



ऑयल इंडिया लिमिटेड
(भारत सरकार का उद्यम)
Oil India Limited
(A Government of India Enterprise)

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INVITATION TO e-BID UNDER SINGLE STAGE TWO BID SYSTEM

Tender No. & Date	: SGI1077P20 dated 06.04.2019
Tender Fee	: Not applicable
Bid Security	: INR 1,17,200.00
Bidding Type	: SINGLE STAGE TWO BID SYSTEM
Bid Closing on	: 09.05.2019 at 11.00 Hrs. (IST)
Bid Opening on	: 09.05.2019 at 14.00 Hrs.(IST)
Bid Validity	: Bid should be valid for 120 days from bid closing date.
Bid Bond Validity	: Bid Bond should be valid till 09.12.2019.
Performance Guarantee	: Applicable @ 10% of order value.
Integrity Pact	: Applicable

OIL INDIA LIMITED invites electronic bids from Indian bidders under NATIONAL COMPETITIVE BIDDING on SINGLE STAGE TWO BID SYSTEM through its e-procurement site for the items detailed below –

Item No. Material Code	Item Description	Qty.	UoM
10	Pressure Transmitter, 1.5 inch, 150 class, (-) 1 to 2 kg/cm2	8	No.
20	Pressure Transmitter, 1.5 inch, 1500 class, 0 to 150 kg/cm2	8	No.
30	Pressure Transmitter, 1.5 inch, 600 class, 0 to 100 kg/cm2	8	No.
40	Pressure Transmitter, Direct Mounted, 0 to 30 kg/cm2	8	No.
50	Pressure Transmitter, 1.5 inch 150 class, 0 to 30 kg/cm2	8	No.
60	Differential Pressure Transmitter, 3 inch, 150 class, 0 to 0.12 Kg/cm2	6	No.
70	Differential Pressure Transmitter, 3 inch, 150 class, 0 to 0.2 Kg/cm2	6	No.
80	Differential Pressure Transmitter, 3 inch, 150 class, 0 to 1.2 Kg/cm2	6	No.
90	Differential Pressure Transmitter, Direct Mounted, 0 to 0.03 kg/cm2	6	No.
100	Differential Pressure Transmitter, 3 inch, 600 class, 0 to 0.12 Kg/cm2	6	No.
110	Differential Pressure Transmitter, 3 inch, 600 class, 0 to 0.2 Kg/cm2	4	No.
120	Differential Pressure Transmitter, 3 inch, 600 class, 0 to 1.2 Kg/cm2	4	No.

The general details of tender can be viewed by opening the eRFx [Tender] under RFx and Auctions in the e-portal through Guest Login. The details of tendered items can be found in the Item Data and details uploaded under Technical RFx. The bidding document is available in the Technical RFx -> External Area -> Tender Documents.

STANDARD NOTES

- 1.0 The tender will be governed by “General Terms & Conditions for National Tender (National Competitive Bidding)” for e-Procurement as per Booklet No. MM/LOCAL/E-01/2005(For e-tenders).
- 2.0 This Bidding document consists of:
- | | | |
|-------|-------------|---|
| (i) | Annexure AA | : Technical Specification |
| (ii) | Annexure BB | : Bid Rejection Criteria |
| (iii) | Annexure CC | : Commercial Compliance Sheet |
| (iv) | Annexure DD | : Price Schedule |
| (v) | Annexure EE | : Annual Turn Over and Net Worth Certificate |
| (vi) | Annexure FF | : Undertaking towards submission of authentic information/documents |
- “General Terms & Conditions for National Tender (National Competitive Bidding)” for e-Procurement as per Booklet No. MM/LOCAL/E-01/2005(For e-tenders).
- 3.0 Bidders without having E-tender Login ID and Password should complete their online registration at least 7(seven) days prior to the scheduled bid closing date and time of the tender. For online registration, Bidder may visit the OIL’s E-tender site <https://etender.srm.oilindia.in/irj/portal>.
- 4.0 Necessary Login ID & Password will be issued by OIL only after submitting the complete online registration by the Bidder. In the event of late registration/incomplete registration by Bidder, OIL INDIA LIMITED shall not be responsible for late allotment of User ID & Password and request for bid closing date extension on that plea shall not be entertained by Company.
- 5.0 Bidders to note that Govt. of India under Micro, Small and Medium Enterprises Development (MSMED) Act 2006, has proclaimed the Public Procurement Policy, 2012 with effect from 1st April, 2012 in respect of procurement of goods and services, produced and provided by micro and small enterprises, by its Ministries, Departments and Public Sector Undertakings for promotion and development of Micro and Small Enterprises. A new Clause on applicability of Public Procurement Policy for procurement of goods from Micro and Small Enterprises (MSE) in the tender is furnished vide Amendment to General Terms and Conditions for Global Tender (MM/GLOBAL/E-01/2005). Bidders are requested to take note of the same and to submit their offers accordingly.
- 5.1 For availing benefits of Purchase Preference under Public Procurement Policy, the interested MSE Bidders must ensure that they are the manufacturer of tendered item(s) and registered with the appropriate authority for the said item(s). The technical offer of such MSE Bidders must include a valid copy of relevant MSE Certificate issued by appropriate authority specifying the item as per tender. Purchase Preference of 15% (fifteen percent) shall be extended to the eligible MSE Bidder (i.e. Manufacturer of tendered goods for procurement) over non-MSE L1 Bidder and PO shall be awarded for full tender quantity on such MSE bidder, subject to matching their quoted rates/costs with non-MSE L1 Bidder.
- 5.2 **MSEs Units (manufacturers/Service Providers only and not their dealers/distributors) who are already registered with District Industry Centers or Khadi & Village Industries Commission or Khadi & Village Industries Board or Coir Board or National Small Industries Corporation or Directorate of Handicrafts & Handloom or any other body specified by Ministry of MSME are exempted from payment of Bid Security (EMD) irrespective of their product category & capacity, subject to submission of valid MSME registration certificate issued by appropriate authority.**
- 5.3 Bids without EMD shall be rejected, if the technical offer does not include a valid copy of relevant MSE Certificate issued by appropriate authority. It is in the interest of such MSE Vendors to furnish a copy of complete certificate to the concerned tender handling officer of OIL at least seven (7) days prior to the scheduled Bid Closing Date of the tender. Late communication in this regard and request for bid closing date extension on that plea shall not be entertained by Company.
- 6.0 **Purchase Preference (Linked with Local Content) (PP-LC) is not applicable against this tender.**
- 7.0 Bidder seeking benefits of MSME and Purchase Preference Policy (Linked with Local Content) shall clearly indicate the same in the tender with proper documents as stipulated in the tender.
- 8.0 OIL INDIA LIMITED (OIL) has upgraded its E-tender Portal. As part of the new system, the intending bidder must have Encryption Certificate along with Digital Signature Certificate (DSC) of Class III [Organization]. **All the Bids must be Digitally Signed using “Class III” digital certificate (e-commerce application) with ‘Certificate Type:**

Organisation Certificate' as per Indian IT Act obtained from the licensed Certifying Authorities operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India. The bid signed using other than "Class 3 with Organisation's Name" digital certificate, will be rejected.

9.0 EMD must be paid either through online mode or submitted as Bank Guarantee/LC. No DD/Cheques/Cashier Cheque or any other mode will be acceptable.

9.1 OIL has made arrangement for online confirmation of Bank Guarantee through SFMS Platform with Axis Bank, Guwahati. Therefore, bidders submitting Bid Security in the form of Bank Guarantee must route the BG through SFMS platform as per following details –

- a. *(i) MT 760/MT 760 COV for issuance of bank guarantee*
(ii) MT 767/MT 767 COV for amendment of bank guarantee

The above message/intimation shall be sent through SFMS by the BG issuing bank branch to Axis Bank, Guwahati Branch, IFS Code – UTIB0000140, Branch Address – Axis Bank Ltd., Guwahati Branch, Chibber House, G.S. Road, Dispur, Assam, Pin – 781005.

- b. *The Bidder shall submit to OIL the copy of SFMS message as sent by the issuing bank branch along with the original bank guarantee.*

9.2 **Bank Guarantee issued by a Scheduled Bank in India at the request of some other Non-Scheduled Bank in India shall not be acceptable.**

10.0 Bidders are requested to go through **the 'Vendor User Manual', 'Guidelines to Bidders for participating in OIL e-tenders', 'New Instruction to bidders for submission of bid' and 'Vendor User Manual for e-tendering'** available in the e-portal home page before submitting offer in system.

11.0 **Deemed export/Custom Duty benefits are not applicable against this tender and bidders should furnish prices without considering these benefits.**

12.0 Please note that all tender forms and supporting documents are to be submitted through OIL's e-Procurement site only except following documents which are to be submitted manually in sealed envelope super scribed with Tender no. and Due date to **The Deputy General Manager - Materials (PL), Oil India Limited (Pipeline Headquarter), P.O. Udayan Vihar, Guwahati -781171 before 14.00 Hrs. IST on the Bid Closing Date** mentioned in the Tender.

- a) Bid Security(EMD) submitted in the form of Bank Guarantee.
 b) Detailed Catalogue (if any).
 c) Any other document required to be submitted in original as per tender requirement.

All documents submitted in physical form should be signed on all pages by the authorised signatory of the bidder and to be submitted in triplicate.

13.0 Bidders are requested to examine all instructions, forms, terms and specifications in the tender. Failure to furnish all information required as per the tender or submission of offers not substantially responsive to the bid in every respect will be at the bidder's risk and may result in rejection of its offer without seeking any clarifications.

14.0 Any deviation(s) from the tender specification should be clearly highlighted specifying justification in support of deviation.

15.0 Original Bid Closing Date shall be considered by OIL for evaluation of BRC Criteria in case of any extension of the original bid closing date.

16.0 Along with the technical bid, bidders must submit duly filled undertaking as per format provided vide **Annexure-FF** as undertaking towards submission of authentic information/documents.

17.0 The tender is invited under **SINGLE STAGE-TWO BID SYSTEM**. The bidder has to submit both the "TECHNO-COMMERCIAL UNPRICED BID" and "PRICED BID" through electronic form in the OIL's e-Tender portal within the Bid Closing Date and Time stipulated in the e-Tender. The "Techno-commercial Unpriced Bid" shall contain all technical

and commercial details except the prices which shall be kept blank. Details of prices as per Price Schedule to be uploaded as attachment in the Attachment Tab "Notes and Attachments". Any offer not complying with above submission procedure will be rejected as per Bid Rejection Criteria mentioned in the tender.

- 18.0 In Technical Bid opening, only Technical Rfx will be opened. Therefore, the bidder should ensure that "TECHNO-COMMERCIAL UNPRICED BID should contain details as mentioned in the technical specifications as well as BEC/ BRC and upload the same in the Technical Rfx Response-> User -> Technical Bid. No price should be given in above Technical Rfx otherwise the offer will be rejected. Please go through the help document in details before uploading the document and ensure uploading of technical bid in the Technical Rfx Response-> User -> Technical Bid only. The "PRICE BID" must contain the price schedule and the bidder's commercial terms and conditions. Details of prices as per Price Schedule can be uploaded as Attachment under the attachment option under "Notes & Attachments".

Notes and Attachments

→ Only price details should be uploaded

Technical attachments

→ All technical bid documents except price details

Bidders are requested to go through the 'New Vendor Manual', 'Guidelines to Bidders for participating in OIL e-tenders', 'New Instruction to bidders for submission of bid' and 'Vendor User Manual for e-tendering' available in the e-portal home page before submitting offer in system.



Oil India Limited e-Procurement

User ID *

Password *

Logon Problems? [Get Support](#)

[Supplier Enlistment for E-Tender](#)

Important Note for New Portal Users:

[Click here to View Compatibility Settings](#)

[General Guidelines to bidders](#)

[Click for User Manuals](#)

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[Click for Terms of use](#), [Privacy Policy](#), [Refund Policy Docs](#)

Click here for the New Manual & Instruction

- 19.0 For the convenience of the qualified Bidders and to improve transparency, the rates/costs quoted by bidders against OIL's e-tenders shall be available for online viewing by such Bidders whose price bids are opened by Company. A Bidder can view item-wise rates/costs of all other such peer bidders against the tender immediately after price bid opening, if the e-tender is floated by Company with PRICE CONDITION. In case the Price Bid is invited by Company through attachment form under "Notes & Attachments" (i.e., NO PRICE CONDITION), Bidder must upload their detailed Price-Bid as per the prescribed format under "Notes & Attachment", in addition to filling up the "Total Bid Value" Tab taking into account the cost of all individual line items and other applicable charges like freight, tax, duties, levies etc.. Under NO PRICE Condition (i.e. Price Bid in attachment form), the "Total Bid Value" as calculated & quoted by the Bidder shall only be shared amongst the eligible bidders and Company will not assume any responsibility whatsoever towards calculation errors/omissions therein, if any. Notwithstanding to sharing the "Total Bid Value" or the same is whether filled up by the Bidder or not, Company will evaluate the cost details to ascertain the inter-se-ranking of bidders strictly as per the unloaded attachment and Bid Evaluation Criteria only. Online view of prices as above shall be available to the Bidders only upto seven days from the date of Price-Bid opening of the e-tender.

- 20.0 Bidders are requested to examine all instructions, forms, terms and specifications in the tender. Failure to furnish all information required as per the tender or submission of offers not substantially responsive to the bid in every respect will be at the bidder's risk and may result in rejection of its offer without seeking any clarifications.
- 21.0 Bidders must ensure that their bid is uploaded in the system before the tender closing date and time. Also, they must ensure that all documents which are to be submitted in a sealed envelope are also submitted at the address mentioned in note 12.0 above before **14:00 Hrs (IST)** on the bid closing date failing which the offer shall be rejected.
- 22.0 Other terms and conditions of the tender shall be as per "General Terms & Conditions for National Tender (National Competitive Bidding)" for e-Procurement as per Booklet No. MM/LOCAL/E-01/2005(For e-tenders). However, if any of the clause of the Bid Rejection Criteria / Bid Evaluation Criteria (BEC / BRC) contradicts the clauses in the General Terms & Conditions of the tender and/or elsewhere, those mentioned in the BEC/BRC shall prevail.
- 23.0 To ascertain the substantial responsiveness of the bid OIL reserves the right to ask the bidder for clarification in respect of clauses covered under BRC also and such clarifications fulfilling the BRC clauses in toto must be received on or before the deadline given by the company, failing which the offer may be summarily rejected.
- 24.0 **No press advertisement will be published regarding amendment to Bidding Document or extension of Bid Closing Date. The same will be uploaded in OIL's website and informed to all prospective bidders who have received the bidding documents. Bidders to keep themselves updated.**

Sd-
(M.B. SINGHA)
SR. MANAGER MATERIALS (PL)
FOR GENERAL MANAGER - MATERIALS (PL)
FOR: CHIEF GENERAL MANAGER (PLS)

TECHNICAL SPECIFICATION**ITEM 10: TECHNICAL SPECIFICATION FOR 1.5 INCH 150 CLASS PRESSURE TRANSMITTER RANGE (-1 to 2 kg/cm²)****General:**

Function	: Transmit and Indicate
Type	: Electronic SMART
Case	: Shall be metallic as per Manufacturer Standard
Mounting	: Yoke (2" NB Pipe)
Enclosure	: Weatherproof to IP66 and above
Electrical Area Class	: IEC Zone2 Gr IIA/IIB T3
Intrinsic Safety	: ATEX / IEC Explosion proof required,
Power Supply	: 24V D.C. Two Wire
Cable Entry	: 1/2" NPTF Two Nos.
Accuracy	: +/- 0.1% or better of span (for remote seal type)
Max. Pressure	: 20 kg/cmsq
Max. Temperature	: 65 Degree C
Ambient Temperature	: (-) 30 degC to 80 degC
Load Impedance	: 550 ohms or better at 24 V DC

Transmitter:

Output Type	: Analog(4-20mA)
Range	: -1 to 2 kg/cm ²
Driving Voltage	: 24 V DC (On Two Wire)
Protocol	: HART
Turn down Ratio	: 100:1
Response Time	: 200 millisecond or better (Documentary evidence supporting the same should be submitted)

Measuring Unit:

Service	: Gauge Pressure
Element Type	: Diaphragm
Body Material	: SS 316
Element Material	: SS 316
Over-range Protection	: Required
Process Connection	: 1/2" NPTF

Diaphragm Seal:

Type	: Remote
Wetted Part Material	: SS 316 L
Other Material	: SS

Process Connection:

Size and Rating	: 1 ½ inch 150 class
Facing & Finish	: RF 125AARH
Capillary Material	: SS 316
Armour Type	: Flexible
Armour Material	: SS 304
Capillary length	: 5 metres
Capillary filling material	: Silicon Oil (DC-200) or equivalent

Accessories:

- 2 inch SST Pipe Mounting Bracket – Qty: 2 nos.
2 Way SS 316 Valve Manifold (For Standard Pressure Transmitter) – Qty: 2 nos.

NOTES:

- (i) Flange material shall be ASTM A105. Flange dimensions shall be as per ASME B16.5.
- (ii) The transmitter shall be of remote seal type with integral flange.
- (iii) The Pressure transmitter can be calibrated with standard/universal HART calibrator of all reputed make.
- (iv) Integral intrinsic safe output meter (LCD Type) shall be provided.
- (v) Original product catalogue must be attached along with the bid.

- (vi) Surge, Transient, short circuit and reverse polarity protection shall be in built in the transmitter.
- (vii) External ground (with screw) must be present on the body of the transmitter.
- (viii) The Transmitter and process flange must be supported with TEST CERTIFICATE/REPORT from accredited third party /laboratory.
- (ix) The transmitter must have Flameproof housing: Flameproof/ Ex (d) as per IS/IEC-60079.
- (x) The stability of the transmitters shall be equal to or better than +/-0.13% of span for a period of minimum 5 years, as a minimum.
- (xi) In the transmitter, the 'WRITE' option shall be protected through password.
- (xii) Transmitter Shall have ATEX/IEC explosion Proof/ Intrinsic Safe approvals. A copy of approval from statutory authority, Petroleum & Explosives Safety Organization (PESO) is required.
- (xiii) Proper mounting bracket & 'U' Bolt shall be supplied along with each equipment for installation on 2" pipe.
- (xiv) Tag Plate: SS Tag Plate to be Provided.
- (xv) Warranty: 12 months from the date of receipt at site or 18 months from the date of despatch, whichever is earlier.
- (xvi) Certified to SIL2 with single use as per IEC61508.
- (xvii) The Transmitter shall be leak tested and calibrated together before supply. Calibration & test certificates to be attached.

ITEM 20: TECHNICAL SPECIFICATION FOR 1.5 INCH 1500 CLASS PRESSURE TRANSMITTER RANGE (0 to 150 kg/cm²)

General:

Function	: Transmit and Indicate
Type	: Electronic SMART
Case	: Shall be metallic as per Manufacturer Standard
Mounting	: Yoke (2" NB Pipe)
Enclosure	: Weatherproof to IP66 and above
Electrical Area Class	: IEC Zone2 Gr IIA/IIB T3
Intrinsic Safety	: Required
Power Supply	: 24V D.C. Two Wire
Cable Entry	: 1/2" NPTF Two Nos.
Accuracy	: +/- 0.1% or better of span (for remote seal type)
Max. Pressure	: 250 kg/cmsq
Max. Temperature	: 65 Degree C
Ambient Temperature	: (-) 30 degC to 80 degC
Load Impedance	: 550 Ohms or better at 24 V DC

Transmitter:

Output Type	: Analog(4-20mA)
Range	: 0 to 150 kg/cm ²
Driving Voltage	: 24 V DC (On Two Wire)
Protocol	: HART
Turn down Ratio	: 100:1
Response Time	: 200 millisecond or better (Documentary evidence supporting the same should be submitted)

Measuring Unit:

Service	: Gauge Pressure
Element Type	: Diaphragm
Body Material	: SS 316
Element Material	: SS 316
Over-range Protection	: Required
Process Connection	: 1/2" NPTF

Diaphragm Seal:

Type	: Remote
Wetted Part Material	: SS 316 L
Other Material	: SS

Process Connection:

Size and Rating	: 1 ½ inch 1500 class
Facing & Finish	: RTJ 63AARH

The process side of the flange should have a groove to accommodate RTJ Ring No. 20.

Capillary Material	: SS 316
Armour Type	: Flexible
Armour Material	: SS 304
Capillary length	: 5 metres
Capillary filling material	: Silicon Oil (DC-200) or equivalent

Accessories:

2 inch SST Pipe Mounting Bracket – Qty: 2 nos.

2 Way SS 316 Valve Manifold (For Standard Pressure Transmitter) – Qty: 2 nos.

NOTES:

- (i) Flange material shall be ASTM A105. Flange dimensions shall be as per ASME B16.5.
- (ii) The transmitter shall be of remote seal type with integral flange.
- (iii) The Pressure transmitter can be calibrated with standard/universal HART calibrator of all reputed make.
- (iv) Integral intrinsic safe output meter (LCD Type) shall be provided.
- (v) Original product catalogue must be attached along with the bid.
- (vi) Surge, Transient, short circuit and reverse polarity protection shall be in built in the transmitter.
- (vii) External ground (with screw) must be present on the body of the transmitter.
- (viii) The Transmitter and process flange must be supported with TEST CERTIFICATE/REPORT from accredited third party /laboratory.
- (ix) The transmitter must have Flameproof housing: Flameproof/ Ex (d) as per IS/IEC-60079
- (x) The stability of the transmitters shall be equal to or better than +/-0.13% of span for a period of minimum 5 years, as a minimum.
- (xi) In the transmitter, the 'WRITE' option shall be protected through password.
- (xii) Transmitter Shall have ATEX/IEC explosion Proof/ Intrinsic Safe approvals. A copy of approval from statutory authority, Petroleum & Explosives Safety Organization (PESO) is required.
- (xiii) Proper mounting bracket & 'U' Bolt shall be supplied along with each equipment for installation on 2" pipe.
- (xiv) Tag Plate: SS Tag Plate to be Provided.
- (xv) Warranty: 12 months from the date of receipt at site or 18 months from the date of despatch, whichever is earlier.
- (xvi) Certified to SIL2 with single use as per IEC61508.
- (xvii) The Transmitter shall be leak tested and calibrated together before supply. Calibration & test certificates to be attached.

ITEM 30: TECHNICAL SPECIFICATION FOR 1.5 INCH 600 CLASS PRESSURE TRANSMITTER RANGE (0 to 100 kg/cm²)General:

Function	: Transmit and Indicate
Type	: Electronic SMART
Case	: Shall be metallic as per Manufacturer Standard
Mounting	: Yoke (2" NB Pipe)
Enclosure	: Weatherproof to IP66 and above
Electrical Area Class	: IEC Zone2 Gr IIA/IIB T3
Intrinsic Safety	: Required
Power Supply	: 24V D.C. Two Wire
Cable Entry	: 1/2" NPTF Two Nos.
Accuracy	: +/- 0.1% or better of span (for remote seal type)
Max. Pressure	: 105 kg/cmsq
Max. Temperature	: 65 Degree C
Ambient Temperature	: (-) 30 degC to 80 degC
Load Impedance	: 550 Ohms or better at 24 V DC

Transmitter:

Output Type	: Analog(4-20mA)
Range	: 0 to 100 kg/cm ²
Driving Voltage	: 24 V DC (On Two Wire)
Protocol	: HART
Turn down Ratio	: 100:1
Response Time	: 200 millisecond or better (Documentary evidence supporting the same should be submitted)

Measuring Unit:

Service	: Gauge Pressure
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Element Type : Diaphragm
 Body Material : SS 316
 Element Material : SS 316
 Over-range Protection : Required
 Process Connection : 1/2" NPTF

Diaphragm Seal:

Type : Remote
 Wetted Part Material : SS 316 L
 Other Material : SS

Process Connection:

Size and Rating : 1 ½ inch 600 class
 Facing & Finish : RF 125AARH
 Capillary Material : SS 316
 Armour Type : Flexible
 Armour Material : SS 304
 Capillary length : 5 metres
 Capillary filling material : Silicon Oil (DC-200) or equivalent

Accessories:

2 inch SST Pipe Mounting Bracket – Qty: 2 nos.
 2 Way SS 316 Valve Manifold (For Standard Pressure Transmitter): Qty: 2 nos.

NOTES:

- (i) Flange material shall be ASTM A105. Flange dimensions shall be as per ASME B16.5.
- (ii) The transmitter shall be of remote seal type with integral flange.
- (iii) The Pressure transmitter can be calibrated with standard/universal HART calibrator of all reputed make.
- (iv) Integral intrinsic safe output meter (LCD Type) shall be provided.
- (v) Original product catalogue must be attached along with the bid.
- (vi) Surge, Transient, short circuit and reverse polarity protection shall be in built in the transmitter.
- (vii) External ground (with screw) must be present on the body of the transmitter.
- (viii) The Transmitter and process flange must be supported with TEST CERTIFICATE/REPORT from accredited third party /laboratory.
- (ix) The transmitter must have Flameproof housing: Flameproof/ Ex (d) as per IS/IEC-60079
- (x) The stability of the transmitters shall be equal to or better than +/-0.13% of span for a period of minimum 5 years, as a minimum.
- (xi) In the transmitter, the 'WRITE' option shall be protected through password.
- (xii) Transmitter Shall have ATEX/IEC explosion Proof/ Intrinsic Safe approvals. A copy of approval from statutory authority, Petroleum & Explosives Safety Organization (PESO) is required.
- (xiii) Proper mounting bracket & 'U' Bolt shall be supplied along with each equipment for installation on 2" pipe.
- (xiv) Tag Plate: SS Tag Plate to be Provided.
- (xv) Warranty: 12 months from the date of receipt at site or 18 months from the date of despatch, whichever is earlier.
- (xvi) Certified to SIL2 with single use as per IEC61508.
- (xvii) The Transmitter shall be leak tested and calibrated together before supply. Calibration & test certificates to be attached.

ITEM 40: TECHNICAL SPECIFICATION FOR DIRECT MOUNT PRESSURE TRANSMITTER RANGE (0 to 30 kg/cm²)General:

Function : Transmit and Indicate
 Type : Electronic SMART
 Case : Shall be metallic as per Manufacturer Standard
 Mounting : Yoke (2" NB Pipe)
 Enclosure : Weatherproof to IP66 and above
 Electrical Area Class : IEC Zone2 Gr IIA/IIB T3
 Intrinsic Safety : Required
 Power Supply : 24V D.C. Two Wire
 Cable Entry : 1/2" NPTF Two Nos.
 Accuracy : +/- 0.1% of or better of span
 Max. Temperature : 65 Degree C

Ambient Temperature : (-) 30 degC to 80 degC
 Load Impedance : 550 Ohms or better at 24 V DC

Transmitter:

Output Type : Analog(4-20mA)
 Range : 0 to 30 kg/cm²
 Driving Voltage : 24 V DC (On Two Wire)
 Protocol : HART
 Turn down Ratio : 20:1
 Response Time : 100 millisecond or better (Documentary evidence supporting the same should be submitted)

Measuring Unit:

Service : Gauge Pressure
 Element Type : Diaphragm
 Body Material : SS 316
 Element Material : SS 316
 Over-range Protection : Required
 Process Connection : 1/2" NPTF

Other:

Diaphragm Seal : Not Required

Accessories:

2 inch SST Pipe Mounting Bracket – Qty: 2 nos.
 2 Way SS 316 Valve Manifold (For Standard Pressure Transmitter) – Qty: 2 nos.

NOTES:

- (i) The Pressure transmitter can be calibrated with standard/universal HART calibrator of all reputed make.
- (ii) Integral intrinsic safe output meter (LCD Type) shall be provided.
- (iii) Original product catalogue must be attached along with the bid.
- (iv) Surge, Transient, short circuit and reverse polarity protection shall be in built in the transmitter.
- (v) External ground (with screw) must be present on the body of the transmitter.
- (vi) The Transmitter must be supported with TEST CERTIFICATE/REPORT from accredited third party /laboratory.
- (vii) The transmitter must have Flameproof housing: Flameproof/ Ex (d) as per IS/IEC-60079
- (viii) The stability of the transmitters shall be equal to or better than +/-0.13% of span for a period of minimum 5 years, as a minimum.
- (ix) In the transmitter, the 'WRITE' option shall be protected through password.
- (x) Transmitter Shall have ATEX/IEC explosion Proof/ Intrinsic Safe approvals. A copy of approval from statutory authority, Petroleum & Explosives Safety Organization (PESO) is required.
- (xi) Proper mounting bracket & 'U' Bolt shall be supplied along with each equipment for installation on 2" pipe.
- (xii) Tag Plate: SS Tag Plate to be Provided.
- (xiii) Warranty: 12 months from the date of receipt at site or 18 months from the date of despatch, whichever is earlier.
- (xiv) Certified to SIL2 with single use as per IEC61508.
- (xv) The Transmitter shall be leak tested and calibrated together before supply. Calibration & test certificates to be attached.

ITEM 50: TECHNICAL SPECIFICATION FOR 1.5 INCH 150 CLASS PRESSURE TRANSMITTER RANGE (0 to 30 kg/cm²)**General:**

Function : Transmit and Indicate
 Type : Electronic SMART
 Case : Shall be metallic as per Manufacturer Standard
 Mounting : Yoke (2" NB Pipe)
 Enclosure : Weatherproof to IP66 and above
 Electrical Area Class : IEC Zone2 Gr IIA/IIB T3
 Intrinsic Safety : Required
 Power Supply : 24V D.C. Two Wire
 Cable Entry : 1/2"NPTF Two Nos. One number cable entry shall be plugged with metallic weatherproof plug.
 Accuracy : +/- 0.1% or better of Span (for remote seal)
 Max. Pressure : 20 kg/cmsq
 Max. Temperature : 65 Degree C

Ambient Temperature : (-) 30 degC to 80 degC
 Load Impedance : 550 Ohms or better at 24 V DC

Transmitter:

Output Type : Analog(4-20mA)
 Range : 0 to 30 kg/cm²
 Driving Voltage : 24 V DC (On Two Wire)
 Protocol : HART
 Turn down Ratio : 100:1
 Response Time : 200 millisecond or better (Documentary evidence supporting the same should be submitted)

Measuring Unit:

Service : Gauge Pressure
 Element Type : Diaphragm
 Body Material : SS 316
 Element Material : SS 316
 Over-range Protection : Required
 Process Connection : 1/2" NPTF

Diaphragm Seal:

Type : Remote
 Wetted Part Material : SS 316 L
 Other Material : SS

Process Connection:

Size and Rating : 1 ½ inch 150 class
 Facing & Finish : RF 125AARH
 Capillary Material : SS 316
 Armour Type : Flexible
 Armour Material : SS 304
 Capillary length : 5 metres
 Capillary filling material : Silicon Oil (DC-200) or equivalent

NOTES:

- (i) Flange material shall be ASTM A105. Flange dimensions shall be as per ASME B16.5.
- (ii) The transmitter shall be of remote seal type with integral flange.
- (iii) The Pressure transmitter can be calibrated with standard/universal HART calibrator of all reputed make.
- (iv) Integral intrinsic safe output meter (LCD Type) shall be provided.
- (v) Original product catalogue must be attached along with the bid.
- (vi) Surge, Transient, short circuit and reverse polarity protection shall be in built in the transmitter.
- (vii) External ground (with screw) must be present on the body of the transmitter.
- (viii) The Transmitter and process flange must be supported with TEST CERTIFICATE/REPORT from accredited third party /laboratory.
- (ix) The transmitter must have Flameproof housing: Flameproof/ Ex (d) as per IS/IEC-60079
- (x) The stability of the transmitters shall be equal to or better than +/-0.13% of span for a period of minimum 5 years, as a minimum.
- (xi) In the transmitter, the 'WRITE' option shall be protected through password.
- (xii) Transmitter Shall have ATEX/IEC explosion Proof/ Intrinsic Safe approvals. A copy of approval from statutory authority, Petroleum & Explosives Safety Organization (PESO) is required.
- (xiii) Proper mounting bracket & 'U' Bolt shall be supplied along with each equipment for installation on 2" pipe.
- (xiv) Tag Plate: SS Tag Plate to be Provided.
- (xv) Warranty: 12 months from the date of receipt at site or 18 months from the date of despatch, whichever is earlier.
- (xvi) Certified to SIL2 with single use as per IEC61508.
- (xvii) The Transmitter shall be leak tested and calibrated together before supply. Calibration & test certificates to be attached.

ITEM 60: TECHNICAL SPECIFICATION FOR 3 INCH 150 CLASS DIFFERENTIAL PRESSURE TRANSMITTER RANGE (0 to 0.12 kg/cm²)

Diff Pressure Transmitter, 3 inch 150 class, 0-0.12 kg/cm²

General:

Function	: Transmit and Indicate
Type	: Electronic SMART
Case	: Shall be metallic as per Manufacturer Standard
Mounting	: Yoke (2" NB Pipe)
Enclosure	: Weatherproof to IP66 and above
Electrical Area Class	: IEC Zone2 Gr IIA/IIB T3
Intrinsic Safety	: Required
Power Supply	: 24V D.C. Two Wire
Cable Entry	: 1/2" NPTF Two Nos. One number cable entry shall be plugged with metallic weatherproof plug.
Accuracy	: +/- 0.1% or better of the span
Response Time	: Better than 200 ms (to be written in the product catalogue)
Turndown Ratio	: 100:1
Stability	: +/- 0.13% of URL for 5 years

Transmitter:

Output Type	: Analog(4-20mA)
Range	: 0 to 0.12 kg/cm ²
Driving Voltage	: 24 V DC (On Two Wire)
Protocol	: HART
Load impedance	: 550 ohm(minimum) or better at 24 V DC

Measuring Unit:

Service	: Gauge Pressure
Element Type	: Diaphragm
Body Material	: 316 SS
Element Material	: 316 SS
Over-range Protection	: Required
Instrument Connection	: 1/2" NPTF

Diaphragm Seal:

Type	: Remote
Wetted Part Material	: SS 316L
Other Material	: SS

Process Connection (Low Pressure side):

Size and Rating	: 3 inch 150 class
Facing & Finish	: RF 125AARH

Process Connection (High Pressure side):

Size and Rating	: 3 inch 150 class
Facing & Finish	: RF 125AARH
Capillary Material	: SS 316
Armour Type	: Flexible
Armour Material	: SS 304
Capillary length	: 5 metres on both sides

Flushing/Filling Conn. with plug: Required

CCOE Approval	: Required
Mounting accessories	: Required

NOTES:

- (i) Flange material shall be as per ASTM A105.
- (ii) The transmitter shall be of remote seal type with integral flange.
- (iii) Digital Communication should be possible with hand held communicator of HART protocol of all brands.
- (iv) Integral intrinsic safe output meter shall be provided.
- (v) Overpressure limits to be provided.
- (vi) Process connection shall be of 1/4" or 1/2" NPT Process connection. LP or HP side shall be field selectable.
- (vii) Transmitter Shall have ATEX/IEC explosion Proof/ Intrinsic Safe approvals. Transmitter shall have valid CCOE /PESO certificates suitable for use in hazardous areas.
- (viii) Transmitter to be leak tested and calibrated together before supply. Calibration & test certificates to be attached.

- (ix) Warranty: 12 months from the date of receipt at site or 18 months from the date of despatch, whichever is earlier.
- (x) Safety Certification of SIL 2 with single use as per IEC61508.
- (xi) SS tag plate to be provided.

ITEM 70: TECHNICAL SPECIFICATION FOR 3 INCH 150 CLASS DIFFERENTIAL PRESSURE TRANSMITTER RANGE (0 to 0.2 kg/cm²)

Diff Pressure Transmitter, 3 inch 150 class, 0-0.2 kg/cm²

General:

Function	: Transmit and Indicate
Type	: Electronic SMART
Case	: Shall be metallic as per Manufacturer Standard
Mounting	: Yoke (2" NB Pipe)
Enclosure	: Weatherproof to IP66 and above
Electrical Area Class	: IEC Zone2 Gr IIA/IIB T3
Intrinsic Safety	: Required
Power Supply	: 24V D.C. Two Wire
Cable Entry	: 1/2" NPTF Two Nos. One number cable entry shall be plugged with metallic weatherproof plug.
Accuracy	: +/- 0.1% or better of the span
Response Time	: Better than 200 ms (to be written in the product catalogue)
Turndown Ratio	: 100:1
Stability	: +/- 0.13% of URL for 5 years

Transmitter:

Output Type	: Analog(4-20mA)
Range	: 0 to 0.2 kg/cm ²
Driving Voltage	: 24 V DC (On Two Wire)
Protocol	: HART
Load impedance	: 550 ohm(minimum) or better at 24 V DC

Measuring Unit:

Service	: Gauge Pressure
Element Type	: Diaphragm
Body Material	: SS 316
Element Material	: SS 316
Over-range Protection	: Required
Instrument Connection	: 1/2" NPTF

Diaphragm Seal:

Type	: Remote
Wetted Part Material	: SS 316
Other Material	: SS

Process Connection (Low Pressure side):

Size and Rating	: 3 inch 150 class
Facing & Finish	: RF 125AARH

Process Connection (High Pressure side):

Size and Rating	: 3 inch 150 class
Facing & Finish	: RF 125AARH
Capillary Material	: SS 316
Armour Type	: Flexible
Armour Material	: SS 304
Capillary length	: 5 metres on both sides

Flushing/Filling Conn. with plug: Required

CCOE Approval	: Required
Mounting accessories	: Required

NOTES:

- (i) Flange material shall be as per ASTM A105.

- (ii) The transmitter shall be of remote seal type with integral flange.
- (iii) Digital Communication should be possible with hand held communicator of HART protocol of all brands.
- (iv) Integral intrinsic safe output meter shall be provided.
- (v) Overpressure limits to be provided.
- (vi) Process connection shall be of 1/4" or 1/2" NPT Process connection. LP or HP side shall be field selectable.
- (vii) Transmitter Shall have ATEX/IEC explosion Proof/ Intrinsic Safe approvals. Transmitter shall have valid CCOE / PESO certificates suitable for use in hazardous areas.
- (viii) Transmitter to be leak tested and calibrated together before supply. Calibration & test certificates to be attached.
- (ix) Warranty: 12 months from the date of receipt at site or 18 months from the date of despatch, whichever is earlier.
- (x) Safety Certification of SIL 2 with single use as per IEC61508.
- (xi) SS tag plate to be provided.

ITEM 80: TECHNICAL SPECIFICATION FOR 3 INCH 150 CLASS DIFFERENTIAL PRESSURE TRANSMITTER RANGE (0 to 1.2 kg/cm²)

Diff Pressure Transmitter, 3 inch 150 class, 0-1.2 kg/cm²

General:

Function	: Transmit and Indicate
Type	: Electronic SMART
Case	: Shall be metallic as per Manufacturer Standard
Mounting	: Yoke (2" NB Pipe)
Enclosure	: Weatherproof to IP66 and above
Electrical Area Class	: IEC Zone2 Gr IIA/IIB T3
Intrinsic Safety	: Required
Power Supply	: 24V D.C. Two Wire
Cable Entry	: 1/2" NPTF Two Nos. One number cable entry shall be plugged with metallic weatherproof plug.
Accuracy	: +/- 0.1% or better of the span
Response Time	: Better than 200 ms (to be written in the product catalogue)
Turndown Ratio	: 100:1
Stability	: +/- 0.13% of URL for 5 years

Transmitter:

Output Type	: Analog(4-20mA)
Range	: 0 to 1.2 kg/cm ²
Driving Voltage	: 24 V DC (On Two Wire)
Protocol	: HART
Load impedance	: 550 ohm(minimum) or better at 24 V DC

Measuring Unit:

Service	: Gauge Pressure
Element Type	: Diaphragm
Body Material	: SS 316
Element Material	: SS 316
Over-range Protection	: Required
Instrument Connection	: 1/2" NPTF

Diaphragm Seal:

Type	: Remote
Wetted Part Material	: SS 316
Other Material	: SS

Process Connection (Low Pressure side):

Size and Rating	: 3 inch 150 class
Facing & Finish	: RF 125AARH

Process Connection (High Pressure side):

Size and Rating	: 3 inch 150 class
Facing & Finish	: RF 125AARH
Capillary Material	: SS 316
Armour Type	: Flexible

Armour Material : SS 304
 Capillary length : 5 metres on both sides

Flushing/Filling Conn. with plug: Required
 CCOE Approval : Required
 Mounting accessories : Required

NOTES:

- (i) Flange material shall be as per ASTM A105.
- (ii) The transmitter shall be of remote seal type with integral flange.
- (iii) Digital Communication should be possible with hand held communicator of HART protocol of all brands.
- (iv) Integral intrinsic safe output meter shall be provided.
- (v) Overpressure limits to be provided.
- (vi) Process connection shall be of 1/4" or 1/2" NPT Process connection. LP or HP side shall be field selectable.
- (vii) Transmitter Shall have ATEX/IEC explosion Proof/ Intrinsic Safe approvals. Transmitter shall have valid CCOE / PESO certificates suitable for use in hazardous areas.
- (viii) Transmitter to be leak tested and calibrated together before supply. Calibration & test certificates to be attached.
- (ix) Warranty: 12 months from the date of receipt at site or 18 months from the date of despatch, whichever is earlier.
- (x) Safety Certification of SIL 2 with single use as per IEC61508.
- (xi) SS tag plate to be provided.

ITEM 90: TECHNICAL SPECIFICATION FOR DIRECT MOUNTED DIFFERENTIAL PRESSURE TRANSMITTER RANGE (0 to 0.03 kg/cm²)

Diff Pressure Transmitter, Direct Mounted, 0-0.03 kg/cm²

General:

Function : Transmit and Indicate
 Type : Electronic SMART
 Case : Shall be metallic as per Manufacturer Standard
 Mounting : Yoke (2" NB Pipe)
 Enclosure : Weatherproof to IP66 and above
 Electrical Area Class : IEC Zone2 Gr IIA/IIB T3
 Intrinsic Safety : Required
 Power Supply : 24V D.C. Two Wire
 Cable Entry : 1/2" NPTF Two Nos. One number cable entry shall be plugged with metallic weatherproof plug.
 Accuracy : +/- 0.1% or better of the span
 Response Time : Better than 200 ms (to be written in the product catalogue)
 Turndown Ratio : 20:1
 Stability: +/- 0.13% of URL for 5 years

Transmitter:

Output Type : Analog(4-20mA)
 Range : 0 to 0.03 kg/cm²
 Driving Voltage : 24 V DC (On Two Wire)
 Protocol : HART
 Load impedance : 550 ohm(minimum)or better at 24 V DC

Measuring Unit:

Service : Gauge Pressure
 Element Type : Diaphragm
 Body Material : SS 316
 Element Material : SS 316
 Over-range Protection : Required
 Instrument/process connection: 1/2" NPTF
 Diaphragm Seal : Not Required
 CCOE Approval : Required
 Mounting accessories : Required

NOTES:

- (i) Digital Communication should be possible with hand held communicator (HART protocol) of all brands.
- (ii) Integral intrinsic safe output meter shall be provided.
- (iii) It should be supplied with external zero and span adjustments.
- (iv) Overpressure limits to be provided.
- (v) Process connection shall be of 1/4" or 1/2" NPT Process connection. LP or HP side shall be field selectable.
- (vi) Transmitter Shall have ATEX/IEC explosion Proof/ Intrinsic Safe approvals. Transmitter shall have valid CCOE / PESO certificates suitable for use in hazardous areas.
- (vii) Transmitter to be leak tested and calibrated together before supply. Calibration & test certificates to be attached.
- (viii) Warranty: 12 months from the date of receipt at site or 18 months from the date of despatch, whichever is earlier.
- (ix) Safety Certification of SIL 2 with single use as per IEC61508.
- (x) SS tube guard shall be present at the junction of transmitter-capillary and Capillary-Process flange. PVC guard of sufficient strength shall also be present at the junction of capillary-SS tube at both the ends of capillary.
- (xi) SS tag plate to be provided.

ITEM 100: TECHNICAL SPECIFICATION FOR 3 INCH 600 CLASS DIFFERENTIAL PRESSURE TRANSMITTER RANGE (0 to 0.12 kg/cm²)

Diff Pressure Transmitter, 3 inch 600 class, 0-0.12 kg/cm²

General:

Function	: Transmit and Indicate
Type	: Electronic SMART
Case	: Shall be metallic as per Manufacturer Standard
Mounting	: Yoke (2" NB Pipe)
Enclosure	: Weatherproof to IP66 and above
Electrical Area Class	: IEC Zone2 Gr IIA/IIB T3
Intrinsic Safety	: Required
Power Supply	: 24V D.C. Two Wire
Cable Entry	: 1/2" NPTF Two Nos. One number cable entry shall be plugged with metallic weatherproof plug.
Accuracy	: +/- 0.1% or better of the span
Response Time	: Better than 200 ms (to be written in the product catalogue)
Turndown Ratio	: 100:1
Stability	: +/- 0.13% of URL for 5 years

Transmitter:

Output Type	: Analog(4-20mA)
Range	: 0 to 0.12 kg/cm ²
Driving Voltage	: 24 V DC (On Two Wire)
Protocol	: HART
Load impedance	: 550 ohm(minimum)or better at 24 V DC

Measuring Unit:

Service	: Gauge Pressure
Element Type	: Diaphragm
Body Material	: SS 316
Element Material	: SS 316
Over-range Protection	: Required
Instrument Connection	: 1/2" NPTF

Diaphragm Seal:

Type	: Remote
Wetted Part Material	: SS 316L
Other Material	: SS

Process Connection (Low Pressure side):

Size and Rating	: 3 inch 600 class
Facing & Finish	: RF 125AARH

Process Connection (High Pressure side):

Size and Rating	: 3 inch 600 class
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Facing & Finish	: RF 125AARH
Capillary Material	: SS 316
Armour Type	: Flexible
Armour Material	: SS 304
Capillary length	: 5 metres on both sides
Flushing/Filling Conn. with plug:	Required
CCOE Approval	: Required
Mounting accessories	: Required

NOTES:

- (i) Flange material shall be as per ASTM A105.
- (ii) The transmitter shall be of remote seal type with integral flange.
- (iii) Digital Communication should be possible with hand held communicator of HART protocol of all brands.
- (iv) Integral intrinsic safe output meter shall be provided.
- (v) Overpressure limits to be provided.
- (vi) Process connection shall be of 1/4" or 1/2" NPT Process connection. LP or HP side shall be field selectable.
- (vii) Transmitter Shall have ATEX/IEC explosion Proof/ Intrinsic Safe approvals. Transmitter shall have valid CCOE / PESO certificates suitable for use in hazardous areas.
- (viii) Transmitter to be leak tested and calibrated together before supply. Calibration & test certificates to be attached.
- (ix) Warranty: 12 months from the date of receipt at site or 18 months from the date of despatch, whichever is earlier.
- (x) Safety Certification of SIL 2 with single use as per IEC61508.
- (xi) SS tag plate to be provided.

ITEM 110: TECHNICAL SPECIFICATION FOR 3 INCH 600 CLASS DIFFERENTIAL PRESSURE TRANSMITTER RANGE (0 to 0.2 kg/cm²)

Differential Pressure Transmitter, 600 class. 0-0.2 kg/cm²

General:

Function	: Transmit and Indicate
Type	: Electronic SMART
Case	: Shall be metallic as per Manufacturer Standard
Mounting	: Yoke (2" NB Pipe)
Enclosure	: Weatherproof to IP66 and above
Electrical Area Class	: IEC Zone2 Gr IIA/IIB T3
Intrinsic Safety	: Required
Power Supply	: 24V D.C. Two Wire
Cable Entry	: 1/2" NPTF Two Nos. One number cable entry shall be plugged with metallic weatherproof plug.
Accuracy	: +/- 0.1% or better of the span
Response Time	: Better than 200 ms (to be written in the product catalogue)
Turndown Ratio	: 100:1
Stability	: +/- 0.13% of URL for 5 years

Transmitter:

Output Type	: Analog(4-20mA)
Range	: 0 to 0.2 kg/cm ²
Driving Voltage	: 24 V DC (On Two Wire)
Protocol	: HART
Load impedance	: 550 ohm(minimum)or better at 24 V DC

Measuring Unit:

Service	: Gauge Pressure
Element Type	: Diaphragm
Body Material	: SS 316
Element Material	: SS 316
Over-range Protection	: Required
Instrument Connection	: 1/2" NPTF

Diaphragm Seal:

Type : Remote
 Wetted Part Material : SS 316
 Other Material : SS

Process Connection (Low Pressure side):

Size and Rating : 3 inch 600 class
 Facing & Finish : RF 125AARH

Process Connection (High Pressure side):

Size and Rating : 3 inch 600 class
 Facing & Finish : RF 125AARH
 Capillary Material : SS 316
 Armour Type : Flexible
 Armour Material : SS 304
 Capillary length : 5 metres on both sides

Flushing/Filling Conn. with plug: Required

CCOE Approval : Required

Mounting accessories : Required

NOTES:

- (i) Flange material shall be as per ASTM A105.
- (ii) The transmitter shall be of remote seal type with integral flange.
- (iii) Digital Communication should be possible with hand held communicator of HART protocol of all brands.
- (iv) Integral intrinsic safe output meter shall be provided.
- (v) Overpressure limits to be provided.
- (vi) Process connection shall be of 1/4" or 1/2" NPT Process connection. LP or HP side shall be field selectable.
- (vii) Transmitter Shall have ATEX/IEC explosion Proof/ Intrinsic Safe approvals. Transmitter shall have valid CCOE /PESO certificates suitable for use in hazardous areas.
- (viii) Transmitter to be leak tested and calibrated together before supply. Calibration & test certificates to be attached.
- (ix) Warranty: 12 months from the date of receipt at site or 18 months from the date of despatch, whichever is earlier.
- (x) Safety Certification of SIL 2 with single use as per IEC61508.
- (xi) SS tag plate to be provided.

ITEM 120: TECHNICAL SPECIFICATION FOR 3 INCH 600 CLASS DIFFERENTIAL PRESSURE TRANSMITTER RANGE (0 to 1.2 kg/cm²)

Diff Pressure Transmitter, 3 inch 600 class, 0-1.2 kg/cm²

General:

Function : Transmit and Indicate
 Type : Electronic SMART
 Case : Shall be metallic as per Manufacturer Standard
 Mounting : Yoke (2" NB Pipe)
 Enclosure : Weatherproof to IP66 and above
 Electrical Area Class : IEC Zone2 Gr IIA/IIB T3
 Intrinsic Safety : Required
 Power Supply : 24V D.C. Two Wire
 Cable Entry : 1/2" NPTF Two Nos. One number cable entry shall be plugged with metallic weatherproof plug.
 Accuracy : +/- 0.1% or better of the span
 Response Time : Better than 200 ms (to be written in the product catalogue)
 Turndown Ratio : 100:1
 Stability : +/- 0.13% of URL for 5 years

Transmitter:

Output Type : Analog(4-20mA)
 Range : 0 to 1.2 kg/cm²
 Driving Voltage : 24 V DC (On Two Wire)
 Protocol : HART

Load impedance : 550 ohm(minimum)or better at 24 V DC

Measuring Unit:

Service : Gauge Pressure
 Element Type : Diaphragm
 Body Material : SS 316
 Element Material : SS 316
 Over-range Protection : Required
 Instrument Connection : 1/2" NPTF

Diaphragm Seal:

Type : Remote
 Wetted Part Material : SS 316
 Other Material : SS

Process Connection (Low Pressure side):

Size and Rating : 3 inch 600 class
 Facing & Finish : RF 125AARH

Process Connection (High Pressure side):

Size and Rating : 3 inch 600 class
 Facing & Finish : RF 125AARH
 Capillary Material : SS 316
 Armour Type : Flexible
 Armour Material : SS 304
 Capillary length : 5 metres on both sides

Flushing/Filling Conn. with plug: Required

CCOE Approval : Required
 Mounting accessories : Required

NOTES:

- (i) Flange material shall be as per ASTM A105.
- (ii) The transmitter shall be of remote seal type with integral flange.
- (iii) Digital Communication should be possible with hand held communicator of HART protocol of all brands.
- (iv) Integral intrinsic safe output meter shall be provided.
- (v) Overpressure limits to be provided.
- (vi) Process connection shall be of 1/4" or 1/2" NPT Process connection. LP or HP side shall be field selectable.
- (vii) Transmitter Shall have ATEX/IEC explosion Proof/ Intrinsic Safe approvals. Transmitter shall have valid CCOE / PESO certificates suitable for use in hazardous areas.
- (viii) Transmitter to be leak tested and calibrated together before supply. Calibration & test certificates to be attached.
- (ix) Warranty: 12 months from the date of receipt at site or 18 months from the date of despatch, whichever is earlier.
- (x) Safety Certification of SIL 2 with single use as per IEC61508.
- (xi) SS tag plate to be provided

NOTE FOR ALL ITEMS: Inspection of the items shall be done by OIL Engineers at the factory premises of the supplier before despatch of the items. All cost toward to & fro and boarding & lodging of the OIL Engineers for the inspection shall be borne by OIL.

BID REJECTION CRITERIA/BID EVALUATION CRITERIA**I. BID REJECTION CRITERIA (BRC):**

The bids must conform to the specifications, terms and conditions given in the tender document. Bids shall be rejected in case the items offered do not conform to the required minimum/ maximum parameters stipulated in the technical specifications and to the respective international /national standards wherever stipulated. Notwithstanding the general conformity of the bids to the stipulated specifications and terms and conditions, the offer/ offers will be considered as non-responsive and is/are liable to be rejected, if the following conditions are not fulfilled:

(A) TECHNICAL:

1.0 The bidder shall be an Original Equipment Manufacturer (OEM) of the tendered item(s).

OR

A certified authorised dealer/representative of the offered instruments/equipment. In case the bidder is a certified authorized dealer/representative, valid authorization certificate from the OEM has to be submitted along with the bid.

2.0 IN CASE THE BIDDER IS AN ORIGINAL MANUFACTURER (OEM):

If the bidder is a manufacturer, then they must satisfy the following criteria and furnish the relevant documentary evidences as under along with the technical bid:

2.1 The bidder should be Manufacturer of Pressure Transmitters and Differential Pressure Transmitters for the last five (5) years preceding the original bid closing date of the tender.

2.2 The bidder shall have successfully supplied at least 20 nos. of Remote Seal Pressure Transmitter(PT) and 15 nos. of Remote Seal Differential Pressure Transmitter(DPT) of the same offered items, in a single order (*Supply of PT and DPT of atleast above quantities in single order*) or separate orders (*Supply of PT of atleast above quantity in single order AND supply of DPT of atleast above quantity in single order. BOTH to be complied*) to Central government / State government / PSUs / Oil & Gas organizations/ reputed Oil & Gas multinationals in India during last five years preceding the original bid closing date.

2.3 The following supporting documents with respect to bidder's past supply experience as per para 2.2 must be uploaded/submitted along with the technical bid, failing which the bid shall be considered as incomplete/non-responsive and rejected.

- (i) Copy (ies) of purchase Order(s)/Contract(s) placed on the bidder by client(s).
- (ii) In addition to copies of purchase orders/contracts, any of the following document or combination of documents that substantially confirm(s) successful execution of the order(s).
 - Satisfactory completion certificate/performance report
 - Tax Invoice etc.
 - Consignee receipt delivery challan

Note: For the purpose of above clause, the date of those purchase order(s)/Contract(s) need not be within five (5) years preceding the bid closing date of the tender, but the date of execution must fall within the period of five (5) years prior to the original bid closing date of the tender.

3.0 IN CASE THE BIDDER IS NOT A MANUFACTURER:

If the bidder is a certified authorised dealer/representative of the offered instruments/equipment of any manufacturer (OEM), then the bidder must furnish the following documentary evidences along with their technical bid, failing which the bid shall be rejected:

3.1 Authorization Letter/Certificate from the Manufacturer, who satisfies experience criteria as per clause no. 2.1 above, should be submitted along with the technical bid. This certificate should be valid at the time of bidding and should remain valid throughout the duration of Purchase Order for execution, including extension, if any.

- 3.2 The bidder shall have successfully supplied at least 20 nos. of Remote Seal Pressure Transmitter(PT) and 15 nos. of Remote Seal Differential Pressure Transmitter(DPT) of the same offered items, in a single order (*supply of PT and DPT of atleast above quantities in single order*) or separate orders (*supply of PT of atleast above quantity in single order and supply of DPT of atleast above quantity in single order. Both to be complied*) to Central government / State government / PSUs / Oil & Gas organizations/ reputed Oil & Gas multinationals in India during last five years preceding the original bid closing date.
- 3.3 The following supporting documents with respect to bidder's past supply experience as per para 3.2 must be uploaded/submitted along with the technical bid, failing which the bid shall be considered as incomplete/non-responsive and rejected.
- (iii) Copy (ies) of purchase Order(s)/Contract(s) placed on the bidder by client(s).
- (iv) In addition to copies of purchase orders/contracts, any of the following document or combination of documents that substantially confirm(s) successful execution of the order(s).
- Satisfactory completion certificate/performance report
 - Tax Invoice etc.
 - Consignee receipt delivery challan
- Note: For the purpose of above clause, the date of those purchase order(s)/Contract(s) need not be within five (5) years preceding the bid closing date of the tender, but the date of execution must fall within the period of five (5) years prior to the original bid closing date of the tender.
- 4.0 A job/supply executed by a bidder for its own organization/subsidiary cannot be considered as experience for the purpose of meeting Bid Rejection Criteria/ Bid Evaluation Criteria.
- 5.0 All the items shall be procured from the same source. Bidder shall quote for all the items otherwise the offer shall be rejected.**
- 6.0 **Delivery: Delivery to be completed within 70 (Seventy) days from the date issue of Purchase Order. Bidder to confirm the same in their bid.**

(B) FINANCIAL:

- 1.0 Annual Financial Turnover of the bidder during any of preceding three financial/accounting years from the original bid closing date should be at least **INR 29,30,000.00**
- 2.0 **Net Worth** of the bidder should be positive for the financial/accounting year just preceding to the original Bid Closing Date of the Tender (i.e. FY 2018 - 19).
- 3.0 Considering the time required for preparation of Financial Statements, if the last date of preceding financial/accounting year falls within the preceding six months reckoned from the original bid closing date and the Financial Statements of the preceding financial/accounting year are not available with the bidder, then the financial turnover of the previous three financial/accounting years excluding the preceding financial/accounting year will be considered. In such cases, the Net worth of the previous financial/accounting year excluding the preceding financial/accounting year will be considered. However, the bidder has to submit an affidavit/undertaking certifying that the balance sheet/Financial Statements for the financial year 2018-19 has actually not been audited so far.

Notes:

- a) For proof of Annual Turnover & Net worth any one of the following document must be submitted along with the bid: -
- i) A certificate issued by a practicing Chartered/Cost Accountant (with Membership Number and Firm Registration Number), certifying the Annual turnover & Net worth as per format prescribed in **ANNEXURE EE.**
- OR
- ii) Audited Balance Sheet along with Profit & Loss account.
- b) In case the bidder is a Central Govt. Organization/PSU/State Govt. Organization/Semi-State Govt. Organization or any other Central/State Govt. Undertaking, where the auditor is appointed only after the approval of Comptroller and Auditor General of India and the Central Government, their certificates may be accepted even though FRN is not available. However, bidder to provide documentary evidence for the same.

(C) COMMERCIAL

- 1.0 Bids are invited under **SINGLE STAGE TWO BID SYSTEM**. Bidders shall quote accordingly. **Please note that no price details should be furnished in the Technical (i.e. Unpriced) bid**. The “Unpriced Bid” shall contain all techno-commercial details except the prices, which shall be kept blank. The “Price Bid” must contain the price schedule and the bidder’s commercial terms and conditions. Bidder not complying with above submission procedure will be rejected.
- 2.0 **Bid security of INR 1,17,200.00 shall be furnished as a part of the bid**. Any bid not accompanied by a proper bid security in ORIGINAL will be rejected without any further consideration. For exemption for submission of Bid Security, please refer Clause No. 8.8 of General Terms & Conditions for National Tenders (National Competitive Bidding), Booklet No. MM/LOCAL/E-01/2005 (For E-tenders). **The Bid Security shall be valid till 09.12.2019**.
- 3.0 Bidders must confirm that materials to be supplied shall be new of recent make and of the best quality and shall be guaranteed for a period of 12 months from the date of commissioning OR 18 months from the date of invoice, whichever is earlier. Defective goods/materials rejected by OIL shall be replaced immediately by the supplier at the supplier’s expenses at no extra cost to OIL.
- 4.0 MSME Bidders are exempted from payment of Bid Security (EMD) irrespective of their product category & capacity, subject to submission of valid MSME registration certificate issued by appropriate authority. Bids without EMD shall be rejected, if the technical offer does not include a valid copy of relevant MSE Certificate issued by appropriate authority.
- 5.0 The prices offered will have to be firm through delivery and not subject to variation on any account. A bid submitted with an adjustable price will be treated as non-responsive and rejected.
- 6.0 **Validity of the bid shall be minimum 120 days from the final Bid Closing date. Bids with lesser validity will be rejected.**
- 7.0 All the Bids must be Digitally Signed using Class III digital certificate (e-commerce application) with ‘**Certificate Type: Organisation Certificate**’ as per Indian IT Act obtained from the licensed Certifying Authorities operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India. **The bid signed using other than “Class 3” digital certificate, will be rejected.**
- 8.0 Successful bidder will be required to furnish a Performance Bank Guarantee @10% of the order value. The Performance Security specified above must be valid for 3(three) months beyond the Warranty period indicated in the Purchase Order/contract agreement [*Please refer General Terms & Conditions for National Tenders (National Competitive Bidding), Booklet No. MM/LOCAL/E-01/2005 (For E-tenders)*]. Bidder must confirm the same in their Technical Bid. Offers not complying with this clause will be rejected.
- 9.0 Bids received after the bid closing date and time will be rejected. Similarly, modifications to bids received after the bid closing date & time will not be considered.
- 10.0 Bids containing incorrect statement will be rejected.
- 11.0 No offers should be sent by Telex, Cable, E-mail or Fax. Such offers will not be accepted.
- 12.0 The following points are deemed as “non-negotiable” and offer shall be rejected straightaway without seeking clarification:
 - i. Validity of bid shorter than validity indicated in the tender.
 - ii. Original Bid Security not received within the stipulated date and time mentioned in the tender.
 - iii. Bid security with (a) Validity shorter than the validity indicated in tender and/or (b) Bid security amount lesser than the amount indicated in the tender.
 - iv. In case the party refuses to sign Integrity Pact.
- 13.0 Bidder must accept and comply with the following clauses as given in the Bid Document, failing which bid shall be liable for rejection:

- i. Liquidated Damages (Note: In case of deduction of LD, LD amount will be deducted along with applicable rate of GST)
 - ii. Guarantee of material
 - iii. Arbitration / Resolution of Dispute
 - iv. Force Majeure
 - v. Applicable Laws
- 14.0 **DELIVERY LOCATION:** Delivery to be done at – **OFFICE OF GENERAL MANAGER (MATERIALS)PL OIL INDIA LIMITED, PIPELINE HEADQUARTER, P.O. UDAYAN VIHAR, NARANGI, GUWAHATI – 781171**
- 15.0 **PRICE SCHEDULE:**
- Bidder shall submit the Price Break up as per Annexure DD. Bidders should fill up the annexures, sign and upload under “Notes & Attachments” > “Attachments” only. Evaluation of offers shall be done on F.O.R. Destination basis.**
- 15.1 The bids conforming to the specifications, terms and conditions stipulated in the enquiry and considered to be responsive after subjecting to the Bid Rejection Criteria will be considered for further evaluation as per the Bid Evaluation Criteria given below:
1. Basic Material Value
 2. Packing & Forwarding Charges, if any
 - 3. Total Ex-Works Value (1+2)**
 4. GST on Total Ex-Works Value
 5. Compensatory Cess, if any
 - 6. Total FOR Despatching Station Value (3+4+5)**
 7. Freight Charges upto destination
 8. GST on Freight Charges
 9. Insurance Charges @0.5% of (6) inclusive of GST
 - 10. Total FOR Destination, Site Value (6+7+8+9)**
- 15.2 **Comparison of offers shall be done on Total Value vide Srl. No. 10 (Total FOR Destination Value).**
- 15.3 Domestic bidders must quote inland freight charges upto Destination. In case bidder fails to quote inland freight charges, highest freight quoted by domestic bidder (considering pro-rata distance) against this tender or OIL’s estimated freight, whichever is higher, shall be loaded to their offer for comparison purpose.
- 15.4 If there is any discrepancy between the unit price and the total price, the unit price will prevail and the total price shall be corrected. Similarly, if there is any discrepancy between words and figure, the amounts in words shall prevail and will be adopted for evaluation.
- 15.5 Other terms and conditions of the enquiry shall be as per General Terms and Conditions for LCB Tender. However, if any of the Clauses of the Bid Rejection Criteria / Bid Evaluation Criteria (BEC/BRC) mentioned here contradict the Clauses in the General Terms & Conditions of LCB Tender of the tender and/or elsewhere, those mentioned in this BEC/BRC shall prevail.

COMMERCIAL COMPLIANCE SHEET

The check list must be completed and submitted with the offer. Please ensure that all these points are covered in the offer. These will ensure that the offer is properly evaluated. Please mark 'yes' or 'no' or specify against the following questions, in the right hand column.

OFFER REF:			
NAME OF THE BIDDER:			
Srl. No.	Particulars	Yes/No/Not Applicable	Remarks
1	Whether bid submitted under Two Bid System?		
2	Whether ORIGINAL Bid Bond (not copy of Bid Bond) submitted exactly as per format? If YES, provide details -		
	(a) Amount		
	(b) Name of issuing Bank		
	(c) Validity of Bid Bond		
	(d) Whether Bid Bond is valid till		
3	Whether offered firm prices?		
4	Whether quoted offer validity of 120 days from the date of bid closing of the tender?		
5	Whether quoted firm delivery period as per tender?		
6	Whether quoted as per tender (without any deviations)?		
7	Whether quoted any deviation?		
8	Whether deviation separately highlighted?		
9	Whether agreed to the Warranty clause?		
10	Compliance to:		
	a) Liquidated Damage		
	b) Warranty/Guarantee		
	c) Arbitration/Resolution of Dispute		
	d) Force Majeure		
	e) Applicable laws		
11	Whether Price Bid submitted as per Price Schedule		
12	Whether quoted all the items/qty. of tender?		
13	Whether indicated the country of origin for the items quoted?		
14	Whether technical literature / catalogue enclosed?		
15	Whether confirmed acceptance of tender Payment Terms?		
16	Whether indicated the place from where the goods will be dispatched. To specify :		
17	Whether road transportation charges up to Destination quoted?		
18	Whether offered Ex-works price including packing /forwarding charges?		
19	Whether weight & volume of items offered indicated?		
20	If Pre-despatch/shipment inspection charges applicable, whether quoted separately?		
21	Whether confirmed to submit PBG as asked for in tender?		
22	Whether indicated import content in the offer?		
23	Whether all applicable Taxes & Duties have been quoted?		
24	Whether all BRC/BEC clauses accepted?		
25	Whether Integrity pact exactly as per format and with digital signature uploaded?		
26	Whether Third party Inspection quoted?		
27	Whether quoted as MSME? If yes, whether all relevant documents enclosed?		
28	Whether all Financial Details as per BRC enclosed?		

CERTIFICATE OF ANNUAL TURNOVER & NETWORTH**TO BE ISSUED BY PRACTISING CHARTERED ACCOUNTANTS' FIRM ON THEIR LETTER HEAD****TO WHOM IT MAY CONCERN**

This is to certify that the following financial positions extracted from audited financial statements of M/s..... (Name of the bidder) for the last 3 (three) completed accounting years upto.....(as the case may be) are correct.

YEAR	TURNOVER In INR (Rs.) Crores/ USD Million*	NET WORTH In INR (Rs.) Crores / USD Million*

*Rate of conversion (if used any): USD 1.00 = INR

Place:

Date:

Seal:

Membership No.:

Registration Code:

Signature:

****Applicable for Global Tenders.***

**FORMAT OF UNDERTAKING BY BIDDERS TOWARDS SUBMISSION
OF AUTHENTIC INFORMATION/DOCUMENTS**

(To be typed on the letter head of the bidder)

Ref. No _____

Date _____

To,

**The Dy. General Manager (Materials)PL
Oil India Limited, Pipeline Headquarters
Narangi, Guwahati**

Sub: Undertaking of authenticity of information/documents submitted

Ref: Your tender No. _____ Dated _____

Sir,

With reference to our quotation no. dated..... against your above-referred tender, we hereby undertake that no fraudulent information/documents have been submitted by us.

We take full responsibility for the submission of authentic information/documents against the above cited bid.

We also agree that, during any stage of the tender/contract agreement, in case any of the information/documents submitted by us are found to be false/forged/fraudulent, OIL has right to reject our bid at any stage including forfeiture of our EMD and/or PBG and/or cancel the award of contract and/or carry out any other penal action on us, as deemed fit.

Yours faithfully,

For (type name of the firm here)

Signature of Authorised Signatory

Name :

Designation :

Phone No.

Place :

Date :

(Affix Seal of the Organization here, if applicable)

ANNEXURE – VII (Revised)**BID SECURITY FORMAT**

TO,

**OIL INDIA LIMITED
 PIPELINE HEADQUARTERS
 P. O. – UDAYAN VIHAR,
 GUWAHATI - 781171
 ASSAM, INDIA**

Whereas (herein after called 'the Bidder') has submitted their Bid No..... dated..... against OIL INDIA LIMITED, PIPELINE HEADQUARTERS, GUWAHATI, ASSAM, INDIA (hereinafter called the Purchaser) 's tender No..... for the supply of (hereinafter called 'the Bid') KNOW ALL MEN by these presents that we..... of having our registered office at (hereinafter called 'the Bank') are bound unto the Purchaser, in the sum of for which payment well and truly to be made to the said Purchaser, the Bank binds itself, its successors and assigns by these presents.

Sealed with the said Bank thisday of

THE CONDITIONS of this obligation are:

1. If the Bidder withdraws their Bid during the period of Bid validity specified by the Bidder,
or
2. If the Bidder, having been notified of the acceptance of their bid by the Purchaser during the period of bid validity:
 - a) fails or refuses to accept the order; or
 - b) fails or refuses to furnish the performance security
or
3. If the Bidder furnishes fraudulent document/information in their bid.

We undertake to pay to the Purchaser up to the above amount upon receipt of their first written demand (by way of letter /fax/cable) without the Purchaser having to substantiate their demand, provided that in their demand the Purchaser will note that the amount claimed by it is due to it owing to the occurrence of one or all of the conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including _____ (Bidder to indicate specific date as mentioned in the tender), and any demand in respect thereof should reach the Bank not later than the above date.

The details of the issuing bank and controlling bank are as under:

A. Issuing Bank

1. Full address of the bank:
2. Email address of the bankers:
3. Mobile nos. of the contact persons:

B. Controlling Office

1. Address of the controlling office of the BG issuing banks:
2. Name of the contact persons at the controlling office with their mobile nos. and email address:

Signature & Seal of the Bank