



**Tender No. & Date : KID2441L17/02 09.09.2016**

Item No./ Mat. Code	Material Description	Quantity	UOM
	<p>screw cover, chain &amp; gasket as per IP-65.</p> <p>3) Instrument Entry: ½ inch NPT (F)</p> <p>4) Cable Entry: ½ inch NPT (F)</p> <p>5) No of Cable Entry: 01 no</p> <p>6) Leg Extension: Nipple.</p> <p>7) Material: CS Cadmium plated</p> <p>8) Insertion Length: Should be adjustable for mounting in various line sizes starting from 6 inch to 14 inch. Thermowells are already available in these process lines.</p> <p>9) Thread size: ½ inch NPT (M)</p> <p>10) Union: ½ inch of CS Cadmium plated</p> <p>11) Total leg extension should be adjustable as per point no.8.</p> <p>12) No of Element: Simplex</p> <p>13) Element used: 14 gauge</p> <p>14) Insulation: Ceramic Insulation</p> <p>15) Accuracy: As per ANSI-MC-96.1</p> <p>16) Hot Junction: Grounded</p> <p>17) Sheath Material: SS 304</p> <p>18) Sheath Dia: 08mm</p> <p>19) Sheath Length: Below Head.</p> <p>20) Terminal: Nickel plated Brass terminal mounted on steatite grade ceramic block with spring loaded screw fixed on SS base.</p>		
<p><b>20</b></p> <p>99065066</p>	<p>TEMPERATURE TRANSMITTER WITH UNIVERSAL INPUT</p> <p>Type : Micro-Processor based, SMART</p> <p>Input : Universal input, RTD Pt-100 (3-wire)/J type TC</p> <p>Output : 4 to 20 mA (2-wire) with superimposed digital signal</p> <p>Range : 0-600 degree C</p> <p>Calibration range: 0 to 400 deg C, should be adjustable by HART communicator.</p> <p>Accessing protocol: HART</p> <p>Power supply : 16 to 48 VDC</p> <p>Minimum load capability: 600 ohms at 24 VDC</p> <p>Area classification: Division 1&amp;2, Class 1, Group C&amp;D</p> <p>Housing : Weather proof to NEMA4 &amp; IP-65</p> <p>Design : Intrinsically safe</p> <p>Accuracy : +/- 0.075%</p> <p>Response time : 250 msec or less</p> <p>Cable entry : ½ inch NPT</p> <p>Mounting : 2-inch stand pipe</p> <p>Integral Output Indicator: 4½ digit LCD display with front facia capability for programming in any engineering units. The front facia should display the temperature in user selectable engg. unit &amp; also should display the mA output.</p> <p>Lightning protection: to be provided</p> <p>Operating Temperature: 0 to 50 degree C</p> <p>Humidity : 5 to 95% RH, Non condensing</p> <p>ACCESSORIES FOR EACH TRANSMITTER:</p> <p>Mounting bracket for 2-inch pipe - 1 No</p> <p>SS tag plate - 1 No</p>	6	NO

**Tender No. & Date : KID2441L17/02 09.09.2016**

Item No./ Mat. Code	Material Description	Quantity	UOM
	<p>Flame proof double compression SS cable gland - 2 Nos (½ inch) - 1 No (¾ inch)</p> <p>Specifications for thermocouples to be provided along with the transmitters:</p> <ol style="list-style-type: none"> <li>1) Thermocouple, Sheath Length: adjustable, ISA Type: "J"</li> <li>2) Head: Cast Aluminum Weather Proof, Black epoxy Powder Coated with screw cover, chain &amp; gasket as per IP-65.</li> <li>3) Instrument Entry: ½ inch NPT (F)</li> <li>4) Cable Entry: ½ inch NPT (F)</li> <li>5) No of Cable Entry: 01 no</li> <li>6) Leg Extension: Nipple.</li> <li>7) Material: CS Cadmium plated</li> <li>8) Insertion Length: Should be adjustable for mounting in various line sizes starting from 6 inch to 14 inch. Thermowells are already available in these process lines.</li> <li>9) Thread size: ½ inch NPT (M)</li> <li>10) Union: ½ inch of CS Cadmium plated</li> <li>11) Total leg extension should be adjustable as per point no.8.</li> <li>12) No of Element: Simplex</li> <li>13) Element used: 14 gauge</li> <li>14) Insulation: Ceramic Insulation</li> <li>15) Accuracy: As per ANSI-MC-96.1</li> <li>16) Hot Junction: Grounded</li> <li>17) Sheath Material: SS 304</li> <li>18) Sheath Dia: 08mm</li> <li>19) Sheath Length: Below Head.</li> <li>20) Terminal: Nickel plated Brass terminal mounted on steatite grade ceramic block with spring loaded screw fixed on SS base.</li> </ol>		
<b>30</b> 99071569	<p>GENERAL</p> <p>Function: Transmitter Range: 0-800 PSIG Case: MFR STD Mounting: 2 inch stand pipe Enclosure class: Weather Proof (NEMA 4 &amp; IP-65) Elec. Area classification: Division 1&amp;2, Class I, Group C&amp;D hazardous area. Intrinsically safe: Yes Lightning protection: Required Accuracy: +/- 0.075% of span Turndown ratio: 100: 1 Response time: 250 msec or less Process data: Fluid - Natural gas Operating Temperature: 0 to 50 Degree C Humidity: 5 to 95% RH, Non condensing Electrical connection: 1/2 inch NPT (F)</p> <p>TRANSMITTER</p> <p>Type: Micro-Processor based, SMART Power supply: 16 to 48 VDC (24 VDC normal) Transmitter output: 4 to 20 mA with super imposed digital signal Accessing protocol: HART Span &amp; Zero adjustment: To be provided on the body</p>	6	NO

Tender No. &amp; Date : KID2441L17/02 09.09.2016

Item No./ Mat. Code	Material Description	Quantity	UOM
	<p>Indicator: 4½ digit LCD display with front facia capability for programming in any engineering units</p> <p>ELEMENT</p> <p>Service: Gauge pressure</p> <p>Sensing: Capacitance/ Piezoresistive or equivalent</p> <p>Material: 316 SS</p> <p>Over range protection to: 150% of full range</p> <p>Process connection: 1/2 inch NPT (F)</p> <p>ACCESSORIES FOR EACH TRANSMITTER:</p> <p>Mounting bracket for 2 inch pipe - 1 No</p> <p>SS Tag plate - 1 No</p> <p>Flame proof double compression SS cable gland - 1 No (½ inch)</p>		
<b>40</b> 99071570	<p>Range: 0-100 inch of WC</p> <p>Case: MFR STD</p> <p>Mounting: 2 inch stand pipe</p> <p>Enclosure class: Weather Proof (NEMA 4 &amp; IP-65)</p> <p>Elec.Area classification:Division 1&amp;2,Class I,Group C&amp;D hazardous area.</p> <p>Intrinsically safe: Yes</p> <p>Lightning protection: Required</p> <p>Accuracy: +/- 0.075% of span</p> <p>Turndown ratio: 100:1</p> <p>Response time: 250 msec or less</p> <p>Process data: Fluid - Natural gas</p> <p>Operating Temperature: 0 to 50 Degree C</p> <p>Humidity: 5 to 95% RH, Non condensing</p> <p>Electrical connection: 1/2 inch NPT (F)</p> <p>TRANSMITTER</p> <p>Type: Micro-Processor based, SMART</p> <p>Power supply: 16 to 48 VDC(24 VDC normal)</p> <p>Transmitter output: 4-20 ma with super imposed digital signal</p> <p>Accessing protocol: HART</p> <p>Span &amp; Zero adjustment: To be provided on the body</p> <p>Indicator: 4½ digit LCD display with front facia capability for programming in any engineering units</p> <p>Element</p> <p>Service: Differential pressure</p> <p>Sensing: Diaphragm / MFR STD</p> <p>Material: 316 SS</p> <p>Over range protection to: 150% of full range</p> <p>Process connection: ½ inch NPT (F)</p> <p>Max.operating pressure: 100 Kg/Cm2</p> <p>Accessories for each Transmitter:</p> <p>-Mounting bracket adjustable for 2-inch pipe-1 set</p> <p>-SS Tag plate</p> <p>-Flame proof double compression SS cable gland-1 No</p>	6	NO

**Tender No. & Date : KID2441L17/02 09.09.2016**

Item No./ Mat. Code	Material Description	Quantity	UOM
	-5-way valve manifold-1 no		

**Special Notes** : 1. The Bidder has to provide the technical details with circuit diagram of the LIGHTNING PROTECTION SCHEME provided in the Transmitter without which, the offer shall be rejected.

**2. Warranty/ Guarantee**

Materials to be supplied by the supplier should be new, of recent make, of the best quality & workmanship and shall be guaranteed by the Seller as specified in the NIT against defects arising from faulty materials, workmanship or design. Defective goods / materials or parts notified by OIL to the Seller shall be replaced immediately by the Seller on F.O.R destination basis including payment of all taxes and duties at Seller's expense. This guarantee shall survive and hold good notwithstanding inspection, payment for and acceptance of the goods. Relevant Warranty/ Guarantee certificate for a period of 18 months from the date of dispatch or 12 months from the date of receipt whichever is earlier must be provided along with the bill / despatch documents.

3. One set of Operation & Maintenance manuals for each transmitter has to be provided in the event of placement of an order.

4. Calibration certificates for each transmitter have to be provided in the event of placement of an order.

5. All the Quotations are to be forwarded with relevant original technical literature in duplicate without which the quotations may be liable for rejection.

6. CMRI/PESO approval is mandatory. The bidder must provide the requisite certificate along with the material and same to be confirmed during bid.

7. Bidder will have to quote their offered specifications in tabular form against our required specifications mentioned in the NIT, otherwise their offers may be liable for rejection.

8. Validity of offer: 75 days from the date of tender opening. Offer with validity less than 75 days will be rejected.

**9. PERFORMANCE GUARANTEE:**

Performance Guarantee is applicable against this tender. 10% of the ordered value shall be given as performance guarantee in the form of bank guarantee and shall be valid for 90 days beyond applicable warranty / guarantee / defect liability period (if any). Bidders should undertake in their bid to submit Performance Security as stated above.

**Tender No.** : KID2441L17/02  
**Tender Date** : 09.09.2016  
**Bid Closing On** : 18.10.2016 at 14:00 hrs.(IST)  
**Bid Opening On** : 18.10.2016 at 14:00 hrs.(IST)

**Tender issued to following parties only:**

S/no	V _Code	Vendor Name	City/Country
1	200061	V AUTOMAT & INSTRUMENTS PVT. LTD	NEW DELHI
2	200106	PROCON ENGINEERS	KOLKATA
3	200705	D.B. HARDWARE & ELECTRICALS	DULIAJAN
4	201027	PROCON CONTROLS PVT. LTD.	KOLKATA
5	201151	TOSHNIWAL ENTERPRISES	KOLKATA
6	201642	ABB INSTRUMENTATION LIMITED	KOLKATA
7	201692	UNIQUE ENGINEERS & INSTRUMENTS	KOLKATA
8	203081	CHEMTROLS ENGG . LTD ,	KOLKATA
9	203100	FISHER SANMAR LIMITED	KOLKATA
10	203136	YOKOGAWA INDIA LTD	KOLKATA
11	204315	EMERSON PROCESS MANAGEMENT(INDIA)PR	KOLKATA
12	204322	INVENSYS INDIA PRIVATE LIMITED	CHENNAI
13	204333	ABB LIMITED	KOLKATA
14	205115	ELECTRONET	PUNE
15	205116	MEGI CONTROL SYSTEMS PVT LTD	THANE
16	205118	HONEYWELL AUTOMATION INDIA LTD.	KOLKATA
17	206660	GE INDIA INDUSTRIAL PVT. LTD.	KOLKATA
18	208858	CAMERON	KOLKATA
19	208983	WELLS CONTROLS	KOLKATA
20	209187	EMERSON PROCESS MANAGEMENT (INDIA)	KOLKATA
21	211497	EMERSON PROCESS MANAGEMENT (INDIA)	MUMBAI