

Sr.No.	Description	Quantity Required (Nos.)
1	2	3
1	Differential pressure transmitters HART with LCD Display, Range: 0-250 Inch H <sub>2</sub> O, Protection class EExd ia IIC T6, IP 67	10
2	Differential pressure transmitters HART with LCD Display, Range: 0-840 Inch H <sub>2</sub> O (0-2100mbar), Protection class EExd ia IIC T6, IP 67	8
3	Gauge Pressure transmitters HART with LCD Display, Range: -1~ +5 bar Protection class EExd ia IIC T6, IP 67	10
4	Gauge Pressure transmitters HART with LCD Display, Range: 0~ 40 bar Protection class EExd ia IIC T6, IP 67	12
5	Absolute Pressure transmitters HART with LCD Display, Range: 0~ 760 mmHg Protection class EExd ia IIC T6, IP 67	10
Detailed Specification are attached on separate sheets.		

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## SPECIFICATION OF DIFFERENTIAL PRESSURE TRANSMITTERS (HART).

### **1. Differential Pressure Transmitters (HART)**

**Quantity: 10 No's**

<b>Type:</b>	Electronic d/p cell transmitter for differential pressure measurement.
<b>Output:</b>	2-wire, 4 to 20 mA DC with digital communication (HART protocol).
<b>Material:</b>	High side cover and Sensor material = Monel, Fill liquid Silicone.
<b>Span:</b>	<b>Span limit: 0 to 250 inches H<sub>2</sub>O.</b>
<b>Integral indicator:</b>	Square Root digital indicator with selectable range.
<b>Process Connection:</b>	1/2" NPT (F).
<b>Housing:</b>	Conduit connection and housing material (PG 13.5, 316 SS Housing (Electrical Safety Codes "E", "D", "N", and "H").
<b>Protection class:</b>	Electrical Safety (CENELEC Certified Intrinsically Safe, EEx, ia, IIC T4, Zone 0).
<b>Ingress Protection:</b>	IP67
<b>Bracket and Bolt:</b>	Stainless Steel Bracket with Stainless Steel Bolts.
<b>Vent Screw:</b>	Vent screw in process connector.
<b>Cable Gland:</b>	SS, PG 13.5 cable gland with code "1" and "3".
<b>Connector:</b>	316SS, connecting 12 mm tubing to 1/2" process connector.
<b>Documents:</b>	Full instruction book.
<b>Warranty:</b>	Five years Warranty.

### **2. Differential Pressure Transmitters (HART).**

**Quantity: 08 No's**

<b>Type:</b>	Electronic d/p cell transmitter for differential pressure measurement.
<b>Output:</b>	2-wire, 4 to 20 mA DC with digital communication (HART protocol).
<b>Material:</b>	High side cover and Sensor material = Monel, Fill liquid Silicone.
<b>Span:</b>	<b>Span limit: 0 to 840 inches H<sub>2</sub>O, 0 - 2100 mbar</b>
<b>Integral indicator:</b>	Square Root digital indicator with selectable range.
<b>Process Connection:</b>	Process connector, 1/2" NPT (F).

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<b>Housing:</b>	Conduit connection and housing material (PG 13.5, 316 SS Housing (Electrical Safety Codes "E", "D", "N", and "H").
<b>Protection Class:</b>	Electrical Safety (CENELEC Certified Intrinsically Safe, EEx, ia, IIC T4, Zone 0).
<b>Ingress Protection:</b>	IP67
<b>Bracket and Bolt:</b>	Stainless Steel Bracket with Stainless Steel Bolts.
<b>Vent Screw:</b>	Vent screw in process connector.
<b>Cable Gland:</b>	SS, PG 13.5 cable gland with code "1" and "3".
<b>Connector:</b>	316SS, connecting 12 mm tubing to 1/2" process connector.
<b>Documents:</b>	Full instruction book.
<b>Warranty:</b>	Five years Warranty.

**Note:**

- i. Kidney Flanges and gasket should be included with DPT in quotation.
- ii. Calibration / maintenance technical literature in English is also required.
- iii. Make / Made, country of origin must be mentioned in quotation.
- iv. On-site inspection at supplier's premises is mandatory in the scope of supply.
- v. Recommended maintenance schedule [Preventive (PM), Predictive (PDM,)] by vendor in English is required



## SPECIFICATION OF PRESSURE TRANSMITTERS HART

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### 3. GAUGE PRESSURE TRANSMITTER HART

Quantity = 10 No's

Type:	Electronics, direct connected gauge pressure transmitter.
Output:	2-wire, 4 to 20 mA DC with digital communication (HART protocol) with LCD display.
Process Connection:	Process connectors=1/2" NPT (M) 316LSS,
Sensor material:	316LSS, Filled liquid=Silicon.
Span:	<b>Span limit; -1 ~ + 05 Bar</b>
Housing:	Conduit connection and housing material; PG 13.5, Aluminum housing with electrical safety code "F", "N", "H".
Protection Class:	EExd ia IIC T4.
Ingress Protection:	IP 67
Isolation Valve:	Block and bleed valve 1/2"M (NPT) x 1/2"FM (NPT), 316SS body with Monel trim, NACE approved.
Cable Gland:	Conduit connector, SS PG 13.5 cable gland for use with conduit connection code "2" and "4".
Technical Literature:	Full instruction book.
Warranty:	Five year warranty.

### 4. GAUGE PRESSURE TRANSMITTER HART

Quantity = 12 No's

Type:	Electronics, direct connected gauge pressure transmitter.
Output:	2-wire, 4 to 20 mA DC with digital communication (HART protocol) with LCD display.
Process Connection:	Process connectors=1/2" NPT (M) 316LSS,
Sensor material:	316LSS, Filled liquid=Silicon.
Span:	<b>Span limit; 0 ~ 40 Bar</b>
Housing:	Conduit connection and housing material; PG 13.5, Aluminum housing with electrical safety code "F", "N", "H".
Protection Class:	EExd ia IIC T4.
Ingress Protection:	IP 67
Isolation Valve:	Block and bleed valve 1/2"M (NPT) x 1/2"FM (NPT), 316SS body with Monel trim, NACE approved.
Cable Gland:	Conduit connector, SS PG 13.5 cable gland for use with conduit connection code "2" and "4".
Technical Literature:	Full instruction book.
Warranty:	Five year warranty.

## 5. ABSOLUTE PRESSURE TRANSMITTER HART

Quantity = 10 No's

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<b>Type:</b>	Electronics, direct connected Absolute pressure transmitter.
<b>Output:</b>	2-wire, 4 to 20 mA DC with digital communication (HART protocol) with LCD display.
<b>Process Connection:</b>	Process connectors=1/2" NPT (M) 304SS,
<b>Sensor material:</b>	316SS, Filled liquid=Silicon.
<b>Span:</b>	0-760 mmHg Absolute (Calibrated should be at 50-760mmHg).
<b>Housing:</b>	Conduit connection and housing material; PG 13.5, Aluminum housing with electrical safety code "F", "N", "H".
<b>Protection Class:</b>	Ex ia IIC T4.
<b>Ingress Protection:</b>	IP 67
<b>Isolation Valve:</b>	Block and bleed valve 1/2"M (NPT) x 1/2"FM (NPT), 316SS body with Monel trim, NACE approved.
<b>Cable Gland:</b>	Conduit connector, SS PG 13.5 cable gland for use with conduit connection code "2" and "4".
<b>Technical Literature:</b>	Full instruction book.
<b>Warranty:</b>	Five year warranty.

### Note:

- i. Calibration/ maintenance technical literature in English is required.
- ii. Make/Made, country of origin must be mentioned in quotation.
- iii. On-site inspection at Manufacturer's premises should be included in quotation.
- iv. Recommended maintenance schedule [Preventive (PM), Predictive (PDM,)] by vendor in English is required.
- v. DPT style is not acceptable.