



4 Gas Density Transmitter via LoRaWAN

RN630-KFG

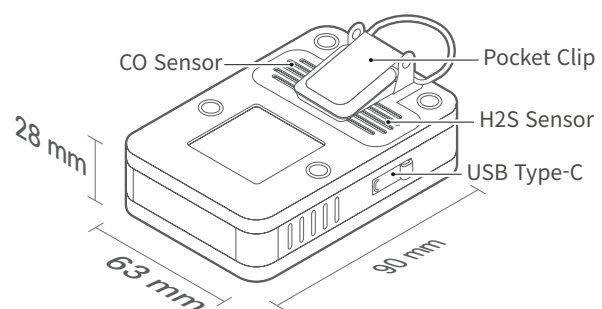
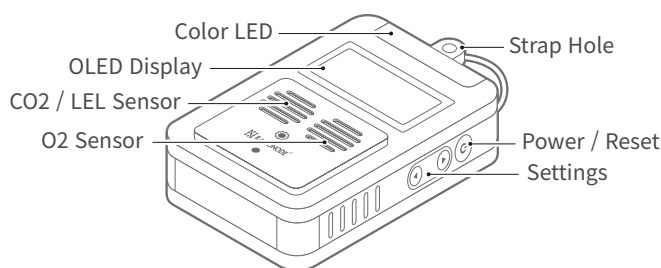
- Long Range Wireless / LoraWAN[®]
- Portable Gas Detectors and Analysers
- CO, O₂, H₂S, CO₂, density Support
- 3.9cm(1.54") OLED Display
- Loud Buzzer >85dB
- Long Battery Life (>40Hr)



Radionode RN630-KFG is a battery-operated wireless environmental sensor.

It is professionally designed for our valuable customers, featuring an OLED display, a loud buzzer, and an RGB LED. Using LoRaWAN[®] technology, users can easily set up a wide-range sensor network in a short time. Users can intuitively check the current status of the surrounding air using the RGB LED and OLED Display. For Safety, RN630-KFG is equipped with a loud buzzer, Bright White Strobe LED and Vibration motor to quickly alert nearby users in danger. The RN630-KFG has a retransmission function, so it does not drop measurement samples. You can easily register your product to the Radionode365 cloud service by scanning the QR code on the display of the sensor. With Radionode365, you can utilize all aspects of remote monitoring, even in areas with poor radio conditions. RN630-KFG features an embedded high-performance sensor. With a 8.51Wh battery, the RN630-KFG can operate for up to 60 hours continuously.

Hardware



CAUTION!

- For safety, ensure the battery has sufficient charge before each use.
- Don't expose the sensor to extreme gas density, heat, humidity or atmospheric pressure which can cause sensor readings to be unreliable, shortens lifespan.

Contact Information

- www.radionode365.com
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RN630-KFG Specification

Wireless connectivity	• LoRaWAN[®] V1.0.3 ,OTAA/ABP ClassA • KR920 / IN865 / RU864 / EU868 / US915 / AU915 / AS923-1/2/3/4 - Tx power : 22dBm - Sensitivity : -137 dBm @ 300 bps		
Connectivity	USB Type-C Data / Power		
Display	OLED display, 160x80 Pixel 39mm 1.54"		
Operating condition	-20 ~ 60 °C / 5 ~ 95% (Non condensing)		
KFG Payload channel Info	• CH1 : CO (0~1,000ppm) • CH2 : CO2 (400~150,000ppm) • CH3 : O2 (0~25%) • CH4 : H2S (0~100ppm) • CH5: Temperature (-40~125°C) • CH6 : Humidity (0~100%) • CH7 : SOS/ManDown (0~3)* • CH8 : Feels like temperature (-40~125°C)		
Transmission Medium	Normal line, twisted-pair or shield line		
Gas Sensing Accuracy	• O2: ±2% of measured value • CO: ±2% of measured value • H2S: ±2% of measured value • CO2: ±50ppm+5% of measured value - Temperature: ±0.2°C of measured value - Humidity: ±1.8% of measured value		
Emergency Distress Signal	Man Down (Movement detection) SOS (User triggered)		
IP rating	IP65		
Weight	175g		
LED	Status	LED Color	LED Pattern
	Gas level in safe range	Green	Continuous
	Gas level reached warn leve	Red	Continuous
	Gas level reached alarm level	Red + White Flash	Blinking
	Event occurred (various)	Blue	Blinking
features	Bump Test Zero Calibration Hold Data retransmission LoRa P2P mode Feels like temperature mode		

	Gas	Warning level	Alert level
Alarm	O2	< 19.5%	< 18%
	CO2	> 4000 ppm	> 15000 ppm
	CO	> 15 ppm	> 30ppm
	H2S	> 5 ppm	> 10 ppm
	LEL	> 15%	> 25%
Sound	> 90dB@10cm		
Battery	Continuous operation over 60 hour with Rechargeable 8.51Wh Li-ion Battery		
Buttons	OK(Power ON) UP DOWN		

* [SOS / Man Down]

[N / N]=0(normal), [Y / N]=1, [N / Y]=2, [Y / Y]=3

LoRaWAN Payload Decoder

• github.com/radionode/RN300-Series-LoraWAN

Basic Requirements

• LoRaWAN Gateway :
Radionode LoRaWAN gateway or Others

Application

- Construction site
- Storage Tank, Silo
- Manhole, Chemical Tank
- Various confined spaces

Product Components

Model	Component
RN630-KFG	• RN630-KFG (1EA) • Calibration Certificate • Clip