# SM39PWB Wireless digital pressure transmitter

**Description**

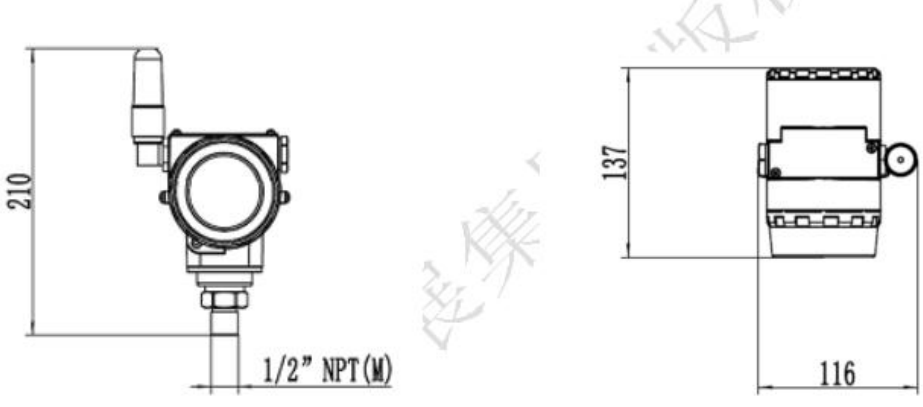
SM39PWB wireless load sensor is designed for pressure testing in oil and gas fields and other industrial applications. It integrates a low-power embedded MCU with low-power wireless digital communication technology to create a high-performance wireless sensor. As a key front-end acquisition device for the digital oilfield and the Internet of Things in oil and gas production, it transmits data characterizing field conditions via local wireless networks for remote telemetry.

Its highly reliable design for industrial environments, combined with high accuracy, simple installation, easy maintenance, and environmentally friendly durability, has earned widespread user acceptance. The sensor has been successfully deployed not only in major domestic oilfields such as Shengli, Daqing, Huabei, Changqing, Xinjiang, and Qinghai, but also in selected overseas oil companies.

**Characteristics：**

- Pipeline pressure testing—already widely used in major domestic oilfields and other industrial fields.
- Explosion-proof design: flameproof aluminum housing with intrinsically safe circuitry. Protection rating: IP67 fully sealed waterproof.
- Zigbee communication—configurable and testable as coordinator or router in the network.
- 4½-digit LCD displays pressure data and battery voltage.
- LEDs indicate reset, config mode, network join, and data acquisition.
- Adjustable mounting orientation via union or adapter connection to on-site pipeline valves.

**Dimensions** （In mm. 1mm=0.03937 inches）



## Circuit Diagram ：

two-wire system: EXC+: red EXC-: black

## Specification ：

| Type | Technical parameters |
|---|---|
| Nominal load range | 0～110 Mpa |
| Sensitivity | ZIGBEE |
| Class precision | 0.5%FS |
| Zero Balance | ≤0.1%FS |
| nominal voltage | 3.6V±1% |
| rated current | 50mA |
| Effect of temperature | 0.3%FS/10℃ |
| rated power | 0.18W |
| Operating temperature | －40℃≤Tamb≤＋65℃ |
| Safe Load Limit | 120% FS |
| Protection type | IP67 (IEC60529) |
| Pressure interface | 1/2″ NPT(M) ， M20*1.5,R1/2 |
| explosion-proof sign | CE13.2134X |
| Explosion-proof number | CE13.1220 |