



## C04-0960-003 7R+ PID Sensor Intelligent Sensor Module

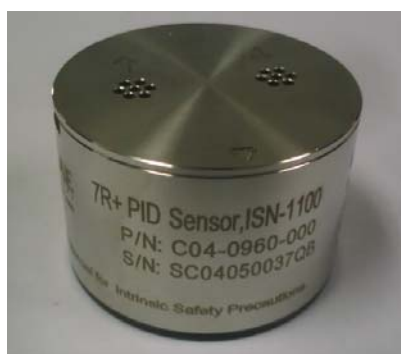
**7R+ PID sensor** is a self contained intelligent sensor module with built-in sensor processor, lamp driver, analog and digital interface circuits. It is designed to detect volatile organic compound (VOC) with a standard external interface. It allows the sensor module to be easily integrated into a wired or wireless communication system for remote, wide area and pervasive monitoring applications. The sensor module can be powered by typical 5VDC. It is housed in a stainless steel enclosure with a standard 8 pins interface connector.

### Key Features

- Auto identification
- High resolution: 0.1 ppm
- Quick response time
- Analog & Digital signal output
- Wide measurement range
- Digital output (RS-232 signal Tx, Rx at TTL level)
- Suitable for both mobile and fixed monitoring applications
- Low maintenance and service support cost
- Easily integrated into existing monitoring system
- Highly resistant to RFI/EMI interference
- IECEx/UL/ATEX certification (Pending)
- Less than 500 mW power consumption

### Applications

- Public transportation facility, airport, train station, subway tunnels, etc
- Hazardous material transportation
- Refinery and Oil & gas exploration
- Power plants, chemical plants, storage tanks, etc
- Chemical lab and Archaeological Museum
- Military installations
- Industrial safety
- Emergency response & Industrial safety application
- Refinery and Oil & gas exploration





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Intelligent Sensor Module

## Specifications

### Detector Specifications

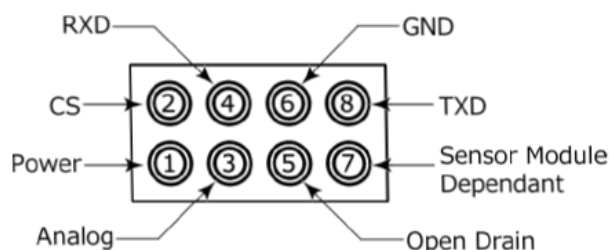
<b>Hazard Area Approval</b>	IECEX/UL/ATEX: IS design
<b>Power Supply</b>	4.7V-5.5V DC
<b>Current</b>	150 mA max
<b>Resolution</b>	100 ppb
<b>Response Time</b>	T90<15s
<b>Measurement Range</b>	0-200 ppm IBE
<b>Accuracy</b>	±20% at normal conditions (20°C, 50RH%)
<b>Analog signal output</b>	0---2.5V DC output
<b>Signal Drift</b>	Typical $\leq \pm 15\%$ FSS/month;
<b>Digital Interface</b>	Serial Interface (UART) Transmit (Tx) 3.3V TTL Receive (Rx) 3.3V TTL
<b>Life Time</b>	2 years (except lamp and detector)
<b>Operating Temperature</b>	-20°C to 50 °C
<b>Operating Humidity</b>	0 to 95%RH non-condensing
<b>EMI/RFI</b>	Highly resistant to EMI/RFI Compliant with EMC Directive 89/336/EEC

<b>Package</b>	Stainless steel Housing
<b>Size</b>	Ø 40.5mm * 26.5mm
<b>Weight</b>	Typical 90g

### Interface Pin Function:

Pin	Name	Function
1	Vcc	Power supply, 4.7V-5.5VDC
2	CS	Reserved for chip selection for communication
3	Analog	Analog signal output: 0—2.5V DC
4	RxD	Receive data, 3.3V TTL
5	OpenDrain	Reserved for switch signal output
6	Gnd	Ground
7	Sdep	Sensor module dependent, 0-0.6V means turn off the power, 2.2-3.3V means turn on.
8	TxD	Transmit data, 3.3V TTL

FIG.2 PIN CONFIGURATION



7R+PID SENSOR