FMS Flood Monitoring System



Applications

Surface water
Water quantity
Flood monitoring
Tide monitoring
Storm water

IoT Device with Smart Pressure Level Sensor

Integrated flood monitoring and stream gauging solution

Robust and reliable water level and temperature sensor
Intuitive, wireless local operation using LinkComm software via Bluetooth Low Energy (BLE)
Connection to smartphones, tablets, and PCs operating with Android, iOS, or Windows 10
Remote monitoring via cellular communication with integrated modem
Global support for application-specifi c installation and maintenance guidance

Efficient Resource Allocation for Swift Response:

When minutes matter, timely notifications enable you to take proactive action if water levels exceed a certain threshold, accelerating necessary downstream actions ahead of a flood event.

Designed for Simple Installation and Use:

All-in-one solution with a radar level sensor, datalogger, modem, and power supply. The compact system with customized power supply options, allows you to easily setup a monitoring network with minimal experience.

Reliable and Robust Design for Peace of Mind:

Maintain confidence in all weather conditions with IP67 housing, so you can focus on managing projects without worrying about equipment failure.

Best-in-Class User Experience:

Via the integrated Bluetooth (BLE) interface, operation with a smartphone or PC is extremely easy using the LinkComm software. The entire system can be configured from the office using the integrated modem.

Technical Specifications

WATER LEVEL	Measuring range	0 ... 4 m water column / 0 ... 0.4 bar*	0 ... 13 ft water column / 0 ... 5.8 psi*
		0 ... 10 m water column / 0 ... 1 bar	0 ... 33 ft water column / 0 ... 14.5 psi
		0 ... 20 m water column / 0 ... 2 bar	0 ... 66 ft water column / 0 ... 29 psi
		0 ... 40 m water column / 0 ... 4 bar	0 ... 131 ft water column / 0 ... 58 psi
		0 ... 100 m water column / 0 ... 10 bar	0 ... 328 ft water column / 0 ... 145 psi
	Resolution	0.001 m / 0.1 cm / 0.0001 bar	0.01 ft / 0.1 inch / 0.001 psi
	Accuracy (linearity + hysteresis)	± 0.05 % full scale	
	Long-term stability (linearity + hysteresis)	± 0.1 %/a full scale	
	Units	m / cm / bar	ft / inch / psi
	Temperature-compensation operating range	-20°C (ice-free) ... +70°C / -5°C (ice-free) ... +45°C*	-4°F (ice-free) ... +158°F / +23°F (ice-free) ... +158°F*
POWER (OPTION BATTERY ONLY)	Integrated lithium battery only (with plug connector)	7.2 V / 13 A	
	Integrated lithium battery lifetime	> 10 years @ 20 °C ambient temperature with lithium battery, one hour sample interval, one transfer per day, one local communication (BLE) per month	
POWER (OPTION SOLAR POWERED)	Integrated NiMH rechargeable battery including solar panel (with plug connector)	+ 6 V / 3.3 Ah	
	Solar panel	5 watts (optional 2 x 5 watts)	
RTC CLOCK	Accuracy	±26 seconds/month (at +25 °C / +77 °F) when using SNTP < ±3 seconds	
COMMUNICATION	Cellular 4G/2G (not available for USA)	LTE Cat-1 (4G); B1 (2100 MHz), B3 (1800 MHz), B7 (2600 MHz), B8 (900 MHz), B20 (800 MHz), B28 (700 MHz); GSM, GPRS, EDGE; 900 MHz, 1800 MHz	
	Cellular 4G CAT-M1/LTE-M (Global)	B1, B2, B3, B4, B5, B8, B9, B10, B12, B13, B17, B18, B19, B20, B25, B26, B27, B28, B66	
	Local communication	Bluetooth Low Energy (BLE) 5.0 - up to 10 m (free line of sight)	
DATA TRANSMISSION	Interval	1 minute ... 1 week, 15 minutes ... 24 hours for SMS	
	IP COM	FTP, FTPS, HTTP, HTTPS (TLS 1.2), MQTT, MQTTS	
DATA MEMORY	Measurement memory	28 MB (approx. 1,000,000 values)	
ENVIRONMENTAL	Temperature range, operating	–30 ... +85 °C	–22 ... +185 °F
	Temperature range, storage	–40 ... +85 °C	–23 ... +185 °F
	Humidity	5 % ... 95 % (non-condensing)	
	IP rating	IP 67 (flood-proof up to 1 week/ 1 m water column)	
DIMENSIONS / WEIGHT SENSORLINK 1000	Dimension	L x W x H: 160 mm x 80 mm x 60 mm	L x W x H: 6.3 in x 3.1 in x 2.4 in
	Weight (incl. lithium battery)	approx. 0.9 kg	approx. 2 pounds
	Material	Aluminum / PA-GF	
DIMENSIONS / WEIGHT PRESSURE PROBE	Dimension	LxD: 195 x 22 mm (<1"), 317 mm x 22 mm*	LxD: 7.7 x 0.9 inch, 12.5 x 0.9 in*
	Weight probe	~ 650 g, 430 g*	~ 22.9 oz, 15.2 oz*
	Weight cable	~ 55 g/m, 82 g/m	~ 0.51 oz/ft, 0.9 oz/ft
	Material probe housing	Stainless steel 1.4539 (904 L)	
	Material pressure sensor	Ceramic / temperature compensated	
	Cable jacket	PUR	
REGULATORY	Approvals & certificates	FCC / IC / CE / ACMA	
	PTCRB	According to NAPRD03 (only modem variant 4G Cat-M1/LTE-M)	
	Provider certifications	Verizon Open Development Certification, AT&T IoT Device Certification	

**Device variant with integrated conductivity sensor*