MAS2-L Spec-sheet

ellenex

LoRaWAN®

LoRaWAN Operated Low Power Humidity and Temperature Sensor

- Compatible with all LoRaWAN frequencies
- Wide range of industrial applications
- High accuracy
- Designed to meet outdoor applications
- Long-term durable performance in harsh environment
- Ultra-low power

TECHNICAL SPECIFICATION

Humidity Sensor

• Accuracy	±2 (typ.)	%RH
• Resolution	0.01 (typ.)	%RH
• Hysteresis	±0.8 (typ.) at 25°C	%RH
• Storage Temperature	-10 to +60	°C
• Operation Temperature	-10 ~ +70	°C

Temperature Sensor

• Accuracy	±0.5 (typ.)	°C
• Resolution	0.01 (typ.)	°C
• Specified Range	-40 to 125	°C
• Storage Temperature	-10 to +60	°C
• Operation Temperature	-10 ~ +70	°C

Power

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

Physical

• Materials	Enclosure: ASA or POM Sensor: Sintered metal mesh encasing	
• Weight	1300	g
• Protection Rate	IP66 or IP68 and UV Protected enclosure	

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 VISUALISATION

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

Visualisation And Data Management
- Ellenex 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, TagoIO, AllThingsTalk Maker, HPE IoT and any other major IoT platform).

Ellenex 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 customisation available on request

Encrypted & ultra-low power	Integratable	Dynamic alerting
Multi-tenant	Scalable	Composable & API first

INDUSTRIES

Smart Building & HVAC	Food & Beverage	Mining & Construction

APPLICATIONS
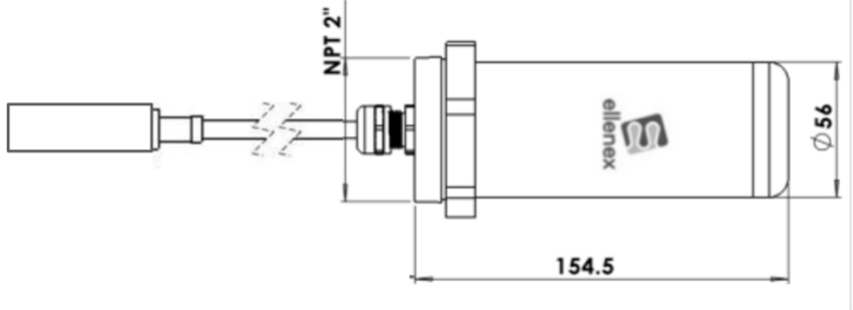
- Moisture Monitoring Systems
- Weather Stations

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MODEL GUIDE

Model	Schematic
C Model	

ORDERING CODE

MAS2-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)			
			Sensor Type				
			S: Standard (±2% RH and ±0.5°C)				
				Enclosure			
				C5: Cylindrical	**Other** options available on request		
					Device Activation		
					S: With On/Off Switch	**X:** No Switch (Always On)	
						Antenna Option	
						E: External (SMA)	**EHG:** High Gain External
							Options
							(On request)1
MAS2-L	**AS**	**A**	**S**	**C5**	**S**	**E**	

Sample Product Code:

- **MAS2-L-AS-A-S-C5-S-E**
  LoRaWAN Operated Low Power Humidity Sensor, Over The Air Activated, with cylindrical enclosure, activated by on-off switch and external antenna.

Integrated IoT Solutions

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