

Smoke Sensor S20

S20 is a wireless photoelectric smoke sensor with communication capability over LTE, NB IoT, LoRaWAN, and Sigfox networks. It is designed to provide comprehensive environmental monitoring and security. Alarms will be triggered when it detects smoke or when the environmental temperature exceeds the threshold. A sound alarm of up to 83dB will be activated on-site, and the alert will be reported to a remote server application.

To accommodate a wider range of applications, the S20 offers the option to include a CO2 sensor, human detection, and a camera with night vision.

Target Application

- Water Tank & Reservoir Level Monitoring
- Wastewater and Drainage Systems
- Chemical and Oil Storage Tanks
- Agricultural Irrigation and Livestock Water Supply

Advantage:

- Network: LTE / NB-IoT / LoRawan / Sifgox / WiFi
- Standby time: >3 years
- JPEG reporting while there is alarm
- Detect burning with TVOC/CO2 sensor in the early stages
- Moving human dettection
- Low power warning
- Alarm sound pressure: 83dB
- Installation method: Ceiling



S20 Specification

Model	S20-4	S20-N	S20-L	S20-S	S20-W
Bands	**LTE-FDD**: B1/3/5/7/8/20/28 **LTE-FDD**: B2/3/4/5/7/8/28/66	**Cat-NB2**: B3/5/8/20/28	**LoRaWan**: EU868 /US915 /AU915 /CN470 /AS923 /KR920 /IN865	**Sigfox**: RC1 /RC2 /RC3 /RC4 /RC5 /RC6 /RC7	**WiFi**: 2.4G
Functions					
Smoke Alarm	Yes	Yes	Yes	Yes	Yes
Temperature Alarm	Yes	Yes	Yes	Yes	Yes
Device Testing	SMS/App/Button	App/Button	App/Button	App/Button	App/Button
Human Detection	Optional	Optional	Optional	Optional	Optional
JPEG image report	Optional	Optional	Optional		Optional
Sensors					
Temperature	Range: -40 to 85°C				
Humidity	Range: 0 to 100 %				
TVOC (Optional)	Range: 0 – 65,000 ppb				
CO2 (Optional)	Range: 400 – 65,000 ppm				
Air Quiality (Optional)	Range: Level 1-5				
General					
Dimension	Φ130*32 mm	Φ130*32 mm	Φ130*32 mm	Φ130*32 mm	Φ130*32 mm
Weight	155g	155g	150g	150g	150g
Battery	4000mAh/3.6V	4000mAh/3.6V	4000mAh/3.6V	4000mAh/3.6V	4000mAh/3.6V
Working Current	65mA	60mA	50mA	50mA	50mA
Sleeping Current	65uA	60uA	50uA	50uA	50uA
Life Time (1Ping/Day)	> 3Years	> 4Years	> 5Years	> 5Years	> 3Years
Communication	TCP/UDP/MQTT	TCP/UDP/MQTT	LoRaWan	Sigfox Backend	TCP/UDP/MQTT
Configuration	APP/SMS	APP	APP	APP	APP
Operating Temperature	-10ºC ~ +60ºC	-10ºC ~ +60ºC	-10ºC ~ +60ºC	-10ºC ~ +60ºC	-10ºC ~ +60ºC
Operating Humidity	5% ~ 95%	5% ~ 95%	5% ~ 95%	5% ~ 95%	5% ~ 95%

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