C04-0960-005
7R+ PID Sensor

Intelligent Sensor Module

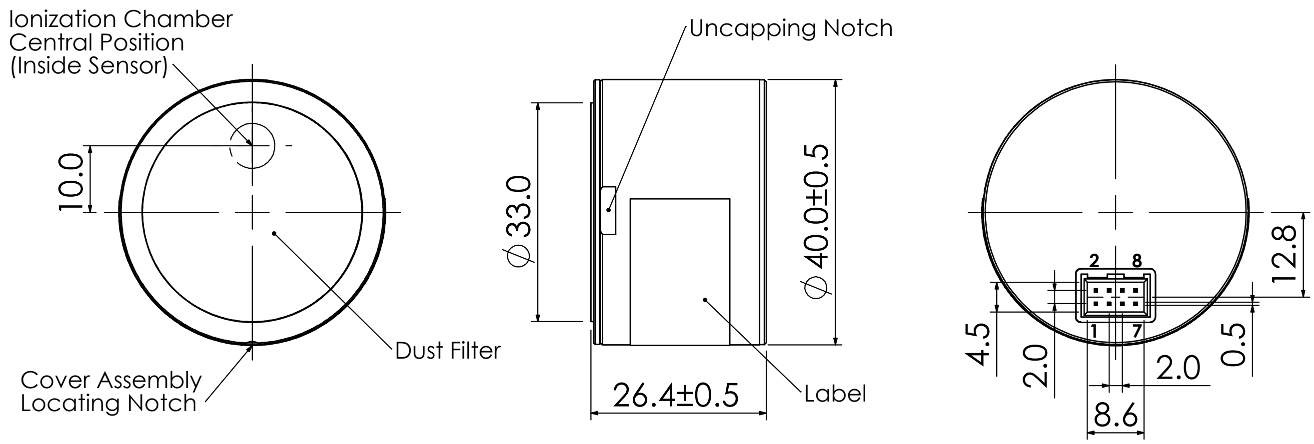
KEY FEATURES

- Self-diagnose
- 0.1 ppb indication resolution
- Analog & digital signal output
- Long life
- IECEx & ATEX design
- Highly resistant to RFI/EMI interference

TABLE 1. SPECIFICATIONS

CHARACTERISTIC	PARAMETER
Measurement Range	0 – 20 ppm
Indication Resolution	0.1 ppb
Accuracy	Typical ≤±15% of reading ± 10ppb (25°C, 0%RH)
Response Time	T90 ≤ 30s
Power Supply	4.7V – 5.5V
Current	Max: 150 mA Average: 20 mA
Power Consumption	< 100 mW
Analog Signal Output	0 – 2.5V DC output
Digital Interface	Serial Interface (UART) Transmit (Tx) 3.3V TTL Receive (Rx) 3.3V TTL
Lifetime	5 Years (except lamp and detector) Lamp lit hours: 18000 hours
Operating Temperature	-20°C to 50°C
Operating Humidity	0 to 95%RH non-condensing
EMI/RFI	Highly resistant to EMI/RFI Compliant with EMC Directive 89/336/EEC
Package	Stainless steel housing
Size	Φ 40.5mm * 26.5mm
Weight	Typical 90g
Hazard Area Approval	IECEx/ATEX: IS Design

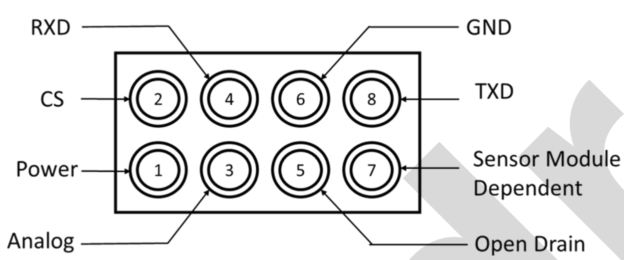
FIGURE 1. OUTLINE DIMENSIONS



* *All dimensions are in millimeters.*

* *All tolerances are ±0.2mm unless otherwise stated.*

FIGURE 2. PIN CONFIGURATION



SELF–DIAGNOSE

Below errors will be reported via UART:

- Current leakage: Error code 116;
- Get temperature and humidity error: Error code 117

TABLE 2.PINOUT

PIN	NAME	FUNCTION
1	VCC	Power supply, 4.7 ~ 5.5VDC
2	CS	Low level is active, high level is invalid; Low level: 0 ~ 0.25V, high level: 3.05 ~ 3.3V
3	ANALOG	Analog signal output: 0 ~ 2.5VDC
4	RXD	Float it if not use
5	NA	Float it
6	GND	Ground
7	SDEP	Sensor switch: turn off: 0 ~ 0.6V; turn on: 2.2 ~ 3.3V
8	TXD	Transmit data output, 3.3V TTL, connect to external RXD