

DATA LOGGER

The Data Logger is a compact, reliable device designed to collect data from weather sensors such as the Radiation Shield and Rain Gauge. It stores measurements locally and transmits them to the cloud through mobile networks (Internet or SMS), ensuring continuous data availability and real-time remote monitoring. Built with a durable ABS enclosure and equipped with external antenna options for strong signal reception, the Data Logger is optimized for outdoor environments. Its flexible power options, including battery and solar, allow deployment in remote locations where grid power or Wi-Fi connectivity is not available. This makes it an ideal solution for weather stations, smart agriculture, and remote environmental monitoring applications.



Key Features

- **Advanced Connectivity:** 4G/LTE Dual SIM capability with automatic failover
- **Comprehensive Data Security:** 30-day built-in data buffer with GPS timestamping
- **Protocol Support:** Modern communication standards (HTTP, HTTPS, MQTT, FTP)
- **Environmental Protection:** IP66-rated rugged enclosure for extreme conditions
- **Power Flexibility:** Solar-assisted battery operation for extended deployment
- **Precision Timing:** Integrated real-time clock for accurate data timestamping
- **Dual Storage:** Local SD card backup with simultaneous cloud synchronization

Technical Specifications

Parameter	Specification
Primary Function	Wireless sensor data aggregation and cloud transmission
Communication Protocols	I2C, SPI, UART, RS232, RS485
Antenna Configuration	Integrated LTE/GPS antennas with external SMA connectors
Power Options	Rechargeable battery with solar input capability
Operating Temperature	-20°C to +60°C (operational range)

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Parameter	Specification
Data Management	Local SD storage with cloud database synchronization

Enclosure Specifications

Characteristic	Specification
Material	Outdoor-grade Acrylonitrile Butadiene Styrene(ABS)
Ingress Protection	IP65 (Dust-tight, protected against water jets)
Dimensions	200 × 200 × 63.5 mm
Weight	1.45 kg
Finish	Solar-reflective glossy white coating
Mounting Options	Dual mounting plates with stainless steel hose clamp compatibility
Cable Management	Weather-sealed PG7/PG9 cable glands
UV Resistance	>5 years outdoor exposure rating
Antenna Support	External SMA connectors for GSM/LTE/GPS antennas

Applications

- **Environmental Monitoring:** Remote weather station networks
- **Agricultural Technology:** Smart irrigation and crop management systems
- **Public Safety:** Disaster preparedness and early warning systems
- **Industrial IoT:** Equipment and environmental condition monitoring
- **Urban Infrastructure:** Smart city applications and municipal monitoring
- **Research Applications:** Long-term environmental data collection

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