FMS2-L

LoRaWAN®

LoRaWAN® Low Power Pulse Counter and Meter Interface

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

TECHNICAL SPECIFICATION

Sensor Interface

•	Interface	Pulse (Reed Switch) (or other customised options on request)
•	Electric Connection	1m cable (or other options on request)
•	Operating temperature range (°C)	-10 ~ +70

Power

•	Power Supply	Built-in Replaceable Lithium Battery, External Power (option)
•	Rated Voltage (V)	3.6
•	Battery Lifetime	Typ. 500,000+ readings and 20,000+ transmission (More than 10 years for most applications)

Physical

•	Materials	ASA or POM
•	Weight (g)	350
•	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

FMS2-L

NETWORK CONNECTION AND VISUALIZATION

Network Integration

- Integratable to all main networks (Actility, Alibaba, Cisco, Digita, Everynet, Helium, Kerlink, kpn, Loriot, 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, TagoIO, 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

www.10sorex.com

Sales@10sorex.com

+1 (424) 400-4964

FMS2-L

MODEL GUIDE

Housing			
C Model:		**E Model:**	
	C model comes with cylindrical shape housing suitable for battery operated applications with IP66 or IP68 rate and clamp mounting.		**E model** comes with rectangular shape housing suitable for battery or external power operated applications with IP66 rate, and wall mounting.

Meter Interface			
Type A **Size:** 20mm **Pulse rate:**1pulse/10lit The Cold Water Multijet Meter Reed Switch is inserted into the face of the meter. The Reed Switch has no polarity.	**Type B** **Size:** 50mm **Pulse rate:**1pulse/ 5lit The Cold Water PD Meter Reed Switch is inserted into the body of the meter. The Reed Switch has no polarity.	**Type C** **Size:** 15mm **Pulse rate:**1pulse/10 lit The Hot Water Multijet Meter Reed Switch is inserted into the face of the meter. The Reed Switch has no polarity.	**Type D** **Size:** 50mm **Pulse rate:**1pulse/10lit Suitable for Cold Water Woltman Meter. The Reed Switch has no polarity.

INDUSTRIES

Water & Environment

Agriculture & Farming

Smart Building & HVAC

APPLICATIONS

- Water Supply Monitoring
- Water Pipeline Leakage Monitoring

www.10sorex.com

Sales@10sorex.com

+1 (424) 400-4964

FMS2-L

ORDERING CODE

FMS2-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)					
			Meter Interface Options						
			X: Without Interface	**A:** Type A (20mm, 1pulse/10L)	**B:** Type B (50mm, 1pulse/5L)	**C:** Type C (15mm, 1pulse/10L)	**D:** Type D (50mm, 1pulse/10L)		
				Connector Options					
				S: Standard Cable Length of 0.5m		**P:** pin connector			
				Other options available on request					
					Enclosure				
					C5: Compact (Material: POM)	**E5:** Rectangular (Material: ASA)	**X:** without housing (only board)		
						Device Activation			
						S: With On/Off Switch	**X:** No Switch (Always On)		
							Antenna Option		
							E: External	**I:** Internal	
								Options	
								(On request) [1]	
FMS2-L	**AS**	**A**	**X**	**S**	**C5**	**S**	**E**		

Sample Product Code:

FMS2-L-AS-A-X-S-C5-S-E

LoRaWAN® water meter interface (pulse reader), frequency AS923, over the air activated (OTAA), with compact housing, with standard cable connection, on/off switch and external antenna.

[1] Product Options:

- **EP**: sensor with external power supply connector for 12V supply (only for E type enclosure, adaptor is not included)
- **EPB**: connector for 12V supply with internal battery backup (only for E type enclosure)
- **HG**: high gain external antenna
- **WF**: Active WiFi module on device for communication/ firmware update through Mobile phone NFC module (only for E type enclosure)
- **HCB**: high-capacity battery (only for E type enclosure)
- **Any** other meter interface rather than pulse (Modbus, 4-20mA, etc.)

www.10sorex.com
Sales@10sorex.com
+1 (424) 400-4964