



6-IN-1 Integrated Compact Sensor supports monitoring: Temperature, Humidity, TVOC +1 more

**MODEL: ES-104**

Advanced IAQ Sensors

In Stock

## 6-IN-1 Integrated Compact Sensor

Compact 6-parameter monitoring

## Key Features & Benefits

Temperature: Ambient temperature measurement

Humidity: Relative humidity monitoring

VOCs: Volatile organic compounds detection

PM2.5: Particulate matter monitoring

PM10: Coarse particulate matter detection

## Ideal Applications

General Use

## Measurable Parameters

Temperature

Humidity

TVOC

PM

## Product Information & Resources

### Technical Specifications

Comprehensive technical specifications for the 6-IN-1 Integrated Compact Sensor (ES-104) LoRaWAN sensor

Wireless Transmission	
Technology	LoRaWAN®
Frequency	CN470/RU864/IN865/EU868/US915/AU915/KR920/AS923-1&2&3&4
Sensitivity	-137dBm @300bps

Work Mode	OTAA/ABP Class C
Configuration	USB Type-C port

### Physical Characteristics

Power Supply	5V/1A by Type-C Port
Power Supply	Battery Powered-3×2700 mAh ER14505 Li-SOCI2 Replaceable Batteries (Small Case)
Power Supply	Battery Powered-4×4000mAh ER ER18505 Li-SOCI2 Replaceable Batteries (Big Case)
Operating Temperature	-20°C - 60°C
Relative Humidity	10% - 90% (non-condensing)
Ingress Protection	IP30
Dimension	98*98*30 mm / 125*125*30 mm
Installation	Wall Mounting via 3M Tape or Screws

### Humidity

Humidity Accuracy	10% to 90% RH ( $\pm 3\%$ ), below 10% and above 90% RH ( $\pm 5\%$ )
Humidity Range	0% to 100% RH
Humidity Resolution	0.5% RH
Humidity Operating Principle	Digital CMOSens® technology

### Temperature

Temperature Range	-20°C to + 70°C
Temperature Accuracy	$\pm 0.5^\circ\text{C}$
Temperature Resolution	0.1°C

Temperature Operating Principle

Digital CMOSens® technology

### PM 1.0/PM 2.5/PM 10

PM 1.0/PM 2.5/PM 10 Range	0 ~ 1000 µg/m <sup>3</sup>
PM 1.0/PM 2.5/PM 10 Accuracy	± 10µg/m <sup>3</sup> at 1-100µg/m <sup>3</sup>
PM 1.0/PM 2.5/PM 10 Resolution	1 µg/m <sup>3</sup>
PM 1.0/PM 2.5/PM 10 Operating Principle	Laser Scattering

### TVOC

TVOC Range	1-2000µg/m <sup>3</sup>
TVOC Accuracy	(± 20 µg/m <sup>3</sup> + 15%) at 1 to 1000µg/m <sup>3</sup>
TVOC Resolution	1 µg/m <sup>3</sup>
TVOC Operating Principle	Digital MOX

### Certifications & Compliance

- ✓ CE Marked
- ✓ FCC Compliant
- ✓ RoHS Compliant
- ✓ REACH Compliant
- ✓ LoRaWAN Certified
- ✓ IP65 Rating (outdoor models)