

Indoor Air Quality Radon Sensors

HS-100C

■ Features

Type : pulsed ion chamber

First data out : < 60min

Data interval : 10min update (60min moving average)

Sensitivity : 0.30cpm/pCi/L

Operating range : 10~50°C, RH < 80%

Range : 0.10 ~ 99.99 pCi/L

Precision : < ±15% at 0.10 ~ 99.99 pCi/L

Accuracy : < ±15% (min. error <±0.46pCi/l)

Power : DC 12 ± 0.1V, 38mA (12V DC adapter)

Size : Φ63 x H69 (mm)

Data communication : I2C



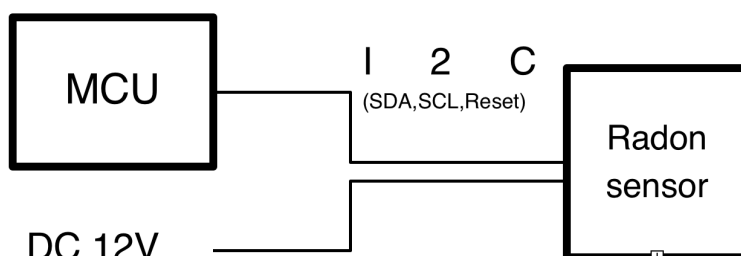
(* All specifications are measured within temperature 20°C ± 2°C, humidity 20% ~ 60%)

■ Description

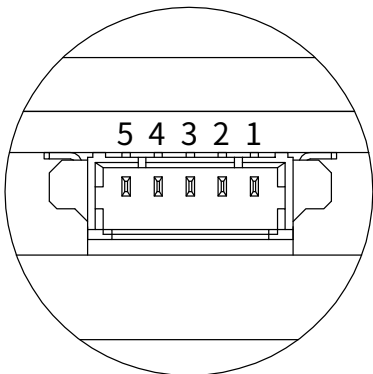
The HS-100C Radon Sensor is a radon gas measurement sensor. The time it takes to display the effective measured value is only 1 hour, compared to 24 to 48 hours for other foreign popular equipment, and the uncertainty is within 15%. The small size HS-100C Radon Sensor, which can be applied to various products such as air quality monitors, air purifiers, indoor air conditioners, ventilation fans, and ventilation systems, has a high sensitivity of 0.30 cpm/pCi/L.

■ Pin Description

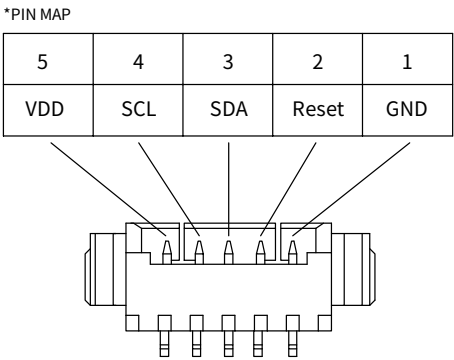
Pin No	Name	Description
1	GND	Ground
2	Reset	TTL in level 3.0V
3	I2C SDA	TTL in out level 3.0V
4	I2C SCL	TTL in level 3.0V
5	+12V	Vcc input



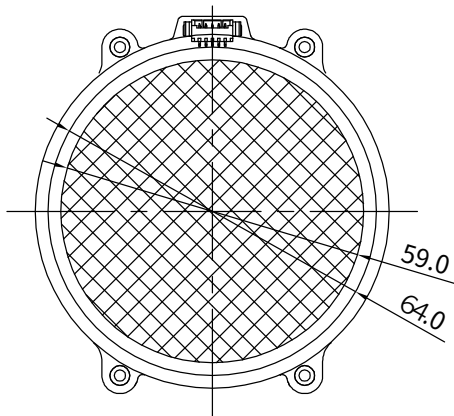
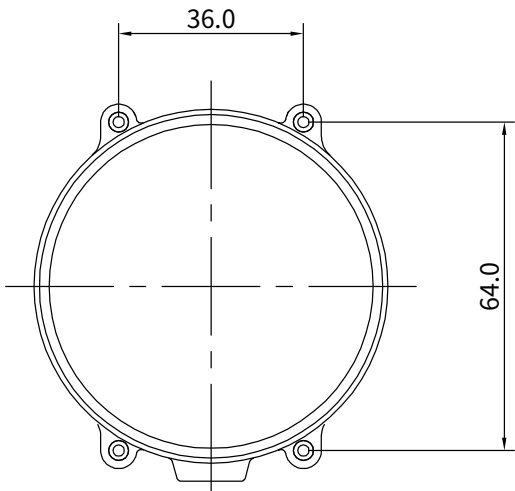
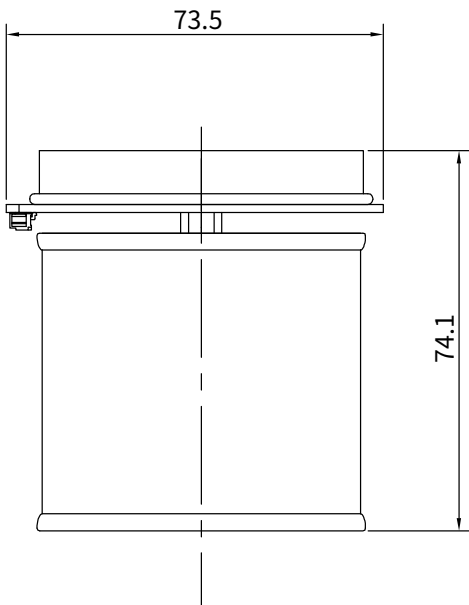
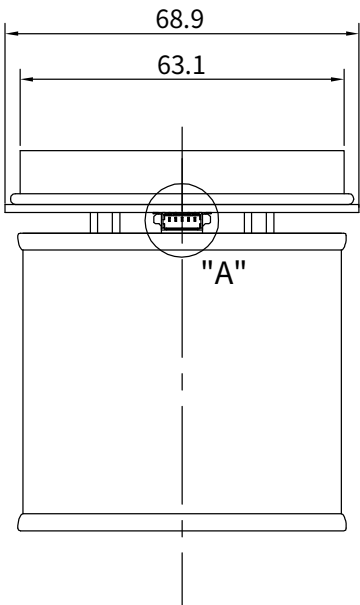
■ General geometry



DETAIL "A"
 Scale 5:1



5P CONNECTOR - 12505WR-05



■ Application



- Radon sensor for IoT
- Air purifier
- Radon detector
- IAQ monitor
- Auto ventilation system
- Radon mitigation system

■ Radon Sensor Communication Protocol (I2C)

- All data are expressed as HEX values.
- Pulse count and time count pause when vibration is detected. (vibration status: 1)
- Sensor operation sequence

1. Power supply

2. Boot

- Sensor Status: 2(Boot Status)
- INITIAL_BOOT: Increases from 0 to 100.
- No pulse count and no measurement time count until booting is complete (100%).

3. Measure

- Sensor status, I2C status: Read measurement data after checking Noraml Status.
- Measurement data is updated every 1 second. (Some registers are updated every 10 minutes)

■ Operation Sequence

