

Senspuck Matrix Meter - SMM10

Senspuck is a LoRaWAN multizone level meter sensor. It is designed to operate autonomously for 10 years in outdoor environments. It is suitable for wide variety of applications where reliable and case specific solution is needed. It enables multi zone 4x4 or 8x8 ranging mode to detect different distance levels.

Key features

- Multizone level meter
- Motion detection
- NFC configuration
- Multi-object detection
- Application calibrated

Applications

- Waste bins
- Silos
- Drainage pipes



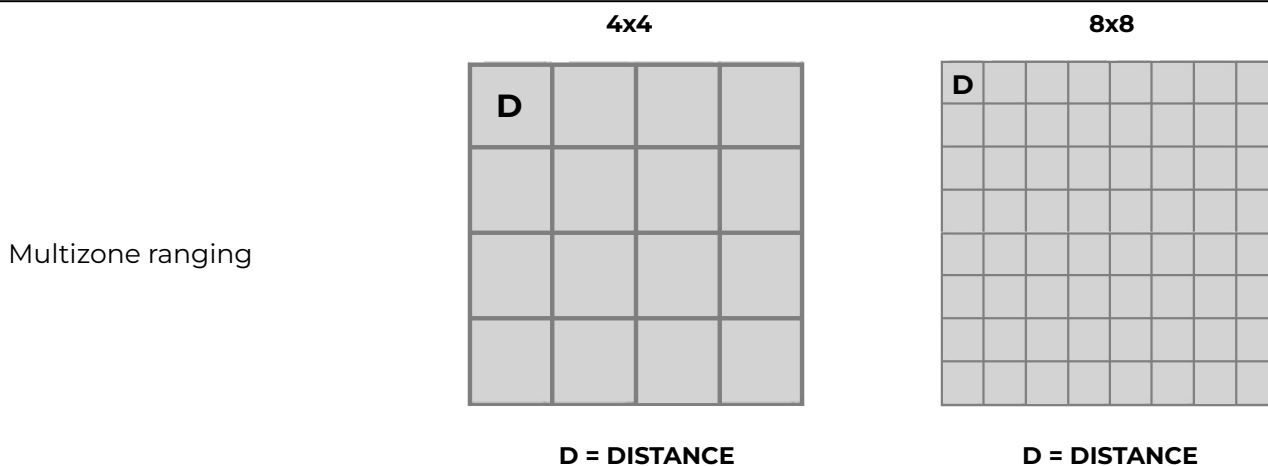
Technical specification

Enclosure	
Weight	100g w/ batteries / 140 g with batteries
Dimensions	80mm x 30mm
Materials	UV stable plastic, BOM, Plexi
IP rating	IP68
Operating conditions	
Temperature	-40°C to +85°C
Humidity	0 to 100% RH
Power supply	
Battery type	1 x 3.6V AA Lithium
Expected operation	<10 years (depending on sampling, signal, environment)
Configuration	
Sending interval	Configuration via NFC and downlink
Data upload interval	Configuration via NFC and downlink
NFC configuration	Native Android App

Connectivity	
Wireless Technology	LoRaWAN® 1.0.3
Wireless Security	LoRaWAN® End-to-End encryption (AES-CTR), Data Integrity Protection (AES-CMAC)
LoRaWAN Device Type	Class A/C (configurable) End-device
Supported regions	US902 –928, EU863 –870, AS923, AU915 –928
Link Budget	137 dB (SF7) to 151 dB (SF12)
RF Transmit Power	14dB / 20 dB (Region specific)

Sensors

Level	
Type	Time-of-Flight (ToF) – optical technology
Range	40mm to 4000mm
Accuracy	+/-15mm (Depending on light conditions and range)
Typical field of view	63°
Multizone	Configurable multizone ranges : 4x4 or 8x8



Temperature	
Range	-40°C to +65°C
Accuracy	±1°C

Acceleration	
Range	±2g to ±16g
Accuracy	±40mg