

Product Overview

MODEL 5000C Split-Type Hydrogen Transmitter adopts H2SENSETM Pd alloy thin-film hydrogen sensor based on our company's core process technology. It represents a true hydrogen-specific technology, where hydrogen detection is not aff ected by combustible gases such as CO and C,H,.

The sensor chip of MODEL 5000C is based on a structure of Pd alloy thin-film resistor. It adopts key process technologies, such as a mature and stable Pd alloy material doping system, alloy thin-film preparation process, and specific composite thin-film preparation technology. These technologies give the hydrogen sensor superior long-term stability, allowing it to be free from periodic maintenance



The probe of MODEL5000C split-type hydrogen transmitter achieves miniaturization and quick installation, making it suitable for working conditions with limited installation space. The hydrogen detection probe is electrically connected to the backend signal conditioning circuit via a shielded cable (with a customizable length ranging from 5 to 100 meters). This type of sensor is equipped with a local display function for hydrogen concentration, which is convenient for users.

Functional Features

Solid-state Pd alloy thin-film technology based on proprietary intellectual property.

Excellent hydrogen specificity with no cross-sensitivity.

Good medium compatibility, resistant to various harsh environments and media.

Split-type structure, compact probe size and suitable for working conditions with limited space.

Equipped with on-site OLED display.

Supports Online calibration

Signal Output: RS485 and 4-20mA

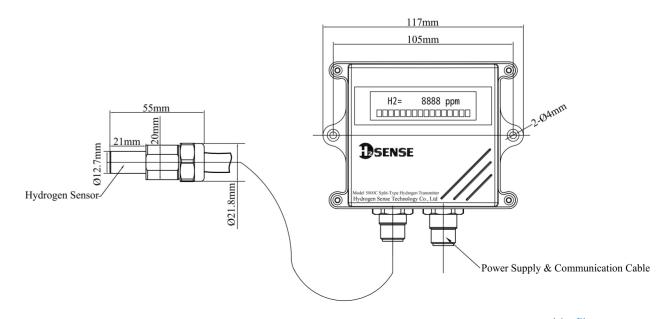
Cable length between probe and transmitter can be customized according to working conditions.

Product Performance Parameters

| Main Indicators | |
|--|-----------------------|
| Measuremen t Range (H₂) | 0~ 100%vol |
| Measuremen t Accuracy(H ₂) (Absolute Error) | ±0.3%vol (0~10%vol) |
| | ±1%vol (10~100%vol) |
| Response Time (T_{90}) | < 30s |
| Probe Size | 20*50mm |
| Detection Limit | 50ppm |
| Probe Lead Length | 5m |
| Gas Medium Temperature | -40 ~ 60 |

| Communication and Output | | |
|----------------------------|---|--|
| Analog Output | 4 ~ 20 mA | |
| Serial Interface | RS232(Configuration & Diagnosis) , RS485 | |
| Communicati on Protocol | Modbus_RTU | |
| Power Supply | | |
| Operating Voltage | 24VDC±10% | |
| Current | 0.3A (max) | |
| Power Consumption | 2.5W | |

Product Dimension Drawing



07 Hydrogen Sensor Technology Co.,Ltd www.thin-film-sensor.net 08