

WiFi Data Recorder & Alarm

BLOCK Fluid Pressure & TEMP

Part Number: BLTPRS-XXXX



Pressure sensor range must be selected when ordering, as it is permanently integrated into the device and cannot be changed later.

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

BLOCK Fluid Pressure & TEMP

The BLOCK Fluid Pressure and Temperature monitoring solution provides precise measurements of fluid pressure and temperature, along with real-time alarms for various applications. It also records ambient temperature and humidity and features two external ports for a flood sensor and a programmable digital input, which can function as a cumulative pulse counter or digital input alarm. With the ability to report pressure in H2Omm, (in addition to MPa, and PSI), it is an excellent choice for depth monitoring in tanks, eliminating the need to insert components into the tank or access its top. This versatility makes it suitable for a wide range of environments.

Available pressure ranges:

0 to 5 bars (0 to 0.1 MPa = 100 Kpa) - Part Number: BLTPRS-0100
Suitable for water tank depth measurement (up to 10 meters)

0 to 5 bars (0 to 0.25 MPa = 250 Kpa) - Part Number: BLTPRS-0250
Suitable for water tank depth measurement (up to 25 meters)

0 to 5 bars (0 to 0.5 MPa = 500 Kpa) - Part Number: BLTPRS-0500

0 to 10 bars (0 to 1 MPa = 1000 Kpa) - Part Number: BLTPRS-001K
Suitable for city water supply pressure

0 to 20 bars (0 to 2 MPa = 2000 Kpa) - Part Number: BLTPRS-002K

0 to 50 bars (0 to 5 MPa = 5000 Kpa) - Part Number: BLTPRS-005K

0 to 100 bars (0 to 10 MPa = 10000 Kpa) - Part Number: BLTPRS-010K

Monitoring Capabilities

● Record & Send Alarm (Detachable)

● Only Recording



Pressure



Fluid Temp



Ambient Temp



Relative Humidity



Flood Detector

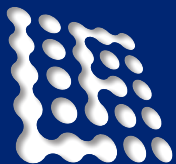


Digital Input

Technical Specifications

Pressure Sensor's Linearity, hysteresis, repetitiveness	< 0.5% sensor's full range
Thread	1/4" NPT
Digital / Pulse Input	By order - Default = Pulse Counter
External Sensors protection Class and Material	IP65/IP67 - Stainless steel 304
Battery Life	30 Days

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

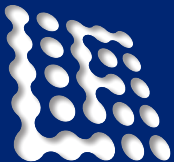


INTRODUCING BLOCK FAMILY OF DATALOGGERS



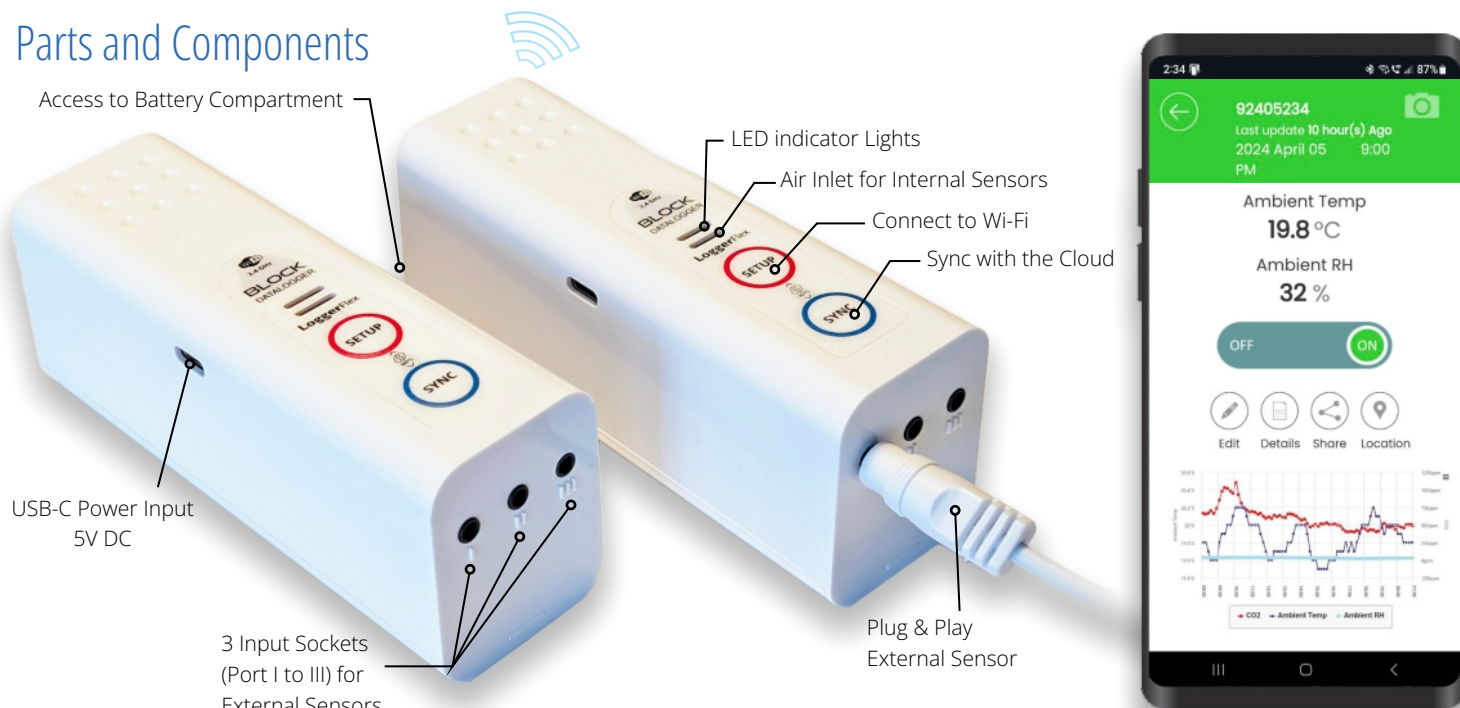
General Technical Specifications of All BLOCK Family Products

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 ")

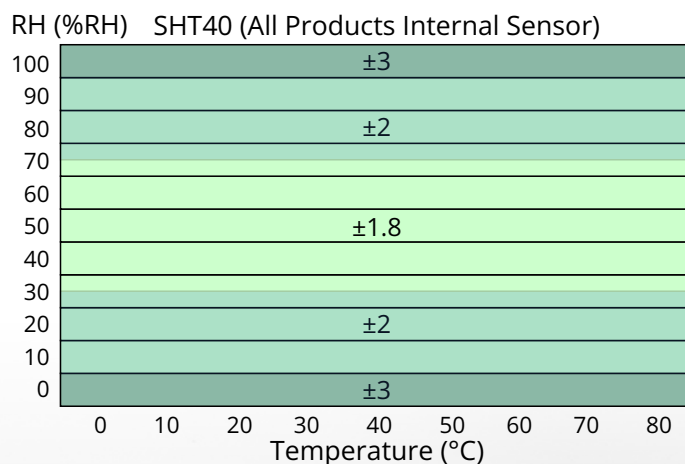
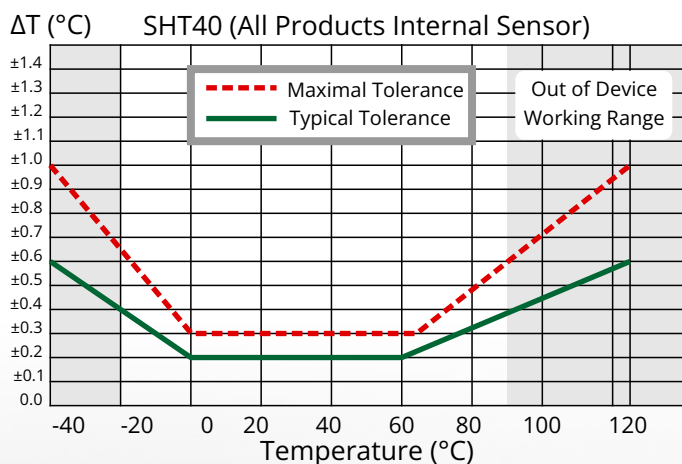


GENERAL SPECIFICATIONS OF BLOCK FAMILY OF DATALOGGERS

Parts and Components



Internal Sensor's Accuracy



Compliance



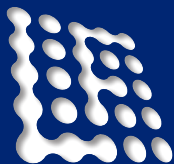
802.11 b/g



RoHS



EN 61010-1 3rd edition



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: $\pm 0.5^{\circ}\text{C}$ (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

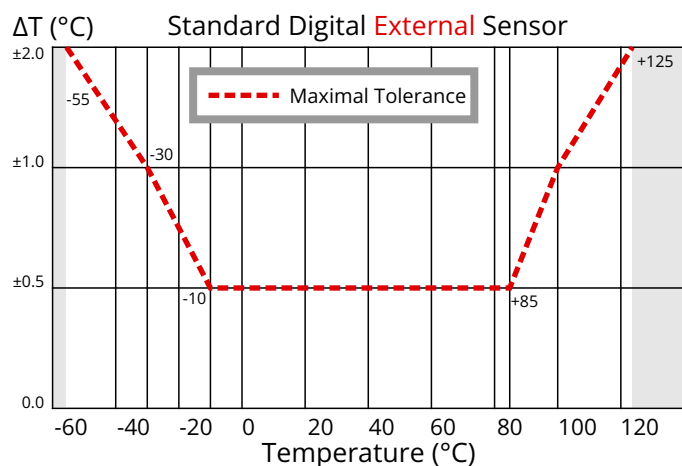


Digital Temperature 1/2" NPT thermowell Probe 1.5 m (5ft.) - Waterproof stainless steel pocket (Pocket is submersible)

Part Number: TW0525

-55° to +125°C (-67 to +257°F)
Accuracy: $\pm 0.5^{\circ}\text{C}$ (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)



FLOOD DETECTION AND DIGITAL INPUT FUNCTIONS

Flood Detector Function



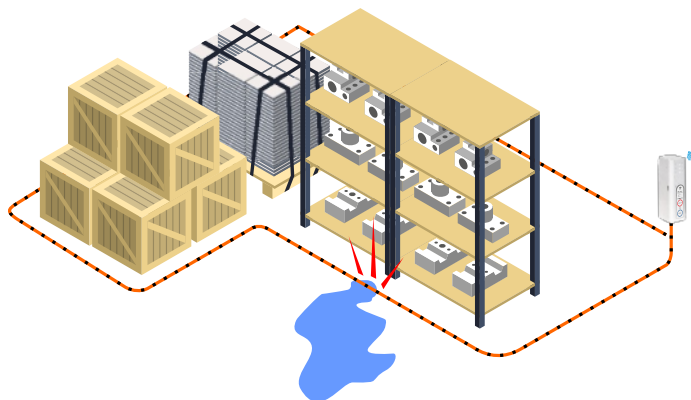
Certain members of the BLOCK Datalogger family feature a dedicated port for connecting a flood detection sensor. Our fully length-sensitive flood sensor cable can be extended up to 100 meters (330 feet), providing extensive coverage. In the event of a flood, the system not only triggers visible and audible alarms but also instantly sends alerts via call, text, and email to an unlimited number of recipients. Advanced algorithms intelligently filter out false alarms caused by routine activities like mopping, ensuring reliability and minimizing unnecessary disruptions.

Flood Detector Installation Strategies

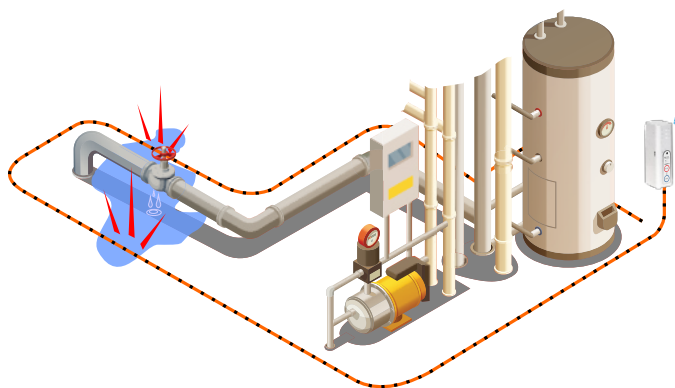
Pipe Leak Detection: Couple the detector cable along the entire length of pipes to detect and address leaks at the earliest possible moment.



Protecting Important Assets: Secure the perimeter around valuable items by encircling them with the detector wire, ensuring immediate detection of any approaching water.



Containing the Risk Source: Surround potential risk sources with the detector cable to promptly identify and contain leaks.



Alarm Dialer (Digital Input) Function

Some members of the BLOCK Datalogger family are equipped with a dedicated digital input port, enabling seamless integration with a wide range of digital input sources, such as switches or PLC digital outputs. This functionality allows the system to relay alarms from connected devices remotely and instantly to an unlimited number of recipients via call, SMS, and email. For example, in the event of a fire alarm activation, the system can immediately notify all residents of a building, ensuring rapid awareness and response. Additionally, it serves as an industrial-grade dialer, eliminating the need for a landline or the ongoing cost of maintaining a cellular service, making it a highly cost-effective and reliable alarm communication solution. Furthermore, the system can document alarm events with a secure, non-manipulatable timestamp, providing reliable records for compliance and analysis.



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, 'LFCLOUD' 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



PREDICTIVE MAINTENANCE

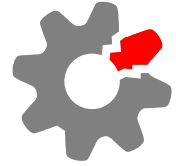
A Pro-Active Approach to Maintenance



Less Maintenance Cost



Less Facility Downtime

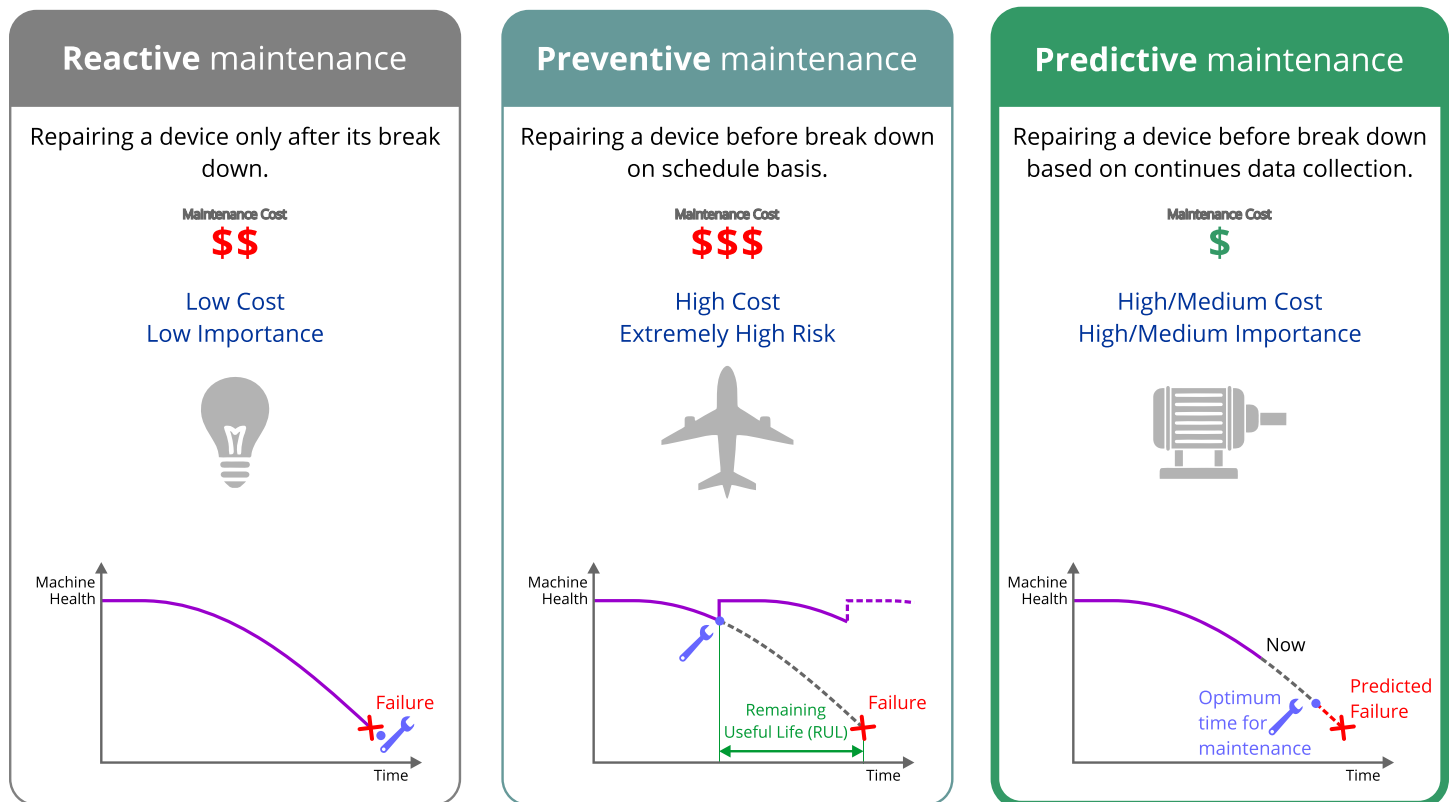


Less Equipment Damage

What is "Predictive Maintenance" ?

The predictive maintenance strategy uses data collected from the actual condition of the equipment to plan the required maintenance and determine when it should be carried out. This allows necessary maintenance to be planned and executed before the system's condition worsens, preventing unplanned malfunctions. The strategy minimizes downtime and maximizes the equipment's productive life cycle. In other words, maintenance is performed neither earlier nor later than necessary.

These are most common maintenance strategies:



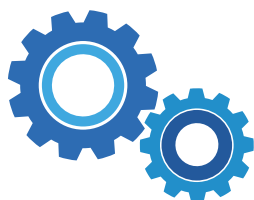
How LoggerFlex Smart Devices Can Help You?

LoggerFlex provides cost-effective and low-maintenance monitoring hardware and software solutions to facilitate "Predictive Maintenance" for equipment of any size. Whether it's a pump, electric motor, HVAC system, elevator motor, ventilation system, or tool, our plug-and-play monitoring devices enable constant measurement, recording, and monitoring of the equipment's health. They can detect anomalies or early signs of deterioration or overload, notifying the maintenance team to schedule inspections or maintenance. Enhanced by AI anomaly detection, our cloud-based application can predict potential scenarios and suggest them to the maintenance crew.



BLOCK Fluid Pressure and Temperature Usage in Predictive Maintenance

Industrial Monitoring



Pressurized Systems health and Leak Detection

The BLOCK Fluid Pressure and Temperature monitoring solution is invaluable for detecting leaks in pressurized systems, ensuring safety, efficiency, and system reliability. In coolers and chillers, maintaining stable refrigerant pressure is critical for optimal cooling performance. A refrigerant leak can lead to reduced efficiency, increased energy costs, and potential damage to the compressor. By continuously monitoring refrigerant pressure, the BLOCK device enables early detection of leaks, allowing maintenance teams to address issues before they escalate into costly failures.

In fire extinguisher sprinkler systems, consistent pressure is crucial for readiness during emergencies. The BLOCK device provides constant monitoring of pressure levels, immediately identifying any drops that may indicate leaks or system malfunctions. Additionally, in long pressurized pipelines, such as those in industrial or utility settings, the device can detect pressure anomalies that signal leaks or blockages, ensuring timely interventions to prevent significant losses or operational disruptions. This real-time leak detection capability makes the BLOCK device an essential tool for maintaining the integrity of pressurized systems.

Monitoring Water Filter Efficiency

Installing two BLOCK devices on either side of a water filter enables monitoring of pressure differentials. As the filter fills with debris, the pressure difference between the inlet and outlet increases. The BLOCK devices can detect this change, alerting maintenance teams that the filter needs replacement or cleaning. This ensures optimal water flow, reduces system strain, and prevents costly damage to downstream equipment.

Pressure and Depth Monitoring for Predicting Consumption Patterns

In applications such as water storage or fuel tanks, the BLOCK device can measure fluid pressure and depth to monitor usage trends over time. By analyzing historical data, businesses can predict consumption patterns, schedule refills, and detect abnormalities such as unexpected drops in depth that may indicate leaks or unauthorized usage. This predictive capability improves resource management and reduces operational risks.

Pump Output Pressure Monitoring

Pumps are essential to industrial processes, water and wastewater management, HVAC systems, and building utilities, where maintaining consistent output pressure is crucial for efficiency. The BLOCK device is designed to monitor, record, and document pump output pressure, helping detect gradual declines that could indicate issues such as worn-out components or blockages. By identifying these pressure trends in advance, maintenance teams can take proactive measures to repair or replace components, ensuring uninterrupted operation and reducing the risk of unexpected failures.



HVAC Systems

