# EST345Z Zigbee Wireless Pressure Transmitter



### **Product Introduction**

The solution of EST345Z Wireless In-Line Pressure Transmitter is designed for Oil-water well where the remote-control process is requested, it can be deployed to remotely monitor the pressure/level of petroleum oil-water well production, and storage process, EST345Z Wireless In-Line type adopts Zigbee technology which is one of the micropower consumption wireless communication solutions,

ZigBee network: according to the name of the oil wells or designated identifier to calculate the unique network communication parameters (network ID, channel number, etc.). No sim card, no cable involved, easy installation, easy operation. The optional wireless transfer device can turn different kinds of signal into standard Modbus protocol, and transfer via Ethernet or serial port.

### **Highlight Features**

- > Wireless: Zigbee Communication
- > LCD Display: For Pressure/Temperature/Battery value
- > LED Indicator: For Resetting/Setting/Network/Data Collection
- **Field Installation:** Connecting via connector/adaptor with Pipeline Valve
- > Direction Adjusting: Available
- > Ingress Protection: IP68,
- Waterproof: Fully sealed waterproofing
- > Ex-Proof: Intrinsically Safe Circuit

### Applications

- > Oil-water well
- Gasoline Monitor
- > Petroleum
- Environment
- Pharmacy
- > Health
- Protection
- Dairy

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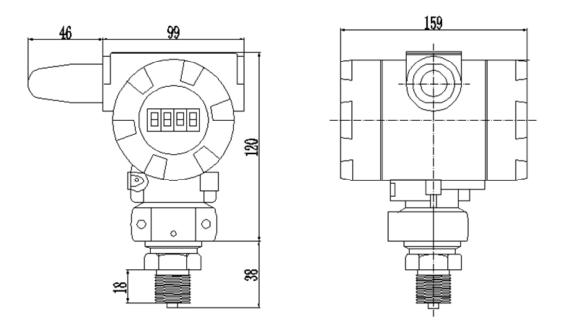


## **Technical Specification**

Under the condition of non-transference, 316 SST isolating diaphragm and others

| Measure Medium      | Liquid/Gas /Oil Liquid                               | Distance            | ≥500m                          |  |
|---------------------|--|---------------------|--------------------------------|--|
| Pressure Range      | ssure Range 0-6Mpa (customization available)         |                     | 2.5GHz-2.485GHz                |  |
| Accuracy            | 0.25%; 0.5%  | Power Consumption   | Current ≤160mA;                |  |
| Overpressure        | 150%/FS  | Power Supply        | 3.6V                           |  |
| Upload Period       | Between 1min to 12h                                  | Ingress Protection  | IP66-IP68                      |  |
| Decimal             | 0-3  | Ex-Proof            | Ex d II C T5 Gb                |  |
| Signal Transfer     | Zigbee Wireless                                      | Working Temperature | -40℃~75℃                       |  |
| Transmitting Power  | ≪40mW  | Working Humidity    | ≪97% RH                        |  |
| Intensive Cllection | ensive Cllection Cycle ≥10s                          |                     | 3.6V/19,000mAh Lithium battery |  |
| Process connection  | rocess connection R1/2 "," G1/2, NPT1/2 ", M20 * 1.5 |                     | 2000g                          |  |

### **Outline Drawing**



#### Note for installation:

- > Please turn off the valve on the tube where the pressure transmitter will be installed,
- > Two ways are available for installation: ① connection the pressure transmitter via thread directly; ② use union joint or adapter to connect valve and pressure transmitter, the direction can be adjusted in case of this way.
- > Please make sure there was no leakage when turn the value on again.

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# LCD Display Instruction

| 1  | Pressure overload alarming, LED indicator                  |
|----|--|
| 2  | I/O interface  |
| 3  | Zero resetting, press and hold 2 second to erase the drift |
| 4  | Calibration button 1                                       |
| 5  | Calibration button 2                                       |
| 6  | Battery capacity indicator                                 |
| 7  | Battery voltage indicator                                  |
| 8  | Zigbee signal indicator                                    |
| 9  | Zigbee signal strength indicator                           |
| 10 | Zigbee signal channel indicator                            |
| 11 | Pressure value   |
| 12 | Pressure unit  |
| 13 | Pressure scale indicator                                   |
| 14 | Networking setup number                                    |



#### Note for calibration:

- > The calibration supports the connection with HART device, choose the initialization/reset button on HART, and input wireless signal channel, network, setup number, and save.
- > A piece of magnet can be put aside the pressure transmitter for at least 6 second, wait to finish the reset process, record the data from HART.
- > A "BEE" tone from HART mean the calibration finished successfully
- > Please check the battery to make sure the capacity is enough to drive the pressure transmitter
- Please check the signal channel and networking setup ID and make sure they are matched with other devices which connected with pressure transmitter
- > Please check the impulse process connection parts, to make sure they are not blocked, a necessary cleaning can be considered if the pressure value is obvious smaller than expected.

### **Ordering Procedure**

| ES | EST345 In-Line Sr |      |      |            | art Pressure Transmitter |
|----|-------------------|------|------|------------|--------------------------|
|    |                   | Code |      | Model      |                          |
|    |                   | Z    |      | Zigbee Wir | eless                    |
|    |                   |      | Code | Rang       |                          |
|    |                   |      |      | 1          | 0-3.5~35kPa              |
|    |                   |      |      | 2          | 0-10~100kPa              |
|    |                   |      |      | 3          | 0-35~350kPa              |
| _  |                   |      |      | 4          | 0-0.1~1.0MPa             |

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### EST345Z Zigbee Wireless Type | GSD- 3ZW-EV02.2 Measuring your business

|        |   | 5      | 0-0.35~3.5MPa                  |              |                     |                    |                        |              |
|--------|---|--------|--------------------------------|--------------|---------------------|--------------------|------------------------|--------------|
|        |   | 6      | 6 0-1.0~10MPa<br>7 0-2.1~21MPa |              |                     |                    |                        |              |
|        |   | 7      |                                |              |                     |                    |                        |              |
|        |   | 8      | 0- 4.1                         | 0- 4.1~41Mpa |                     |                    |                        |              |
|        | 9 | 0- 6.0 | 0- 6.0~60MPa                   |              |                     |                    |                        |              |
|        | 0 | Othe   | Others                         |              |                     |                    |                        |              |
|        |   |        | Cod                            | Cod Accuracy |                     |                    |                        |              |
|        |   |        | A1                             | 0.25%        | 0.25% (70kPa~60Mpa) |                    |                        |              |
|        |   |        | A2                             | 0.5% (5      | 5kPa~35Mpa)         | -<br>Ра~35Мра)     |                        |              |
|        |   |        |                                | Code         | Construction Mate   | erials             |                        |              |
|        |   |        |                                |              | Flange Adapter      | Cast               | Diaphragm Isolating    | Fill         |
|        |   |        |                                | 12           | CS                  | SS304              | SS316L                 |              |
|        |   |        |                                | 14           | CS                  | Cast Aluminiur     | n SS316L               |              |
|        |   |        |                                | 22           | SS316L              | SS316L             | SS316L                 | Silico<br>ne |
|        |   |        |                                | 23           | SS316L              | SS304              | Hastelloy Alloy C      |              |
|        |   |        |                                | 24           | SS316L              | Cast Aluminiur     | n Monel                |              |
|        |   |        |                                | 25           | SS316L              | SS304              | Tantalum               |              |
|        |   |        |                                |              | Code                | Process Connection |                        |              |
|        |   |        |                                |              | М                   | M20*1.5            |                        |              |
|        |   |        |                                |              | G2                  | G1/2               |                        |              |
|        |   |        |                                |              | R2                  | R1//2              |                        |              |
|        |   |        |                                |              | N2                  | NPT1/2             |                        |              |
|        |   |        |                                |              |                     | Code Optio         | ons                    |              |
|        |   |        |                                |              |                     | M4 LCD             | Digital Meter          |              |
|        |   |        |                                |              |                     | Da Expl            | osion-Proof ExdsIIBT5  |              |
|        |   |        |                                |              |                     | Fa Intrir          | sically Safe ExialICT5 |              |
| EST345 | Z | 6      | A2                             | 22           | M M4                | IDaFa              |                        |              |

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