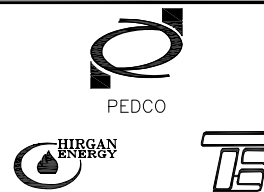




پروژه نگهداشت و افزایش تولید میدان نفتی بینک
 فعالیتهای روزمینی در بسته های کاری تحت الارض
 ساخت موقعیت چاه ، تاسیسات سرچاهی - خطوط جریانی ،
 تسهیلات برق رسانی مربوط به موقعیت W007S و توسعه
 چندراهه کلاستر بینک



شماره پیمان:

053-073-9184

Instrument Hook-up Diagram - Extension of Binak B/C Manifold

شماره صفحه: 01 از 15

طرح نگهداشت و افزایش تولید ۲۷ مخزن

INSTRUMENT HOOK-UP DIAGRAM – EXTENSION OF BINAK B/C MANIFOLD نگهداشت و افزایش تولید میدان نفتی بینک

| | | | | | | |
|------|----------|-------------------------|---------------|-------------|--------------|-----------------|
| | | | | | | |
| D02 | MAY.2023 | AFC | P.Hajisadeghi | M.Fakharian | A.M.Mohseni | |
| D01 | NOV.2022 | IFA | P.Hajisadeghi | M.Fakharian | M.Mehrshad | |
| D00 | JUN.2022 | IFC | P.Hajisadeghi | M.Fakharian | M.Mehrshad | |
| REV. | DATE | PURPOSE OF ISSUE/STATUS | PREPARED BY: | CHECKED BY: | APPROVED BY: | CLIENT APPROVAL |

CLASS:1

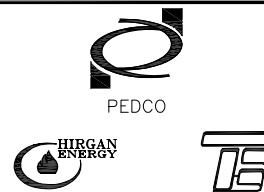
CLIENT Doc. Number: F2J-707986

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



پروژه نگهداشت و افزایش تولید میدان نفتی بینک
 فعالیتهای روزمینی در بسته های کاری تحت الارض
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 چندراهه کلاستر بینک



شماره پیمان:

053-073-9184

Instrument Hook-up Diagram - Extension of Binak B/C Manifold

شماره صفحه: 02 از 15

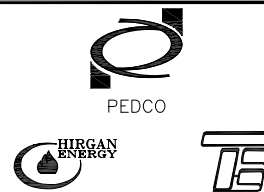
| نسخه | سریال | نوع مدرک | رشته | تهیلات | صادرکننده | بسته کاری | پروژه |
|------|-------|----------|------|--------|-----------|-----------|-------|
| D02 | 0003 | DG | IN | 110 | PEDCO | W007S | BK |

REVISION RECORD SHEET

| REV. PAGE | D00 | D01 | D02 | D03 | D04 | D05 | D06 | REV. PAGE | D00 | D01 | D02 | D03 | D04 | D05 | D06 |
|--------------|-----|-----|-----|-----|-----|-----|-----|--------------|-----|-----|-----|-----|-----|-----|-----|
| 1 | X | X | X | | | | | 34 | | | | | | | |
| 2 | X | X | X | | | | | 35 | | | | | | | |
| 3 | X | X | | | | | | 36 | | | | | | | |
| 4 | X | X | | | | | | 37 | | | | | | | |
| 5 | X | X | | | | | | 38 | | | | | | | |
| 6 | X | X | | | | | | 39 | | | | | | | |
| 7 | X | X | | | | | | 40 | | | | | | | |
| 8 | X | X | | | | | | 41 | | | | | | | |
| 9 | X | X | | | | | | 42 | | | | | | | |
| 10 | X | X | | | | | | 43 | | | | | | | |
| 11 | X | | | | | | | 44 | | | | | | | |
| 12 | X | | | | | | | 45 | | | | | | | |
| 13 | X | | | | | | | 46 | | | | | | | |
| 14 | X | | X | | | | | 47 | | | | | | | |
| 15 | X | | X | | | | | 48 | | | | | | | |
| 16 | | | | | | | | 49 | | | | | | | |
| 17 | | | | | | | | 50 | | | | | | | |
| 18 | | | | | | | | 51 | | | | | | | |
| 19 | | | | | | | | 52 | | | | | | | |
| 20 | | | | | | | | 53 | | | | | | | |
| 21 | | | | | | | | 54 | | | | | | | |
| 22 | | | | | | | | 55 | | | | | | | |
| 23 | | | | | | | | 56 | | | | | | | |
| 24 | | | | | | | | 57 | | | | | | | |
| 25 | | | | | | | | 58 | | | | | | | |
| 26 | | | | | | | | 59 | | | | | | | |
| 27 | | | | | | | | 60 | | | | | | | |
| 28 | | | | | | | | 61 | | | | | | | |
| 29 | | | | | | | | 62 | | | | | | | |
| 30 | | | | | | | | 63 | | | | | | | |
| 31 | | | | | | | | 64 | | | | | | | |
| 32 | | | | | | | | 65 | | | | | | | |
| 33 | | | | | | | | 66 | | | | | | | |



پروژه نگهداشت و افزایش تولید میدان نفتی بینک
 فعالیتهای روزمینی در بسته های کاری تحت الارض
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 چندراهه کلاستر بینک



شماره پیمان:

053-073-9184

Instrument Hook-up Diagram - Extension of Binak B/C Manifold

شماره صفحه: 03 از 15

| نسخه | سریال | نوع مدرک | رشته | تهیلات | صادرکننده | بسته کاری | پروژه |
|------|-------|----------|------|--------|-----------|-----------|-------|
| D02 | 0003 | DG | IN | 110 | PEDCO | W007S | BK |

Contents

| Description | Page(s) |
|--|---------|
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| LEGEND | 05 |
| PRESSURE GAUGE (LINE/DRAIN) | 06 |
| PRESSURE TRANSMITTER (GAS SERVICE) | 07 |
| DP CELL FLOW TRANSMITTER (GAS/LINE) | 08 |
| DISPLACER LEVEL TRANS. - TOP MOUNTED (INTERNAL) | 09 |
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|--|---|---|-------|----------|-----------|-----------|-----------|-----------|-------|-----|------|----|----|-----|-------|-------|----|----------------------|
|  NISOC | پروژه نگهداشت و افزایش تولید میدان نفتی بینک فعالیت‌های روزمینی در بسته های کاری تحت الارض ساخت موقعیت چاه ، تاسیسات سرچاهی - خطوط جریانی ، تسهیلات برق رسانی مربوط به موقعیت W007S و توسعه چندراهه کلاستر بینک |  PEDCO  HIRGAN ENERGY  | | | | | | | | | | | | | | | | |
| شماره پیمان: 053-073-9184 | Instrument Hook-up Diagram – Extension of Binak B/C Manifold <table><tr><td>نسخه</td><td>سریال</td><td>نوع مدرک</td><td>رشته</td><td>تهیلات</td><td>صادرکننده</td><td>بسته کاری</td><td>پروژه</td></tr><tr><td>D02</td><td>0003</td><td>DG</td><td>IN</td><td>110</td><td>PEDCO</td><td>W007S</td><td>BK</td></tr></table> | نسخه | سریال | نوع مدرک | رشته | تهیلات | صادرکننده | بسته کاری | پروژه | D02 | 0003 | DG | IN | 110 | PEDCO | W007S | BK | شماره صفحه: 04 از 15 |
| نسخه | سریال | نوع مدرک | رشته | تهیلات | صادرکننده | بسته کاری | پروژه | | | | | | | | | | | |
| D02 | 0003 | DG | IN | 110 | PEDCO | W007S | BK | | | | | | | | | | | |

| ITEM | DESCRIPTION | SPECIFICATION | QTY | TOTAL QTY | TOTAL QTY WITH 20% SPARE |
|------|--|--|------|-----------|--------------------------|
| 01 | TUBING, SEAMLESS, WALL THICKNESS 0.065" | 1/2"O.D AISI 316 SS | 300m | | |
| 07 | DOUBLE COMPRESSION TYPE MALE CONNECTOR | 1/2"NPTMx1/2"O.D AISI 316 SS | 72 | | |
| 09 | STRAIGHT UNION COMPRESSION TYPE DOUBLE FERRULE | 1/2"O.D AISI 316 SS | 36 | | |
| 15 | TUBING, SEAMLESS, WALL THICKNESS 0.049" | 1/4"NPTMx AISI 316 | | | |
| 19 | 3 WAY 2-VALVE MANIFOLD | 2x1/2"NPTF.PR &1/4" NPTF AISI 316 | | | BY VENDOR |
| 20 | MALE CONNECTOR | 1/4"NPTMx AISI 316 | | | |
| 21 | 5 WAY VALVE MANIFOLD | 2x1/2"NPTF.PR &1/4" NPTF AISI 316 SS | | | BY VENDOR |
| 23 | STRAIGHT UNION COMPRESSION TYPE DOUBLE FERRULE | 1/4"O.D | 43 | | |
| 24 | DOUBLE FERRULE COMPRESSION TYPE MALE CONNECTOR | 1/2"NPTMx1/4"O.D | 43 | | |
| 25 | UNION TUBE TEE | 1/4" | 6 | | |

IN-02: This column shall be filled.
HIRGAN ENERGY:
NOTED

IN-03: To be mentioned in
REMARK column. Also, it
shall be noted that all
devices are supplied by
vendor so the description
shall be more descriptive
eg. PG vendor or PT
vendor.

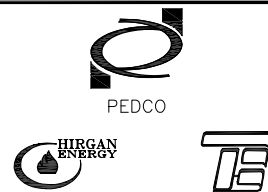
HIRGAN ENERGY:
NOTED

REFERENCE:

- DATA SHEETS FOR FLOW TRANSMITTER /DIFF. PRESSURE TRANSMITTER- EXTENSION OF BINAK B/C MANIFOLD
BK-W007S-PEDCO-110-IN-DT-0007
- DATA SHEETS FOR CONTROL/REGULATOR VALVES - EXTENSION OF BINAK B/C MANIFOLD
BK-W007S-PEDCO-110-IN-DT-0006
- DATA SHEETS FOR PRESSURE & DIFF. PRESSURE GAUGE - EXTENSION OF BINAK B/C MANIFOLD
BK-W007S-PEDCO-110-IN-DT-0002
- DATA SHEETS FOR DISPLACER LEVEL TRANSMITTER - EXTENSION OF BINAK B/C MANIFOLD
BK-W007S-PEDCO-110-IN-DT-0012
- DATA SHEETS FOR PRESSURE TRANSMITTER- EXTENSION OF BINAK B/C MANIFOLD
BK-W007S-PEDCO-110-IN-DT-0003
- DATA SHEET FOR TEMPERATURE GAUGE - EXTENSION OF BINAK B/C MANIFOLD
BK-W007S-PEDCO-110-IN-DT-0001
- DATA SHEETS FOR ON OFF / SHUTDOWN VALVES - EXTENSION OF BINAK B/C MANIFOLD
BK-W007S-PEDCO-110-IN-DT-0005
- Instrument & Control System Design Criteria
BK-SSGRL-PEDCO-110-IN-DC-0002
- Specification For Instrumentation
BK-GNRAL-PEDCO-000-IN-SP-0001
- Specification For Control Valves
BK-GNRAL-PEDCO-000-IN-SP-0005
- Specification For On-off /Shut Down Valves(ESDV/MOV)
BK-GNRAL-PEDCO-000-IN-SP-0006
- Typical Instrument Installation Drawing
BK-W007S-PEDCO-110-IN-DW-0001
- IPS-D-IN-104
- P&ID - EXTENSION OF BINAK B/C MANIFOLD
BK-W007S-PEDCO-110-PR-PI-0001
- Piping Assembly Drawing
BK-SSGRL-PEDCO-110-PI-DW-0002



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چندراهه کلاستر بینک



شماره پیمان:

053-073-9184

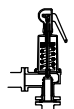
Instrument Hook-up Diagram - Extension of Binak B/C Manifold

شماره صفحه: 05 از 15

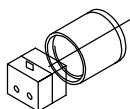
| نسخه | سریال | نوع مدرک | رشته | تهیلات | صادرکننده | بسته کاری | پروژه |
|------|-------|----------|------|--------|-----------|-----------|-------|
| D02 | 0003 | DG | IN | 110 | PEDCO | W007S | BK |



PRESSURE GAUGE



SAFETY VALVE



PRESSURE TRANSMITTER



CONTROL VALVE



TEMPERAURE GAUGE



CORROSION COUPON



3-WAY 2 VALVES MANIFOLD
FOR PRESSURE GAUGES



ON/OFF VALVE



UNION



5-WAY VALVE MANIFOLD



CONNECTOR



3-WAY 2 VALVES MANIFOLD
FOR PRESSURE TRANSMITTER
AND PRESSURE SWITCH



پروژه نگهداشت و افزایش تولید میدان نفتی بینک
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شماره پیمان:

053-073-9184

Instrument Hook-up Diagram - Extension of Binak B/C Manifold

شماره صفحه: 06 از 15

| پروژه | بسته کاری | صادرکننده | تهیلات | رشته | نوع مدرک | سریال | نسخه |
|-------|-----------|-----------|--------|------|----------|-------|------|
| BK | W007S | PEDCO | 110 | IN | DG | 0003 | D02 |

PRESSURE GAUGE ON PIPE (2 PHASE (GAS/LIQUID)) SERVICE

TAG NUMBERS

PG-1701A

PG-1702A

PG-1703A

PG-1704A

PG-1701B

PG-1702B

PG-1703B

PG-1704B

PG-1701C

PG-1702C

PG-1703C

PG-1704C

PG-1701D

PG-1702D

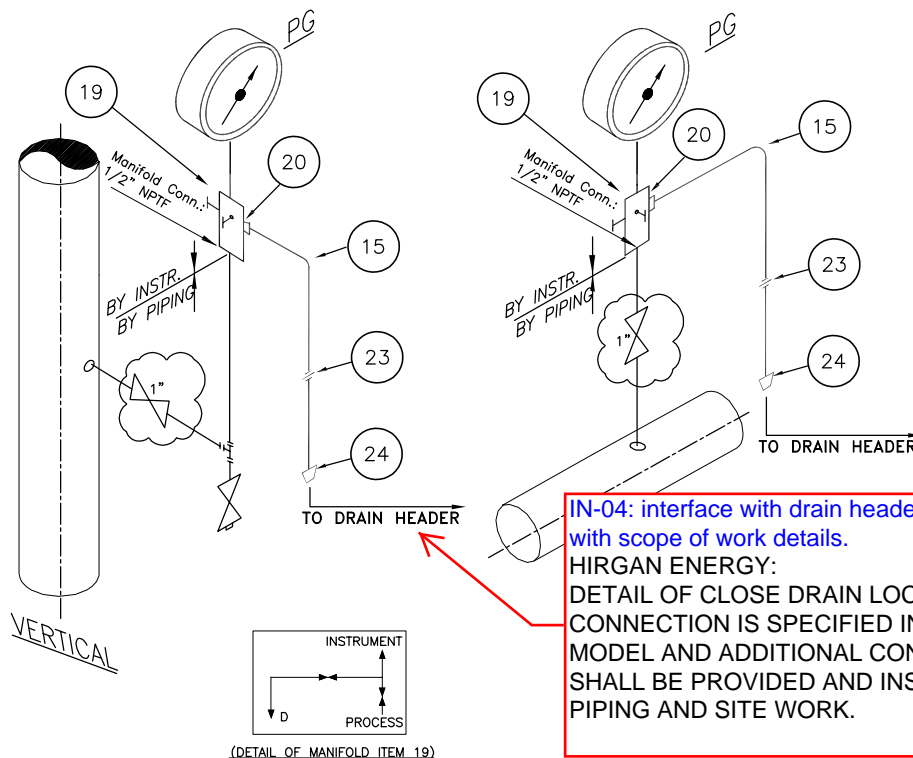
PG-1703D

PG-1704D

PG-1701E

PG-1702E

PG-1703E



IN-04: interface with drain header to be added with scope of work details.

HIRGAN ENERGY:
DETAIL OF CLOSE DRAIN LOCATION & CONNECTION IS SPECIFIED IN PDMS MODEL AND ADDITIONAL CONNECTIONS SHALL BE PROVIDED AND INSTALLED BY PIPING AND SITE WORK.

NOTES:

1-MANIFOLD SHALL BE SUITABLE FOR CONNECTING TO GAUGE.

2-FOR PIPING CONNECTION REFER TO PIPING ASSEMBLY DRAWING. DOC NO."BK-SSGRL-PEDCO

IN-05: column description to be modified.

HIRGAN ENERGY:
NOTED

DESCRIPTION : PRESSURE GAUGE ON PIPE (2 PHASE (GAS/LIQUID)) SERVICE

| ITEM | QTY. | SIZE OR CONNECTION | ON | MATERIAL | UNIT | REMARK |
|------|------|---|--|-------------|------|-----------|
| 15 | 10m | 1/4"O.D.x0.049" W.T | TUBING, HIRGAN ENERGY: NOTED | AISI 316 SS | 250m | |
| 19 | 1 | 2x1/2"NPTF.PROCESS CON. &1/4" NPTF DRAIN CON. | 3 WAY 2-VALVE MANIFOLD | AISI 316 SS | 25 | BY VENDOR |
| 20 | 1 | 1/4"NPTMx1/4"O.D | MALE CONNECTOR | AISI 316 SS | 25 | |
| 23 | 1 | 1/4"O.D | STRAIGHT UNION COMPRESSION TYPE DOUBLE FERRULE | AISI 316 SS | 25 | |
| 24 | 1 | 1/2"NPTMx1/4"O.D | DOUBLE FERRULE COMPRESSION TYPE MALE CONNECTOR | AISI 316 SS | 25 | |
| | | | | | | |
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چندراهه کلاستر بینک



شماره پیمان:

053-073-9184

Instrument Hook-up Diagram - Extension of Binak B/C Manifold

شماره صفحه: 07 از 15

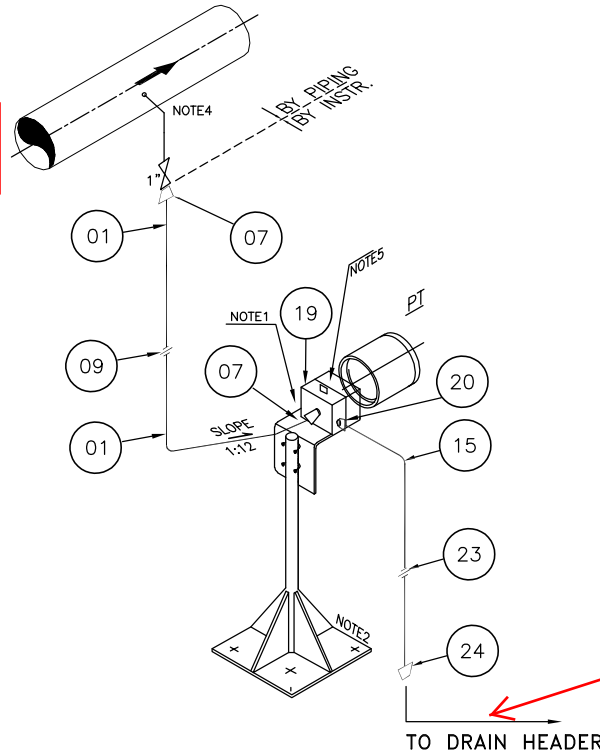
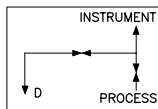
| پروژه | بسته کاری | صادرکننده | تهیلات | رشته | نوع مدرک | سریال | نسخه |
|-------|-----------|-----------|--------|------|----------|-------|------|
| BK | W007S | PEDCO | 110 | IN | DG | 0003 | D02 |

PRESSURE TEMPERATURE ON PIPE (3 PHASE (OIL/WATER/VAPOUR)) SERVICE

TAG NUMBERS

| |
|----------|
| PT-1701A |
| PT-1702A |
| PT-1701B |
| PT-1702B |
| PT-1701C |
| PT-1702C |
| PT-1701D |
| PT-1702D |
| PT-1701E |
| PT-1702E |
| PT-1701F |
| PT-1702F |

IN-01: Transmitter
HIRGAN ENERGY:
NOTED



IN-04
HIRGAN ENERGY:
DETAIL OF CLOSE DRAIN
LOCATION & CONNECTION IS
SPECIFIED IN PDMS MODEL
AND ADDITIONAL
CONNECTIONS SHALL BE
PROVIDED AND INSTALLED BY
PIPING AND SITE WORK.

NOTES:

- 1-VLVES MANIFOLD WITH MOUNTING BRACKET, U-BOLTS AND NUTS ARE SUPPLIED BY TRANSM
- 2-FOR DETAILS OF SUPPORT INSTALLATION REFER TO BK-W007S-PEDCO-110-IN-DW-0001.
- 3-USE OF UNION SHALL BE AVOIDED WHEREVER POSSIBLE.
- 4-FOR PIPING CONNECTION REFER TO PIPING ASSEMBLY DRAWING. DOC NO."BK-SSGRL-PEDCO-110-PI-DW-0002."
- 5-EACH (3) VALVES MANIFOLD IS DEFINED WITH ONE 1/4"NPTF DRAIN CONNECTION .
- 6-PROCESS CONNECTION TO BE FROM TOP IN 12'O CLOCK.
- 7-MANIFOLD SHALL BE SUITABLE FOR CONNECTING TO TRANSMITTER.

DESCRIPTION : PRESSURE TEMPERATURE ON PIPE (3 PHASE (OIL/WATER/VAPOUR)) SERVICE

| ITEM | QTY. | SIZE OR CONNECTION | DESCRIPTION | MATERIAL | UNIT | REMARK |
|------|------|---|--|-------------|------|-----------|
| 01 | 10m | 1/2"O.D | TUBING, SEAMLESS, WALL THICKNESS 0.065" | AISI 316 SS | 120m | . |
| 07 | 2 | 1/2"NPTMx1/2"O.D | DOUBLE COMPRESSION TYPE MALE CONNECTOR | AISI 316 SS | 24 | . |
| 09 | 1 | 1/2"O.D | STRAIGHT UNION COMPRESSION TYPE DOUBLE FERRULE | AISI 316 SS | 12 | . |
| 15 | 10m | 1/4"O.D.x0.049" W.T | TUBING, SEAMLESS, WALL THICKNESS 0.049" | AISI 316 SS | 120m | . |
| 19 | 1 | 2x1/2"NPTF.PROCESS CON. &1/4" NPTF DRAIN CON. | 3 WAY 2-VALVE MANIFOLD | AISI 316 SS | 12 | BY VENDOR |
| 20 | 1 | 1/4"NPTMx1/4"O.D | MALE CONNECTOR | AISI 316 SS | 12 | |
| 23 | 1 | 1/4"O.D | STRAIGHT UNION COMPRESSION TYPE DOUBLE FERRULE | AISI 316 SS | 12 | |
| 24 | 1 | 1/2"NPTMx1/4"O.D | DOUBLE FERRULE COMPRESSION TYPE MALE CONNECTOR | AISI 316 SS | 12 | |
| | | | | | | |



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چندراهه کلاستر بینک



شماره پیمان:

053-073-9184

Instrument Hook-up Diagram - Extension of Binak B/C Manifold

شماره صفحه: 08 از 15

| پروژه | بسته کاری | صادرکننده | تهیلات | رشته | نوع مدرک | سریال | نسخه |
|-------|-----------|-----------|--------|------|----------|-------|------|
| BK | W007S | PEDCO | 110 | IN | DG | 0003 | D02 |

DIFFERENTIAL PRESSURE TEMPERATURE ON PIPE (3 PHASE (OIL/WATER/VAPOUR)) SERVICE

TAG NUMBERS

FT-1701A

FT-1701B

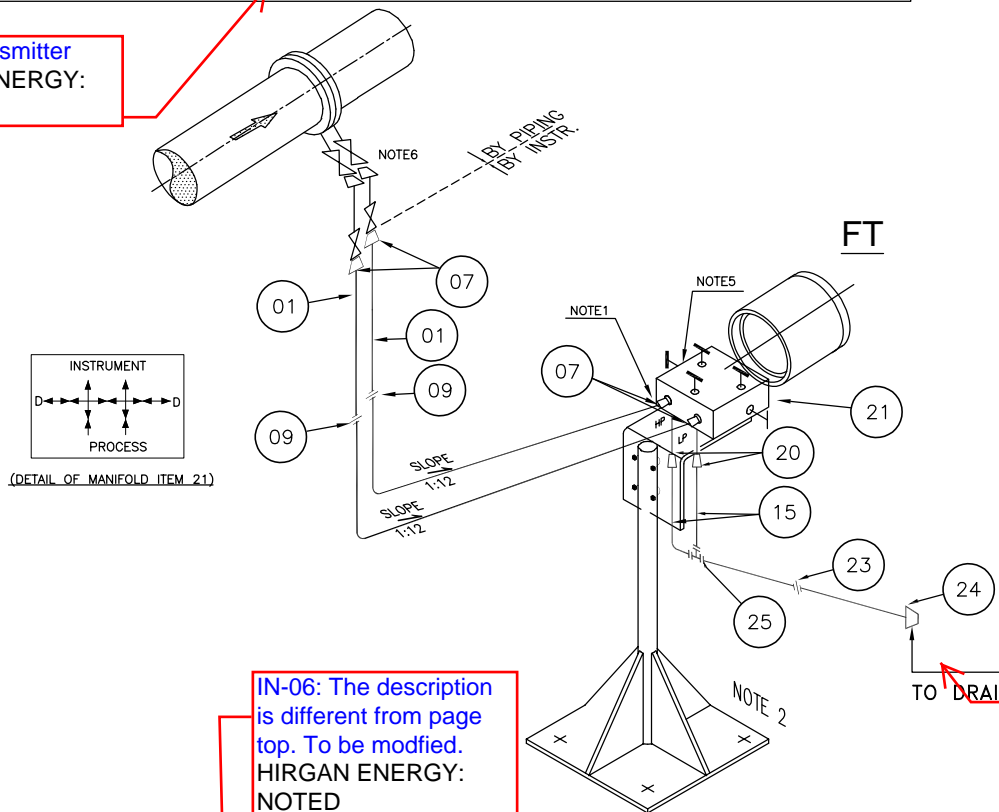
FT-1701C

FT-1701D

FT-1701E

FT-1701F

IN-01: Transmitter
HIRGAN ENERGY:
NOTED



NOTES:

- 1-(5) VALVES MANIFOLD WITH MOUNTING BRACKET, U-BOLTS AND NUTS ARE SUPPLIED BY VENDOR.
- 2-FOR DETAILS OF SUPPORT INSTALLATION REFER TO BK-W007S-PEDCO-110-IN-DW-0001.
- 3-USE OF UNION SHALL BE AVOIDED WHEREVER POSSIBLE.
- 4-MANIFOLD SHALL BE SUITABLE FOR CONNECT TO TRANSMITTER.
- 5-ORIFICE FLANGE WITH 1/2" NPT TAPPING, GASKET, BOLTS & NUTS SHALL BE SUPPLIED BY INSTR. VENDOR.
- 6-FOR PIPING CONNECTION REFER TO PIPING ASSEMBLY DRAWING. DOC NO."BK-SSGRL-PEDCO-110-PI-DW-0002."
- 7-PROCESS CONNECTION TO BE FROM SIDE, DUE TO ANY SPACE LIMITATION, ORIENTATION CAN BE DOWNWARDS UP TO 45 DEGREES.

IN-06: The description
is different from page
top. To be modified.
HIRGAN ENERGY:
NOTED

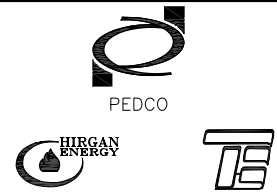
IN-04
HIRGAN ENERGY:
DETAIL OF CLOSE DRAIN
LOCATION &
CONNECTION IS
SPECIFIED IN PDMS
MODEL AND ADDITIONAL
CONNECTIONS SHALL BE
PROVIDED AND
INSTALLED BY PIPING
AND SITE WORK.

DESCRIPTION : FLOW TRANSMITTER ((OIL/WATER/VAPOUR)) SERVICE)

| ITEM | QTY. | SIZE OR CONNECTION | DESCRIPTION | MATERIAL | UNIT | REMARK |
|------|------|--|--|-------------|------|-----------|
| 01 | 20m | 1/2"O.D | TUBING, SEAMLESS, WALL THICKNESS 0.065" | AISI 316 SS | 120m | . |
| 07 | 4 | 1/2"NPTMx1/2"O.D | DOUBLE COMPRESSION TYPE MALE CONNECTOR | AISI 316 SS | 24 | . |
| 09 | 2 | 1/2"O.D | STRAIGHT UNION COMPRESSION TYPE DOUBLE FERRULE | AISI 316 SS | 12 | . |
| 15 | 10m | 1/4"O.Dx0.049"W.T. | TUBING, SEAMLESS, WALL THICKNESS 0.049" | AISI 316 SS | 60m | . |
| 21 | 1 | 2x1/2"NPTF.PROCESS CON. &1/4" NPTF DRAIN CON. | 5 WAY VALVE MANIFOLD | AISI 316 SS | 6 | BY VENDOR |
| 20 | 2 | 1/4"NPTMx1/4"O.D | MALE CONNECTOR | AISI 316 SS | 12 | |
| 23 | 1 | 1/4"O.D | STRAIGHT UNION COMPRESSION TYPE DOUBLE FERRULE | AISI 316 SS | 6 | |
| 24 | 1 | 1/2"NPTMx1/4"O.D | DOUBLE FERRULE COMPRESSION TYPE MALE CONNECTOR | AISI 316 SS | 6 | |
| 25 | 1 | 1/4" | UNION TUBE TEE | AISI 316 SS | 6 | |
| | | | | | | |

TAG NUMBERS

| ITEM | QTY. | SIZE OR CONNECTION | DESCRIPTION | MATERIAL | REMARK |
|------|------|--------------------|-------------|----------|--------|
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شماره صفحه: 14 از 15

| | | | | | | | |
|------|-------|----------|------|---------|-----------|-----------|-------|
| نسخه | سریال | نوع مدرک | رشته | تسهیلات | صادرکننده | بسته کاری | پروژه |
| D02 | 0003 | DG | IN | 110 | PEDCO | W007S | BK |

[illegible]

