



نگهداشت و افزایش تولید میدان نفتی بینک  
سطح الارض  
احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR PRESSURE / DIFF. PRESSURE TRANSMITTER

شماره پیمان:

053 - 073 - 9184

پروژه

BK

بسته کاری

GCS

صادرکننده

PEDCO

تسهیلات

120

رشته

IN

نوع مدرک

DT

سریال

0004

نسخه

D02

شماره صفحه: ۱ از ۱۱

## طرح نگهداشت و افزایش تولید 27 مخزن

پاسخ هیرگان انرژی

با توجه به نظر کارفرمای محترم تمامی نقطه نظرات اعمال گردید

### DATA SHEETS FOR PRESSURE / DIFF. PRESSURE TRANSMITTER

#### نگهداشت و افزایش تولید میدان نفتی بینک

|      |          |                           |               |             |              |                 |
|------|----------|---------------------------|---------------|-------------|--------------|-----------------|
|      |          |                           |               |             |              |                 |
|      |          |                           |               |             |              |                 |
|      |          |                           |               |             |              |                 |
| D02  | AUG.2023 | AFC                       | P.Hajisadeghi | M.Fakharian | A.M.Mohseni  |                 |
| D01  | MAR.2023 | IFA                       | P.Hajisadeghi | M.Fakharian | M.Mehrshad   |                 |
| D00  | APR.2022 | IFC                       | P.Hajisadeghi | M.Fakharian | M.Mehrshad   |                 |
| Rev. | Date     | Purpose of Issue / Status | Prepared by:  | Checked by: | Approved by: | CLIENT Approval |

Class: 1

CLIENT Doc. Number: F9Z-708925

status:

IDC: Inter-Discipline Check

IFC: Issued For Comment

IFA: Issued For Approval

AFD: Approved For Design

AFC: Approved For Construction

AFP: Approved For Purchase

AFQ: Approved For Quotation

IFI: Issued For Information

AB-R: As-Built for CLIENT Review

AB-A: As-Built -Approved



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شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

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REVISION RECORD SHEET

| Page | D00 | D01 | D02 | D03 | D04 | Page | D00 | D01 | D02 | D03 | D04 |
|------|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| 1    | X   | X   | X   |     |     | 65   |     |     |     |     |     |
| 2    | X   | X   | X   |     |     | 66   |     |     |     |     |     |
| 3    | X   | X   |     |     |     | 67   |     |     |     |     |     |
| 4    | X   | X   |     |     |     | 68   |     |     |     |     |     |
| 5    | X   | X   | X   |     |     | 69   |     |     |     |     |     |
| 6    | X   | X   | X   |     |     | 70   |     |     |     |     |     |
| 7    | X   | X   | X   |     |     | 71   |     |     |     |     |     |
| 8    | X   | X   | X   |     |     | 72   |     |     |     |     |     |
| 9    | X   | X   | X   |     |     | 73   |     |     |     |     |     |
| 10   |     |     | X   |     |     | 74   |     |     |     |     |     |
| 11   |     |     | X   |     |     | 75   |     |     |     |     |     |
| 12   |     |     |     |     |     | 76   |     |     |     |     |     |
| 13   |     |     |     |     |     | 77   |     |     |     |     |     |
| 14   |     |     |     |     |     | 78   |     |     |     |     |     |
| 15   |     |     |     |     |     | 79   |     |     |     |     |     |
| 16   |     |     |     |     |     | 80   |     |     |     |     |     |
| 17   |     |     |     |     |     | 81   |     |     |     |     |     |
| 18   |     |     |     |     |     | 82   |     |     |     |     |     |
| 19   |     |     |     |     |     | 83   |     |     |     |     |     |
| 20   |     |     |     |     |     | 84   |     |     |     |     |     |
| 21   |     |     |     |     |     | 85   |     |     |     |     |     |
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| 23   |     |     |     |     |     | 87   |     |     |     |     |     |
| 24   |     |     |     |     |     | 88   |     |     |     |     |     |
| 25   |     |     |     |     |     | 89   |     |     |     |     |     |
| 26   |     |     |     |     |     | 90   |     |     |     |     |     |
| 27   |     |     |     |     |     | 91   |     |     |     |     |     |
| 28   |     |     |     |     |     | 92   |     |     |     |     |     |
| 29   |     |     |     |     |     | 93   |     |     |     |     |     |
| 30   |     |     |     |     |     | 94   |     |     |     |     |     |
| 31   |     |     |     |     |     | 95   |     |     |     |     |     |
| 32   |     |     |     |     |     | 96   |     |     |     |     |     |
| 33   |     |     |     |     |     | 97   |     |     |     |     |     |
| 34   |     |     |     |     |     | 98   |     |     |     |     |     |
| 35   |     |     |     |     |     | 99   |     |     |     |     |     |
| 36   |     |     |     |     |     | 100  |     |     |     |     |     |
| 37   |     |     |     |     |     | 101  |     |     |     |     |     |
| 38   |     |     |     |     |     | 102  |     |     |     |     |     |
| 39   |     |     |     |     |     | 103  |     |     |     |     |     |
| 40   |     |     |     |     |     | 104  |     |     |     |     |     |
| 41   |     |     |     |     |     | 105  |     |     |     |     |     |
| 42   |     |     |     |     |     | 106  |     |     |     |     |     |
| 43   |     |     |     |     |     | 107  |     |     |     |     |     |
| 44   |     |     |     |     |     | 108  |     |     |     |     |     |
| 45   |     |     |     |     |     | 109  |     |     |     |     |     |
| 46   |     |     |     |     |     | 110  |     |     |     |     |     |
| 47   |     |     |     |     |     | 111  |     |     |     |     |     |
| 48   |     |     |     |     |     | 112  |     |     |     |     |     |
| 49   |     |     |     |     |     | 113  |     |     |     |     |     |
| 50   |     |     |     |     |     | 114  |     |     |     |     |     |
| 51   |     |     |     |     |     | 115  |     |     |     |     |     |
| 52   |     |     |     |     |     | 116  |     |     |     |     |     |
| 53   |     |     |     |     |     | 117  |     |     |     |     |     |
| 54   |     |     |     |     |     | 118  |     |     |     |     |     |
| 55   |     |     |     |     |     | 119  |     |     |     |     |     |
| 56   |     |     |     |     |     | 120  |     |     |     |     |     |
| 57   |     |     |     |     |     | 121  |     |     |     |     |     |
| 58   |     |     |     |     |     | 122  |     |     |     |     |     |
| 59   |     |     |     |     |     | 123  |     |     |     |     |     |
| 60   |     |     |     |     |     | 124  |     |     |     |     |     |
| 61   |     |     |     |     |     | 125  |     |     |     |     |     |
| 62   |     |     |     |     |     | 126  |     |     |     |     |     |
| 63   |     |     |     |     |     | 127  |     |     |     |     |     |
| 64   |     |     |     |     |     | 128  |     |     |     |     |     |

|                                                                                                  |                                                                                                                  |           |           |         |      |          |       |                                                                                    |                     |
|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-----------|-----------|---------|------|----------|-------|------------------------------------------------------------------------------------|---------------------|
| <br><b>NISOC</b> | <p>نگهداشت و افزایش تولید میدان نفتی بینک<br/>سطح الارض</p> <p>احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک</p> |           |           |         |      |          |       |  |                     |
|                                                                                                  | DATA SHEETS FOR PRESSURE / DIFF. PRESSURE TRANSMITTER                                                            |           |           |         |      |          |       |                                                                                    |                     |
| شماره پیمان:                                                                                     | پروژه                                                                                                            | بسته کاری | صادرکننده | تسهیلات | رشته | نوع مدرک | سریال | نسخه                                                                               | شماره صفحه: ۳ از ۱۱ |
| ۰۵۳ - ۰۷۳ - ۹۱۸۴                                                                                 | BK                                                                                                               | GCS       | PEDCO     | 120     | IN   | DT       | 0004  | D02                                                                                |                     |

#### REFERENCE DOCUMENTS :

|                                                                        |                               |
|------------------------------------------------------------------------|-------------------------------|
| Specification For Instrumentation                                      | BK-GNRAL-PEDCO-000-IN-SP-0001 |
| Process Basis Of Design                                                | BK-GNRAL-PEDCO-000-PR-DB-0001 |
| Piping Material Specification                                          | BK-GCS-PEDCO-120-PI-SP-0001   |
| Hazardous Area Classification Layout                                   | BK-GCS-PEDCO-120-SA-PY-0002   |
| Instrument & Control System Design Criteria                            | BK-GCS-PEDCO-120-IN-DC-0002   |
| Symbol & Legend For PFD and P&ID                                       | BK-GCS-PEDCO-120-PR-PI-0001   |
| P&ID - Gas Compression Inlet Gas Pipeline (Binak)                      | BK-GCS-PEDCO-120-PR-PI-0002   |
| P&ID - Gas Compression Inlet Gas Pipeline (Golghari)                   | BK-GCS-PEDCO-120-PR-PI-0003   |
| P&ID - Slug Catcher System                                             | BK-GCS-PEDCO-120-PR-PI-0004   |
| P&ID - Gas Compression Inlet Knock Out Drum                            | BK-GCS-PEDCO-120-PR-PI-0005   |
| P&ID - 1st Stage Gas Compression Suction Drums                         | BK-GCS-PEDCO-120-PR-PI-0006   |
| P&ID - 1st Stage Gas Compression Compressors                           | BK-GCS-PEDCO-120-PR-PI-0007   |
| P&ID - 1st Stage Gas Compression Air Coolers                           | BK-GCS-PEDCO-120-PR-PI-0008   |
| P&ID - 2nd Stage Gas Compression Suction Drums                         | BK-GCS-PEDCO-120-PR-PI-0009   |
| P&ID - 2nd Stage Gas Compression Compressors                           | BK-GCS-PEDCO-120-PR-PI-0010   |
| P&ID - 2nd Stage Gas Compression Air Coolers                           | BK-GCS-PEDCO-120-PR-PI-0011   |
| P&ID - 2nd Stage Gas Compression Discharge Drum                        | BK-GCS-PEDCO-120-PR-PI-0012   |
| P&ID - Gas Compression Dehydration Package                             | BK-GCS-PEDCO-120-PR-PI-0013   |
| P&ID - Lean Glycol Storage Tank                                        | BK-GCS-PEDCO-120-PR-PI-0014   |
| P&ID - Instrument & Plant Air System                                   | BK-GCS-PEDCO-120-PR-PI-0015   |
| P&ID - Nitrogen Generation System                                      | BK-GCS-PEDCO-120-PR-PI-0016   |
| P&ID - Close Drain System                                              | BK-GCS-PEDCO-120-PR-PI-0017   |
| P&ID - Corrosion Inhibitor Package                                     | BK-GCS-PEDCO-120-PR-PI-0018   |
| P&ID - Methanol Injection Package                                      | BK-GCS-PEDCO-120-PR-PI-0019   |
| P&ID - LP Flare System                                                 | BK-GCS-PEDCO-120-PR-PI-0020   |
| P&ID - Oily Water Sewer                                                | BK-GCS-PEDCO-120-PR-PI-0021   |
| P&ID - Fuel Gas System                                                 | BK-GCS-PEDCO-120-PR-PI-0022   |
| P&ID - Diesel Oil System                                               | BK-GCS-PEDCO-120-PR-PI-0023   |
| P&ID - Potable Water System                                            | BK-GCS-PEDCO-120-PR-PI-0024   |
| P&ID - Glycol Sump Drum                                                | BK-GCS-PEDCO-120-PR-PI-0025   |
| P&ID - Fire Water Network                                              | BK-GCS-PEDCO-120-SA-PI-0001   |
| P&ID - Total Flooding System For Extension of Existing Elect. Building | BK-GCS-PEDCO-120-SA-PI-0002   |



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۰۵۳ - ۰۷۳ - ۹۱۸۴

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## GENERAL NOTES:

- 1 - Zero and span adjustment shall be included and be accessible from outside in addition to Hand Held Communicator.
- 2 - Over range protection (at least 1.3 of full scale) shall be considered.
- 3 - 304 Stainless Steel name plate shall be supplied for all instruments specified in this document. Following details shall be engraved on them:

- Tag Number
- Range Limit
- Manufacture Model
- Manufacturer's Name
- Serial Number
- Supply Voltage
- Output Signal
- Hazardous Area Certification

- 4 - Painting shall be in accordance with manufacturer standard.

- 5 - VTA : Vendor To Advise

- 6 - N/A : Not Applicable

- 7 - Environmental condition for field instrumentation of Binak Oilfield shall be considered as per the followings:

Maximum ambient temperature: 50 (°C) (Note \*)

Minimum ambient temperature: 5 (°C) (Note \*)

Maximum steel surface exposed to sun: 85 (°C) (Note \*)

Maximum summer dry bulb: 50 (°C) (Note \*)

DB/RH for Summer HVAC Design: 41 °C / 61 % (Note \*\*/ Note\*\*\*)

DB FOR Winter HVAC Design: 6 °C (Note \*\*)

\* Refer to "Process Basis Of Design Doc No.: BK-GNRAL-PEDCO-000-PR-DB-0001".

\*\* Refer to " HVAC Design Criteria; N.I.O.C. NO.: F-1-B-422001".

\*\*\* Refer to "NISOC Meteorological Studies Report".

Relative Humidity:

- Maximum Design relative humidity (%): 100
- Minimum Design relative humidity (%): 0

- 8 - Material Test Certificate and calibration Certificate for all transmitters to be submitted by Vendor.

- 9 - This Data Sheets Has Been Prepared As Per Below Standard :

- IPS-M-IN-110 Material and equipment standard for pressure instruments
- IPS-E-IN-110 Engineering standard for pressure instruments
- IPS-C-IN-110 Construction standard for pressure instruments

- 10 - Material Test Certificate and calibration Certificate for all transmitters to be submitted by Vendor.

- 11 - All PT/DPT shall meet the following Radio Frequency Immunity (RFI) requirements that shall be tested at the acceptance test stage. Basic reference standard is IEC 60801 (part 3) for design and manufacturing considerations.

- 12 - Tropicalization shall be applied to protect electrical circuits and electronic cards from being degraded by corrosion and/or fungus growth.



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DATA SHEETS FOR PRESSURE / DIFF. PRESSURE TRANSMITTER

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DCS PRESSURE TRANSMITTER

D02

|                      |    |                              |                                    |                                        |
|----------------------|----|------------------------------|------------------------------------|----------------------------------------|
| GENERAL DATA         | 1  | Tag No.                      | SEE NEXT PAGE                      |                                        |
|                      | 2  | P&ID No.                     | SEE NEXT PAGE                      |                                        |
|                      | 3  | Equipment No. / Line No.     | SEE NEXT PAGE                      |                                        |
|                      | 4  | Area Classification          | ZONE 2, IIB T4                     |                                        |
|                      | 5  | Piping Class                 | SEE NEXT PAGE                      |                                        |
| OPERATING CONDITIONS | 6  | Fluid                        | SEE NEXT PAGE                      |                                        |
|                      | 7  | Phase                        | SEE NEXT PAGE                      |                                        |
|                      | 8  | Operating Pressure (bar-g)   | SEE NEXT PAGE                      |                                        |
|                      | 9  | Design Pressure (bar-g)      | SEE NEXT PAGE                      |                                        |
|                      | 10 | Operating Temperature (°C)   | SEE NEXT PAGE                      |                                        |
|                      | 11 | Design Temperature (°C)      | SEE NEXT PAGE                      |                                        |
| TRANSMITTER          | 12 | Element Type (NOTE 4)        | SEE NEXT PAGE                      |                                        |
|                      | 13 | Size of Process Connection   | SEE NEXT PAGE                      |                                        |
|                      | 14 | Rating of Process Connection | SEE NEXT PAGE                      |                                        |
|                      | 15 | Element Material             | SEE NEXT PAGE                      |                                        |
|                      | 16 | Enclosure Material           | Die cast aluminium                 |                                        |
|                      | 17 | Instrument Range             | SEE NEXT PAGE                      |                                        |
|                      | 18 | Power Supply                 | 24 VDC-Loop powered                |                                        |
|                      | 19 | Output Signal                | 4-20mA                             |                                        |
|                      | 20 | Communication Protocol       | SMART HART(4-20mA)                 |                                        |
|                      | 21 | Electrical Connection        | 2* ISO M20 x 1.5                   |                                        |
|                      | 22 | Electrical Certification     | EEx "i"                            |                                        |
|                      | 23 | Ingress Protection           | IP-65 as minimum                   |                                        |
|                      | 24 | Accuracy                     | 0.1% F.S                           |                                        |
|                      | 25 | Repeatability                | +/- 0.1% or better                 |                                        |
|                      | 26 | Span and Zero Adjustment     | Required                           |                                        |
|                      | 27 | Over Range Protection        | Yes                                |                                        |
| DIAPHRAGM SEAL       | 28 | Type                         | N/A                                |                                        |
|                      | 29 | Size (In)                    | N/A                                |                                        |
|                      | 30 | Fill Fluid                   | N/A                                |                                        |
|                      | 31 | Diaphragm Material           | N/A                                |                                        |
|                      | 32 | Capillary Material           | N/A                                |                                        |
|                      | 33 | Capillary Length             | N/A                                |                                        |
| OPTIONS              | 34 | Integral Indicator           | Display Unit                       | Required Bar-g                         |
|                      | 35 | Mounting Brackets            | Required, 2" Support Pipe (Note 3) |                                        |
|                      | 36 | Manifold                     | Body Material                      | 2 Way Block & Bleed Manifold 316 S.S.L |
|                      | 37 | Connection                   | 1/2 " NPT (Note 2,5,7)             |                                        |
|                      | 38 | Manifold Model               | Manifold Manufacturer              | VTA                                    |
|                      | 39 | Integral Indicator Style     | LCD TYPE                           |                                        |
|                      | 40 | NACE Requirements            | SEE NEXT PAGE                      |                                        |
| PURCHASING DATA      | 41 | Model                        | Manufacturer                       | Will Be Finalized Later                |
|                      | 42 | Supplier                     | Order                              | Will Be Finalized Later                |

NOTES : VTA : VENDOR TO ADVISE

- 1 : Wetted part shall be according to NACE MR0175/ISO 15156 as per list.
- 2 : All manifolds shall be suitable for connection to transmitter and process line.
- 3 : Mounting Yoke, U-bolt, Nuts and all accessories shall be supplied by vendor.
- 4 : Suitable element type to be confirmed by vendor.
- 5 : For manifold rating, refer to "Piping Material Specification Doc No.: BK-GCS-PEDCO-120-PI-SP-0001
- 6 : Burn out direction shall be capable to set.
- 7 : Instrument/Process connection to be as follows:
  - Process Connection: 1/2" NPTF
  - Instrument Connection: 1/2" NPTF
  - Drain Connection: 1/4" NPTF



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DATA SHEETS FOR PRESSURE / DIFF. PRESSURE TRANSMITTER



شماره صفحه: ۶ از ۱۱

|      |      |          |      |         |           |           |       |                  |
|------|------|----------|------|---------|-----------|-----------|-------|------------------|
| نسخه | سرال | نوع مدرک | رشته | تسهیلات | صادرکننده | پسته کاری | پروژه | شماره پیمان:     |
| D02  | 0004 | DT       | IN   | 120     | PEDCO     | GCS       | BK    | 053 - 073 - 9184 |

| DCS PRESSURE TRANSMITTERS |          |           |                  |                                      |                             |                      |                 |                   |        |                                    |                           |                   |                      |                                   |                         |           |                  |                                                         |                                 |                                      |      |       |        |
|---------------------------|----------|-----------|------------------|--------------------------------------|-----------------------------|----------------------|-----------------|-------------------|--------|------------------------------------|---------------------------|-------------------|----------------------|-----------------------------------|-------------------------|-----------|------------------|---------------------------------------------------------|---------------------------------|--------------------------------------|------|-------|--------|
| Rev.                      | Item No. | Tag No.   | SYSTEM/SIL Rated | P&ID No.                             | Equipment No. / Line No.    | Piping Class/ Rating | Manifold Rating | Fluid             | Phase  | Design Pressure (Barg)             | Operating Pressure (Barg) | Design Temp. (°C) | Operating Temp. (°C) | Calibration Range (Barg) (Note 2) | Instrument Range (Barg) | D02       | Element Material | Size of Process Connection / rate of process connection | Over Range Protection (Note 2)  | Manifold Requirement (Block & Bleed) | NACE | Model | Remark |
| D02                       | 1        | PIT-2102  | DCS              | BK-GCS-PEDCO-120-PR-PI-0002          | GAS-111-0001-AN07-6"-PT     | AN07 / 150#          | 6000#           | PROCESS GAS       | GAS    | 18.2                               | 7.5                       | 85                |                      |                                   |                         |           | SS 316L          | 1/2" NPT / 6000#                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02                       | 2        | PIT-2104  | DCS              | BK-GCS-PEDCO-120-PR-PI-0003          | GAS-111-0001-FN07-8"-PT     | FN07 / 600#          | 6000#           | PROCESS GAS       | GAS    | 90                                 | 7.5                       | 85                |                      |                                   |                         |           | SS 316L          | 1/2" NPT / 6000#                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02                       | 3        | PIT-2112  | DCS              | BK-GCS-PEDCO-120-PR-PI-0004 (1 of 2) | V-2104                      | - / 150#             | 6000#           | PROCESS GAS       | GAS    | FV/9                               | 5.5                       | 85                | 32/15.5              | 0-10                              | VTA                     | Diaphragm | SS 316L          | 1/2" NPT / 6000#                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02                       | 4        | PIT-2114  | DCS/SIL 1        | BK-GCS-PEDCO-120-PR-PI-0004 (2 of 2) | CDH-112-0015-CN07-4"-PT     | CN07 / 300#          | 3000#           | WATER+HYDROCARBON | LIQUID | 47.7                               | 18.5                      | 85                | 5/50                 |                                   |                         |           | SS 316L          | 1/2" NPT / 3000#                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02                       | 5        | PIT-2117  | DCS              | BK-GCS-PEDCO-120-PR-PI-0005          | V-2105                      | - / 150#             | 6000#           | PROCESS GAS       | GAS    | FV/9                               | 5.3                       | 85                | 37.17/19.23          |                                   |                         |           | SS 316L          | 1/2" NPT / 6000#                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02                       | 6        | PIT-2121A | DCS              | BK-GCS-PEDCO-120-PR-PI-0006 (1 of 3) | GAS-111-0031A-CN05-8"-ET    | CN05 / 300#          | 3000#           | PROCESS GAS       | GAS    | 47.7                               | 4.9                       | 85                | 36.78/18.88          | 0-9                               | VTA                     | Diaphragm | SS 316L          | 1/2" NPT / 3000#                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02                       | 7        | PIT-2121B | DCS              | BK-GCS-PEDCO-120-PR-PI-0006 (2 of 3) | GAS-111-0031A-CN05-8"-ET    | CN05 / 300#          | 3000#           | PROCESS GAS       | GAS    | 47.7                               | 4.9                       | 85                | 36.78/18.88          |                                   |                         |           | SS 316L          | 1/2" NPT / 3000#                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02                       | 8        | PIT-2121C | DCS              | BK-GCS-PEDCO-120-PR-PI-0006 (3 of 3) | GAS-111-0031A-CN05-8"-ET    | CN05 / 300#          | 3000#           | PROCESS GAS       | GAS    | 47.7                               | 4.9                       | 85                | 36.78/18.88          |                                   |                         |           | SS 316L          | 1/2" NPT / 3000#                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02                       | 9        | PIT-2135A | DCS              | BK-GCS-PEDCO-120-PR-PI-0011 (1 of 3) | GAS-111-0057A-F500-4"-NP    | F500 / 600#          | 3000#           | PROCESS GAS       | GAS    | 62.4                               | 54.1                      | 175               | 60                   | 0-100                             | VTA                     | Diaphragm | SS 316L          | 1/2" NPT / 3000#                                        | up to 1.3 times design pressure | 2 Way Manifold                       | NO   | VTA   | Yes    |
| D02                       | 10       | PIT-2135B | DCS              | BK-GCS-PEDCO-120-PR-PI-0011 (2 of 3) | GAS-111-0057B-F500-4"-NP    | F500 / 600#          | 3000#           | PROCESS GAS       | GAS    | 62.4                               | 54.1                      | 175               | 60                   | 0-100                             | VTA                     | Diaphragm | SS 316L          | 1/2" NPT / 3000#                                        | up to 1.3 times design pressure | 2 Way Manifold                       | NO   | VTA   |        |
| D02                       | 11       | PIT-2135C | DCS              | BK-GCS-PEDCO-120-PR-PI-0011 (3 of 3) | GAS-111-0057C-F500-4"-NP    | F500 / 600#          | 3000#           | PROCESS GAS       | GAS    | 62.4                               | 54.1                      | 175               | 60                   | 0-100                             | VTA                     | Diaphragm | SS 316L          | 1/2" NPT / 3000#                                        | up to 1.3 times design pressure | 2 Way Manifold                       | NO   | VTA   |        |
| D02                       | 12       | PIT-2151  | DCS              | BK-GCS-PEDCO-120-PR-PI-0013 (1 of 3) | GAS-111-0179-FN05-6"-PT     | FN05 / 600#          | 6000#           | PROCESS GAS       | GAS    | 90                                 | 52.92                     | 90                | 60                   |                                   |                         |           | SS 316L          | 1/2" NPT / 6000#                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02                       | 13       | PIT-2161  | DCS              | BK-GCS-PEDCO-120-PR-PI-0014          | TK-2102                     | - / 150#             | 3000#           | LEAN GLYCOL       | LIQUID | ATM+FULL OF WATER+160mbarg/-7mbars | 0.1                       | 85                | AMB                  | 0-0.2                             | VTA                     | Diaphragm | SS 316L          | 1/2" NPT / 3000#                                        | up to 1.3 times design pressure | 2 Way Manifold                       | NO   | VTA   |        |
| D02                       | 14       | PIT-2201  | DCS              | BK-GCS-PEDCO-120-PR-PI-0015 (1 of 2) | PLA-112-0010-AN04-1 1/2"-PT | AN04 / 150#          | 3000#           | PLANT AIR         | GAS    | 18.2                               | 9                         | 90                | 65                   | 0-18                              | VTA                     | Diaphragm | SS 316L          | 1/2" NPT / 3000#                                        | up to 1.3 times design pressure | 2 Way Manifold                       | NO   | VTA   |        |
| D02                       | 15       | PIT-2203  | DCS              | BK-GCS-PEDCO-120-PR-PI-0015 (2 of 2) | ISA-112-0012-AZ00-2"-NP     | AZ00 / 150#          | 3000#           | INSTRUMENT AIR    | GAS    | 18.2                               | 8                         | 85                | 65                   | 0-16                              | VTA                     | Diaphragm | SS 316L          | 1/2" NPT / 3000#                                        | up to 1.3 times design pressure | 2 Way Manifold                       | NO   | VTA   |        |
| D02                       | 16       | PIT-2213  | DCS              | BK-GCS-PEDCO-120-PR-PI-0016          | NIT-112-0024-AN01-2"-PT     | AN01 / 150#          | 3000#           | NITROGEN RECEIVER | GAS    | 18.2                               | 7.5                       | 85                | 60                   | 0-15                              | VTA                     | Diaphragm | SS 316L          | 1/2" NPT / 3000#                                        | up to 1.3 times design pressure | 2 Way Manifold                       | NO   | VTA   |        |
| D02                       | 17       | PIT-2214  | DCS              | BK-GCS-PEDCO-120-PR-PI-0016          | NIT-112-0024-AN01-2"-PT     | AN01 / 150#          | 3000#           | NITROGEN RECEIVER | GAS    | 18.2                               | 7.5                       | 85                | 60                   | 0-15                              | VTA                     | Diaphragm | SS 316L          | 1/2" NPT / 3000#                                        | up to 1.3 times design pressure | 2 Way Manifold                       | NO   | VTA   |        |
| D02                       | 18       | PIT-2252  | DCS              | BK-GCS-PEDCO-120-PR-PI-0020 (2 of 3) | FL-112-0004-AN07-12"-PT     | AN07 / 150#          | 6000#           | FLARE GAS         | GAS    | F.V/6                              | 0.5                       | 85                | 32                   | 0-1                               | VTA                     | Diaphragm | SS 316L          | 1/2" NPT / 6000#                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02                       | 19       | PIT-2272  | DCS              | BK-GCS-PEDCO-120-PR-PI-0022          | FLG-112-0006-AN07-3"-PT     | AN07 / 150#          | 6000#           | FUEL GAS          | GAS    | 18.2                               | 4.9                       | 85                | 19/37                | 0-9                               | VTA                     | Diaphragm | SS 316L          | 1/2" NPT / 6000#                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02                       | 20       | PIT-2271  | DCS              | BK-GCS-PEDCO-120-PR-PI-0022          | FLG-112-0110-AN07-4"-PT     | AN07 / 150#          | 6000#           | FUEL GAS          | GAS    | 18.2                               | 4.9                       | 85                | 19/37                | 0-9                               | VTA                     | Diaphragm | SS 316L          | 1/2" NPT / 6000#                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02                       | 21       | PIT-2191  | DCS              | BK-GCS-PEDCO-120-PR-PI-0025          | V-2107                      | - / 150#             | 3000#           | GLYCOL SUMP DRUM  | LIQUID | F.V/3.5                            | 0.01                      | 85                | AMB                  | 0-0.2                             | VTA                     | Diaphragm | SS 316L          | 1/2" NPT / 3000#                                        | up to 1.3 times design pressure | 2 Way Manifold                       | NO   | VTA   |        |
| D02-Added                 | 22       | PIT-2301  | DCS              | BK-GCS-PEDCO-120-SA-PI-0001 (2 of 2) | FWA-113-0025-AN04-12"-PT    | AN04 / 150#          | 3000#           | FIRE WATER        | LIQUID |                                    |                           |                   |                      |                                   | VTA                     | Diaphragm | SS 316L          | 1/2" NPT / 3000#                                        | up to 1.3 times design pressure | 2 Way Manifold                       | NO   | VTA   |        |

NOTE:

- Instrument range shall be finalized by vendor.
- Pressure limit valve to be considered by vendor (as per project specification and related standards due to vendor selected instrument range)
- Existing data to be submitted /confirmed by client.
- For manifold rating (treaded connection), bolt & gasket material refer to "Piping Material Specification DOC No.: BK-GCS-PEDCO-120-PI-SP-0001
- Transmitters shall be of the smart transmitter type with HART communication protocol.

کلیه اطلاعات تکمیل گردد.



نگهداشت و افزایش تولید میدان نفتی بینک  
سطح الارض  
احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR PRESSURE / DIFF. PRESSURE TRANSMITTER

شماره پیمان:

053 - 073 - 9184

پروژه

BK

بسته کاری

GCS

صادرکننده

PEDCO

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نسخه

D02

شماره صفحه: ۷ از ۱۱

ESD PRESSURE TRANSMITTER

D02

|                      |    |                              |                                    |                                        |
|----------------------|----|------------------------------|------------------------------------|----------------------------------------|
| GENERAL DATA         | 1  | Tag No.                      | SEE NEXT PAGE                      |                                        |
|                      | 2  | P&ID No.                     | SEE NEXT PAGE                      |                                        |
|                      | 3  | Equipment No. / Line No.     | SEE NEXT PAGE                      |                                        |
|                      | 4  | Area Classification          | ZONE 2, IIB T4                     |                                        |
|                      | 5  | Piping Class                 | SEE NEXT PAGE                      |                                        |
| OPERATING CONDITIONS | 6  | Fluid                        | SEE NEXT PAGE                      |                                        |
|                      | 7  | Phase                        | SEE NEXT PAGE                      |                                        |
|                      | 8  | Operating Pressure (bar-g)   | SEE NEXT PAGE                      |                                        |
|                      | 9  | Design Pressure (bar-g)      | SEE NEXT PAGE                      |                                        |
|                      | 10 | Operating Temperature (°C)   | SEE NEXT PAGE                      |                                        |
|                      | 11 | Design Temperature (°C)      | SEE NEXT PAGE                      |                                        |
| TRANSMITTER          | 12 | Element Type (NOTE 4)        | SEE NEXT PAGE                      |                                        |
|                      | 13 | Size of Process Connection   | SEE NEXT PAGE                      |                                        |
|                      | 14 | Rating of Process Connection | SEE NEXT PAGE                      |                                        |
|                      | 15 | Element Material             | SEE NEXT PAGE                      |                                        |
|                      | 16 | Enclosure Material           | Die cast aluminium                 |                                        |
|                      | 17 | Instrument Range             | SEE NEXT PAGE                      |                                        |
|                      | 18 | Power Supply                 | 24 VDC-Loop powered                |                                        |
|                      | 19 | Output Signal                | 4-20mA                             |                                        |
|                      | 20 | Communication Protocol       | SMART HART(4-20mA)                 |                                        |
|                      | 21 | Electrical Connection        | 2* ISO M20 x 1.5                   |                                        |
|                      | 22 | Electrical Certification     | EEx "i"                            |                                        |
|                      | 23 | Ingress Protection           | IP-65 as minimum                   |                                        |
|                      | 24 | Accuracy                     | 0.1% F.S                           |                                        |
|                      | 25 | Repeatability                | +/- 0.1% or better                 |                                        |
|                      | 26 | Span and Zero Adjustment     | Required                           |                                        |
|                      | 27 | Over Range Protection        | Yes                                |                                        |
| DIAPHRAGM SEAL       | 28 | Type                         | N/A                                |                                        |
|                      | 29 | Size (In)                    | N/A                                |                                        |
|                      | 30 | Fill Fluid                   | N/A                                |                                        |
|                      | 31 | Diaphragm Material           | N/A                                |                                        |
|                      | 32 | Capillary Material           | N/A                                |                                        |
|                      | 33 | Capillary Length             | N/A                                |                                        |
| OPTIONS              | 34 | Integral Indicator           | Display Unit                       | Required Bar-g                         |
|                      | 35 | Mounting Brackets            | Required, 2" Support Pipe (Note 3) |                                        |
|                      | 36 | Manifold                     | Body Material                      | 2 Way Block & Bleed Manifold 316 S.S.L |
|                      | 37 | Connection                   | 1/2 " NPT (Note 2,5,7)             |                                        |
|                      | 38 | Manifold Model               | Manifold Manufacturer              | VTA                                    |
|                      | 39 | Integral Indicator Style     | LCD TYPE                           |                                        |
|                      | 40 | NACE Requirements            | SEE NEXT PAGE                      |                                        |
| PURCHASING DATA      | 41 | Model                        | Manufacturer                       | Will Be Finalized Later                |
|                      | 42 | Supplier                     | Order                              | Will Be Finalized Later                |

NOTES : VTA : VENDOR TO ADVISE

- 1 : Wetted part shall be according to NACE MR0175/ISO 15156 as per list.
- 2 : All manifolds shall be suitable for connection to transmitter and process line.
- 3 : Mounting Yoke, U-bolt, Nuts and all accessories shall be supplied by vendor.
- 4 : Suitable element type to be confirmed by vendor.
- 5 : For manifold rating, refer to "Piping Material Specification Doc No.: BK-GCS-PEDCO-120-PI-SP-0001
- 6 : Burn out direction shall be capable to set.
- 7 : Instrument/Process connection to be as bellows:
  - Process Connection: 1/2" NPTF
  - Instrument Connection: 1/2" NPTF
  - Drain Connection: 1/4" NPTF



نگهداشت و افزایش تولید میدان نفتی بینک  
سطح الارض  
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DATA SHEETS FOR PRESSURE / DIFF. PRESSURE TRANSMITTER

شماره صفحه: ۸ از ۱۱

شماره پیمان:

053 - 073 - 9184

پروژه

پسته کاری

صادرکننده

تسهیلات

رشته

نوع مدرک

مطابق PMS می بایست اصلاح گردد (18.2)

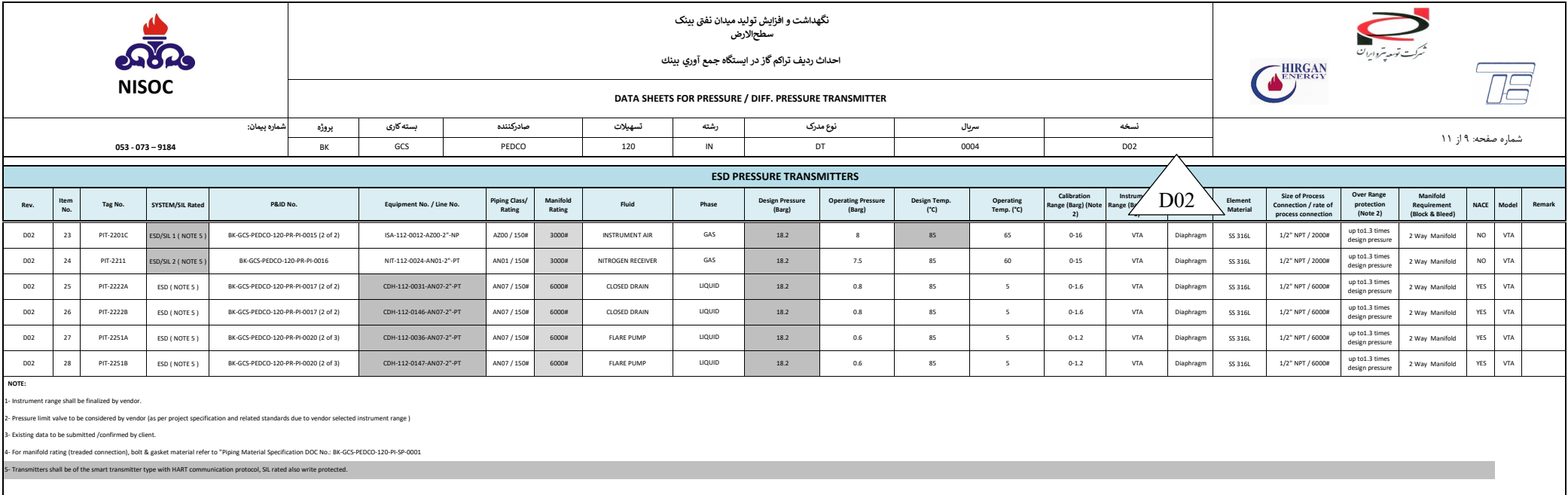
نسخه

D02

ESD PRESSURE TRANSMITTERS

| Rev. | Item No. | Tag No.   | SYSTEM/SIL Rated     | P&ID No.                             | Equipment No. / Line No.    | Piping Class/ Rating | Manifold Rating | Fluid             | Phase  | Design Pressure (Barg) | Operating Pressure (Barg) | Design Temp. (°C) | Operating Temp. (°C) | Calibration Range (Barg) (Note 2) | Instrum. Range (Barg) | Diaphragm | Element Material | Size of Process Connection / rate of process connection | Over Range protection (Note 2)  | Manifold Requirement (Block & Bleed) | NACE | Model | Remark |
|------|----------|-----------|----------------------|--------------------------------------|-----------------------------|----------------------|-----------------|-------------------|--------|------------------------|---------------------------|-------------------|----------------------|-----------------------------------|-----------------------|-----------|------------------|---------------------------------------------------------|---------------------------------|--------------------------------------|------|-------|--------|
| D02  | 1        | PIT-2111  | ESD ( NOTE 5 )       | BK-GCS-PEDCO-120-PR-PI-0004 (1 of 2) | GA5-111-0012-AN07-8"-PT     | AN07 / 150W          | 6000W           | PROCESS GAS       | GA5    | 9                      | 5.5                       | 85                | 32/15.5              | 0-10                              | VTA                   | Diaphragm | SS 316L          | 1/2" NPT / 6000W                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02  | 2        | PIT-2114A | ESD ( NOTE 5 )       | BK-GCS-PEDCO-120-PR-PI-0004 (2 of 2) | CDH-111-0010-A500-4"-NP     | A500 / 150W          | 3000W           | WATER+HYDROCARBON | LIQUID | 13.9                   | 5.5                       | 85                | 32/15.5              | 0-10                              | VTA                   | Diaphragm | SS 316L          | 1/2" NPT / 2000W                                        | up to 1.3 times design pressure | 2 Way Manifold                       | NO   | VTA   | Yes    |
| D02  | 3        | PIT-2216A | ESD ( NOTE 5 )       | BK-GCS-PEDCO-120-PR-PI-0004 (2 of 2) | CDH-112-0012-CN05-3"-PT     | CN05 / 300W          | 3000W           | WATER+HYDROCARBON | LIQUID | 47.7                   | 19.5                      | 85                | 5/50                 | 0-10                              | VTA                   | Diaphragm | SS 316L          | 1/2" NPT / 3000W                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02  | 4        | PIT-2115  | ESD ( NOTE 5 )       | BK-GCS-PEDCO-120-PR-PI-0004 (2 of 2) | CDH-112-0015-CN07-4"-PT     | CN07 / 300W          | 3000W           | WATER+HYDROCARBON | LIQUID | 47.7                   | 18.5                      | 85                | 5/50                 | 0-10                              | VTA                   | Diaphragm | SS 316L          | 1/2" NPT / 3000W                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02  | 5        | PIT-2116B | ESD ( NOTE 5 )       | BK-GCS-PEDCO-120-PR-PI-0004 (2 of 2) | CDH-112-0013-CN05-3"-PT     | CN05 / 300W          | 3000W           | WATER+HYDROCARBON | LIQUID | 47.7                   | 19.5                      | 85                | 5/50                 | 0-10                              | VTA                   | Diaphragm | SS 316L          | 1/2" NPT / 3000W                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   | Yes    |
| D02  | 6        | PIT-2114B | ESD ( NOTE 5 )       | BK-GCS-PEDCO-120-PR-PI-0004 (2 of 2) | CDH-111-0011-A500-4"-NP     | A500 / 150W          | 3000W           | WATER+HYDROCARBON | LIQUID | 13.9                   | 5.5                       | 85                | 32/15.5              | 0-38                              | VTA                   | Diaphragm | SS 316L          | 1/2" NPT / 2000W                                        | up to 1.3 times design pressure | 2 Way Manifold                       | NO   | VTA   |        |
| D02  | 7        | PIT-2116  | ESD/SIL 2 ( NOTE 5 ) | BK-GCS-PEDCO-120-PR-PI-0005          | GA5-111-0005-AN07-10"-PT    | AN07 / 150W          | 6000W           | PROCESS GAS       | GA5    | 18.2                   | 5.3                       | 85                | 32/15.5              | 0-9                               | VTA                   | Diaphragm | SS 316L          | 1/2" NPT / 6000W                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02  | 8        | PIT-2122A | ESD/SIL 2 ( NOTE 5 ) | BK-GCS-PEDCO-120-PR-PI-0007 (1 of 3) | GA5-111-0031A-CN05-8"-ET    | CN05 / 300W          | 3000W           | PROCESS GAS       | GA5    | 47.7                   | 4.9                       | 85                | 36.78/18.88          | 0-9                               | VTA                   | Diaphragm | SS 316L          | 1/2" NPT / 2000W                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02  | 9        | PIT-2125A | ESD ( NOTE 5 )       | BK-GCS-PEDCO-120-PR-PI-0007 (1 of 3) | GA5-111-0036A-CN05-6"-NP    | CN05 / 300W          | 3000W           | PROCESS GAS       | GA5    | 47.7                   | 19                        | 155               | 124.8/113.1          | 0-38                              | VTA                   | Diaphragm | SS 316L          | 1/2" NPT / 3000W                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02  | 10       | PIT-2122B | ESD ( NOTE 5 )       | BK-GCS-PEDCO-120-PR-PI-0007 (2 of 3) | GA5-111-0031B-CN05-8"-ET    | CN05 / 300W          | 3000W           | PROCESS GAS       | GA5    | 47.7                   | 4.9                       | 85                | 36.78/18.88          | 0-9                               | VTA                   | Diaphragm | SS 316L          | 1/2" NPT / 2000W                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02  | 11       | PIT-2125B | ESD ( NOTE 5 )       | BK-GCS-PEDCO-120-PR-PI-0007 (2 of 3) | GA5-111-0036B-CN05-6"-NP    | CN05 / 300W          | 3000W           | PROCESS GAS       | GA5    | 47.7                   | 19                        | 155               | 124.8/113.1          | 0-38                              | VTA                   | Diaphragm | SS 316L          | 1/2" NPT / 3000W                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02  | 12       | PIT-2122C | ESD ( NOTE 5 )       | BK-GCS-PEDCO-120-PR-PI-0007 (3 of 3) | GA5-111-0031C-CN05-8"-ET    | CN05 / 300W          | 3000W           | PROCESS GAS       | GA5    | 47.7                   | 4.9                       | 85                | 36.78/18.88          | 0-9                               | VTA                   | Diaphragm | SS 316L          | 1/2" NPT / 2000W                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02  | 13       | PIT-2125C | ESD ( NOTE 5 )       | BK-GCS-PEDCO-120-PR-PI-0007 (3 of 3) | GA5-111-0036C-CN05-6"-NP    | CN05 / 300W          | 3000W           | PROCESS GAS       | GA5    | 47.7                   | 19                        | 155               | 124.8/113.1          | 0-38                              | VTA                   | Diaphragm | SS 316L          | 1/2" NPT / 3000W                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02  | 14       | PIT-2131A | ESD/SIL 2 ( NOTE 5 ) | BK-GCS-PEDCO-120-PR-PI-0010 (1 of 3) | GA5-111-0044A-CN05-6"-ET    | CN05 / 300W          | 3000W           | PROCESS GAS       | GA5    | 47.7                   | 18.1                      | 115.4             | 59.88                | 0-100                             | VTA                   | Diaphragm | SS 316L          | 1/2" NPT / 3000W                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02  | 15       | PIT-2134A | ESD/SIL 2 ( NOTE 5 ) | BK-GCS-PEDCO-120-PR-PI-0010 (1 of 3) | GA5-111-0051A-FN05-6"-IS    | FN05 / 600W          | 6000W           | PROCESS GAS       | GA5    | 90                     | 54.8                      | 175               | 142.3/149.5          | 0-100                             | VTA                   | Diaphragm | SS 316L          | 1/2" NPT / 6000W                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02  | 16       | PIT-2131B | ESD ( NOTE 5 )       | BK-GCS-PEDCO-120-PR-PI-0010 (2 of 3) | GA5-111-0044B-CN05-6"-ET    | CN05 / 300W          | 3000W           | PROCESS GAS       | GA5    | 47.7                   | 18.1                      | 115.4             | 59.88                | 0-36                              | VTA                   | Diaphragm | SS 316L          | 1/2" NPT / 3000W                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02  | 17       | PIT-2134B | ESD ( NOTE 5 )       | BK-GCS-PEDCO-120-PR-PI-0010 (2 of 3) | GA5-111-0051B-FN05-6"-IS    | FN05 / 600W          | 6000W           | PROCESS GAS       | GA5    | 90                     | 54.8                      | 175               | 142.3/149.5          | 0-100                             | VTA                   | Diaphragm | SS 316L          | 1/2" NPT / 6000W                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02  | 18       | PIT-2131C | ESD ( NOTE 5 )       | BK-GCS-PEDCO-120-PR-PI-0010 (3 of 3) | GA5-111-0044C-CN05-6"-ET    | CN05 / 300W          | 3000W           | PROCESS GAS       | GA5    | 47.7                   | 18.1                      | 115.4             | 60                   | 0-36                              | VTA                   | Diaphragm | SS 316L          | 1/2" NPT / 3000W                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02  | 19       | PIT-2134C | ESD ( NOTE 5 )       | BK-GCS-PEDCO-120-PR-PI-0010 (3 of 3) | GA5-111-0051C-FN05-6"-IS    | FN05 / 600W          | 6000W           | PROCESS GAS       | GA5    | 90                     | 54.8                      | 175               | 142.3/149.5          | 0-100                             | VTA                   | Diaphragm | SS 316L          | 1/2" NPT / 6000W                                        | up to 1.3 times design pressure | 2 Way Manifold                       | YES  | VTA   |        |
| D02  | 20       | PIT-2202  | ESD ( NOTE 5 )       | BK-GCS-PEDCO-120-PR-PI-0015 (1 of 2) | PLA-112-0010-AN04-1 1/2"-PT | AN04 / 150W          | 3000W           | PLANT AIR         | GA5    | 18.2                   | 9                         | 90                | 65                   | 0-18                              | VTA                   | Diaphragm | SS 316L          | 1/2" NPT / 2000W                                        | up to 1.3 times design pressure | 2 Way Manifold                       | NO   | VTA   |        |
| D02  | 21       | PIT-2201A | ESD/SIL 1 ( NOTE 5 ) | BK-GCS-PEDCO-120-PR-PI-0015 (2 of 2) | ISA-112-0012-A200-2"-NP     | A200 / 150W          | 3000W           | INSTRUMENT AIR    | GA5    | 18.2                   | 8                         | 85                | 65                   | 0-16                              | VTA                   | Diaphragm | SS 316L          | 1/2" NPT / 2000W                                        | up to 1.3 times design pressure | 2 Way Manifold                       | NO   | VTA   |        |
| D02  | 22       | PIT-2201B | ESD/SIL 1 ( NOTE 5 ) | BK-GCS-PEDCO-120-PR-PI-0015 (2 of 2) | ISA-112-0012-A200-2"-NP     | A200 / 150W          | 3000W           | INSTRUMENT AIR    | GA5    | 18.2                   | 8                         | 85                | 65                   | 0-16                              | VTA                   | Diaphragm | SS 316L          | 1/2" NPT / 2000W                                        | up to 1.3 times design pressure | 2 Way Manifold                       | NO   | VTA   |        |







نگهداشت و افزایش تولید میدان نفتی بینک  
سطح الارض  
احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



DATA SHEETS FOR PRESSURE / DIFF. PRESSURE TRANSMITTER

|                  |       |           |           |         |      |          |       |      |                      |
|------------------|-------|-----------|-----------|---------|------|----------|-------|------|----------------------|
| شماره پیمان:     | پروژه | پسته کاری | صادرکننده | تسهیلات | رشته | نوع مدرک | سریال | نسخه | شماره صفحه: ۱۰ از ۱۱ |
| 053 - 073 - 9184 | BK    | GCS       | PEDCO     | 120     | IN   | DT       | 0004  | D02  |                      |

DIFF. PRESSURE TRANSMITTER

D02

|                      |    |                              |                                    |                                                 |
|----------------------|----|------------------------------|------------------------------------|-------------------------------------------------|
| GENERAL DATA         | 1  | Tag No.                      | SEE NEXT PAGE                      |                                                 |
|                      | 2  | P&ID No.                     | SEE NEXT PAGE                      |                                                 |
|                      | 3  | Equipment No. / Line No.     | SEE NEXT PAGE                      |                                                 |
|                      | 4  | Area Classification          | ZONE 2, IIB T4                     |                                                 |
|                      | 5  | Piping Class                 | SEE NEXT PAGE                      |                                                 |
| OPERATING CONDITIONS | 6  | Fluid                        | SEE NEXT PAGE                      |                                                 |
|                      | 7  | Phase                        | SEE NEXT PAGE                      |                                                 |
|                      | 8  | Operating Pressure (bar-g)   | SEE NEXT PAGE                      |                                                 |
|                      | 9  | Design Pressure (bar-g)      | SEE NEXT PAGE                      |                                                 |
|                      | 10 | Operating Temperature (°C)   | SEE NEXT PAGE                      |                                                 |
|                      | 11 | Design Temperature (°C)      | SEE NEXT PAGE                      |                                                 |
| TRANSMITTER          | 12 | Element Type (NOTE 4)        | SEE NEXT PAGE                      |                                                 |
|                      | 13 | Size of Process Connection   | SEE NEXT PAGE                      |                                                 |
|                      | 14 | Rating of Process Connection | SEE NEXT PAGE                      |                                                 |
|                      | 15 | Element Material             | SEE NEXT PAGE                      |                                                 |
|                      | 16 | Enclosure Material           | Die cast aluminium                 |                                                 |
|                      | 17 | Instrument Range             | SEE NEXT PAGE                      |                                                 |
|                      | 18 | Power Supply                 | 24 VDC-Loop powered                |                                                 |
|                      | 19 | Output Signal                | 4-20mA                             |                                                 |
|                      | 20 | Communication Protocol       | SMART HART(4-20mA)                 |                                                 |
|                      | 21 | Electrical Connection        | 2* ISO M20 x 1.5                   |                                                 |
|                      | 22 | Electrical Certification     | EEx "i"                            |                                                 |
|                      | 23 | Ingress Protection           | IP-65 as minimum                   |                                                 |
|                      | 24 | Accuracy                     | 0.1% F.S                           |                                                 |
|                      | 25 | Repeatability                | +/- 0.1% or better                 |                                                 |
|                      | 26 | Span and Zero Adjustment     | Required                           |                                                 |
|                      | 27 | Over Range Protection        | Yes                                |                                                 |
| DIAPHRAGM SEAL       | 28 | Type                         | N/A                                |                                                 |
|                      | 29 | Size (In)                    | N/A                                |                                                 |
|                      | 30 | Fill Fluid                   | N/A                                |                                                 |
|                      | 31 | Diaphragm Material           | N/A                                |                                                 |
|                      | 32 | Capillary Material           | N/A                                |                                                 |
|                      | 33 | Capillary Length             | N/A                                |                                                 |
| OPTIONS              | 34 | Integral Indicator           | Display Unit                       | Required Bar-g                                  |
|                      | 35 | Mounting Brackets            | Required, 2" Support Pipe (Note 3) |                                                 |
|                      | 36 | Manifold                     | Body Material                      | 5 Way Block & Bleed Manifold 316 S.S.L          |
|                      | 37 | Connection                   | 1/2 " NPT (Note 2,5,7)             |                                                 |
|                      | 38 | Manifold Model               | Manifold Manufacturer              | - VTA                                           |
|                      | 39 | Integral Indicator Style     | LCD TYPE                           |                                                 |
|                      | 40 | NACE Requirements            | SEE NEXT PAGE                      |                                                 |
| PURCHASING DATA      | 41 | Model                        | Manufacturer                       | Will Be Finalized Later Will Be Finalized Later |
|                      | 42 | Supplier                     | Order                              | Will Be Finalized Later Will Be Finalized Later |

NOTES : VTA : VENDOR TO ADVISE

- Wetted part shall be according to NACE MR0175/ISO 15156 as per list.
- All manifolds shall be suitable for connection to transmitter and process line.
- Mounting Yoke, U-bolt, Nuts and all accessories shall be supplied by vendor.
- Suitable element type to be confirmed by vendor.
- For manifold rating, refer to "Piping Material Specification Doc No.: BK-GCS-PEDCO-120-PI-SP-0001
- Burn out direction shall be capable to set.
- Instrument/Process connection to be as follows:
  - Process Connection: 1/2" NPTF
  - Instrument Connection: 1/2" NPTF
  - Drain Connection: 1/4" NPTF

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |          |            | <div>نگهداشت و افزایش تولید میدان نفتی بینک<br/>سطح‌الارض</div> <div>احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک</div> |                                      |                          |                      |                 |              |       |                         |                            |                      |   |                                   |                                  |              |                  |                                                         |                                 |                                      |      |       |        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------|--------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------|----------------------|-----------------|--------------|-------|-------------------------|----------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------|--------------|------------------|---------------------------------------------------------|---------------------------------|--------------------------------------|------|-------|--------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |          |            | DATA SHEETS FOR PRESSURE / DIFF. PRESSURE TRANSMITTER                                                                    |                                      |                          |                      |                 |              |       |                         |                            |                      |                                                                                                                                                                         |                                   |                                  |              |                  |                                                         |                                 |                                      |      |       |        |
| شماره پیمان: 053 - 073 - 9184                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |          |            | پروژه                                                                                                                    | بسته کاری                            | صادرکننده                | تسهیلات              | رشته            | نوع مدرک     | سریال | نسخه                    |                            | شماره صفحه: ۱۱ از ۱۱ |                                                                                                                                                                         |                                   |                                  |              |                  |                                                         |                                 |                                      |      |       |        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |          |            | BK                                                                                                                       | GCS                                  | PEDCO                    | 120                  | IN              | DT           | 0004  | D02                     |                            |                      |                                                                                                                                                                         |                                   |                                  |              |                  |                                                         |                                 |                                      |      |       |        |
| DIFF. PRESSURE TRANSMITTERS LIST                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |          |            |                                                                                                                          |                                      |                          |                      |                 |              |       |                         |                            |                      |                                                                                                                                                                         |                                   |                                  |              |                  | D02                                                     |                                 |                                      |      |       |        |
| Rev.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Item No. | Tag No.    | SYSTEM/SIL Rated                                                                                                         | P&ID No.                             | Equipment No. / Line No. | Piping Class/ Rating | Manifold Rating | Fluid        | Phase | Design Pressure (Bar-g) | Operating Pressure (Bar-g) | Design Temp. (°C)    | Operating Temp. (°C)                                                                                                                                                    | Calibration Range (Barg) (Note 2) | Instrument Range (Barg) (Note 1) | Element Type | Element Material | Size of Process Connection / rate of process connection | Over Range Protection (Note 2)  | Manifold Requirement (Block & Bleed) | NACE | Model | Remark |
| D02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1        | PDIT-2111  | DCS                                                                                                                      | BK-GCS-PEDCO-120-PR-PI-0004 (1 of 2) | GAS-111-0019-AN07-8"-PT  | AN07 / 150#          | 300#            | SLUG CATCHER | GAS   | FV/9                    | 5.3                        | 85                   | 31.86/15.35                                                                                                                                                             | 0-10                              | VTA                              | Diaphragm    | SS 316L          | 1/2" NPT / 6000#                                        | up to 1.3 times design pressure | 5-Way Valve (1/2"NPTFx1/2"NPTF)      | YES  | VTA   |        |
| D02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2        | PDIT-2112  | DCS                                                                                                                      | BK-GCS-PEDCO-120-PR-PI-0005          | V-2105                   | - / 150#             | 300#            | PROCESS GAS  | GAS   | FV/9                    | 5.1                        | 85                   | 19/37                                                                                                                                                                   | 0-10                              | VTA                              | Diaphragm    | SS 316L          | 1/2" NPT / 6000#                                        | up to 1.3 times design pressure | 5-Way Valve (1/2"NPTFx1/2"NPTF)      | YES  | VTA   |        |
| D02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 3        | PDIT-2121A | DCS                                                                                                                      | BK-GCS-PEDCO-120-PR-PI-0006 (1 of 3) | V-2101-A                 | - / 150#             | 300#            | PROCESS GAS  | GAS   | FV/22                   | 4.9                        | 85                   | 36.78/18.88                                                                                                                                                             | 0-9                               | VTA                              | Diaphragm    | SS 316L          | 1/2" NPT / 6000#                                        | up to 1.3 times design pressure | 5-Way Valve (1/2"NPTFx1/2"NPTF)      | YES  | VTA   |        |
| D02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 4        | PDIT-2121B | DCS                                                                                                                      | BK-GCS-PEDCO-120-PR-PI-0006 (2 of 3) | V-2101-B                 | - / 150#             | 300#            | PROCESS GAS  | GAS   | FV/22                   | 4.9                        | 85                   | 36.78/18.88                                                                                                                                                             | 0-9                               | VTA                              | Diaphragm    | SS 316L          | 1/2" NPT / 6000#                                        | up to 1.3 times design pressure | 5-Way Valve (1/2"NPTFx1/2"NPTF)      | YES  | VTA   |        |
| D02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 5        | PDIT-2121C | DCS                                                                                                                      | BK-GCS-PEDCO-120-PR-PI-0006 (3 of 3) | V-2101-C                 | - / 150#             | 300#            | PROCESS GAS  | GAS   | FV/22                   | 4.9                        | 85                   | 36.78/18.88                                                                                                                                                             | 0-9                               | VTA                              | Diaphragm    | SS 316L          | 1/2" NPT / 6000#                                        | up to 1.3 times design pressure | 5-Way Valve (1/2"NPTFx1/2"NPTF)      | YES  | VTA   |        |
| D02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 6        | PDIT-2131A | DCS                                                                                                                      | BK-GCS-PEDCO-120-PR-PI-0009 (1 of 3) | V-2102-A                 | - / 300#             | 300#            | PROCESS GAS  | GAS   | FV/22                   | 18.1                       | 115.5                | 60                                                                                                                                                                      | 0-36                              | VTA                              | Diaphragm    | SS 316L          | 1/2" NPT / 3000#                                        | up to 1.3 times design pressure | 5-Way Valve (1/2"NPTFx1/2"NPTF)      | YES  | VTA   |        |
| D02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 7        | PDIT-2131B | DCS                                                                                                                      | BK-GCS-PEDCO-120-PR-PI-0009 (2 of 3) | V-2102-B                 | - / 300#             | 300#            | PROCESS GAS  | GAS   | FV/22                   | 18.1                       | 115.5                | 60                                                                                                                                                                      | 0-36                              | VTA                              | Diaphragm    | SS 316L          | 1/2" NPT / 3000#                                        | up to 1.3 times design pressure | 5-Way Valve (1/2"NPTFx1/2"NPTF)      | YES  | VTA   |        |
| D02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 8        | PDIT-2131C | DCS                                                                                                                      | BK-GCS-PEDCO-120-PR-PI-0009 (3 of 3) | V-2102-C                 | - / 300#             | 300#            | PROCESS GAS  | GAS   | FV/22                   | 18.1                       | 115.5                | 60                                                                                                                                                                      | 0-36                              | VTA                              | Diaphragm    | SS 316L          | 1/2" NPT / 3000#                                        | up to 1.3 times design pressure | 5-Way Valve (1/2"NPTFx1/2"NPTF)      | YES  | VTA   |        |
| D02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 9        | PDIT-2143  | DCS                                                                                                                      | BK-GCS-PEDCO-120-PR-PI-0012          | GAS-111-0366-FN05-6"-PT  | FN05 / 600#          | 600#            | PROCESS GAS  | GAS   | 90                      | 53.9                       | 130                  | 59.9                                                                                                                                                                    |                                   |                                  | Diaphragm    | SS 316L          | 1/2" NPT / 6000#                                        | up to 1.3 times design pressure | 5-Way Valve (1/2"NPTFx1/2"NPTF)      | YES  | VTA   |        |
| D02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 10       | PDIT-2141  | DCS                                                                                                                      | BK-GCS-PEDCO-120-PR-PI-0012          | V-2103                   | - / 600#             | 6000#           | PROCESS GAS  | GAS   | FV/62                   | 53.9                       | 130                  | 59.9                                                                                                                                                                    | 0-100                             | VTA                              | Diaphragm    | SS 316L          | 1/2" NPT / 6000#                                        | up to 1.3 times design pressure | 5-Way Valve (1/2"NPTFx1/2"NPTF)      | YES  | VTA   |        |
| <div>NOTE:</div> <div>1- Instrument range shall be finalized by vendor.</div> <div>2- Pressure limit valve to be considered by vendor (as per project specification and related standards due to vendor selected instrument range )</div> <div>3- Existing data to be submitted /confirmed by client.</div> <div>4- For manifold rating (treaded connection), bolt &amp; gasket material refer to "Piping Material Specification DOC No.: BK-GCS-PEDCO-120-PI-SP-0001</div> <div>5- Transmitters shall be of the smart transmitter type with HART communication protocol.</div> |          |            |                                                                                                                          |                                      |                          |                      |                 |              |       |                         |                            |                      |                                                                                                                                                                         |                                   |                                  |              |                  |                                                         |                                 |                                      |      |       |        |

مطابق PMS می بایست اصلاح گردد (175)