

MODEL 5050 Split-Type Thin-film Hydrogen Sensor

Product Overview

MODEL 5050 thin-film hydrogen sensor adopts a split structure. Its sensor chip is based on our company's proprietary solid-state Pd alloy hydrogen detection technology—a true hydrogen-specific technology that can completely eliminate the problems of inaccurate measurement and false alarms commonly encountered by other hydrogen sensors, which are affected by background gases. The solid-state Pd alloy hydrogen sensor measures the partial pressure of hydrogen in mixed gases. It does not consume H during operation, nor does it require the participation of O, enabling it to detect H concentration in various background gases such as air, N, and inert gases.

The sensor chip of MODEL5050 split-type hydrogen sensor 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 and reducing operating costs. This sensor can measure hydrogen concentrations ranging from ppm level to 100% pure hydrogen.

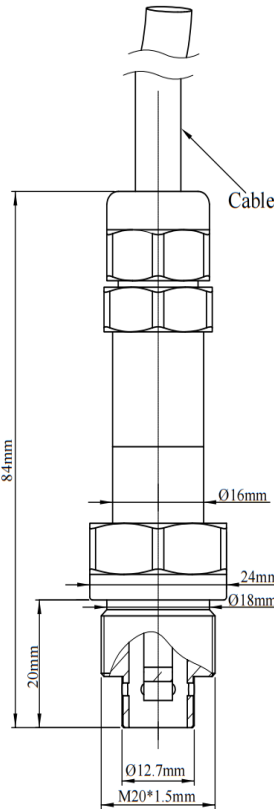


MODEL 5050 Series				
Model	MODEL5050		MODEL5050-P	
Measurement Range 1	0~100%vol		0~100%vol	
Response Time	30s		30s	
Accuracy 2	10~100%vol	0~10%vol	10~100%vol	0~10%vol
	≤ ±1%	≤ ±0.3%	≤ ±1%	≤ ±0.3%
Gas Pressure Compensation	×		√	
1.The measurement range can be customized if required. 2.This accuracy data was tested under normal temperature conditions.				

Product Performance Parameters

Main Indicators		Communication and Output	
Measurement Range (H ₂)	0 ~ 100%vol H ₂	Digital Signal	RS-485 , Modbus_RTU
Measurement Accuracy(H ₂) (Absolute Error)	±0.3%vol (0~10%vol)	Power Supply	
	±1%vol (10~100%vol)	Supply Voltage	24VDC±10%
Response Time (T ₉₀)	< 30s	Power Consumption	≤ 2.5W
Medium Temperature	-40 ~ 60	Cable Length	Customizable(Maximum 1m)
Measurement Range* (Pressure)	0 ~ 1MPa	Weight	200g
Measurement Accuracy *(Pressure)	±1%F.S.	Mechanical Interface	M20x 1.5
Measurement Range* (Humidity)	0 ~ 100 %RH		
Measurement Accuracy *(Humidity)	±3%RH		

Product Dimension Drawing



Product Physical Picture

