNUBBER	400	450	37	180 / 24.5	0-200	4.9 / 22	2" #300 1/2" NPT Back	40	Process Gas Comp A	BK-GCS-HY-120-PR-P-0001-Page1	Thermowell Nace
2	C-TG-2193A	2nd STAGE SUCTION SNUBBER	400	450	60	180 / 62	0-200	17.1 / 22	2" #600 1/2" NPT Back	40	Process Gas Comp A	BK-GCS-HY-120-PR-P-0001-Page1	Thermowell Nace
3	C-TG-2204A	2" TO 4" (Expanded)	150	200	60	85 / 10	0-120	5 / 6	1 1/2" #300 1/2" NPT	40	Lube Oil Comp A	BK-GCS-HY-120-PR-P-0001-Page3	
4	C-TG-2205A	2" TO 4" (Expanded)	150	200	60	85 / 10	0-120	5 / 6	1 1/2" #300 1/2" NPT	40	Lube Oil Comp A	BK-GCS-HY-120-PR-P-0001-Page3	
5	C-TG-2206A	2" TO 4" (Expanded)	150	200	70	85 / 10	0-120	5 / 6	1 1/2" #300 1/2" NPT	40	Lube Oil Comp A	BK-GCS-HY-120-PR-P-0001-Page3	
6	C-TG-2210A	2" TO 4" (Expanded)	150	200	60	85 / 5	0-120	2 / 2.2	1 1/2" #300 1/2" NPT	40	N2 Gas Supply Comp A	BK-GCS-HY-120-PR-P-0001-Page4	Thermowell Nace
7	C-TG-2211A	2" TO 4" (Expanded)	150	200	60	85 / 5	0-120	2 / 2.2	1 1/2" #300 1/2" NPT	40	N2 Gas Supply Comp A	BK-GCS-HY-120-PR-P-0001-Page4	Thermowell Nace
8	C-TG-2217A	Water Reservoir	Hold	200	65	85 / 3.5	0-120	ATM / ATM	2" #300 1/2" NPT Back	40	Water console Comp A	BK-GCS-HY-120-PR-P-0001-Page5	
9	C-TG-2221A	3" TO 4" (Expanded)	150	200	65	85 / 7	0-120	3 / 4	1 1/2" #300 1/2" NPT	40	Water console Comp A	BK-GCS-HY-120-PR-P-0001-Page5	
10	C-TG-2215A	1" TO 4" (Expanded)	150	200	65	85 / 7	0-120	3 / 4	1 1/2" #300 1/2" NPT	40	Jacket Cooling Comp A	BK-GCS-HY-120-PR-P-0001-Page6	
11	C-TG-2216A	1/2" TO 4" (Expanded)	150	200	65	85 / 7	0-120	3 / 4	1 1/2" #300 1/2" NPT	40	Jacket Cooling Comp A	BK-GCS-HY-120-PR-P-0001-Page6	
12	C-TG-2212A	3" TO 4" (Expanded)	150	200	58	85 / 7	0-120	3 / 4	1 1/2" #300 1/2" NPT	40	Water console Comp A	BK-GCS-HY-120-PR-P-0001-Page5	
13	C-TG-2213A	1/2" TO 4" (Expanded)	150	200	65	85 / 7	0-120	3 / 4	1 1/2" #300 1/2" NPT	40	Jacket Cooling Comp A	BK-GCS-HY-120-PR-P-0001-Page6	
14	C-TG-2214A	2 1/2" TO 4" (Expanded)	150	200	65	85 / 7	0-120	3 / 4	1 1/2" #300 1/2" NPT	40	Jacket Cooling Comp A	BK-GCS-HY-120-PR-P-0001-Page6	
15	C-TG-2190B	1ST STAGE SUCTION SNUBBER	400	450	37	180 / 24.5	0-200	4.9 / 22	2" #300 1/2" NPT Back	40	Process Gas Comp B	BK-GCS-HY-120-PR-P-0001-Page1	Thermowell Nace
16	C-TG-2193B	2nd STAGE SUCTION SNUBBER	400	450	60	180 / 62	0-200	17.1 / 22	2" #600 1/2" NPT Back	40	Process Gas Comp B	BK-GCS-HY-120-PR-P-0001-Page1	
17	C-TG-2204B	2" TO 4" (Expanded)	150	200	60	85 / 10	0-120	5 / 6	1 1/2" #300 1/2" NPT	40	Lube Oil Comp B	BK-GCS-HY-120-PR-P-0001-Page3	
18	C-TG-2205B	2" TO 4" (Expanded)	150	200	60	85 / 10	0-120	5 / 6	1 1/2" #300 1/2" NPT	40	Lube Oil Comp B	BK-GCS-HY-120-PR-P-0001-Page3	
19	C-TG-2206B	2" TO 4" (Expanded)	150	200	70	85 / 10	0-120	5 / 6	1 1/2" #300 1/2" NPT	40	Lube Oil Comp B	BK-GCS-HY-120-PR-P-0001-Page3	
20	C-TG-2210B	2" TO 4" (Expanded)	150	200	60	85 / 5	0-120	2 / 2.2	1 1/2" #300 1/2" NPT	40	N2 Gas Supply Comp B	BK-GCS-HY-120-PR-P-0001-Page4	Thermowell Nace
21	C-TG-2211B	2" TO 4" (Expanded)	150	200	60	85 / 5	0-120	2 / 2.2	1 1/2" #300 1/2" NPT	40	N2 Gas Supply Comp B	BK-GCS-HY-120-PR-P-0001-Page4	Thermowell Nace
22	C-TG-2217B	Water Reservoir	Hold	200	65	85 / 3.5	0-120	ATM / ATM	2" #300 1/2" NPT Back	40	Water console Comp B	BK-GCS-HY-120-PR-P-0001-Page5	
23	C-TG-2221B	3" TO 4" (Expanded)	150	200	65	85 / 7	0-120	3 / 4	1 1/2" #300 1/2" NPT	40	Water console Comp B	BK-GCS-HY-120-PR-P-0001-Page5	
24	C-TG-2215B	1" TO 4" (Expanded)	150	200	65	85 / 7	0-120	3 / 4	1 1/2" #300 1/2" NPT	40	Jacket Cooling Comp B	BK-GCS-HY-120-PR-P-0001-Page6	
25	C-TG-2216B	1/2" TO 4" (Expanded)	150	200	65	85 / 7	0-120	3 / 4	1 1/2" #300 1/2" NPT	40	Jacket Cooling Comp B	BK-GCS-HY-120-PR-P-0001-Page6	
26	C-TG-2212B	3" TO 4" (Expanded)	150	200	58	85 / 7	0-120	3 / 4	1 1/2" #300 1/2" NPT	40	Water console Comp B	BK-GCS-HY-120-PR-P-0001-Page5	
27	C-TG-2213B	1/2" TO 4" (Expanded)	150	200	65	85 / 7	0-120	3 / 4	1 1/2" #300 1/2" NPT	40	Jacket Cooling Comp B	BK-GCS-HY-120-PR-P-0001-Page6	
28	C-TG-2214B	2 1/2" TO 4" (Expanded)	150	200	65	85 / 7	0-120	3 / 4	1 1/2" #300 1/2" NPT	40	Jacket Cooling Comp B	BK-GCS-HY-120-PR-P-0001-Page6	
29	C-TG-2190C	1ST STAGE SUCTION SNUBBER	400	450	37	180 / 24.5	0-200	4.9 / 22	2" #300 1/2" NPT Back	40	Process Gas Comp C	BK-GCS-HY-120-PR-P-0001-Page1	Thermowell Nace
30	C-TG-2193C	2nd STAGE SUCTION SNUBBER	400	450	60	180 / 62	0-200	17.1 / 22	2" #600 1/2" NPT Back	40	Process Gas Comp C	BK-GCS-HY-120-PR-P-0001-Page1	Thermowell Nace
31	C-TG-2204C	2" TO 4" (Expanded)	150	200	60	85 / 10	0-120	5 / 6	1 1/2" #300 1/2" NPT	40	Lube Oil Comp C	BK-GCS-HY-120-PR-P-0001-Page3	
32	C-TG-2205C	2" TO 4" (Expanded)	150	200	60	85 / 10	0-120	5 / 6	1 1/2" #300 1/2" NPT	40	Lube Oil Comp C	BK-GCS-HY-120-PR-P-0001-Page3	
33	C-TG-2206C	2" TO 4" (Expanded)	150	200	70	85 / 10	0-120	5 / 6	1 1/2" #300 1/2" NPT	40	Lube Oil Comp C	BK-GCS-HY-120-PR-P-0001-Page3	
34	C-TG-2210C	2" TO 4" (Expanded)	150	200	60	85 / 5	0-120	2 / 2.2	1 1/2" #300 1/2" NPT	40	N2 Gas Supply Comp C	BK-GCS-HY-120-PR-P-0001-Page4	Thermowell Nace
35	C-TG-2211C	2" TO 4" (Expanded)	150	200	60	85 / 5	0-120	2 / 2.2	1 1/2" #300 1/2" NPT	40	N2 Gas Supply Comp C	BK-GCS-HY-120-PR-P-0001-Page4	Thermowell Nace
36	C-TG-2217C	Water Reservoir	Hold	200	65	85 / 3.5	0-120	ATM / ATM	2" #300 1/2" NPT Back	40	Water console Comp C	BK-GCS-HY-120-PR-P-0001-Page5	
37	C-TG-2221C	3" TO 4" (Expanded)	150	200	65	85 / 7	0-120	3 / 4	1 1/2" #300 1/2" NPT	40	Water console Comp C	BK-GCS-HY-120-PR-P-0001-Page5	
38	C-TG-2215C	1" TO 4" (Expanded)	150	200	65	85 / 7	0-120	3 / 4	1 1/2" #300 1/2" NPT	40	Jacket Cooling Comp C	BK-GCS-HY-120-PR-P-0001-Page6	
39	C-TG-2216C	1/2" TO 4" (Expanded)	150	200	65	85 / 7	0-120	3 / 4	1 1/2" #300 1/2" NPT	40	Jacket Cooling Comp C	BK-GCS-HY-120-PR-P-0001-Page6	
40	C-TG-2212C	3" TO 4" (Expanded)	150	200	58	85 / 7	0-120	3 / 4	1 1/2" #300 1/2" NPT	40	Water console Comp C	BK-GCS-HY-120-PR-P-0001-Page5	
41	C-TG-2213C	1/2" TO 4" (Expanded)	150	200	65	85 / 7	0-120	3 / 4	1 1/2" #300 1/2" NPT	40	Jacket Cooling Comp C	BK-GCS-HY-120-PR-P-0001-Page6	
42	C-TG-2214C	2 1/2" TO 4" (Expanded)	150	200	65	85 / 7	0-120	3 / 4	1 1/2" #300 1/2" NPT	40	Jacket Cooling Comp C	BK-GCS-HY-120-PR-P-0001-Page6	

 NISOC		نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و اینیه 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 42	
		پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال		نسخه
		Bk	GCS	HY	120	IN	DS	0001		V02
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.	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 ☐ (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 .										



شماره پیمان:
053 - 073 - 9184

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

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



شماره صفحه: 11 از 42

INSTRUMENT DATASHEETS / CERTIFICATES

0192

سپتہ کار ۹

سازگار کنند

معدلات

ہری

سرمال

سرمال

42

Bk

GCS

HY

120

0001

1

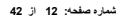
List of DPT

[illegible]



053 - 073 - 9184

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



شماره صفحه: 12 از 42

INSTRUMENT DATASHEETS / CERTIFICATES

نسخه	سربرال	نوع مترک	رشته	تسهيلات	صادرکننده	بسته کاری	پروژه
v02	0001	DS	IN	120	HY	GCS	BK

Data Sheet for Differential Pressure Gauge

11	MFR. & Model No. :	SANGAN PG-13-700			
12	Press Element : Diaphragm	☒	Other (Note6)	Bel lows	☐
13	Element Mtl. :	SS ☒	Bronze ☐	Steel	☐
14	Socket Mtl. :	SS ☒	Other ☐	316SS	
15	Connection-NPT :	SS ☒	Bronze ☐	Steel	☐
16	Movement:	SS ☒	Other ☐	316SS	
17	Diaphragm Seal	1/4 in. ☐	1/2 in. ☒	Other	NPTM
18	Wetted Part Mtl.	Bottom ☐	Back ☐	SS ☒	
19	Fill Fluid :	SS ☒	Other ☐	Stainless Steel	
20	Process Conn. :	Nylon ☐	Other ☐		
21	Ingress Protection :	N/A			
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41					
42					
43					
44					
45					
46					
47					
48					
49					
50					
51					
52					
53					
54					
55					
56					
57					
58					
59					
60					
61					
62					
63					
64					
65					
66					
67					
68					
69					
70					
71					
72					
73					
74					
75					
76					
77					
78					
79					
80					
81					
82					
83					
84					
85					
86					
87					
88					
89					
90					
91					
92					
93					
94					
95					
96					
97					
98					
99					
100					

Item	Tag No.	Range (barg)	Process Fluid/State	Design		Operating		Differential Pressure		LINE NO./EQUIPMENTNO.	P&ID NO.	Accessories	MFR.& Model	NOTE
				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-Page3	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-Page4	5 valve manifold S.S316		
3	C-PDG-2205A	0~0.6	Jacket Cooling	10	85	3	58	0.1	0.2	CWS-112-0018A-C.S-1/2"-PT	BK-GCS-HY-120-PR-PI-0001-Page6	5 valve manifold S.S316		
4	C-PDG-2206A	0~0.6	Jacket Cooling	10	85	3	58	0.1	0.2	CWS-112-0017A-C.S-1/2"-PT	BK-GCS-HY-120-PR-PI-0001-Page6	5 valve manifold S.S316		
5	C-PDG-2204B	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-Page3	5 valve manifold S.S316		
6	C-PDG-2200B	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-Page4	5 valve manifold S.S316		
7	C-PDG-2205B	0~0.6	Jacket Cooling	10	85	3	58	0.1	0.2	CWS-112-0018A-C.S-1/2"-PT	BK-GCS-HY-120-PR-PI-0001-Page6	5 valve manifold S.S316		
8	C-PDG-2206B	0~0.6	Jacket Cooling	10	85	3	58	0.1	0.2	CWS-112-0017A-C.S-1/2"-PT	BK-GCS-HY-120-PR-PI-0001-Page6	5 valve manifold S.S316		
9	C-PDG-2204C	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-Page3	5 valve manifold S.S316		
10	C-PDG-2200C	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-Page4	5 valve manifold S.S316		
11	C-PDG-2205C	0~0.6	Jacket Cooling	10	85	3	58	0.1	0.2	CWS-112-0018A-C.S-1/2"-PT	BK-GCS-HY-120-PR-PI-0001-Page6	5 valve manifold S.S316		
12	C-PDG-2206C	0~0.6	Jacket Cooling	10	85	3	58	0.1	0.2	CWS-112-0017A-C.S-1/2"-PT	BK-GCS-HY-120-PR-PI-0001-Page6	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-CO-GCS-HD-BK)						 HAVAYAR INDUSTRIAL GROUP			
شماره پیمان: 053 - 073 – 9184		INSTRUMENT DATASHEETS / CERTIFICATES								شماره صفحه: 13 از 42	
		پروژه	پسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرک	سریال	نسخه		
		BK	GCS	HY	120	IN	DS	0001	V02		
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-Page4		BK-GCS-HY-120-PR-PI-0001-Page4		BK-GCS-HY-120-PR-PI-0001-Page4		BK-GCS-HY-120-PR-PI-0001-Page4		
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)		2.2	12.5	1	12.5	1	12.5	2.2	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 (رقت و برگشتی) بینک (قرارداد BK-HD-GCS-CO-0008_03)						 HAVAYAR INDUSTRIAL GROUP										
شماره پیمان: 053 - 073 – 9184		INSTRUMENT DATASHEETS / CERTIFICATES								شماره صفحه: 14 از 42								
		رشته		نوع مدرک		سریال		نسخه										
		BK		GCS		HY		120				IN		DS		0001		V02
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-Page4			BK-GCS-HY-120-PR-PI-0001-Page4			BK-GCS-HY-120-PR-PI-0001-Page4			BK-GCS-HY-120-PR-PI-0001-Page4						
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)		2.2		12.5		1		12.5		1		12.5		2.2		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	
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 ابنیه تحت الارض خرید پکیج های کمپرسور گاز (رقت و برگشتی) بینک (قرارداد 03 0008-BK-HD-GCS-CO)											
شماره پیمان: 053 - 073 – 9184		INSTRUMENT DATASHEETS / CERTIFICATES								شماره صفحه: 15 از 42			
		نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادرکننده	بسته کاری	پروژه				
		V02	0001	DS	IN	120	HY	GCS	BK				
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-Page4			BK-GCS-HY-120-PR-PI-0001-Page4			BK-GCS-HY-120-PR-PI-0001-Page4			BK-GCS-HY-120-PR-PI-0001-Page4	
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)		2.2	12.5	1	12.5	1	12.5	2.2	12.5	2.2	12.5	
13	TEMP. OPERATING / DESIGN (°C)		60	85	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	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	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 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: 16 از 42		
		پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال			نسخه
		BK	GCS	HY	120	IN	DS	0001			V02
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)



053 - 073 - 9184

INSTRUMENT DATASHEETS / CERTIFICATES

شماره صفحه: 17 از 42

0192

بستہ کاری

صادر کنندہ

1	
---	--

نہ عہد کی

سوال

سریال

[illegible]

214

...

3.3.3.3. *Phylogenetic analysis*

122

333

52

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

0001

List of Sight Glass

[illegible]

 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 42		
		پروژه	پسند کاری	صادر کننده	تسهيلات	رشته	نوع مدرک	سریال	نسخه	
		BK	GCS	HY	120	IN	DS	0001	V02	
INSTRUMENT DATA SHEET FOR FLOW TRANSMITTER										
	1	Tag Number	P&ID No.		FT-2121A		BK-GCS-HY-120-PR-PI-0001-Page1			
	2	Service	Pipe No.		Process gas		GAS-111-0031A-AN05-8"-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		24.5			
	7	Operating Temperature °C	Design Temperature °C		36.8		180			
	8	Flow Rate	Unit		Min. Flow	Nor. Flow	Max. Flow			
		kg/h(Liquid,Steam),Nm3/h(Gas)	Nm3/h		1971	7918	8710			
	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		ASTM A193 Gr.B7M/ ASTM A194 Gr. 2HM هوایار: اصلاح شد.			
	13	Molecular Weight	Relative Humidity		24.52					
	14	Allowable Pressure Drop @ Max. Flow								
	Element	15	Tag Number							
		16	Measure Element Type							
		17	Measure Element Material	Thickness		S.S316-Nace				
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		ASTMB7M/2HM		ASME B18.2.1/ASME B18.2.2			
Transmitter Unit	23	Gasket Type & Material			Spiral Wound,S.S 316 Winding /Graphite Filler, C.S. Outer& S.S 316L Inner Ring					
	24	Model			Diff pressure					
	25	Available Range			-623 to 623 mbar					
	26	Flowmeter Scale			0-8668Nm3/h					
	27	Full Scale Differential Pressure (bar)								
	28	Output Signal								
	29	Accuracy								
	30	Load Resistance								
	31	Scale Factor								
	32	Housing Material								
	33	Allowable Static Pressure								
	34	Power Supply								
	35	Electrical Connection			ISO M20x1.5					
	36	Explosion Proof			Exia IIB T3					
	37	Enclosure Protection			IP66					
	38	Diaphragm Material			Nace					
	38	Wetted Part Material			Nace					
	39	Drains/Vents Material			316SS					
	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								
	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										

متريال مشخص گردد. ذکر
 NACE به تنهایی نامفهوم
 است
 هوایار: پس از نهایی شدن
 اضافه می گردد

316SS+NACE
 HY reply:Noted

316SS+NACE
 HY reply:Noted

 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: 19 از 42		
		پروژه	پسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرک	سریال	نسخه	
		BK	GCS	HY	120	IN	DS	0001	V02	
INSTRUMENT DATA SHEET FOR FLOW TRANSMITTER										
	1	Tag Number	P&ID No.		FT-2131A		BK-GCS-HY-120-PR-PI-0001-Page1			
	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		24.5			
	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	8710			
	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				0.1				
	Element	15	Tag Number		FE-2197A					
		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		ASTMB7M/2HM		ASME B18.2.1/ASME B18.2.2			
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		0-8668Nm3/h						
	27	Full Scale Differential Pressure (bar)		0-100 mbar						
	28	Output Signal		4-20mA Smart Hart						
	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		Nace						
	38	Wetted Part Material		Nace						
	Accessories	39	Drains/Vents Material		316SS					
40		Integral Indicator / Mounting type		Yes / Direct						
41		Valve Manifold		5 valve-S.S316						
Miscell.	42	Upstream Straight Run		10X						
	43	Downstream Straight Run		5X						
	44	Manufacturer								
	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 BK-HD-GCS-CO-0008)						 HAVAYAR INDUSTRIAL GROUP	
شماره پیمان: 053 - 073 - 9184		INSTRUMENT DATASHEETS / CERTIFICATES						شماره صفحه: 20 از 42	
		پروژه BK	بسته کاری GCS	صادر کننده HY	تسهیلات 120	رشته IN	نوع مدرک DS		
INSTRUMENT DATA SHEET FOR FLOW TRANSMITTER									
	1	Tag Number	P&ID No.		C-FT-2206A		BK-GCS-HY-120-PR-PI-0001-Page6		
	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		16000			
	9	Operating Density kg/m3	Standard Density kg/Nm3		976.6		-		
	10	Kinetic Viscosity(mm2/s)	Dynamic Viscosity (cP)		-		0.4298		
	11	Specific Heat Ratio Cp/Cv	Compress Factor		1.166		0.0026		
	12	Vapor Pressure	Vapor Density kg/m3		0.25		-		
	13	Molecular Weight	Relative Humidity		18.02		-		
Element	14	Allowable Pressure Drop @ Max. Flow			0.2				
	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		
Transmitter Unit	22	Bolt /Nut Material	Bolt /Nut Standard		ASTM A193 Gr.B7 / ASTM A194 Gr.2H Galvanized		ASME B1.1		
	23	Gasket Type & Material							
	24	Model			Diff pressure				
	25	Available Range			-623 to 623 mbar				
	26	Flowmeter Scale			0~20000m3/h				
	27	Full Scale Differential Pressure (bar)			0~200 mbar				
	28	Output Signal			4-20mA Smart Hart				
	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				
	Accessories	39	Drains/Vents Material			S.S316			
40		Integral Indicator / Mounting type			Yes / Direct				
41		Valve Manifold			5 valve-S.S316				
Miscell.	42	Upstream Straight Run			10X				
	43	Downstream Straight Run			5X				
	44	Manufacturer							
	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 BK-HD-GCS-CO-0008)						 HAVAYAR INDUSTRIAL GROUP		
شماره پیمان: 053 - 073 - 9184		INSTRUMENT DATASHEETS / CERTIFICATES						شماره صفحه: 21 از 42		
		پروژه	پسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	
		BK	GCS	HY	120	IN	DS	0001	V02	
INSTRUMENT DATA SHEET FOR FLOW TRANSMITTER										
	1	Tag Number	P&ID No.		FT-2121B		BK-GCS-HY-120-PR-PI-0001-Page1			
	2	Service	Pipe No.		Process gas		GAS-111-0031A-AN05-8"-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		24.5			
	7	Operating Temperature °C	Design Temperature °C		36.8		180			
	8	Flow Rate	Unit		Min. Flow	Nor. Flow	Max. Flow			
		kg/h(Liquid,Steam),Nm3/h(Gas)	Nm3/h		7887	7918	8668.6			
	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%			
Element	14	Allowable Pressure Drop @ Max. Flow				0.1				
	15	Tag Number			FE-2121B					
	16	Measure Element Type			Orifice					
	17	Measure Element Material	Thickness		S.S316-Nace		6mm			
	18	Bore			Hold					
	19	Conn			Flange Weld neck		8"			
	20	Flan			ASME B16.5		ANSI 300#			
	21	Flan			C.S. (Nace)		RF			
	22	Bolt	Hard		ASTMB7M/2HM		ASME B18.2.1/ASME B18.2.2			
	23	Gas			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			0-8668Nm3/h					
	27	Full Scale Differential P			0-100 mbar					
	28	Output Signal			4-20mA Smart Hart					
	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			Nace					
	38	Wetted Part Material			316SS+NACE					
	39	Drains/Vents Material			316SS+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								
	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-BK-HD-GCS-CO-0008)						 HAVAYAR INDUSTRIAL GROUP		
شماره پیمان: 053 - 073 - 9184		INSTRUMENT DATASHEETS / CERTIFICATES						شماره صفحه: 22 از 42		
		پروژه	پسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	
		BK	GCS	HY	120	IN	DS	0001	V02	
INSTRUMENT DATA SHEET FOR FLOW TRANSMITTER										
	1	Tag Number	P&ID No.		FT-2197B		BK-GCS-HY-120-PR-PI-0001-Page1			
	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		62			
	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	8668.6			
	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			0.1					
	Element	15	Tag Number			FE-2197B				
		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		ASTMB7M/2HM		ASME B18.2.1/ASME B18.2.2			
23					Spiral Wound,S.S 316 Winding /Graphite Filler, C.S. Outer& S.S 316L Inner Ring					
Transmitter Unit		24				3051CD				
	25				-623 to 623 mbar					
	26				0-8668Nm3/h					
	27				0-100 mbar					
	28				4-20mA Smart Hart					
	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			Nace					
	39	Wetted Part Material			Nace					
	39	Drains/Vents Material			316SS					
	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								
	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: 23 از 42	
		پروژه	پسینه کاری	صادر کننده	تسهيلات	رشته	نوع مدرک	سریال	نسخه		
		BK	GCS	HY	120	IN	DS	0001	V02		
INSTRUMENT DATA SHEET FOR FLOW TRANSMITTER											
	1	Tag Number	P&ID No.		C-FT-2206B		BK-GCS-HY-120-PR-PI-0001-Page6				
	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			16000					
	9	Operating Density kg/m3	Standard Density kg/Nm3		976.6		-				
	10	Kinetic Viscosity(mm2/s)	Dynamic Viscosity (cP)		-		0.4298				
	11	Specific Heat Ratio Cp/Cv	Compress Factor		1.166		0.0026				
	12	Vapor Pressure	Vapor Density kg/m3		0.25		-				
	13	Molecular Weight	Relative Humidity		18.02		-				
	14	Allowable Pressure Drop @ Max. Flow				0.2					
	Element	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				
22		Bolt /Nut Material	Bolt /Nut Standard		ASTM A193 Gr.B7 / ASTM A194 Gr.2H Galvanized		ASME B1.1				
23		Gasket Type & Material									
Transmitter Unit	24	Model			3051CD						
	25	Available Range			-623 to 623 mbar						
	26	Flowmeter Scale			0~20000m3/h						
	27	Full Scale Differential Pressure (bar)			0~200 mbar						
	28	Output Signal			4-20mA Smart Hart						
	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						
	41	Integral Indicator / Mounting type			Yes / Direct						
	Accessories	42	Valve Manifold			5 valve-S.S316					
		43	Upstream Straight Run			10X					
44		Downstream Straight Run			5X						
Miscell.	45	Manufacturer									
	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 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 BK-HD-GCS-CO-0008)						 HAVAYAR INDUSTRIAL GROUP		
شماره پیمان: 053 - 073 - 9184		INSTRUMENT DATASHEETS / CERTIFICATES						شماره صفحه: 24 از 42		
		پروژه	پسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	
		BK	GCS	HY	120	IN	DS	0001	V02	
INSTRUMENT DATA SHEET FOR FLOW TRANSMITTER										
	1	Tag Number	P&ID No.		FT-2121C		BK-GCS-HY-120-PR-PI-0001-Page1			
	2	Service	Pipe No.		Process gas		GAS-111-0031A-AN05-8"-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		24.5			
	7	Operating Temperature °C	Design Temperature °C		36.8		180			
	8	Flow Rate	Unit		Min. Flow	Nor. Flow	Max. Flow			
		kg/h(Liquid,Steam),Nm3/h(Gas)	Nm3/h		7887	7918	8668.6			
	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				0.1				
	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		ASTMB7M/2HM		ASME B18.2.1/ASME B18.2.2			
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				-623 to 623 mbar					
	26				0-8668Nm3/h					
	27				0-100 mbar					
	28				4-20mA Smart Hart					
	29	Accuracy			0.2 %					
	30	Load Resistance			250ohms					
	31	Scale Factor								
	32	Housing Material								
	33	Allowable Static Pressure			2500bar					
	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			Nace					
	38	Wetted Part Material			Nace					
	39	Drains/Vents Material			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								
	45	Requisition No.								
NOTES:										
1) Spiral Wound as per API 601, 316+Gr4 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										

ASTM A193
Gr.B7M/ASTM
A194 Gr. 2HM

متریال مشخص گردد. ذکر
NACE به تنهایی نامفهوم
است

316SS+NACE

316SS+NACE

 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: 25 از 42		
		پروژه	پسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرک	سریال	نسخه	
		BK	GCS	HY	120	IN	DS	0001	V02	
INSTRUMENT DATA SHEET FOR FLOW TRANSMITTER										
	1	Tag Number	P&ID No.		FT-2197C		BK-GCS-HY-120-PR-PI-0001-Page1			
	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		62			
	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	8668.6			
	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				0.1				
	Element	15	Tag Number	FE-2197C						
		16	Measure Element	Orifice						
17		Measure Element	S.S316-Nace							
18		Bore Diameter	Hold							
19		Connection Type	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		ASTMB7M/2HM		ASME B18.2.1/ASME B18.2.2			
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	0-8668Nm3/h							
	27	Full Scale Differential Pressure (bar)	0-100 mbar							
	28	Output Signal	4-20mA Smart Hart							
	29	Accuracy								
	30	Load Resistance	m		if 250 ohms					
	31	Scale Factor	root		است					
	32	Housing Material	inum							
	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	Nace							
	38	Wetted Part Material	316SS+NACE							
	39	Drains/Vents Material	316SS+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								
	45	Requisition No.								
NOTES:										
1) Spiral Wound as per API 601, 316+Grafi 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 42		
		پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدارک	سریال	نسخه	
		BK	GCS	HY	120	IN	DS	0001	V02	
INSTRUMENT DATA SHEET FOR FLOW TRANSMITTER										
	1	Tag Number	P&ID No.		C-FT-2206C		BK-GCS-HY-120-PR-PI-0001-Page6			
	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			16000				
	9	Operating Density kg/m3	Standard Density kg/Nm3		976.6		-			
	10	Kinetic Viscosity(mm2/s)	Dynamic Viscosity (cP)		-		0.4298			
	11	Specific Heat Ratio Cp/Cv	Compress Factor		1.166		0.0026			
	12	Vapor Pressure	Vapor Density kg/m3		0.25		-			
	13	Molecular Weight	Relative Humidity		18.02		-			
	14	Allowable Pressure Drop @ Max. Flow				0.2				
	Element	15	Tag Number			C-FE-2206C				
		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.B7 / ASTM A194 Gr.2H Galvanized		ASME B18.2.1/ASME B18.2.2			
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			0~20000m3/h					
	27	Full Scale Differential Pressure (bar)			0~200 mbar					
	28	Output Signal			4-20mA Smart Hart					
	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								
	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 BK-HD-GCS-CO-0008_03)						 HAVAYAR INDUSTRIAL GROUP	
		INSTRUMENT DATASHEETS / CERTIFICATES						شماره صفحه: 27 از 42	
شماره پیمان: 053 - 073 - 9184		پروژه	پسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک		
		BK	GCS	HY	120	IN	DS	0001	V02
General	1	Instrument Name				Level gauge			
	2	Tag Number	P&ID No.		C-LG-2213A		BK-GCS-HY-120-PR-PI-0001-Page5		
	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		65		85		
	10	Upper/Lower Kinetic Viscosity (mm2/S)				-			
	11	Upper/Lower Dynamic Viscosity (cP)				0.0209 / 2.084			
Body & Cage	12	Model/Type				Magnetic			
	13	C to C mm				HOLD			
	14	Allowable Oper. Temp. °C	Pressure Rating						
	15	Mounting Style	Connection Orientation		External		Side-Side		
	16	Visible Length mm			HOLD				
	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 42	
شماره پیمان: 053 - 073 - 9184		پروژه	پسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک		
		BK	GCS	HY	120	IN	DS	0001	V02
General	1	Instrument Name				Level gauge			
	2	Tag Number	P&ID No.		C-LG-2213B		BK-GCS-HY-120-PR-PI-0001-Page5		
	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 / 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		65		85		
	10	Upper/Lower Kinetic Viscosity (mm2/S)				-			
	11	Upper/Lower Dynamic Viscosity (cP)				0.0209 / 2.084			
Body & Cage	12	Model/Type				Magnetic			
	13	C to C mm				HOLD			
	14	Allowable Oper. Temp. °C	Pressure Rating						
	15	Mounting Style	Connection Orientation		External		Side-Side		
	16	Visible Length mm					HOLD		
	17	Scale Unit/Material	Accuracy		Cm		5mm		
	18	Indicator Type	Indicator Colour		مشخص گردد.		Flag/White & red		
	19	Chamber Material	Float Material				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		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			
	45	Surge Protection Device				N/A			
Miscell	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

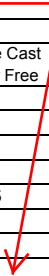
2. COMPABILITY WITH NACE MR0175/ISO 15156 TO BE CONSIDERED FOR WETTED EQUIPEMNT.

 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 42	
شماره پیمان: 053 - 073 - 9184		پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک		
		BK	GCS	HY	120	IN	DS	0001	V02
General	1	Instrument Name				Level gauge			
	2	Tag Number	P&ID No.		C-LG-2213C		BK-GCS-HY-120-PR-PI-0001-Page5		
	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		65		85		
	10	Upper/Lower Kinetic Viscosity (mm2/S)				-			
	11	Upper/Lower Dynamic Viscosity (cP)				0.0209 / 2.084			
Body & Cage	12	Model/Type				Magnetic			
	13	C to C mm				HOLD			
	14	Allowable Oper. Temp. °C	Pressure Rating						
	15	Mounting Style	Connection Orientation		External		Side-Side		
	16	Visible Length mm			HOLD				
	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			
	Transmitter/Switch	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		
34									
Accessories		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			
	45	Surge Protection Device				N/A			
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 03-BK-HD-GCS-CO-0008)						 HAVAYAR INDUSTRIAL GROUP	
		شماره صفحه: 30 از 42							
شماره پیمان: 053 - 073 - 9184		INSTRUMENT DATASHEETS / CERTIFICATES							
		نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادر کننده		
		V02	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-Page5			
	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	65		85			
	10	Upper/Lower Dynamic Viscosity (cP)		0.0209 / 2.084					
	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)	HOLD		HOLD			
	15	Output Signal	Power Supply	4-20mA Smart Hart		24VDC			
	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	250barg		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			
	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						
Miscell 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							
	48	Requisition No.							

متریاال پیچ و مهره بایستی مطابق PMS پروژه 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 صفحه: 31 از 42							
شماره پیمان: 053 - 073 - 9184		INSTRUMENT DATASHEETS / CERTIFICATES							
		نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	پروژه
		V02	0001	DS	IN	120	HY	GCS	BK
General	1	Instrument Name			Diff. Press. Level Transmitter				
	2	Tag Number	P&ID No.		C-LT-2213B		BK-GCS-HY-120-PR-PI-0001-Page5		
	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		65		85		
	10	Upper/Lower Dynamic Viscosity (cP)		0.0209 / 2.084					
	11	C to C mm	-						
	12	Model	3051						
	13	Type	Accuracy		DP level Transmitter		+/- 0.1% Full Scale		
	14	Available Range	Calibration Range (bar)		HOLD		HOLD		
	15	Output Signal	Power Supply		4-20mA Smart Hart		24VDC Loop Powered		
Transmitter	16	Load Resistance(Ω)	250 ohms						
	17	Zero Elevation & Suppression							
	18	Electrical Connection	ISO						
	19	Explosion Proof	Enclosure Protection		EXia (Zone		P65		
	20	Response Time	Housing Material		N/A		Anodized 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		250barg		85 °C		
	24	Body Material	Flange Material		316SS		ASTM A105		
	25	Process Connection	Flange Standard		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	N/A						
Diaphragm Seal	31	Diaphragm Diameter	N/A						
	32	Capillary Material	N/A						
	33	Capillary Armor Material	N/A						
	34	Fill Fluid Temperature Limits	N/A						
	35	Connection Type	N/A						
	36	Flange Standard	N/A						
	37	Flange Material	N/A						
	38	Flushing Connection	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							
	48	Requisition No.							

متریل پیچ و مهره بایستی مطابق PMS پروژه 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: 32 از 42							
		پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
		BK	GCS	HY	120	IN	DS	0001	V02
General	1	Instrument Name				Diff. Press. Level Transmitter			
	2	Tag Number		P&ID No.		C-LT-2213C		BK-GCS-HY-120-PR-PI-0001-Page5	
	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		65		85	
	10	Upper/Lower Dynamic Viscosity (cP)				0.0209 / 2.084			
	11	C to C mm				-			
	12	Model				3051			
	13	Type		Accuracy		DP level Transmitter		+/- 0.1% Full Scale	
	14	Available Range		Calibration Range (bar)		HOLD		HOLD	
	15	Output Signal		Power Supply		4-20mA Smart Hart		24VDC Loop Powered	
Transmitter	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		Die Cast or Free	
	21	Failure Mode Alarm				Up Scale			
	Sensing & Body	22	Element Type		Element Material		Diaphragm (VTC)		316SS
23		Max. Static Pressure (barg)		Allowable Oper. Temp. °C		250barg		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	
28		Gasket/O-Ring Material		Bolts Material		PTFE		ASTM A449	
29		Seal Type				N/A		N/A	
Diaphragm Seal	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							
	48	Requisition No.							

متزیل پیچ و مهره بایستی مطابق PMS پروژه 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 42	
		پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال		نسخه
		BK	GCS	HY	120	IN	DS	0001		V02
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 : OPEN/CLOSE	YES							
	16	3 WAY	N/A							
	17	VENT PORT : OPEN/CLOSE	N/A							
	18	PRESS PORT : OPEN/CLOSE	OPEN							
	19	EXTERNAL OVERRIDE	No							
SOLENOID	20	ENCLOSURE	IP 66							
	21	VOLTAGE/POWER	24 VDC /11W							
	22	STYLE OF COIL	MFR STD							
	23	SINGLE OR DOUBLE COIL	SINGLE							
	24	INSULATION CLASS	F							
	25	ENCLOSURE MATERIAL	ALUMINUM							
	26	CERTIFICATION	Eex 'd'-IIB-T4							
	27	ELEC. ENTRY	M20x1.5 ISO							
SERVICE CONDITIONS	28	FLUID	Instrument Air							
	29	OPER.DIFF.MIN (BAR)	See List							
	30	OPER.DIFF.MAX (BAR)	See List							
	31	TEMP. NORMAL /MAX	See List							
	32	SP.GR	1.0							
	33	VISCOSITY	N/A							
	34	VALVE CV	V.T.A							
	35	MANUFACTURER	V.T.A							
	36	MODEL NO.	V.T.A							
	37									

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 42
	پروژه	پسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	
	BK	GCS	HY	120	IN	DS	0001	V02	
List of SOV									
ITEM NO.	TAG NO.	SERVICE	LINE NO. / EQUIPMENT NO.	P&ID No.	OPERATING/DESIG NPRESSURE (Barg)	TEMPERATURE (C)	SOLENOID VALVE SIZE	REMARKS	
					Min. / Des.	Norm. / Design			
1	C-SV-2201A	Instrument Air	1/2" SS316L Tubing	BK-GCS-HY-120-PR-PI-0001-Page2	6 / 12.5	65 / 85	1/2"		
2	C-SV-2202A	Instrument Air	1/2" SS316L Tubing	BK-GCS-HY-120-PR-PI-0001-Page2	6 / 12.5	65 / 85	1/2"		
3	C-SV-2203A	Instrument Air	1/2" SS316L Tubing	BK-GCS-HY-120-PR-PI-0001-Page2	7 / 12.5	65 / 85	1/2"		
4	C-SV-2201B	Instrument Air	1/2" SS316L Tubing	BK-GCS-HY-120-PR-PI-0001-Page2	8 / 12.5	65 / 85	1/2"		
5	C-SV-2202B	Instrument Air	1/2" SS316L Tubing	BK-GCS-HY-120-PR-PI-0001-Page2	9 / 12.5	65 / 85	1/2"		
6	C-SV-2203B	Instrument Air	1/2" SS316L Tubing	BK-GCS-HY-120-PR-PI-0001-Page2	10 / 12.5	65 / 85	1/2"		
7	C-SV-2201C	Instrument Air	1/2" SS316L Tubing	BK-GCS-HY-120-PR-PI-0001-Page2	11 / 12.5	65 / 85	1/2"		
8	C-SV-2202C	Instrument Air	1/2" SS316L Tubing	BK-GCS-HY-120-PR-PI-0001-Page2	12 / 12.5	65 / 85	1/2"		
9	C-SV-2203C	Instrument Air	1/2" SS316L Tubing	BK-GCS-HY-120-PR-PI-0001-Page2	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 03 BK-HD-GCS-CO-0008)						 HAVAYAR INDUSTRIAL GROUP	
		INSTRUMENT DATASHEETS / CERTIFICATES							
شماره پیمان: 053 - 073 - 9184		شماره صفحه: 35 از 42							
		پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
		BK	GCS	HY	120	IN	DS	0001	V02
SERVICE	Tag Number	C-VE-2200A C-VE-2201A C-VE-2202A				C-ZE-2200A C-ZE-2201A			
	Service	Frame vibration				Cylinder Rod Drop Detector			
	P&ID No.	BK-GCS-HY-120-PR-PI-0001-Page7				BK-GCS-HY-120-PR-PI-0001-Page7			
	Q'TY	3				2			
OPERATING CONDITION	Press. Nor(Kg/cm ²)	N/A				N/A			
	Temp. Nor(°C)	- 40°C to +100°C				- 40°C to +100°C			
	Humidity								
	Explosion Class & Cert.	Ex ia IIC, T4				Ex ia IIB, T4			
GENERAL	Description	Frame vibration				Cylinder Rod Drop Detector			
	Manufacturer	Metrix				SHINKAWA			
	Model No. - Probe					FL-452F11L-M9-00-09-10/E50/Z05			
	- Ext. Cable	N/A				FW-452FT-80/E50			
	- Proximitor	N/A				FK-452F2-1-2/E50			
	Piston Rod Material	N/A				N/A			
PROBE	Type	Seismic Vibration				Proximity			
	Range	25.4mm/SEC, RMS				4.0 mm			
	Material	316 Stainless Steel				316 Stainless Steel			
	Conduit size	N/A				N/A			
	Probe Cable Length	N/A				1.0 Meter + Ext 9 Meter			
	Sealing	IP66				IP66			
	Sensor Mounting	M8 x P1.25				Internal of Bare block			
	Mounting Housing	N/A				N/A			
	Mounting Thread	N/A				M16x1.5			
	Sensitivity	100 mV/g				100 mV/g			
	Standard	API 670				API 670			
	TRANSMITTER	Input Power	24 VDC(Loop Powered)				24 VDC(Loop Powered)		
Output		4~20 mA				4~20 mA			
Enclosure Class		IP66				Without			
Model No.		VST5484E				VM-21T1-22C012-1			
Notes :									

 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		پروژه BK	بسته کاری GCS	صادر کننده HY	تسهیلات 120	رشته IN	نوع مدرک DS	سریال 0001	نسخه V02	شماره صفحه: 36 از 42
SERVICE	Tag Number	C-VE-2200B C-VE-2201B C-VE-2202B				C-ZE-2200B C-ZE-2201B				
	Service	Frame vibration				Cylinder Rod Drop Detector				
	P&ID No.	BK-GCS-HY-120-PR-PI-0001-Page7				BK-GCS-HY-120-PR-PI-0001-Page7				
	Q'TY	3				2				
OPERATING CONDITION	Press. Nor(Kg/cm ²)	N/A				N/A				
	Temp. Nor(°C)	- 40°C to +100°C				- 40°C to +100°C				
	Humidity									
	Explosion Class & Cert.	Ex ia IIC, T4				Ex ia IIB, T4				
GENERAL	Description	Frame vibration				Cylinder Rod Drop Detector				
	Manufacturer	Metrix				SHINKAWA				
	Model No. - Probe					FL-452F11L-M9-00-09-10/E50/Z05				
	- Ext. Cable	N/A				FW-452FT-80/E50				
	- Proximitor	N/A				FK-452F2-1-2/E50				
	Piston Rod Material	N/A				N/A				
	Type	Seismic Vibration				Proximity				
PROBE	Range	25.4mm/SEC, RMS				4.0 mm				
	Material	316 Stainless Steel				316 Stainless Steel				
	Conduit size	N/A				N/A				
	Probe Cable Length	N/A				1.0 Meter + Ext 9 Meter				
	Sealing	IP66				IP66				
	Sensor Mounting	M8 x P1.25				Internal of Bare block				
	Mounting Housing	N/A				N/A				
	Mounting Thread	N/A				M16x1.5				
	Sensitivity	100 mV/g				100 mV/g				
	Standard	API 670				API 670				
	TRANSMITTER	Input Power	24 VDC(Loop Powered)				24 VDC(Loop Powered)			
		Output	4~20 mA				4~20 mA			
Enclosure Class		IP66				Without				
Model No.		VST5484E				VM-21T1-22C012-1				
Notes :										

 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		پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: 37 از 42
		BK	GCS	HY	120	IN	DS	0001	V02	
SERVICE	Tag Number	C-VE-2200C C-VE-2201C C-VE-2202C				C-ZE-2200C C-ZE-2201C				
	Service	Frame vibration				Cylinder Rod Drop Detector				
	P&ID No.	BK-GCS-HY-120-PR-PI-0001-Page7				BK-GCS-HY-120-PR-PI-0001-Page7				
	Q'TY	3				2				
OPERATING CONDITION	Press. Nor(Kg/cm²g)	N/A				N/A				
	Temp. Nor(°C)	- 40°C to +100°C				- 40°C to +100°C				
	Humidity									
	Explosion Class & Cert.	Ex ia IIC, T4				Ex ia IIB, T4				
GENERAL	Description	Frame vibration				Cylinder Rod Drop Detector				
	Manufacturer	Metrix				SHINKAWA				
	Model No. - Probe					FL-452F11L-M9-00-09-10/E50/Z05				
	- Ext. Cable	N/A				FW-452FT-80/E50				
	- Proximitor	N/A				FK-452F2-1-2/E50				
	Piston Rod Material	N/A				N/A				
PROBE	Type	Seismic Vibration				Proximity				
	Range	25.4mm/SEC, RMS				4.0 mm				
	Material	316 Stainless Steel				316 Stainless Steel				
	Conduit size	N/A				N/A				
	Probe Cable Length	N/A				1.0 Meter + Ext 9 Meter				
	Sealing	IP66				IP66				
	Sensor Mounting	M8 x P1.25				Internal of Bare block				
	Mounting Housing	N/A				N/A				
	Mounting Thread	N/A				M16x1.5				
	Sensitivity	100 mV/g				100 mV/g				
	Standard	API 670				API 670				
	TRANSMITTER	Input Power	24 VDC(Loop Powered)				24 VDC(Loop Powered)			
Output		4~20 mA				4~20 mA				
Enclosure Class		IP66				Without				
Model No.		VST5484E				VM-21T1-22C012-1				
Notes :										

 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: 38 از 42
		نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	
		V02	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-Page3		
	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						
Transmitter	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		300mmH2O		
	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		
Sensing & Body	21	Failure Mode Alarm	Up Scale						
	22	Element Type	Element Material		Diaphragm		316SS		
	23	Max. Static Pressure (barg)	Allowable Oper. Temp. °C		250barg		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		
	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						
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						
Miscell 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							
	48	Requisition No.							

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: 39 از 42	
		پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
		BK	GCS	HY	120	IN	DS	0001	V02
General	1	Instrument Name				Diff. Press. Level Transmitter			
	2	Tag Number		P&ID No.		C-LT-2200B		BK-GCS-HY-120-PR-PI-0001-Page3	
	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		300mmH2O	
	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	
Sensing & Body	23	Max. Static Pressure (barg)		Allowable Oper. Temp. °C		250barg		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	
	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							
	47	Requisition No.							
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		پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: 40 از 42
		BK	GCS	HY	120	IN	DS	0001	V02	
General	1	Instrument Name				Diff. Press. Level Transmitter				
	2	Tag Number		P&ID No.		C-LT-2200B		BK-GCS-HY-120-PR-PI-0001-Page3		
	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		300mmH2O		
	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		
Sensing & Body	23	Max. Static Pressure (barg)		Allowable Oper. Temp. °C		250barg		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		
	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				
Miscell. 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								
	47	Requisition No.								
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 (قرارداد BK-HD-GCS-CO-0008_03)							
شماره پیمان: 053 - 073 - 9184		INSTRUMENT DATASHEETS / CERTIFICATES						شماره صفحه: 41 از 42	
		پروژه	بسته کاری	صادر کننده	تجهیزات	رشته	نوع مدارک	سریال	نسخه
		BK	GCS	HY	120	IN	DS	0001	V02

Instrument Data Sheet For Pressure Switch									
GENERAL					SWITCH				
1	Press. ●	Vaccum ○			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.			
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
				Design	Working		
PS-2133A	1 " NPT	0~80	HOLD	62Bar	54.9Bar	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	1	10Bar	3 Bar	CWS-112-0002A-C.S-3"-IS	
PS-2133B	1 " NPT	0~80	HOLD	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	1	10Bar	3Bar	CWS-112-0002A-C.S-3"-IS	
PS-2133C	1 " NPT	0~80	HOLD	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	1	10Bar	3Bar	CWS-112-0002A-C.S-3"-IS	

مشخص گردد.
 هوایار: مشخص شد.

		تگه‌داشت 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: 42 از 42	
		پروژه	بسته کاری	صادر کننده	تمهيلات	رشته	نوع مدرک	سریال	نسخه
		BK	GCS	HY	120	IN	DS	0001	V02
Instrument Data Sheet For Temperature Switch									
GENERAL									
1.TAG.NO		C-TS-2191A		C-TS-2194A		C-TS-2191B		C-TS-2194B	
2.Equipment		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	
4.SERVICE		Gas		Gas		Gas		Gas	
5.RANGE		0-200C		0-200°C		0-200°C		0-200°C	
6.Ingress Protection		IP 66/Exd-IIB-T4 SIL Certified							
THERMOWELL									
7.TYPE SYSTEM		Flnage		Flange		Flange		Flange	
8 MATERIAL		AISI 316/Nace		AISI 316/Nace		AISI 316/Nace		AISI 316/Nace	
9.CONNECTION LOCATION		Bottom		Bottom		Bottom		Bottom	
10.TUBING LENGTH		N/A		N/A		N/A		N/A	
11.TUBING TYPE & MATERIAL		N/A		N/A		N/A		N/A	
12.WELL CONN.SIZE & TYPE		2"#300		2"#600		2"#300		2"#600	
13.WELL MATERIAL		316 S.S		316 S.S		316 S.S		316 S.S	
14.'U' DIMENSION(NOMINAL)		400mm		400mm		400mm		400mm	
SWITCH									
15.TYPE		Snap Action		Snap Action		Snap Action		Snap Action	
16.QUANTITY FORM		1/DPDT		1/DPDT		1/DPDT		1/DPDT	
17.ENCLOSURE		IP66		IP66		IP66		IP66	
18.RATING:VOLTS		24 VDC		24 VDC		24 VDC		24 VDC	
19.AMPS		2		2		2		5	
20.LOAD TYPE		INDUCTIVE		INDUCTIVE		INDUCTIVE		INDUCTIVE	
21.DIFF.:FIXED ADJUST		YES/-		YES/-		YES/-		YES/-	
22.ELECTRICAL CONNECTION		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	
SERVICE CONDITIONS									
27.TEMP.:OPER 'C		129°C		148°C		129°C		148°C	
28.PRESS.:OPER 'C		18		54.9		18		54.9	
29.TRIP POINT 'C		159		178		159		178	
30.MANUFACTURER		HOLD		Hold		Hold		Hold	
31.MANUFACTURER'S MODEL NO.		HOLD		HOLD		HOLD		HOLD	

مشخص گردد.