

DUS3-L



LoRaWAN® Low Power IP68 rated Ultrasonic Distance and Level Sensor

- Compatible with all LoRaWAN® frequencies
- Wide range of industrial applications
- High accuracy and repeatability
- Designed to meet outdoor applications
- Long-term durable performance in harsh environment
- Ultra-low power
- Suitable for liquid and solid media

TECHNICAL SPECIFICATION

Sensor

• Range (m)	5, 10
• Accuracy	±1 (typ.) (combined linearity, hysteresis, repeatability) (%Span)
• Resolution (mm)	1
• Sensor Minimum Distance	0 ~ 20cm for 5m range 0 ~ 50cm for 10m range
• Reading-to-reading stability	1mm in 1m (Typ)
• Compensated Temperature (°C)	-10 ~ +60

Power

• Power Supply	Built-in Replaceable Lithium Battery, External Power (option)
• Rated Voltage (V)	3.6
• Battery Lifetime	100,000+ readings and 20,000+ transmission (More than 10 years for most applications)

Physical

• Materials	Enclosure: POM
• Weight (g)	~500
• Protection Rate	IP68, UV Protected

Communication

• LoRaWAN® Version, Class	1.0.2revB, Class A (Class C on request)
• LoRaWAN® Frequency Zone	AS923, EU868, US902-928, AU915-928 (other zones available on request)
• LoRaWAN® Activation Type	OTA (default), ABP
• Sampling Type	Periodic (default), Event triggered
• Sampling Period	Configurable via downlink (default 4 hours)
• Transmission Type	Per sample (default), Event triggered, Conditional
• Parameter Configuration	Over-the-air via LoRaWAN® downlinks Locally via wireless connectivity
• Firmware Update	Locally via Wireless Connectivity, Over The Air



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NETWORK CONNECTION AND VISUALIZATION

Network Integration

- Integratable to all main networks (Actility, Alibaba, Cisco, Digita, Everynet, Helium, Kerlink, kpn, Lorient, machine-Q, Objenious, Orange, Orbiwise, Proximus, Senet, Sens, Swisscom, TATA, The Things Network (TTN), TTI and any other network)

Visualization And Data Management

- 10Sorex white label microservice platform, and Integratable to all main IIoT platforms directly or through the api (AWS, Azure, PTC ThingWorx, Bosch IoT, Cisco Jasper & Kinetic, Sierra Numerex, MathWorks, ThingSpeak, GE Digital Predix, LandisGyr, Siemens MindSphere, Cumulocity, myDevices, Ubidots, TagIO, ALSO AllThingsTalk, HPE IoT and any other major IoT platform).

10Sorex Platform Main Features

- Encrypted ultra-low power communication protocol
- Advanced device inventory
- Integration APIs for enterprise systems
- Multi-tenant role-based access control
- Data export and import
- White-label platform for enterprise runs on private account
- Variable alarm setting for high and low thresholds and multi-channel alerting
- Sampling and transmission interval configuration
- Transmission condition configuration
- Other configurations and customization available on request



Encrypted &
ultra-low power



Integratable



Dynamic alerting



Multi-tenant



Scalable

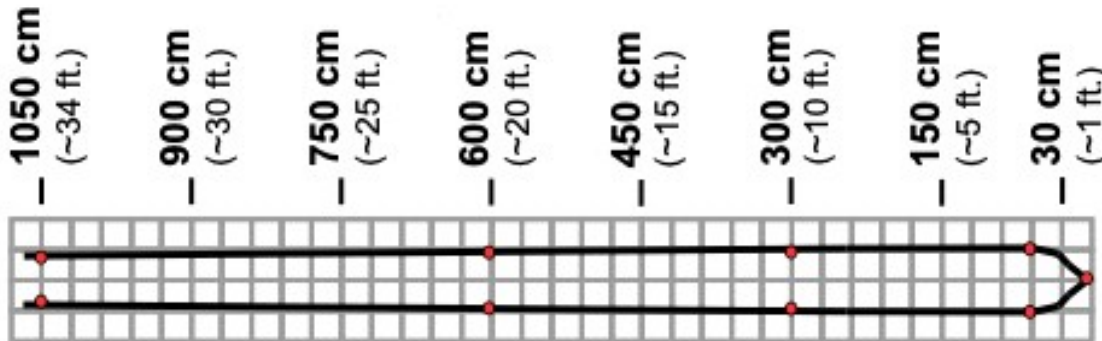


Composable &
API first




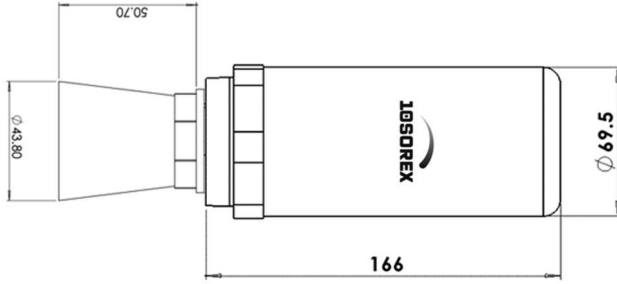
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BEAM PATTERN



Typical beam patten for 30cm target mover left and right with the board parallel to the sensor face

MODEL GUIDE

Model	Option / Schematic
C Model 	 <p>Cylindrical compact, POM enclosure</p>

INDUSTRIES



Water &
Environment



Agriculture &
Farming



Oil & Gas



Marine &
Oceanography



Mining &
Construction



Smart Building &
HVAC

APPLICATIONS

- Under Ground Water Tank Level Monitoring
- Under Ground Diesel Tank Level Monitoring
- Flood Monitoring
- Distance Measurement
- Long Range Object Detection
- Under Ground



DUS3-L

ORDERING CODE

DUS3-L							
	LoRaWAN Frequency Zone						
	AS (AS923)		AUx (AU915-928) (Sub Band x)		EU (EU868)		USx (US902-928) (Sub Band x)
	LoRaWAN Activation						
	A (Over The Air Activation - OTAA)				P (Activation By Personalization - ABP)		
	Measurement Range						
	5 meters, 10 meters						
	Device Activation						
	X: No Switch (always on)						
	Antenna Option						
	E: External				I: Internal		
Options (On request)							
DUS3-L	AS	A	5m	X	I		

Sample Product Code:

- **DUS3-L-AS-A-5m-X-I**

LoRaWAN® ultrasonic distance sensor, frequency AS923, over the air activated, range of 5m, with C8 housing (compact and IP68 rated), always on and with internal antenna.

