

# KoolZone Black Sensor



## Temperature & Humidity Sensor

Although the black sensor is our smallest LoRaWAN sensor it is capable of sending data over long distances. It is durable and can be used in or outside transmitting up to 20Km in a clear line of sight.

The Black Sensor is used for monitoring conditions inside refrigeration devices and other equipment, and environments like rooms, warehouses or polytunnels. This sensor is ideal for locations where space is limited and it can also be used in ambient or warmer environments.

### It is suitable for:

- Temperature monitoring from -25°C to +50°C
- Humidity monitoring from 0-95% RH

## Calibration

Different levels of calibration are available, the manufacturers' calibration certification, UKAS calibration, and reference calibration at specific temperature points carried out by KoolZone.



**Temperature Monitor**



**Accuracy  $\pm 0.3^{\circ}\text{C}$**



**2 to 5 Years Battery Life**



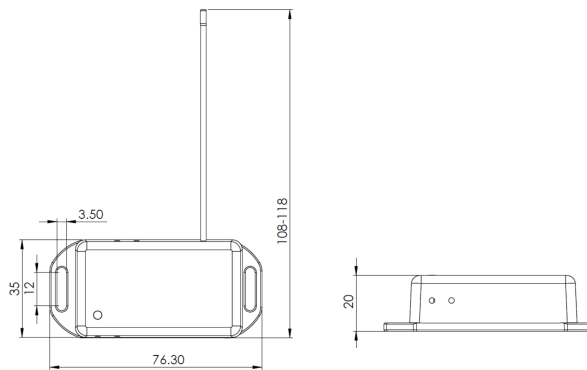
**Wireless Connection**



**Out-of-the-Box**

## Technical Specification

Operating Temperature	Sensor electronics between -25°C to +50°C and humidity from 0-95% RH (non-condensing)
Measurement Range	Sensor probe: -25°C to +50°C
Temperature Accuracy	± 0.3°C
Measurement Resolution	0.1°C
Relative Humidity Accuracy	± 2% RH
Dimensions	60 x 35 x 20mm
Battery Type	Lithium thionyl chloride 3.6V ½ AA
Battery Life	2 to 5 years; 2 years on 10 minute readings with sensor operating inside fridge at fridge temperatures
Radio Signal	LoRaWAN 1.0.2, certified for use in UK, Europe, USA and other countries (please enquire)
Wireless Distance	Free space range tested to 20Km



### Note

Monitored data and alarms are visible through KoolZone’s sophisticated monitoring platform running on iOS or Android phone, iPad, tablet or laptop. Alert notifications can be sent by text, email, or phone.

This sensor probe is not suitable for direct long-term immersion in liquids or use in corrosive environments. An alternative KoolZone sensor probe is available for liquid immersion, including dishwashers.

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