INTRODUCING BLOCK FAMILY OF DATALOGGERS

WiFi

Cellular

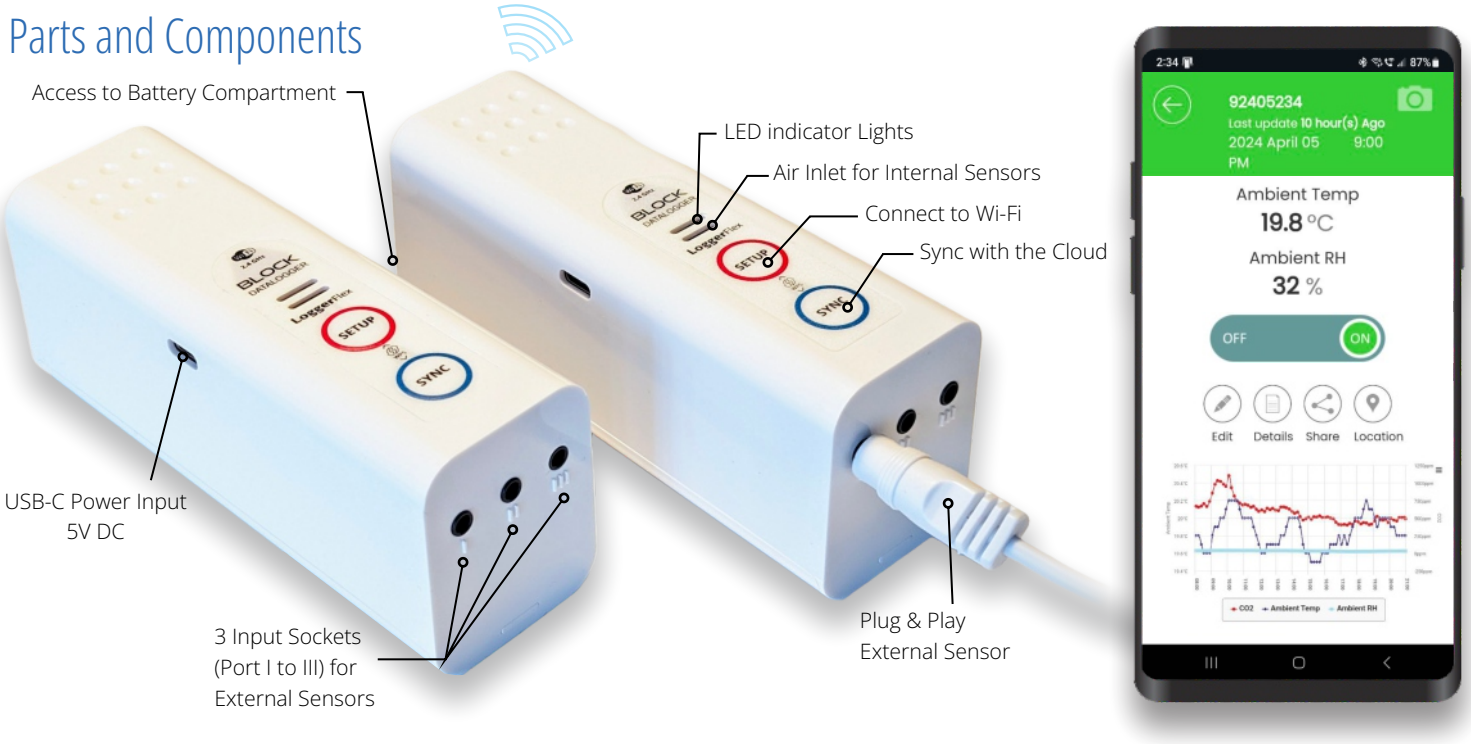
BLOCK Datalogger & Alarm

The BLOCK family of Data Loggers includes two versions: WiFi and Cellular. Both versions are designed for efficient data collection, real-time alarms, and extended battery life. The Cellular version offers direct data transfer over cellular networks, while the WiFi version connects seamlessly to existing WiFi networks, ensuring flexible monitoring solutions. With advanced power management, both versions support high-frequency measurement sampling and immediate alerts without requiring additional gateways.

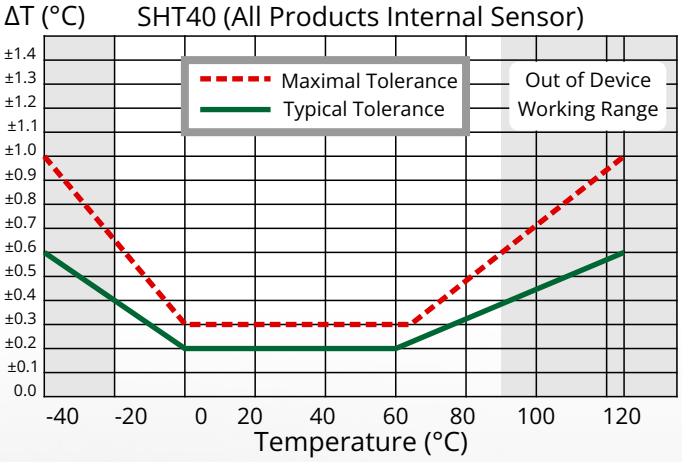
General Technical Specifications of All BLOCK Family Products

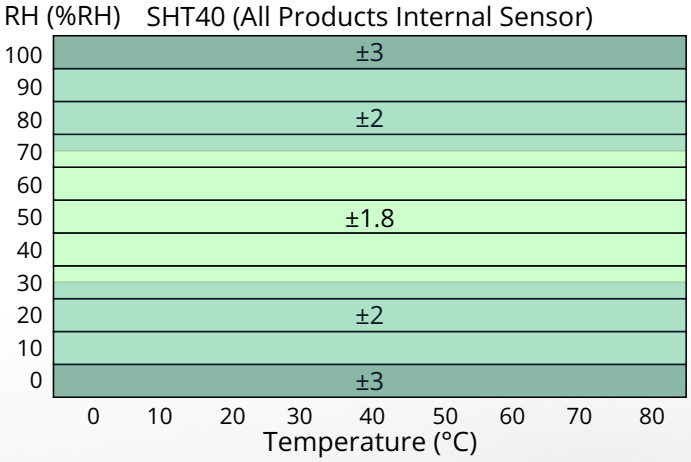
Built in sensors		Temperature and Relative Humidity (RH)
Power Supply	Internal	4 x AA batteries
	External	5V DC Standard USB-Charger
Temperature measurement range	°C	-20 to +70
	°F	-4 to +160
Temperature reporting resolution		0.1
RH measurement range		0-99% non-condensing
Interface		Wi-Fi - IEEE 802.11 b/g/n – 2.4 GHz
FCC ID	WiFi	2AC7Z-ESPWROOM32
	Cellular	2AJYU-8VC0001
Max TX power		20 dBm (100 mW)
Internal Memory Capacity		64,000 Record of each measured Parameter
Record intervals		1 minute to 30 minutes (down to 5 sec. by order)
Upload intervals		1 hour to once a week (down to 1 min. by order)
Dimensions	Height	H = 133 mm (5 $^{15}/_{64}$")
	Length	L = 53 mm (2 $^{3}/_{32}$ ")
	Width	W = 43 mm (1 $^{11}/_{16}$")

Parts and Components



Internal Sensor's Accuracy





Compliance

IEEE 802.11 b/g
NIST Traceable
FDA CFR 21 (Part 11)
RoHS
CE EN 61010-1 3rd edition

Cellular & WiFi Data Recorder & Alarm

BLOCK Thermo II

WiFi Version's Part Number:BLXT02 Cellular Version's Part Number:BLXTM2

WiFi

Cellular

Available in Two (2) Variations

WiFi Cellular

PORT I	External Digital Temp Sensor
PORT II	External Digital Temp Sensor
PORT III	Flood Detector (optional)

BLOCK THERMO II

Ideal for precise temperature monitoring across multiple points, Thermo II is designed for applications in cold storage, industrial processes, and environmental monitoring. With the ability to handle two independent probes, it ensures comprehensive and flexible temperature tracking for diverse needs.

Key Features:

Dual Temperature Monitoring: Supports two independent external probes, each functioning as a separate sensor with individual alarms and recording capabilities.Wide Temperature Range: Each probe operates from -55°C to +125°C, making the device suitable for a variety of applications.

Detachable Probe Options: Customers can choose between an ordinary model or a Thermowell pocket for enhanced durability and installation flexibility.

NIST Certification Option: The external sensor is available with or without a NIST traceable calibration certificate, catering to different compliance requirements.

Automated Alarms: Sends phone calls, texts, and email alerts if temperature measurements exceed set thresholds or if digital inputs are activated.Data Analysis & Reporting: Provides detailed records, graphs, and min-max-average reports, and supports specialized applications with customized data for compliance and operational efficiency.

Monitoring Capabilities

Record & Send Alarm (Detachable) Only Recording

Probe Temp I | **Probe Temp II** | **Ambient Temp** | **Relative Humidity** | **Location** (Cellular Only) | **Digital Input**

Technical Specifications

Weight	300 gr | 10.6 Oz (including 4 x AA Alkaline batteries)
Digital Input type	Passive (Dry Contact, Door Sensor, Switch, PLC Output, etc.)
Temperature and RH Specifications	Refer to BLOCK Family general Specification Sheet
External Sensor's measurement length	1.5 meters (5 ft) - Extendable up to 9 meters (30 ft.)
External Sensor's measurement range	-55°C to +125°C (-67°F to +257°F)

Refer to the BLOCK Family "General Specifications" and External sensor's dedicated pages in the catalog for more technical details.

External Digital Temperature Sensors

Part Numbers: DSTS15, DS15N0, DS15NB, Tw0525

External Digital Sensors

Standard Digital Temperature Probe 1.5 m (5ft.) - Waterproof stainless steel pocket (Pocket is submersible)

Part Number: DSTS15

-55° to +125°C (-67 to +257°F)
Accuracy: ±0.5°C (0.9°F)

Standard Digital Temperature Probe With NIST Traceable Calibration Test Certificate

Part Number: DS15N0

Default Calibration test point at 0°C (32°F) unless indicated

Standard Digital Temperature Probe With NIST traceable Calibration Test Certificate and Vial Bottle filled with Ethanol

Part Number: DS15NB

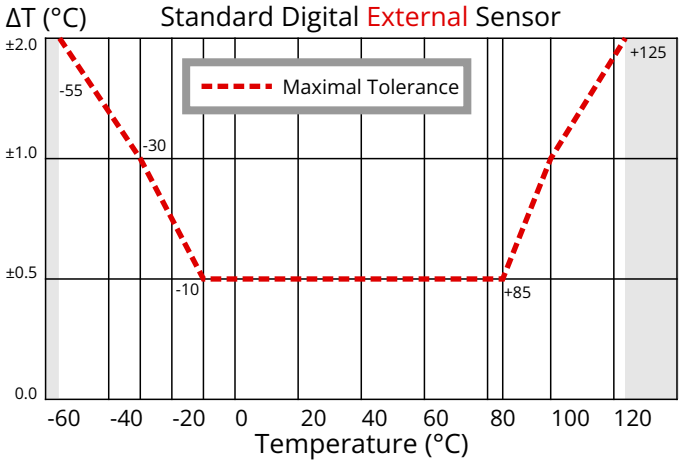
Default Calibration test point at 0°C (32°F) unless indicated

Digital Temperature ½" NPT thermowell Probe 1.5 m (5ft.) - Waterproof stainless steel pocket (Pocket is submersible)

Part Number: TW0525

-55° to +125°C (-67 to +257°F)
Accuracy: ±0.5°C (0.9°F)

Sensors' Accuracy



For External Sensors:

Standard Probes: The sensors included with the products by default are standard probes without a NIST certificate.

NIST Certification: To include a NIST certificate, please indicate "NIST" in your PO. The default testing point is 0°C (32°F) unless otherwise specified.

Thermowell Sensors: Please specify the required pocket length and thread size in your purchase order (PO). By default, the thread size is 1/2" NPT, and the probe length is 1" (25 mm).

Technical Specifications

External detachable Sensor's	°C	-55 to +125
Temperature measurement range	°F	-67 to +257
Temperature reporting resolution		0.1
Default NIST testing point		0°C (32°F)
Length		1.5 meters (5 ft) – extendable up to 9 meters (30 ft)

NIST-TRACEABLE CALIBRATION CERTIFICATE

What is a NIST-traceable calibration certificate?

NIST Traceable Calibration Certificate

NIST traceability for temperature sensors ensures accurate and reliable temperature measurements by linking them to standards maintained by the National Institute of Standards and Technology (NIST). This traceability involves calibrating sensors against certified reference instruments that have been directly or indirectly compared to NIST standards under documented and controlled processes. It is critical for industries like pharmaceuticals and food, where precise temperature control is essential for maintaining compliance with regulatory requirements, such as FDA guidelines. In these sectors, NIST traceability safeguards the safety, quality, and integrity of temperature-sensitive products, including medications and perishable foods, ensuring they remain effective and safe for consumption.

Why do calibration certificates need renewal, and what is “Drift” in temperature measurements?

Drift in a temperature sensor refers to the gradual change in its accuracy over time due to factors like aging, environmental exposure, and wear of components. This deviation can result in unreliable measurements, compromising processes that rely on precise temperature control, such as pharmaceutical storage. Regular recalibration ensures that the sensor maintains its accuracy by aligning it with certified standards. If the drift exceeds acceptable limits or the sensor is no longer reliable after recalibration, it should be replaced to ensure compliance with regulatory standards and safeguard product quality.

How does LoggerFlex simplify and reduce the cost of renewing calibration certificates?

LoggerFlex revolutionizes maintaining a valid NIST certificate by leveraging detachable digital sensors equipped with unique electronic serial numbers and QR codes for seamless identification and certification management. These external probes are calibrated against NIST traceable standards at the factory, and their calibration certificates, accessible online via QR code, remain valid for up to 5 years when the sensor is stored or 3 years when in use. This innovation eliminates the need to send entire dataloggers to labs for recalibration, a process that incurs high costs, shipping delays, and leaves facilities without monitoring or alarm systems.

Instead, when a sensor's certificate approaches expiration, users can simply replace the small, cost-effective probe with a new, pre-calibrated one, ensuring uninterrupted compliance. This approach not only minimizes downtime and reduces expenses but also significantly cuts waste by extending the lifespan of the datalogger itself. By focusing on recalibrating or replacing the probe alone, LoggerFlex offers a sustainable, efficient solution for maintaining high accuracy and regulatory compliance in industries where precision is critical.

No WiFi

Plug & Play

LoggerFlex No Sim - Cellular Direct Data Loggers With Worldwide Unlimited Data

Our cellular devices offer unparalleled flexibility and instant connectivity, eliminating the limitations of WiFi by working seamlessly in any location with mobile network coverage.
We recognize the challenges of dealing with complex mobile operator plans, hidden fees, and roaming charges.
That's why our solution provides a straightforward service available in 176 countries, with **no roaming fees**, **no connection fees**, and **no hidden charges**. For just **$2.99 per month**, you get unlimited data and unlimited premium access to our powerful software. This ensures seamless, reliable monitoring and data logging wherever you need it, without the hassles of traditional connectivity options.

Unlimited Worldwide Data
+
Unlimited Cloud Storage
+
Premium Software Access
+
Share Access with Unlimited team members

LOGGERFLEX
Cellular Direct Solution

$2.99 Per Month

When to Choose Cellular Data Loggers Over WiFi

No WiFi or Coverage Issues: Great for remote or industrial areas with poor WiFi.

Independent from Power Grid: Operates on battery for off-grid monitoring and sends immediate alarms during power outages for timely action.

Remote Locations: Reliable in rural, offshore, or mountainous areas.

Critical Applications: Ensures reliable alerts for security or medical systems.

Redundancy: Provides backup monitoring during network outages.

Easier Setup: No network configuration, just plug and play.

Frequent Staff Changes: Simplifies use without training new personnel on network setups.

Geo-Location Tracking: Perfect for logistics or mobile asset tracking.

On the Move: Ideal for vehicles, shipping containers, or mobile equipment.

Frequent Relocation or Temporary Installations: Easily moved without resetting connections.

Harsh Environments: Performs well in industrial settings with obstructed signals.

LF Cloud (LoggerFlex Online Application) is a powerful, cloud-based platform that streamlines data collection and monitoring. Its primary functions include continuous, high-resolution monitoring and 24/7 data access from anywhere, enabling remote, multi-user oversight across different time zones. The application generates industry-specific, customizable reports tailored to the unique requirements of sectors such as pharmaceuticals, food safety, and HVAC. LF Cloud also supports multi-parameter monitoring of various environmental and system parameters, with shared access capabilities for collaborative monitoring among multiple users. As a progressive web application, it is accessible on any device with internet connectivity, requiring no installation and providing a consistent experience across platforms. This comprehensive platform empowers users with actionable insights, robust data management, and enhanced decision-making.

Access from Anywhere, on Any Device, for Multiple Users

Neat Mobile View

Geographical Based Display

Professional Reports

Our alarms will reach you, no matter how far you are.

Phone Call Alarm

Text Message Alarm

Email Alarm

Advance Alarm Function

1 Momentary Minimum & Maximum value Alarms

As the most basic alarm function, 'LF CLOUD' can immediately push an alarm via email, SMS, or phone call if any measured parameter exceeds the defined maximum or falls below the adjustable minimum threshold. This instant alerting ensures that users are promptly informed.

2 Adjustable "Persistent Condition" Alarm

To filter out possible momentary fluctuations, users can adjust the persistence duration of the condition before the alarm goes off. Using this feature, the system only triggers the alarm if the out-of-bounds measured parameter remains beyond defined limits for a certain duration.

3 Adjustable Time-Weighted Average Long-term Alarms

"LF CLOUD" can constantly monitor the parameters to ensure compliance with multiple long-term exposure rules. Rules can be defined by the measured level and duration of exposure, and the system will send an alarm if long-term exposure is detected based on time-weighted average values.

4 Trend change (Drift) detection alarm

The "LF Cloud" can monitor the trend of changes or drift in the measurements and push notifications if the average measured values show a certain percentage higher or lower than previous records at adjustable intervals.

LF Cloud Key Functionality Highlights

Data Security and Privacy: End-to-end encryption.
Activity Logging: Digital tracing of user actions and alarm events.
Frequent Data Backups: Multiple daily backups ensure data integrity.

Multi-channel notifications: Email, SMS, and phone calls.
Alarming: Threshold, persistent condition, and trend-based alarms.

Cross-Platform Access: Compatible with Windows, iOS, Android.
Global Accessibility: Multi-language and multi-time zone support.
Role-Based Sharing: Access controls for collaborative use.

Graphing & Visualization: Customizable data visualization tools.
Custom Reporting: Industry-specific report generation.
Geographic Data Insights: Location-based data visualization.

Utility Billing: Automated cost allocation and submetering.

API Integration: Real-time data access and alerts through API.

Industry-Specific Report Segments in LF Cloud

HVAC Systems | Property Management | Agriculture | Industrial Monitoring | Preservation | Pharmaceutical | Food Safety