

2022



# OCEAView™

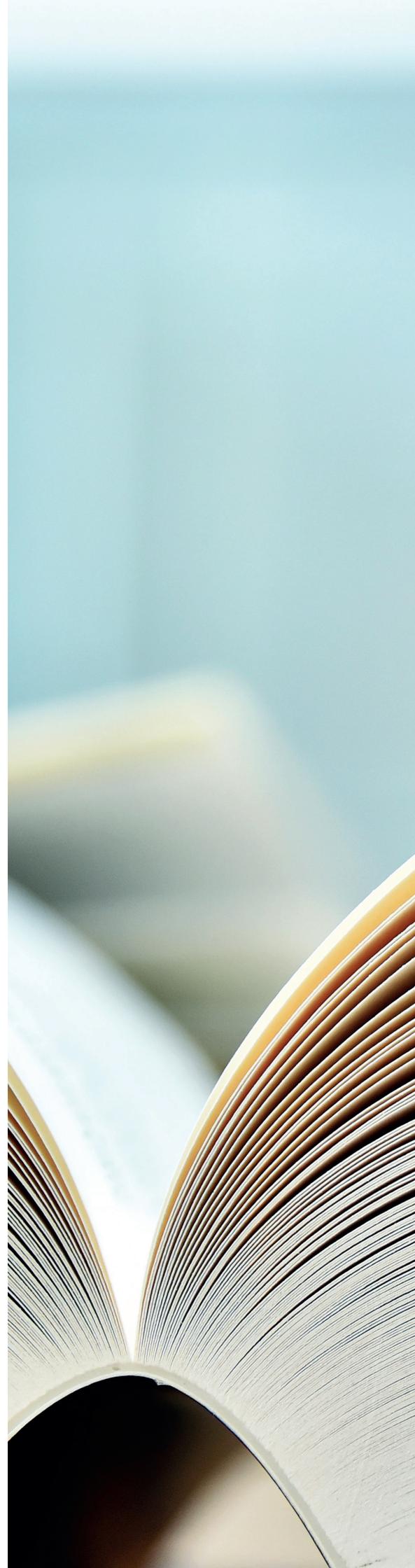
Products & Services

***One less thing to worry about***

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# MERGER UPDATE

As communicated previously, OceaSoft and Dickson merged in December 2019. Over the past two years we have been working behind the scenes to combine our resources and position ourselves to be the best environmental monitoring partners to you, our customers.

Beginning January 2022, our combined company will go to market under one global identity: Dickson. Starting this month, you will begin seeing name updates to our email addresses, materials, hardware, and website as we begin unifying under the Dickson brand. Our unified brand represents the synergy of our merger and the ways in which we expect to continue developing our products, support, worldwide footprint and overall service to you.

Below, we describe facts and benefits that derive from the combination of our two expert companies.

- France will remain the hub of our European sales, support, operations, calibration, and engineering development; in fact we are aggressively adding new talent and capabilities here.
- The highly regarded OCEAView, Cobalt, Atlas, and Emerald brands, as well as their supporting services and teams, will remain front-and-center.
- We're making significant investments to cement our position as "best software platform" with supporting sensors, instruments and services for all health, pharmaceutical, medical, food and other regulated industries' environmental monitoring requirements.

We see this alignment under a single company banner as timely and appropriate as we continue to integrate teams, products and services worldwide. Please reach out with any comments or questions you may have. Thank you for your continued business.

Best regards,

Laurent Rousseau  
Managing Director

# DICKSON

Environmental Monitoring + Compliance Experts

Dickson designs, calibrates, and markets intelligent and connected sensors to monitor physical parameters such as temperature, humidity, CO<sub>2</sub> levels, and differential pressure for life science, agri-food, transport, and logistics markets.

For over 100 years, we have striven to build an international reputation as a provider of high-quality monitoring solutions for demanding professionals.



Health



Research



Pharma



Agri-food



Industry



Transport & logistics

The company is certified ISO 9001:2015 and has its own in-house metrology laboratory with ISO/IEC 17025 (COFRAC) accreditation.



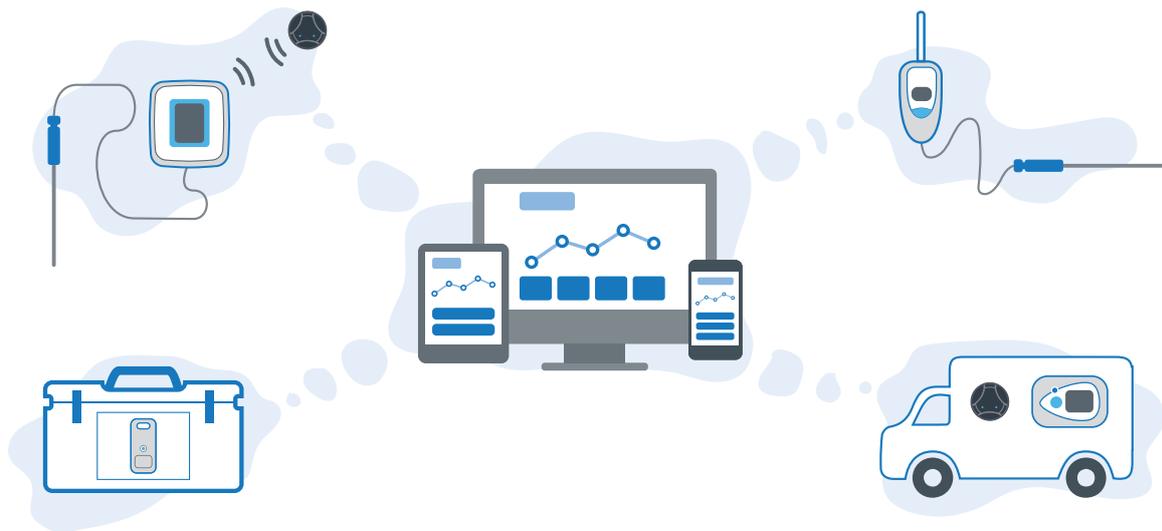
- Dickson Inc. headquarters in Chicago, USA
- Dickson Europe Headquarters in Montpellier, France
- Distributor network

**COLD ROOMS CLEANROOMS**  
**WATER BATHS OVENS**  
**FREEZERS PACKAGES**  
**DELIVERIES REFRIGERATORS AUTOCLAVES**  
**NITROGEN TANKS INCUBATORS**  
**COLD CHAIN**

## Monitor better. Worry less.

We know you have a lot on your mind when you need to ensure the integrity of sensitive products, research, and storage facilities that rely on specific and consistent ambient conditions.

Dickson created an advanced environmental monitoring solution to help you stay informed about critical parameters and give you one less thing to worry about.



The OCEAView solution provides class-leading remote monitoring, data traceability, and alert notification based on Dickson's innovative wireless sensors and a web platform to implement flexible, connected, and auditable monitoring systems for all your needs.

*Ensure the integrity of your sensitive products,  
research work, and storage facilities.*

***OCEAView is a complete solution  
to protect your peace of mind.***

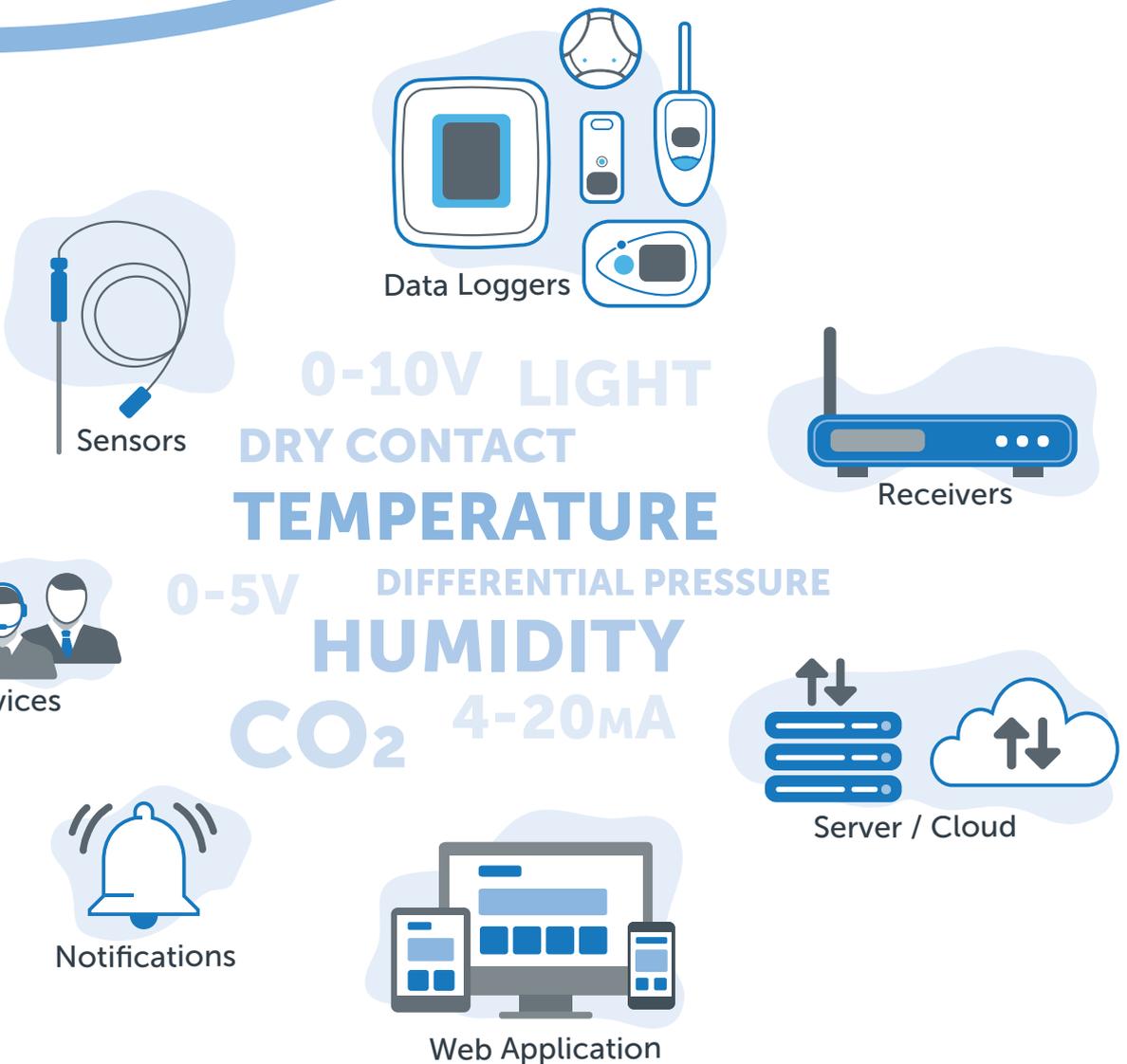
# DICKSON

Environmental Monitoring + Compliance Experts

## A comprehensive class-leading monitoring solution

Dickson offers a complete vertical solution, mastering sensors and calibration, data loggers, wireless connectivity, web platforms and mobile applications, and related services.

We believe that protecting your most valuable assets requires a powerful and complete monitoring solution that increases your peace of mind



# 3 pillars for a state-of-the-art solution

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## Monitoring

The OCEAView Solution integrates sensors for monitoring your critical equipment, storage areas, and packages, with a robust web-based backend that gives you control over every aspect of your system.

- A complete range of sensors and calibration services
- Wireless connectivity with leading IoT technologies
- Continuous reading, data collection, and transfer
- Visual dashboards and system overview at a glance
- Cloud-based or entirely on-premises options



## Traceability

A key requirement in many sectors, traceability ensures your ability to demonstrate asset attributes over time, including a complete record of all readings, alarms, user actions and acknowledgments, and system events. OCEAView provides a detailed audit trail to support your quality control and security procedures.

- Auditable, secure, and non-modifiable system log
- Complete history of all actions and events
- Downloadable graphs, sensor data, and device information
- Compliant with GxP and FDA 21 CFR Part 11 guidelines
- Automated report scheduling



## Alerts

A monitoring system to detect anomalies and out-of-bounds conditions is only as good as its alerts! OCEAView enables you to set target ranges with alarm limits for sensor readings? You benefit from flexible alarm management for fast notification 24/7.

- Programmable ranges with up to four high and four low warning levels
- Integrated e-mail notification; optional OCEAlert service for SMS/text and voice calls
- Technical alerts for sensors, data loggers, and receivers
- Wireless siren and dry contact controller alert devices



# Testimonial

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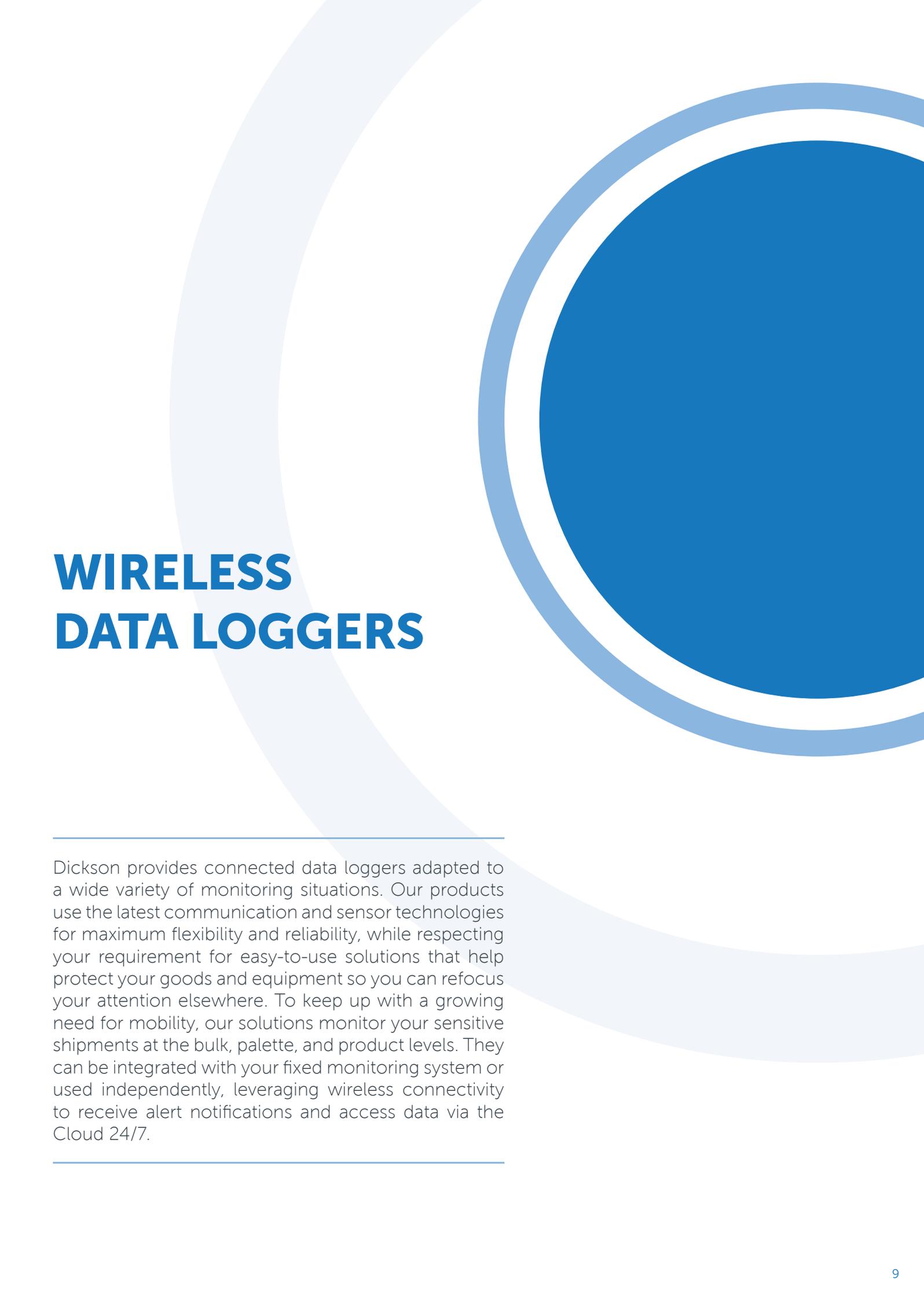
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By setting up Cobalt X2 data loggers, we can now manage alarms remotely using a smartphone, which is an undeniable benefit for us in terms of protection and operational practicality, especially for on-call staff. In addition, we can handle installation by ourselves, unlike a previous system that required our IT department to get involved to manage a special temperature server.

*Hélène Blanché-Koch, Head of Biological Resources  
Center, Fondation Jean Dausset - CEPH  
(Human Polymorphism Study Center)*

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# WIRELESS DATA LOGGERS

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Dickson provides connected data loggers adapted to a wide variety of monitoring situations. Our products use the latest communication and sensor technologies for maximum flexibility and reliability, while respecting your requirement for easy-to-use solutions that help protect your goods and equipment so you can refocus your attention elsewhere. To keep up with a growing need for mobility, our solutions monitor your sensitive shipments at the bulk, palette, and product levels. They can be integrated with your fixed monitoring system or used independently, leveraging wireless connectivity to receive alert notifications and access data via the Cloud 24/7.

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# Cobalt X1 / Cobalt X2

## Full-featured touchscreen data logger with LoRaWAN and Bluetooth connectivity, with support for up to four simultaneous wired and/or wireless sensors

Cobalt X data loggers support up to 4 external sensors simultaneously to monitor your invaluable equipment. Readings are recorded in on-board memory, then transmitted to the OCEAView remote monitoring solution via LoRaWAN or Bluetooth Low Energy connectivity. Cobalt X offers interactive touch screen controls and highly visible alert indicators, with support for a wide variety of environmental sensors, including Dickson's Bluetooth enabled remote sensors.

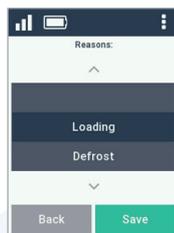


- Numerous wired and wireless sensors for monitoring critical environmental parameters (up to 4 at a time)
- Ideal for the life sciences sector, including labs, hospitals, storage facilities, and manufacturing
- Interactive touch-screen for fast access to setup, information, and alarm acknowledgement
- Fully integrated with OCEAView Cloud or on-premises monitoring solution with LoRaWAN or Bluetooth wireless connectivity

### HOW IT WORKS

1. Set up the Cobalt X data logger in the optimal\* location for monitoring your equipment.
2. Plug in wired sensors (standard and/or Smart-Sensor) or pair Emerald or Atlas Bluetooth wireless sensors.
3. Connect the data logger to the OCEAView web platform on the Cloud or your on-premises server via LoRaWAN or Bluetooth.
4. Login to OCEAView to assign the data logger's sensor(s) to equipment and configure data logging settings such as high/low alarm limits.
5. The data logger is ready to use!

\* Data logger placement may vary according to equipment, monitoring conditions, model, and sensors.



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## KEY FEATURES

- Monitoring applications: refrigerators, freezers, ULT freezers, Nitrogen tanks, water baths, ovens, CO<sub>2</sub> incubators, autoclaves, cold rooms, cleanrooms, warehouses
- Physical parameters: temperature, humidity, CO<sub>2</sub>, differential pressure, 4-20 mA, 0-5 V, 0-10 V, dry contact input
- Supported sensors: Dickson Smart-Sensors, digital sensors, Atlas/Emerald Bluetooth wireless sensors
- Calibration options by Dickson laboratory: ISO/IEC 17025 (COFRAC) accredited, Dickson certified (non-accredited), or NIST traceable; recalibration via sensor exchange
- Cobalt X1: up to 2 measurement points  
Cobalt X2: up to 4 measurement points
- 2.4" (6.1 cm) glove-compatible, color touch-screen for setup, synchronization with server, latest readings, alarm status, alarm acknowledgment with PIN code
- Alarms indicated by flashing lights and buzzer (sound only when on AC power), and transmitted to OCEAView platform for fast user notification
- 3 high & 3 low alarm limits (with delay)
- Temperature displayed in °C or °F
- Full integration with OCEAView monitoring platform (Cloud or on-premises); sensor reading interval adjustable for each measurement point; data logging configuration handled via OCEAView

### Connectivity

- LoRaWAN™ long-range wireless technology, free-field range up to about 15 km/10 miles<sup>(1)</sup>
- LoRaWAN™ regional channel plans in ISM radio spectrum: EU868, US915, AS923-1, AU915, IN865, KR920
- Bluetooth Low Energy

### Data management

- 4,000 readings per measurement point (about 4 weeks of data with reading interval of 10 minutes)
- Unlimited storage of uploaded data in OCEAView

### Hardware details

- Operating conditions  
Standard data logger: 0 °C to +50 °C (+32 °F to +122 °F); 0 to 90% RH (non-condensing); with optional IP67 casing: -30 °C to +50 °C (-22 °F to +122 °F); 0 to 99.9% RH (non-condensing)
- Storage conditions: -10 °C to +60 °C (+14 °F to +140 °F); 0 to 90% RH (non-condensing); optimal storage around 25 °C (77 °F)
- Power: 2 x Li-SOCI2 (LS17500) 3.6 V user-replaceable lithium batteries<sup>(2)</sup>; at least 1 year battery life (depending on use); 5V power adapter (optional)
- ABS / ABC-PC casing
- Dimensions: 100.8 x 110.8 x 29.6 mm (4.0 x 4.4 x 1.2 in.)
- Weight with batteries: 180 g (6.4 oz.)
- Mounting kit for use with screws, magnet, or Velcro®; optional locking with padlock
- IP30 standard; optional IP67 external case for protection against shocks, vibrations, cleaning operations
- CE, FCC, IC; EN 301 489-17 V.1.3.3 in compliance with EN 301 489-1 V1.8.1; EN 300 328 V1.7.1



PART NUMBER <sup>(2)</sup>	DESCRIPTION	SENSORS
Cobalt X1 / X2 data loggers for use with external sensors to be ordered separately (see Sensors on page 19)		
ENR.CX1.P001 (multi-MHz)	Cobalt X1 data logger (without sensors)	up to 2
ENR.CX2.P001 (multi-MHz)	Cobalt X2 data logger (without sensors)	up to 4
Accessories		
ACH.ALM.0008	Universal power adapter for Cobalt X data logger 5V/110-240V, 3 m (10 ft) USB cable	n/a

(1) Actual range will depend on the environment and receiver antenna orientation. (2) Contact us if you need to order without batteries.

# Cobalt L3

## Temperature and humidity data logger with LCD screen and LoRaWAN™ connectivity for fixed monitoring

With its button-controlled LCD display and LoRaWAN connectivity, Cobalt L3 offers both simplicity and long wireless range, positioning it as a competitively priced OCEAView solution data logger for temperature and humidity monitoring. Well suited for the life science, agri-food, and logistics sectors, the Cobalt L3 data logger efficiently monitors temperature and relative humidity for a wide range of sensitive assets including products, equipment, and storage facilities.

- Monitoring for temperature or temperature and humidity simultaneously
- Ideal for refrigerators, freezers, ULT freezers, Nitrogen tanks, and incubators
- Internal and external sensors to meet your specific needs
- Low energy optimization for long battery life
- Fully integrated with OCEAView Cloud or on-premises monitoring solution via LoRaWAN



### HOW IT WORKS

1. Set up the Cobalt L3 data logger in the optimal\* location for monitoring your equipment.
2. Depending on your usage, plug in an external standard sensor or Smart-Sensor.
3. Connect the data logger to the OCEAView web platform on the Cloud or your on-premises server via LoRaWAN.
4. Login to OCEAView to assign the data logger's sensor to equipment and configure data logging settings and high/low alarm limits.
5. The data logger is ready to use!

\*Data logger placement may vary according to equipment, conditions, model, and sensors.



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## KEY FEATURES

- Monitoring applications: refrigerators, freezers, ULT freezers, Nitrogen tanks, water baths, ovens, autoclaves, cold rooms, cleanrooms, warehouses
- Physical parameters: temperature and humidity
- Supported sensors: internal temperature sensor; Dickson Pt100 and temperature/humidity Smart-Sensors
- Calibration options by Dickson laboratory: ISO/IEC 17025 (COFRAC) accredited, Dickson certified (non-accredited), or NIST traceable; recalibration via sensor exchange
- Up to 2 measurement points
- LCD screen; push-button for synchronization with server, communication test, sensor update, and screen saver management; displays latest reading(s), battery level, wireless signal
- 1 high & 1 low alarm limit (with delay); visual alarm indicator; alert notification via OCEAView
- Temperature displayed in °C or °F
- Full integration with OCEAView monitoring platform (Cloud or on-premises); sensor reading interval adjustable for each measurement point; data logging configuration handled via OCEAView

### Connectivity

- LoRaWAN™ long-range wireless technology, range up to about 15 km/10 miles L.O.S.<sup>(1)</sup>
- LoRaWAN™ regional channel plans in ISM radio spectrum: EU868, US915

### Data management

- 4,000 readings per measurement point (about 4 weeks of data with reading interval of 10 minutes)
- Unlimited storage of uploaded data in OCEAView

### Hardware details

- Operating conditions  
Standard data logger: 0 °C to +50 °C (+32 °F to +122 °F); 0 to 90% RH (non-condensing); with optional IP67 casing: -30 °C to +50 °C (-22 °F to +122 °F); 0 to 99.9% RH (non-condensing)
- Storage conditions: -10 °C to +60 °C (+14 °F to +140 °F); 0 to 90% RH (non-condensing); optimal storage around 25 °C (77 °F)
- Power: Li-SOCl<sub>2</sub> (LS17500) 3.6 V user-replaceable lithium battery<sup>(2)</sup>; battery life at least 1 year (depending on usage)
- ABS / ABC-PC casing
- Dimensions with antenna: 208 x 34 x 64 mm (8.1 x 1.3 x 2.5 in.); weight with battery 150 g (5.3 oz.)
- Mounting kit for use with screws, magnet, or Velcro®
- IP64 standard; optional IP67 external case for protection against shocks, vibrations, cleaning operations
- CE, FCC, IC; EN 301 489-17 V.1.3.3 in compliance with EN 301 489-1 V1.8.1; EN 300 328 V1.7.1



PART NUMBER <sup>(2)</sup>	DESCRIPTION	SENSOR(S)
Cobalt L3 data logger with internal temperature sensor		
ENR.L38.P007 (868 MHz) ENR.L35.P007 (915 MHz)	Data logger with internal temperature sensor (0 °C to +50 °C) Resolution: 0.03 °C Expanded uncertainty after calibration: ± 0.06 °C to 0.25 °C	1
Cobalt L3 data logger for use with external sensors, to be ordered separately (see Sensors, p. 19)		
ENR.L38.P006 (868 MHz) ENR.L35.P006 (915 MHz)	Data logger for external sensor (1.5 m / cable, 1 connector)	1 or 2
Cobalt L3 data logger with IP67 case for use with external sensors, to be ordered separately (see Sensors, p. 19)		
ENR.L38.P008 (868 MHz) ENR.L35.P008 (915 MHz)	Data logger with IP67 case for external sensor (1 connector)	1 or 2
Accessories		
ACC.ENR.0030	IP67 case for Cobalt L3 with external sensor	n/a

(1) LOS (line-of-sight) estimate, depending on the environment and receiver antenna orientation. (2) Contact us if you need to order without batteries.

# Cobalt ML3

## Mobile temperature data logger with LCD screen and LoRaWAN connectivity for multi-destination temperature data logging

With its robust casing, a wide operating range, and angled LCD display for easy reading, Cobalt ML3 is a temperature data logger primarily intended for mobile monitoring and transport applications, but it can also be used for fixed monitoring. LoRaWAN wireless connectivity is optimized to join receivers within range as the data logger arrives at different sites. Sensor readings are stored in internal memory during transit, then transferred automatically to the OCEAView monitoring solution upon connection.

- Internal or external temperature sensor options
- Ideal for monitoring temperature sensitive or perishable health and food products
- Robust casing adapted for vehicles, deliveries, courier services
- Low energy optimization for long battery life
- Fully integrated with OCEAView Cloud or on-premises monitoring solution via LoRaWAN



### HOW IT WORKS

1. Set up the Cobalt ML3 data logger in the optimal\* location for monitoring your equipment.
2. Depending on your usage; plug in an external standard sensor.
3. Connect the data logger to the OCEAView web platform on the Cloud or your on-premises server via LoRaWAN.
4. Login to OCEAView to assign the data logger's sensor to equipment and configure data logging settings and high/low alarm limits.
5. The data logger is ready to use!

\*Data logger placement may vary according to equipment, conditions, model, and sensors.



### RELATED PRODUCTS



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## KEY FEATURES

- Monitoring applications: cold chain and transport scenarios
- Physical parameter: temperature
- Supported sensors: internal temperature sensor; external digital temperature
- Calibration options by Dickson laboratory: ISO/IEC 17025 (COFRAC) accredited, Dickson certified (non-accredited), or NIST traceable; recalibration via sensor exchange
- 1 measurement point
- LCD screen; push-button navigation for synchronization with server, communication test, sensor update, and screen saver management; displays latest reading, battery level, wireless signal
- 1 high & 1 low alarm limit (with delay); visual alarm indicator; alert notification via OCEAView
- Temperature displayed in °C or °F
- Full integration with OCEAView monitoring platform (Cloud or on-premises); adjustable sensor reading interval; data logging configuration handled via OCEAView

### Connectivity

- LoRaWAN™ long-range wireless technology, range up to about 15 km/10 miles L.O.S.<sup>(1)</sup>
- LoRaWAN™ regional channel plans in ISM radio spectrum: EU868

### Data management

- 4,000 readings (about 4 weeks of data with reading interval of 10 minutes)
- Unlimited storage of uploaded data in OCEAView

### Hardware details

- Operating conditions  
Standard data logger with or without optional IP67 casing:  
-30 °C to +50 °C (-22 °F to +122 °F) 0 to 99.9% RH (non-condensing)
- Storage conditions: -10 °C to +60 °C (+14 °F to +140 °F); 0 to 90% RH (non-condensing); optimal storage around 25 °C (77 °F)
- Power: Li-SOCl<sub>2</sub> (LS17500) 3.6 V user-replaceable lithium battery; battery life at least 1 year (depending on usage)
- ABS / ABC-PC casing
- Dimensions: 86 x 64 x 29.6 mm (3.4 x 2.5 x 1.2 in.); weight with battery: 87.8 g (3.1 oz.)
- Mounting kit for use with screws, magnet, or Velcro®; optional locking with padlock
- IP65; optional IP67 external case for protection against shocks, vibrations, cleaning operations
- CE, FCC, IC; EN 301 489-17 V.1.3.3 in compliance with EN 301 489-1 V1.8.1; EN 300 328 V1.7.1



PART NUMBER <sup>(2)</sup>	DESCRIPTION	SENSOR(S)
Cobalt ML3 data logger with internal temperature sensor		
ENR.ML8.P004 (868 MHz)	Data logger with internal temperature sensor (IP65, -30 °C to +50 °C) Resolution: 0.0625 °C Expanded uncertainty after calibration: ± 0.3 °C to 0.5 °C	1
Cobalt ML3 data logger for use with external sensor, to be ordered separately (see Sensors, p. 19)		
ENR.ML8.P005 (868 MHz)	Data logger with IP67 transparent casing for external sensor	1
ENR.ML8.P006 (868 MHz)	Data logger for external sensor (IP65)	1
Accessories		
ACC.ENR.0043	Waterproof IP67 casing for Cobalt ML3 data logger	n/a

(1) LOS (line-of-sight) estimate, depending on the environment and receiver antenna orientation. (2) Contact us if you need to order without batteries.



## Bluetooth-enabled wireless temperature sensor for Cobalt X data loggers or multi-destination data logger for mobile monitoring

Emerald can be used as mobile data logger or as a wireless sensor paired with a Cobalt X data logger. For monitoring on the move, you can collect data at any time with the OCEAView Mobile app or automatically via OCEABridge receivers. As a wireless sensor for Cobalt X, Emerald enables cable-free placement in hard-to-reach areas.

- Mobile data logger or wireless sensor for Cobalt X
- Shock-resistance ideal for cold chain tracking on the go
- Data access via smartphone, tablet, or connection to OCEAView solution via OCEABridge Bluetooth receiver

### KEY FEATURES

- Monitoring applications: cold chain and transport
- Physical parameter: temperature
- Supported sensors: internal, standard Pt100
- Calibration by Dickson laboratory: ISO/IEC 17025 (COFRAC) accredited, Dickson certified (non-accredited), or NIST traceable; recalibration via sensor exchange
- 1 measurement point
- Immediate or programmed data logging start options
- 1 high and 1 low alarm limit (with delay); visual alarm/status indicator; alert notification via OCEAView
- Full integration with OCEAView web monitoring platform (Cloud or on-premises); adjustable sensor reading interval; data logging configuration via OCEAView or OCEAView Mobile

### Connectivity

- Bluetooth Low Energy
- NFC for fast programming on OCEABench

### Data management

- 16,000 readings (about 4 months of data with reading interval of 10 minutes)
- Unlimited storage of uploaded data in OCEAView

### Hardware details

- Operating conditions: -40 °C to +85 °C (-40 °F to +185 °F); 0 to 90% RH (non-condensing)
- Storage conditions: -40 °C to +85 °C (-40 °F to +185 °F); 0 to 90% RH (non-condensing); optimal storage around 25 °C (77 °F)
- Li-SOCl<sub>2</sub> (LS14250) 3.6 V user-replaceable Lithium battery; > 1 year battery life (depending on usage)
- Dimensions: Ø50 x 20 mm (Ø1.9 x 0.8 in.)
- Weight w/battery: 48 g (1.7 oz.)
- Mounting kit for use with screws or magnet
- ABS / ABC-PC / aluminum
- IP44 (IP40 with external sensor)
- CE, FCC, IC; EN 12830 certified

### HOW IT WORKS

1. Set up the Emerald data logger in the optimal\* location for monitoring your equipment.
2. If necessary, plug in an external sensor.
3. Connect the data logger to the OCEAView web platform on the Cloud or your on-premises server via Bluetooth, or pair the data logger with a Cobalt X for use as a wireless sensor.
4. Login to OCEAView to assign the data logger's sensor to equipment and configure data logging settings such as high/low limits.
5. The data logger is ready to use!

\*Data logger placement may vary according to equipment, conditions, model, and sensors.



PART NUMBER	DESCRIPTION
<b>Emerald data logger with internal sensor</b>	
ENR.EMD.P005	Internal sensor (-40 °C to + 85 °C) Resolution: 0.0625 °C Expanded uncertainty after calibration: ± 0.3 °C to 0.5 °C
<b>Emerald data logger for use with Standard Sensors (see Sensors)</b>	
ENR.EMD.P006	Data logger with connector for external Pt100 sensor
<b>Accessories</b>	
Contact us	Color identification rings (5- or 10-pack)
ACC.EMD.0012	Set of 4 x LS14250 batteries

### RELATED PRODUCTS



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# Atlas

## Triple-function Bluetooth-enabled wireless sensor for Cobalt X data loggers or multi-destination data logger for mobile monitoring

With its tiny footprint, Atlas fits inside packaging yet features temperature, relative humidity, and light sensors. Atlas can be used as a data logger for mobile monitoring or as a wireless sensor paired with a Cobalt X data logger.

- Integrated temperature, relative humidity, and light on/off sensors
- Small size for placement with goods or items to monitor
- Functions as a data logger or as remote wireless sensor for Cobalt X
- Data access via smartphone or connection to OCEAView solution via OCEABridge Bluetooth receiver



### HOW IT WORKS

1. Set up the Atlas data logger in the optimal\* location for monitoring your equipment.
2. Connect the data logger to the OCEAView web platform on the Cloud or your on-premises server via Bluetooth, or pair the data logger with a Cobalt X for use as a wireless sensor.
3. Login to OCEAView to assign the data logger's sensor to equipment and configure data logging settings such as high/low limits.
4. The data logger is ready to use!

\*Data logger placement may vary according to equipment, and conditions.



PART NUMBER	DESCRIPTION
ENR.ATL.0003	Data logger with internal temperature, humidity, and light sensors Internal sensors: -30 °C to +70 °C (-22 °F to +158 °F); 0 to 90% RH; 0 to 32,764 Lx Resolution: 0.01 °C, 0.01% RH Expanded uncertainty after calibration: ± 0.3 °C to ±0.5 °C, ±4% RH

### RELATED PRODUCTS



### KEY FEATURES

- Monitoring applications: cold chain, transport, package delivery
- Physical parameters: temperature, humidity, light
- Calibration options by Dickson laboratory: ISO/IEC 17025 (COFRAC) accredited, Dickson certified (non-accredited), or NIST traceable
- 3 measurement points
- Flexible data logging start options
- 1 high and 1 low alarm limit (with delay); visual alarm/status indicator; alert notification via OCEAView
- Full integration with OCEAView web monitoring platform (Cloud or on-premises); sensor reading adjustable for each measurement point; data logging configuration via OCEAView or OCEAView Mobile

### Connectivity

- Bluetooth Low Energy
- NFC for fast programming on OCEABench

### Data management

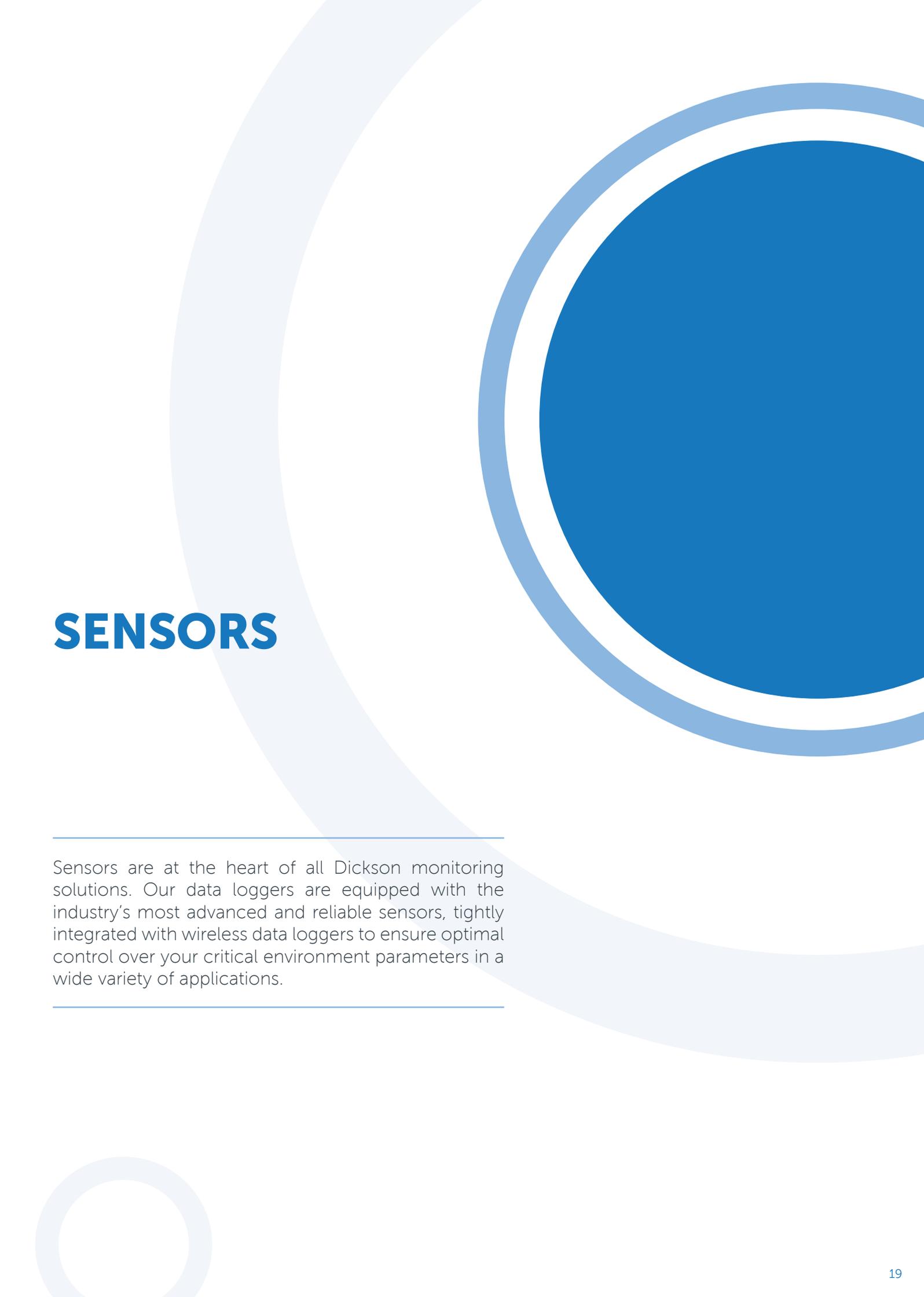
- 16,000 readings for 1 measurement point OR 4,000 readings per measurement point (about 4 months OR 4 weeks of data with reading interval of 10 minutes)
- Unlimited storage of uploaded data in OCEAView

### Hardware details

- Operating conditions: -30 °C to +70 °C (-22 °F to +158 °F); 0 to 90% RH (non-condensing)
- Storage conditions: -30 °C to +70 °C (-22 °F to +158 °F); 0 to 90% RH (non-condensing); optimal storage around 25 °C (77 °F)
- Li-MnO<sub>2</sub> (CR2450) cell coin non-replaceable Lithium battery; > 1 year battery life (depending on usage)
- ABS casing, IP 30, adhesive mounting
- Dimensions: 81 x 43 x 8 mm (3.2 x 1.7 x 0.3 in.)
- Weight w/battery: 24 g (0.8 oz.)
- CE, FCC, IC

## Data logger summary

		Cobalt X2	Cobalt X1	Cobalt L3	Cobalt ML3	Emerald	Atlas
<b>Data loggers</b>							
<b>Technical parameters</b>	Max. measurement points	4	2	2	1	1	3
	Total memory (readings)	16,000	8,000	8,000	4,000	16,000	16,000
	Screen	LCD color touchscreen	LCD color touchscreen	LCD display	LCD display	None	None
	IP rating	30	30	64	65	44	30
	IP67 casing option	✓	✓	✓	✓		
	Replaceable battery(ies)	✓	✓	✓	✓	✓	
	AC adapter (optional)	✓	✓				
<b>Physical parameters</b>	Temperature	✓	✓	✓	✓	✓	✓
	Relative humidity	✓	✓	✓			✓
	CO <sub>2</sub>	✓	✓				
	Differential pressure	✓	✓				
	4-20 mA, 0-5V, 0-10V	✓	✓				
	Dry contact	✓	✓				
	Light	✓	✓				✓
<b>Wireless protocols</b>	LoRaWAN™	✓	✓	✓	✓		
	Bluetooth	✓	✓			✓	✓
	NFC					✓	✓



# SENSORS

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Sensors are at the heart of all Dickson monitoring solutions. Our data loggers are equipped with the industry's most advanced and reliable sensors, tightly integrated with wireless data loggers to ensure optimal control over your critical environment parameters in a wide variety of applications.

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# Sensors

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**Dickson offers a wide range of external sensors for use with our data loggers, enabling you to monitor different types of physical parameters in both fixed and mobile scenarios, with calibration performed expertly by Dickson's 17025 (COFRAC) accredited metrology laboratory.**

## **Standard sensors**

Featuring a sturdy Binder connector, Dickson's standard sensors cover a wide range of different temperature monitoring applications.

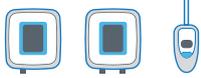
## **Smart-Sensors**

Dickson provides a wide range of its own specially designed Smart-Sensors for monitoring various physical parameters. Dickson Smart-Sensors offer maximum reliability and unprecedented ease-of-use.

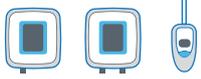
- Sensor memory contains calibration correction coefficients (a/b or a/b/c), measurement uncertainty after calibration, drift after 1 year, and sensor serial number
- Simple plug-and-play operation for immediate use without any configuration required on supported data loggers
- At recalibration time, swap with freshly calibrated ready-to-use sensor without any data loss or down-time
- Automatic recognition by supported data loggers
- All-digital technology for maximum reliability

## Smart-Sensors

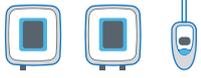
### PT100 SMART-SENSOR (-100 °C /+200 °C)

<p><b>APPLICATIONS</b> -80 °C freezers, industrial applications</p> <p><b>RESOLUTION</b> 0.03 °C</p> <p><b>EXPANDED UNCERTAINTY</b> ± 0.08 °C to 0.3 °C</p>		<ul style="list-style-type: none"> <li>-100 °C to +200 °C</li> <li>Dimensions: Ø 3 mm, L: 100 mm</li> <li>Stainless steel</li> <li>Class B (Class A upon request)</li> <li>3-wire PTFE cable (4-wire upon request)</li> <li>Cable length: 350 cm (w/connector)</li> <li>IP66</li> </ul>	 <p><b>COMPATIBILITY</b> Cobalt X1, Cobalt X2, Cobalt L3</p> <p><b>PART NUMBER</b> SON.TPT.0009</p>
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### PT100 SMART-SENSOR (-200 °C /+50 °C)

<p><b>APPLICATIONS</b> Cryogenic freezers, liquid Nitrogen tanks</p> <p><b>RESOLUTION</b> 0.03 °C</p> <p><b>EXPANDED UNCERTAINTY</b> ± 0.08 °C to 0.3 °C</p>		<ul style="list-style-type: none"> <li>-200 °C to +50 °C</li> <li>Dimensions: Ø 3 mm, junction Ø 6 mm, L: 100 mm</li> <li>Stainless steel</li> <li>Class B</li> <li>3-wire PTFE cable</li> <li>Cable length: 140 cm (w/connector)</li> <li>IP66</li> </ul>	 <p><b>COMPATIBILITY</b> Cobalt X1, Cobalt X2, Cobalt L3</p> <p><b>PART NUMBER</b> SON.TPT.0010</p>
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### TEMPERATURE AND RELATIVE HUMIDITY SMART-SENSOR

<p><b>APPLICATIONS</b> Storage facilities, stability chambers</p> <p><b>RESOLUTION</b> 0.01 °C 0.05% RH</p> <p><b>EXPANDED UNCERTAINTY</b> ± 0.3 °C to ± 0.5 °C ± 4% RH</p>		<ul style="list-style-type: none"> <li>-40 °C to +100 °C</li> <li>0 to 99.9% RH</li> <li>Dimensions: 33 x 11.6 mm</li> <li>PTFE filter</li> <li>Flat cable: 20 cm (w/connector) (IP40)</li> <li>Standard cable: 80 cm (w/connector)</li> <li>Protection index: IP65</li> </ul>	 <p><b>COMPATIBILITY</b> Cobalt X1, Cobalt X2, Cobalt L3</p> <p><b>PART NUMBER</b> SON.HYG.0003</p>
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### CO<sub>2</sub>, TEMPERATURE, AND RELATIVE HUMIDITY SMART-SENSOR

<p><b>APPLICATIONS</b> Incubators</p> <p><b>RESOLUTION</b> 0.1% CO<sub>2</sub> 0.01 °C 0.05% RH</p> <p><b>EXPANDED UNCERTAINTY</b> ± 0.3% CO<sub>2</sub> ± 0.3 °C to ± 0.5 °C ± 4% RH</p>		<ul style="list-style-type: none"> <li>0 to 9.99% CO<sub>2</sub></li> <li>0 °C to +50 °C</li> <li>0 to 99.9% RH</li> <li>Dimensions: 79.5 x 76.5 x 45.5 mm</li> <li>ABS plastic and polycarbonate casing, PTFE filter</li> <li>Operating range: 0 °C to 50 °C, 0 to 99.9% relative humidity (non-condensing)</li> <li>Flat cable length: 240 cm (w/connector)</li> <li>Protection index: IP44</li> </ul>	 <p><b>COMPATIBILITY</b> Cobalt X1, Cobalt X2</p> <p><b>PART NUMBER</b> SON.CO2.0009</p>
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Note: the values provided for Expanded Uncertainty are those that are generally observed by the Dickson metrology laboratory

## Smart-Sensors

UNIVERSAL SMART-SENSOR (4-20 MA / 0-5 V / 0-10 V)			
<p><b>APPLICATIONS</b> Current levels, industry standard equipment with 4-20 mA, 0-5 V, or 0-10 V output</p> <p><b>RESOLUTION</b> 0.01 mA or 0.01 V</p> <p><b>EXPANDED UNCERTAINTY</b> Depends on connected device</p>		<ul style="list-style-type: none"> <li>• 4-20 mA, 0 - 5 V, or 0 - 10 V</li> <li>• 2-wire cable</li> <li>• Cable length: 290 cm</li> </ul>	 <p><b>COMPATIBILITY</b> Cobalt X1, Cobalt X2</p> <p><b>SENSOR PART NUMBER</b> SON.420.0001</p>
SINGLE DIFFERENTIAL PRESSURE SMART-SENSOR			
<p><b>APPLICATIONS</b> Laboratories, pressure difference between "clean" and "dirty" areas</p> <p><b>RESOLUTION</b> 0.015625 Pa</p> <p><b>EXPANDED UNCERTAINTY</b> <math>\pm 4 \text{ Pa}^*</math></p>		<ul style="list-style-type: none"> <li>• One sensor</li> <li>• -500 to +500 Pa (-2.0 to +2.0 inches H<sub>2</sub>O)</li> <li>• Tube: L: 50 cm, Ø 4 mm (4-5 mm adapter included)</li> <li>• Full compatibility: air, Nitrogen</li> <li>• Limited compatibility: O<sub>2</sub></li> <li>• Supported overpressure: 1 bar (100 kPa, 400 inches H<sub>2</sub>O)</li> </ul>	 <p><b>COMPATIBILITY</b> Cobalt X1, Cobalt X2</p> <p><b>SENSOR PART NUMBER</b> SON.PRE.0002</p>
DUAL DIFFERENTIAL PRESSURE SMART-SENSOR			
<p><b>APPLICATIONS</b> Laboratories, pressure difference between "clean" and "dirty" areas</p> <p><b>RESOLUTION</b> 0.015625 Pa</p> <p><b>EXPANDED UNCERTAINTY</b> <math>\pm 4 \text{ Pa}^*</math></p>		<ul style="list-style-type: none"> <li>• Two independent sensors</li> <li>• -500 to +500 Pa (-2.0 to +2.0 inches H<sub>2</sub>O)</li> <li>• Tube (x2): L: 50 cm, Ø 4 mm (4-5 mm adapter included)</li> <li>• Full compatibility: air, Nitrogen</li> <li>• Limited compatibility: O<sub>2</sub></li> <li>• Supported overpressure: 1 bar (100 kPa, 400 inches H<sub>2</sub>O)</li> </ul>	 <p><b>COMPATIBILITY</b> Cobalt X2</p> <p><b>SENSOR PART NUMBER</b> SON.PRE.0003</p>
SINGLE DIFFERENTIAL PRESSURE SMART-SENSOR + ADDITIONAL BINDER CONNECTOR			
<p><b>APPLICATIONS</b> Laboratories, pressure difference between "clean" and "dirty" areas</p> <p><b>RESOLUTION</b> 0.015625 Pa</p> <p><b>EXPANDED UNCERTAINTY</b> <math>\pm 4 \text{ Pa}^*</math></p>		<ul style="list-style-type: none"> <li>• One sensor, additional 50 cm Binder connector cable</li> <li>• -500 to +500 Pa (-2.0 to +2.0 inches H<sub>2</sub>O)</li> <li>• Tube: L: 50 cm, Ø 4 mm (4-5 mm adapter included)</li> <li>• Full compatibility: air, Nitrogen</li> <li>• Limited compatibility: O<sub>2</sub></li> <li>• Supported overpressure: 1 bar (100 kPa, 400 inches H<sub>2</sub>O)</li> </ul>	 <p><b>COMPATIBILITY</b> Cobalt X2</p> <p><b>SENSOR PART NUMBER</b> SON.PRE.0004</p>

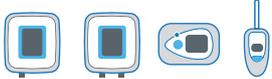
\* The value for Expanded Uncertainty is that which is generally observed by the Dickson metrology laboratory for standard calibration on the following calibration points: 0, 15, 25, and 50 Pa.

## Standard sensors

### DRY CONTACT INPUT SENSOR CABLE FOR COBALT X

<p><b>APPLICATIONS</b> Monitoring door opening-closing, uninterruptable power supplies, air conditioning units, ultra-low-temperature freezers</p> <p><b>RESOLUTION</b> n/a</p> <p><b>EXPANDED UNCERTAINTY</b> n/a</p>		<ul style="list-style-type: none"> <li>• 2-wire cable with 2.5 mm jack</li> <li>• Cable lengths: 9.5 ft (2.9 m), 11.5 ft (3.5 m), 16.4 ft (5 m)</li> </ul> <p>Note: Cobalt X memory capacity for the dry contact sensor channel is 1,800 events (state-change with date &amp; time stamp)</p>	 <p><b>COMPATIBILITY</b> Cobalt X1, Cobalt X2</p> <p><b>SENSOR PART NUMBERS</b> ACC.ENR.0045 (2.9 m cable) ACC.ENR.0058 (3.5 m cable) ACC.ENR.0059 (5 m cable)</p>
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### DIGITAL TEMPERATURE SENSOR (-40 °C/+80 °C)

<p><b>APPLICATIONS</b> Refrigerators, cold rooms, freezers, ovens, incubators; optional metal pipe contact tip for monitoring Legionella conditions</p> <p><b>RESOLUTION</b> 0.0625 °C</p> <p><b>EXPANDED UNCERTAINTY</b> ± 0.06 °C to ± 0.25 °C</p>		<ul style="list-style-type: none"> <li>• -40 °C to +80 °C</li> <li>• Dimensions: Ø 6 mm, L: 30 mm</li> <li>• Stainless steel</li> <li>• Cable lengths: 27, 100, or 350 cm (w/connector)</li> <li>• Protection index: IP67</li> <li>• Optional contact tip (ACC.SON.0001)</li> </ul> 	 <p><b>COMPATIBILITY</b> Cobalt X1, Cobalt X2, Cobalt ML3, Cobalt L3</p> <p><b>SENSOR PART NUMBERS</b> SON.TNU.0001 (27 cm cable) SON.TNU.0002 (1 m cable) SON.TNU.0003 (3.5 m cable)</p>
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### DIGITAL TEMPERATURE SENSOR (-40 °C/+120 °C)

<p><b>APPLICATIONS</b> Ovens, incubators, water baths</p> <p><b>RESOLUTION</b> 0.0625 °C</p> <p><b>EXPANDED UNCERTAINTY</b> ± 0.06 °C to ± 0.25 °C</p>		<ul style="list-style-type: none"> <li>• -40 °C to +120 °C</li> <li>• Dimensions: Ø 6 mm, L: 30 mm</li> <li>• Stainless steel</li> <li>• Cable length: 100 cm (w/connector)</li> <li>• Protection index: IP67</li> </ul> <p><b>SUBMERSIBLE VERSION</b></p> <ul style="list-style-type: none"> <li>• Dimensions: Ø 6 mm, L: 46 mm; cable length: 150 cm (w/connector)</li> </ul>	 <p><b>COMPATIBILITY</b> Cobalt X1, Cobalt X2, Cobalt ML3, Cobalt L3</p> <p><b>SENSOR PART NUMBERS</b> SON.TNU.0005 Submersible version: SON.TNU.0011</p>
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### DIGITAL TEMPERATURE SENSOR - INSERTION PROBE (-40 °C/+120 °C)

<p><b>APPLICATIONS</b> Food products</p> <p><b>RESOLUTION</b> 0.0625 °C</p> <p><b>EXPANDED UNCERTAINTY</b> ± 0.06 °C to ± 0.25 °C</p>		<ul style="list-style-type: none"> <li>• -40 °C to +120 °C</li> <li>• Dimensions: Ø 6 mm, L: 150 mm</li> <li>• Handle length 100 mm</li> <li>• Stainless steel</li> <li>• Cable length: 200 cm (w/connector)</li> <li>• Protection index: IP67</li> </ul>	 <p><b>COMPATIBILITY</b> Cobalt X1, Cobalt X2, Cobalt ML3, Cobalt L3</p> <p><b>SENSOR PART NUMBER</b> SON.TNU.0009</p>
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# Sensors & accessories

## Standard sensors

PT100 SENSOR (-200 °C/+50 °C)			
<p><b>APPLICATIONS</b> Cryogenic freezers, liquid nitrogen tanks, transport</p> <p><b>RESOLUTION</b> Emerald: 0.03 °C</p> <p><b>EXPANDED UNCERTAINTY</b> ± 0.08 °C to ± 0.25 °C</p>		<ul style="list-style-type: none"> <li>-200 °C to +50 °C</li> <li>Analog sensor</li> <li>Dimensions: Ø 4 mm, L: 50 mm</li> <li>Stainless steel</li> <li>Class B</li> <li>3-wire PTFE cable</li> <li>Cable length: 100 cm (w/connector)</li> <li>Protection index: IP66</li> </ul>	 <p><b>COMPATIBILITY</b> Emerald</p> <p><b>SENSOR PART NUMBER</b> SON.TPT.0006</p>

PT100 SENSOR (-50 °C/+200 °C)			
<p><b>APPLICATIONS</b> Incubators, ovens, transport</p> <p><b>RESOLUTION</b> Emerald: 0.03 °C</p> <p><b>EXPANDED UNCERTAINTY</b> ± 0.08 °C to ± 0.25 °C</p>		<ul style="list-style-type: none"> <li>-50 °C to +200 °C</li> <li>Analog sensor</li> <li>Dimensions: Ø 4 mm, L: 50 mm</li> <li>Stainless steel</li> <li>Class B</li> <li>3-wire PTFE cable</li> <li>Cable length: 100 cm (w/connector)</li> <li>Protection index: IP66</li> </ul>	 <p><b>COMPATIBILITY</b> Emerald</p> <p><b>SENSOR PART NUMBER</b> SON.TPT.0012</p>

## Data logger and sensor accessories

PART NUMBER	DESCRIPTION	COMPATIBILITY
Extension cables		
Contact us	Extension cable for digital sensors and Smart-Sensors	 <p>Cobalt X1, Cobalt X2, Cobalt L3, Cobalt ML3</p>
Protection		
ACC.ENR.0043	Waterproof casing, clear plastic, IP67, for Cobalt ML3	 <p>Cobalt ML3</p>
ACC.ENR.0030	Waterproof casing, clear plastic, IP67, for Cobalt L3	 <p>Cobalt L3</p>
Calibration		

All sensors can be calibrated by the Dickson metrology laboratory. Please see Calibration section (p. 38).



# RECEIVERS AND AUTOMATION

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Dickson provides the indispensable tools for connecting data loggers to your OCEAView Solution and for programming high volumes of Atlas and Emerald data loggers.

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# LoRaWAN enabled receivers



## End-to-end connectivity for your OCEAView™ Solution and LoRaWAN enabled data loggers

Dickson LoRaWAN wireless receivers offer exceptionally long-range wireless communication for LoRaWAN enabled data loggers, making it easy to deploy the OCEAView Solution across large sites<sup>(1)</sup>.

- Collects and forwards data between Dickson LoRaWAN equipped data loggers and the OCEAView Cloud or On-premises server
- Long LoRaWAN wireless range
- WiFi, Ethernet, or cellular Internet connectivity
- Two models to meet your needs and technical constraints

### KEY FEATURES

- Compatible with Dickson LoRaWAN data loggers
- Low energy technology preserves data logger battery
- LED status indicators
- Software updates via integrated web interface

### Data management

- Collects and forwards data from data loggers to Cloud or on-premises server

### Connectivity

- LoRaWAN long-range wireless technology
- Range up to about 15 km/10 miles
- Automatic data logger detection
- Options: Ethernet; Wi-Fi (2.4 GHz / 100mW: IEEE 802.11 b/g/n); and/or 4G-LTE cellular
- LoRaWAN™ channel plans in ISM spectrum: EU868, US915, AS923-1, AU915, IN865, KR920

### Hardware details

- Antenna (+3dBi default; +5dBi or +8dBi optional)
- External power supply (110-240V AC adapter)
- ARM9 400MHz; 16 MB DDR RAM; 256 MB Flash
- Storage conditions: -40 °C to +85 °C (-40 °F to +185 °F); 20 to 90% RH (non-condensing)
- Wall-mount, screw attachment
- LoRaWAN / Wi-Fi / Cellular data: FCC, CE, IC
- ROHS 3, REACH, PROP-65

#### Advanced model (blue)

- Operating conditions: -30 °C to +70 °C (-22 °F to +158 °F); 20 to 90% RH (non-condensing)
- Anodized aluminum, IP30 rating
- Dimensions: 161.3 x 107.4 x 42.8 mm (6.4 x 4.2 x 1.7 in.); weight: 450 g (16 oz.)

#### Pro model (gray)

- Operating conditions: 0 °C to +70 °C (32 °F to +158 °F); 20 to 90% RH (non-condensing)
- PC-ABS (polycarbonate-ABS), IP30 rating
- Dimensions: 165 x 135 x 36 mm (6.5 x 5.3 x 1.4 in.)
- Weight: 284 g (10 oz.)

PART NUMBER	DESCRIPTION
<b>Dickson LoRaWAN™ Advanced receiver</b>	
GSR.REC.8005 (865/868 MHz) GSR.REC.5005 (915/923 MHz)	Ethernet / Wi-Fi
GSR.REC.8008 (865/868 MHz) GSR.REC.5008 (915/923 MHz)	Ethernet / Wi-Fi / 4G-LTE
GSR.REC.8006 (865/868 MHz)	Ethernet, outdoor installation
<b>Dickson LoRaWAN™ Pro receiver</b>	
Contact us	Ethernet-only
Contact us	Ethernet / 4G-LTE
<b>Antenna options</b>	
	Included by default Omnidirectional 3dBi gain 865/868 MHz or 915/923 MHz
ACC.GSR.0014 (865/868 MHz) <sup>2</sup> ACC.GSR.0020 (915/923 MHz) <sup>3</sup>	For indoor use Taoglas omnidirectional 2.5dBi and 3.5dBi gain  Height <sup>2</sup> : 82 cm (32.3 in.) Height <sup>3</sup> : 32 cm (12.6 in.) Cable: 90 cm (35.4 in.)
ACC.GSR.0019 (865/868 MHz) ACC.GSR.0021 (915/923 MHz)	For outdoor use IP65 waterproof Lightning protection Taoglas omnidirectional 8dBi gain  Height: 147.4 cm (58 in.) Cable: 500 cm (197 in.)

(1) Sites with a very large number of sensors may require more than one receiver. Please contact us for more details.

### RELATED PRODUCTS



# OCEABridge

## Bluetooth receiver

### End-to-end Bluetooth connectivity for your OCEAView™ Solution and Cobalt X, Emerald, and Atlas data loggers

OCEABridge enables configuration and data transfer for Dickson data loggers within Bluetooth LE wireless range. Data loggers are detected automatically, and sensor readings are forwarded to your OCEAView solution.

- Collects and forwards data between Dickson Bluetooth equipped data loggers and OCEAView™ Solution
- Bluetooth Low Energy technology
- Wi-Fi / Ethernet / Cellular data Internet connectivity

#### HOW IT WORKS

1. Set up the OCEABridge Bluetooth wireless receiver in an optimal location to provide maximum coverage in the area to be monitored.
2. Configure the receiver according to your Cloud or on-premises system architecture and desired connection type (Ethernet, Wi-Fi, 3G/4G).
3. The OCEABridge Bluetooth receiver is ready to collect data from your data loggers and transmit it to the OCEAView platform.



PART NUMBER	DESCRIPTION
OCEABridge Bluetooth receiver	
GSR.REC.X001	OCEABridge 3 (Wi-Fi, Ethernet)
GSR.REC.XAU1	OCEABridge 3 (Ethernet, Wi-Fi, 4G) - Australia
GSR.REC.XEA1	OCEABridge 3 (Ethernet, Wi-Fi, 4G) - EMEA/APAC
GSR.REC.XJA1	OCEABridge 3 (Ethernet, Wi-Fi, 4G) - Japan
GSR.REC.XLA1	OCEABridge 3 (Ethernet, Wi-Fi, 4G) - Latin America
GSR.REC.XUS1	OCEABridge 3 (Ethernet, Wi-Fi, 4G) - USA Verizon
GSR.REC.XUS2	OCEABridge 3 (Ethernet, Wi-Fi, 4G) - USA AT&T

#### RELATED PRODUCTS



Cobalt X  
p. 10



Emerald  
p. 16



Atlas  
p. 17



OCEAView  
p. 30



#### KEY FEATURES

- Collects data from Cobalt X1/X2 (in Bluetooth mode), Atlas, and Emerald wireless data loggers
- Low energy technology preserves data logger battery
- LED status indicators
- Software updates via integrated web interface

#### Connectivity

- Bluetooth Low Energy
- Automatic detection of data loggers within Bluetooth wireless range
- 2 x RJ45 connectors (for configuration and network access); Wi-Fi (2.4 GHz / 100mW, IEEE 802.11 b/g/n); 4G modem optional

#### Data management

- Collects and transfers data from data loggers to Cloud or on-premises platform

#### Hardware details

- Operating conditions: 0 °C to +50 °C (+32 °F to +122 °F); 0 to 90% RH (non-condensing)
- Storage conditions: 0 °C to +50 °C (+32 °F to +122 °F); 0 to 90% RH (non-condensing)
- External power supply (110-240 VAC / 9 ~ 12v DC); maximum output current: 2.5A
- AR9331; 64 MB DDR RAM; 16 MB Flash
- Bluetooth Low Energy USB dongle
- Screw-mount
- ABS casing
- Dimensions: 120 x 85 x 30 mm (4.7 x 3.3 x 1.2 in.); weight: 150 g (5.3 oz.)
- Bluetooth - FCC; CE; IC (Canada); MIC (Japan); KCC (Korea); Anatel (Brazil); NCC (Taiwan)
- Wi-Fi / Cellular data - FCC, CE
- ROHS 3, REACH

## Automated data logger programming tool for Atlas and Emerald data loggers

With its embedded OCEABench software application, this tool enables you to program Dickson Atlas and Emerald data loggers wirelessly in just a few seconds. The OCEABench solution is designed to facilitate efficient preparation of any quantity of data loggers, from a few data loggers to high volumes. "Place-and-play" operation makes OCEABench a robust and streamlined tool in any production environment.

- Fast and efficient batch programming
- Easy setup and configuration
- Configurable mission templates for worry-free operation
- Automatic reports for each batch



### KEY FEATURES

- Integrated web app for easy data logger setup, template management, and reports
- Enables high-volume configuration of Atlas and Emerald data loggers
- Automatic data logger detection and hardware check

### Connectivity

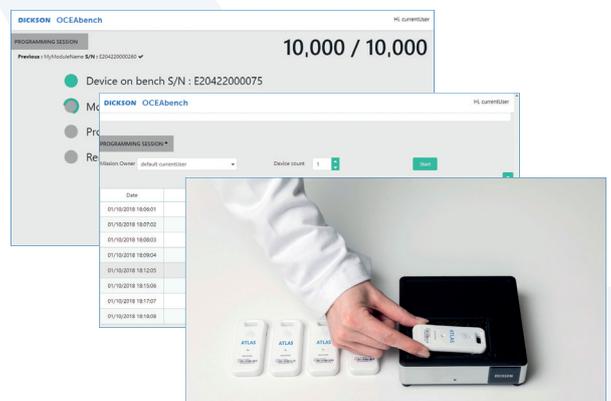
- Ethernet (2 m/6.6 ft cable included) for Internet access
- Bluetooth Low Energy
- Near-field communication (NFC) contactless technology

### Hardware details

- Operating conditions: 0° C to +60° C (storage: -20 °C to +70 °C; 0% to 90% RH, non-condensing)
- Dimensions: 155 x 155 x 40 mm (6.1 x 6.1 x 1.6 in.)
- Weight: 500 g (11.5 oz.)
- ABS/aluminum casing
- Protection index: IP63 for indoor use only
- Power input (adapter included): 110-240 V, 50/60 Hz, 0.5 A, international plugs (North America, Australia, Europe, United Kingdom)

### HOW IT WORKS

1. Use the OCEABench software to open, create, or modify settings.
2. Place your data logger on OCEABench. The tool detects it automatically and "wakes up" the device for programming.
3. OCEABench applies settings, tests Bluetooth operation, then beeps when done. The entire process takes about 2 seconds per data logger.
4. OCEABench sequentially programs each data logger in the batch.
5. A summary report is sent by e-mail.



PART NUMBER	DESCRIPTION
OCEABench programming tool	
ACC.ENR.0042	For Atlas and Emerald data loggers

### RELATED PRODUCTS





# SOFTWARE

Dickson provides web and mobile applications for monitoring and managing connected Dickson data loggers. The cornerstone of your monitoring solution, these applications give you easy and secure access to all your critical sensor, data logger, and equipment information around the clock.

# OCEAView

## Complete monitoring, traceability, and alert platform for Cloud or On-premises use, providing an advanced remote monitoring solution to protect your most valuable assets.

OCEAView is a rich and robust platform for monitoring your equipment's environmental parameters that matter the most in labs, storage facilities, production areas, vehicles, and more. OCEAView is available with Cloud or On-Premises versions to cover all your privacy and security constraints. The solution's attractive web interface gives you total control over all your equipment, data, sensors, users, reports, and calibration, with 24/7 e-mail, voice call, and SMS/text message alerts. The companion OCEAView Mobile app for iOS and Android is ideal for managing your Dickson Bluetooth data loggers.

- Centralized sensor readings, alarms, and other information from data loggers
- Live dashboard to see system health and latest readings at a glance, with complete details, graphs, and audit trail
- Manages your entire solution, including wired and wireless sensors, data logging settings, alarm limits, alert notifications, equipment, configuration, users, reports, and more
- Secure Cloud platform or entirely on-premises installation at your own site

### HOW IT WORKS

1. Connect to the OCEAView web application to create your company account and enter your license key.
2. Set up every aspect of your monitoring solution via OCEAView: create the organization, set up equipment, assign data loggers and sensors, adjust data logging parameters, manage users, etc.
3. Define your monitoring strategy to meet your needs, with alert notification, call groups, scheduling, reports, calibration, and more.
4. Your OCEAView environment is ready to use!



- › Developed in accordance with 21 CFR Part 11, GxP, HACCP & FSMA guidelines
- › Audit trail, user-level security compliant with FDA 21 CFR Part 11
- › Cloud or on-premises hosting

- › Auditable, customizable, and schedulable reports
- › Integration with third-party systems via API
- › Data logging with intuitive focus on your equipment being monitored
- › LDAP support for user authentication

### RELATED PRODUCTS



Data loggers  
p. 9



Sensors  
p. 19



Receivers  
p. 26



OCEABench  
p. 28



Alarms & alerts  
p. 33

## KEY FEATURES

- Remote data logger configuration including sensor reading frequency, transfer intervals, alarm limits
- 24/7 access to detailed data, events, and graphs
- Complete audit trail
- Available in English, French, Italian, German, Spanish, and Portuguese

## Web application highlights

- User-friendly display for overall system health at a glance
- Company organization in sites and departments, with user profiles, LDAP authentication, roles, access control
- Regional preferences
- Sensor management with focus on monitored equipment
- Sensor calibration, reminders, import/export

## OCEAView Mobile for iOS and Android

- Manage Dickson Bluetooth data loggers directly
- Monitor data loggers with Watch Mode
- Ideal for monitoring during transport

## Data management

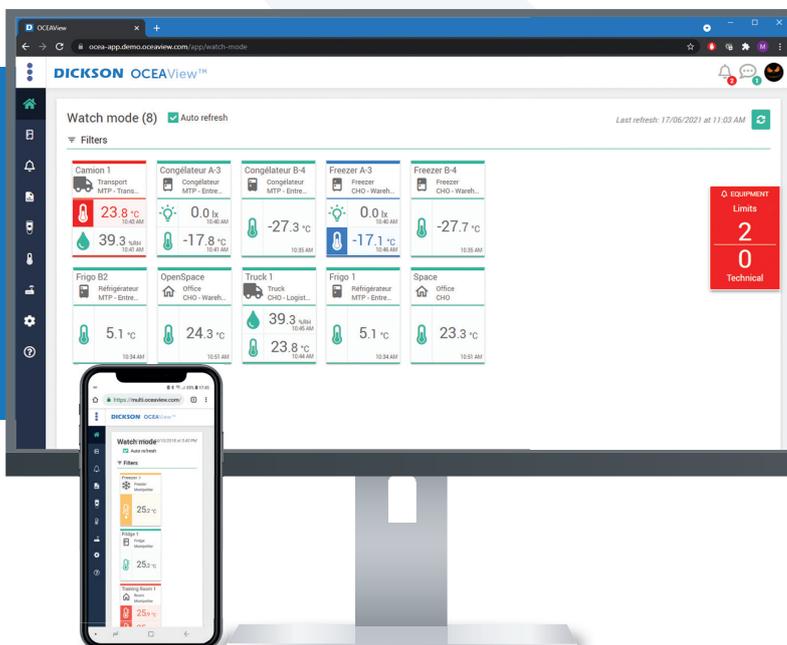
- Unlimited Cloud storage
- Sensor data includes Mean Kinetic Temperature (MKT)
- Audit trail and schedulable reports (PDF, XLS, CSV)

## Alarms and alerts

- Programmable excursion management with 3 high/3 low limits for Cobalt X; 1 high/1 low for Cobalt L3/Cobalt ML3
- Technical, sensor, communication, and power alarms
- Alarms immediately visible on dashboard and sent via e-mail by OCEAView; SMS/text and voice message alerts sent via optional OCEAlert platform
- Sequential notification to call groups via OCEAlert platform
- Flexible alert scheduling for workdays, weekends, nights, holidays, periods without alerts



PART NUMBER	DESCRIPTION
<b>OCEAVIEW CLOUD PLATFORM</b>	
PRE.CLO.####	OCEAView annual subscription for unlimited users, based on number of measurement points: 1-20, 21-50, 51-100, 101-250, 251-500, 501-1,000, >1,000
<b>OCEAVIEW ON-PREMISES PLATFORM</b>	
CTR.OPM.OCV_###	One-time license for unlimited users, based on number of measurement points: 1-20, 21-50, 51-100, 101-250, 251-500, 501-1,000, >1,000 Please contact us regarding initial commissioning and installation



# OCEACal / Sensor Hub

**Complete calibration process for Dickson Smart-Sensors or digital temperature sensors, with convenient connection for up to 40 temperature, humidity, or CO<sub>2</sub> sensors at a time.**

This sensor calibration tool enables people with a good level of metrology knowledge to handle specific calibration processes internally according to their own standard operating procedures, potentially eliminating the need to outsource certain calibration operations and thus benefit from greater flexibility as needs change over time.

- OCEACal web application integrated in Sensor Hub, with support for up to 40 sensors at a time
- Compatible with temperature, humidity, and CO<sub>2</sub> Smart-Sensors; digital temperature sensors
- Loads calibration parameters onto Dickson Smart-Sensors
- Produces reports and certificates

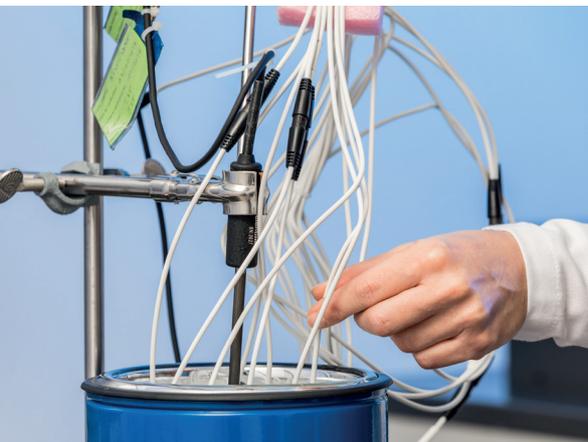
## KEY FEATURES

- Supports Dickson temperature, humidity, and CO<sub>2</sub> Smart-Sensors; digital temperature sensor
- Integrated calibration application
- Automated process when using a Dickson standard reference chain, or manual process by enter reference sensor values from a non-connected measurement chain
- Smart-Sensors updated with new calibration parameters
- Configurable calibration cycle settings, such as setpoints, readings per setpoint, reading interval, etc.
- CSV file format export (compatible with OCEAView sensor calibration import function for digital temperature sensors)
- Calibration process report (PDF) and calibration certificate

## Sensor Hub hardware

- 40 sensor cables with Dickson Binder connectors to connect up to 40 sensors simultaneously
- Ethernet with fixed or dynamic (DHCP) IP address for network access
- 110-240 V AC adapter with international plugs
- USB-C power cable

PART NUMBER	DESCRIPTION
OCEACal / Sensor Hub calibration solution	
ACC.MTR.0008	Dickson Sensor Hub with embedded OCEACal software



## HOW IT WORKS

1. Open the embedded OCEACal software, connect digital sensors or Smart-Sensors to the Sensor Hub, and prepare sensors for calibration.
2. Configure the calibration process with the number of setpoints, number of readings per setpoint, and the reading interval.
3. You may use manual mode and enter readings directly into the interface, or automatic mode using a connected Dickson reference sensor.
4. Launch the calibration process.
5. A report and calibration certificate are generated automatically.
6. You may then proceed with sensor adjustment.

- › Calibrate up to 40 connected sensors at a time
- › Simplified calibration with a Dickson reference chain



## RELATED PRODUCTS



Sensors  
p. 19



# ALARMS & ALERTS

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Monitoring your critical environment parameters with wireless data loggers is just one piece of the puzzle. The next most important aspect of a monitoring solution is its handling of alarms and alerts. Dickson provides connected solutions to keep you notified at all times if problems arise in the environments you monitor so you can take appropriate action fast.

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# LoRaWAN wireless siren

**LoRaWAN enabled wireless siren with bright light and sound, triggered if alarms are detected by your OCEAView Solution.**

With its wireless connectivity, this siren is sure to attract people's attention when alarms are detected. Define an alert strategy in OCEAView with notification using the siren, which is triggered remotely in case of an alarm. As a complement to e-mail, voice call, or text message notification, this is the perfect add-on for your monitoring solution's alert system.

- Reinforces protection for sensitive goods and equipment
- Adjustable siren volume and flashing red light
- Runs on AC power with backup battery to maintain LoRaWAN connection in case of power outage

## KEY FEATURES

- Siren triggered wirelessly via LoRaWAN when alarm conditions are detected
- Fully integrated with OCEAView monitoring solution (Cloud or On-premises)
- Adjustable siren volume from 60 dBA to 100 dBA ( $\pm 10\%$ )
- Push-button for wireless communication test/setup and snooze
- Green/red status indicator
- Backup battery maintains LoRaWAN connectivity to notify system in case of power outage

## Connectivity

- LoRaWAN long-range wireless technology, range up to about 15 km/10 miles<sup>(1)</sup>

## Hardware details

- Operating conditions: 0 °C to +50 °C (+32 °F to +122 °F); 0 to 90% RH (non-condensing)
- Storage conditions: -10 °C to +60 °C (14 °F to 140 °F); 0 to 90% RH (non-condensing); optimal storage around 25 °C (77 °F)
- 110/240 V input auto-switching power adapter provided separately; 1.5 m (about 5 feet) cable; 12 V DC 1.0A output; auto-switch to backup battery (with alert in case of power outage)
- Li-SOCI2 (LS14500) 3.6 V backup battery; non-rechargeable, non-replaceable
- Mounting kit for use with provided Velcro® or magnet; maximum mounting height < 2 meters (6.5 ft)
- ABS and polycarbonate plastic casing
- Dimensions: 160 x 80 x 83 mm (6.3 x 3.1 x 3.3 in.)
- Weight: 400 g (14.1 oz.)
- CE, FCC, IC

## HOW IT WORKS

1. Place the wireless alert siren in the desired location.
2. Use OCEAView to define an alert strategy that includes notification via wireless siren.
3. Test LoRaWAN communication with your data loggers, receiver, and OCEAView platform.
4. The alert siren is ready to use.



PART NUMBER	DESCRIPTION
Audio-visual siren	
ACC.ALE.X001	Wireless alert device for OCEAView Solution

<sup>(1)</sup> Free-field range based on environment and antenna orientation

## RELATED PRODUCTS



Data loggers  
p. 9



LoRaWAN receiver  
p. 26



OCEAView  
p. 30

# Dry contact alert relay

**LoRaWAN-enabled dry contact relay to trigger your alert devices in case alarms are detected by your OCEAView Solution.**

The Dickson wireless dry contact relay offers an interface between your OCEAView Solution and your building's alert management system. If an alarm is detected by OCEAView, the dry contact device can trigger two different alert devices with standard inputs.

- Interfaces OCEAView with your Building Management System
- Opens or closes relays to trigger your alert devices
- Two outputs, each of which can be configured as "normally open" or "normally closed"
- Runs on AC power with backup battery to maintain LoRaWAN connection in case of power outage



## HOW IT WORKS

1. Connect the LoRaWAN dry contact alert device to your building management system.
2. Use OCEAView to define an alert strategy that includes notification via the dry contact alert device, with output channels configurable for "normally open" or "normally closed".
3. Test LoRaWAN communication with your data loggers, receiver, and OCEAView platform.
4. The dry contact alert device is ready to use.



PART NUMBER	DESCRIPTION
Dry contact alert controller	
ACC.ALE.X002	Wireless alert relay for OCEAView Solution

## KEY FEATURES

- LoRaWAN-enabled dry contact alert relay to trigger up to two connected alert devices in your local alarm management system when alarm conditions are detected in OCEAView
- Fully integrated with OCEAView monitoring solution (Cloud or On-premises)
- Push-button for wireless communication test/setup
- 2 simultaneous dry-contact outputs, "normal" status can be set as open or closed
- Backup battery maintains LoRaWAN™ connectivity to notify system in case of power outage

### Connectivity

- LoRaWAN long-range wireless technology, free-field range up to about 15 km/10 miles<sup>(1)</sup>

### Hardware details

- Operating conditions: 0 °C to +50 °C (+32 °F to +122 °F); 0 to 90% RH (non-condensing)
- Storage conditions: -10 °C to +60 °C (14 °F to 140 °F); 0 to 90% RH (non-condensing); optimal storage around 25 °C (77 °F)
- Max. relay power: 84W; max. voltage: 42VDC, 42VAC (max. frequency 60Hz); max. current: 2A
- 110-240V adapter with international plugs and 1 meter cable (3.3 ft.); AC adapter: 12V DC 1.0A output; relay limit: 24V DC - 0.4 A
- Li-SOCl<sub>2</sub> (LS14500) 3.6 V backup battery; non-rechargeable, non-replaceable
- Mounting kit with screws and Velcro®; maximum mounting height < 2 meters (6.5 ft)
- ABS plastic casing
- Dimensions: 102 x 54 x 30 mm (4 x 2.1 x 1.2 in.); weight: 122 g (4.3 oz.)
- CE, FCC, IC

<sup>(1)</sup> Free-field range based on environment and antenna orientation

## RELATED PRODUCTS



# OCEAlert

## Voice call and SMS/text messaging alarm notification for OCEAView™ Solution with Internet platform to keep you informed 24/7.

OCEAlert is an Internet-based alert platform that notifies you and your teams in the event of alarms, such as temperature excursions or technical issues. OCEAlert adds voice call and SMS/text messaging notifications to your OCEAView monitoring solution, which includes e-mail notifications by default, offering greater flexibility for fast response.

- Reliable 24/7 alert notification for OCEAView via voice call and/or SMS/text message
- External platform subscription requiring no additional equipment or maintenance
- Sequential contact attempts until acknowledgment is received
- User confirmation via secure system PIN code

### KEY FEATURES

- SMS/text messaging and voice call notification
- For use with OCEAView Cloud or On-premises installations (requires an Internet connection)
- Alerts acknowledged by users with their personal PIN code
- Messages presented in languages supported by OCEAView

### HOW IT WORKS

1. If an alarm is detected by the OCEAView™ Solution, OCEAlert sends alert notification 24/7 via text message (SMS) or voice call to a list of configured users.
2. Users quickly receive information regarding the status, cause, and location of the problem. When alert notification is received, users can acknowledge reception directly via their mobile phone and then take the necessary measures to address the issue.
3. Once the problem is resolved, the alarm can be acknowledged in OCEAView or directly via the Cobalt X touchscreen.

PART NUMBER	DESCRIPTION
OCEAlert annual license	
CTR.ALE.####	Annual subscription for based on number of measurement points: 1-20, 21-50, 51-100, 101-250, 251-500, 501-1,000, >1,000

### RELATED PRODUCTS



Data loggers  
p. 9



OCEAView  
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# DICKSON SERVICES

Dickson is proud to offer a wide range of services to support you as a privileged customer, including individual pre- and post-sales assistance, on-site setup, training, calibration, and technical support.

# Calibration and metrology



## Accredited Dickson laboratory

Dickson has an in-house metrology laboratory to calibrate sensors for all your target ranges and applications. Meeting the highest industry standards, our laboratory is accredited by the COFRAC certification body in compliance with the rigorous ISO/IEC 17025 international standard.

The following calibration options are available, depending on your products and requirements:

- ISO/IEC 17025: COFRAC<sup>(1)</sup> accredited calibration by the Dickson laboratory for customers with specific quality system requirements
- Dickson certification: Dickson certification using a COFRAC-calibrated reference chain
- NIST-traceable<sup>(2)</sup>: Dickson certification using a NIST-calibrated reference chain

Our sensors are typically calibrated by the Dickson laboratory before being shipped to customers. A calibration certificate is provided, with correction parameters for use in Dickson monitoring software.

## Sensor exchange program for recalibration

- Digital sensors and Dickson Smart-Sensors may be recalibrated by exchanging the sensor.
- Dickson sends you a new sensor and you return your old sensor after swapping them at your site. This avoids both down-time and traceability interruptions<sup>(3)</sup>.
- External Pt100 Smart Sensors are also recalibrated via exchange, whereas standard external Pt100 sensors are generally recalibrated at your site by a qualified technician.

Sensor drift may also be calculated for external temperature sensors to establish consistency over time.

(1) French National Accreditation Committee, France. (2) National Institute of Standards and Technology, federal technology agency, United States. (3) The sensor exchange option is only available for external digital sensors and Dickson Smart Sensors, as the entire measurement chain is contained within the sensor unit itself. A decontamination certificate is required.

- Dickson in-house metrology laboratory, COFRAC-accredited in accordance with the ISO/IEC 17025 standard
- ISO/IEC 17025 calibration certificates provided in paper format with each sensor; Dickson certified calibration certificates available electronically

- Digital sensors and Dickson Smart-Sensors recalibrated by sensor exchange
- Metrology training offered by expert Dickson technicians



# Services & field intervention

## Pre-installation site survey

Project planning can be a detailed and complex process. A site survey with performance tests under real conditions helps ensure optimal solution recommendations. Surveys save you time and money while ensuring the most effective monitoring system possible.

- Wireless connectivity analysis under real-world conditions at your site
- Optimizes system equipment and configuration
- Helps minimize cost and improve performance

- › Helps optimize equipment, placement, and configuration choices
- › Speeds up deployment of most effective solution

## IQ/OQ: Installation and Operational Quality

To ensure compliance with applicable requirements for Good Manufacturing Practices (GMP) and Good Laboratory Practices (GLP), Dickson has elaborated a series of customizable IQ/OQ documents that will guide you through rigorous end-to-end testing of your monitoring solution.

- Test scenarios leveraging Dickson's extensive expertise with Food and Drug Administration (FDA) and European Food Safety Authority (EFSA) audits
- Adapted to satisfy GxP requirements
- IQ/OQ documents for your own use or with expert technical assistance from Dickson

- › Complete validation package with detailed IQ and OQ documents, including individual and system-level tests
- › Verification that all aspects of your solution match specifications and that every component and feature functions as required

## Monitoring solution installation

Depending on the configuration, site complexity, and technical resources, you may choose to have Dickson technicians or partners handle the installation process. We offer complete installation and setup services for all Dickson data loggers, applications, alert solutions, and network infrastructure components.

- Benefit from a ready-to-use monitoring system
- On-site installation and qualification of all hardware and software, or installation via remote Internet connection
- Service provided by highly qualified technicians
- Enjoy peace-of-mind without technical hassles

- › Installation handled at your site or via a remote connection
- › Benefit from optimal configuration for your entire monitoring solution

## Spare parts

Dickson offers replacement parts and additional options for your Dickson solutions to ensure the best possible performance of your monitoring system over time. Contact us for details!

- Approved batteries
- Additional / replacement sensors
- Protective data logger cases
- Mounting kits
- Cables
- And much more...

- › Original manufacturer equipment for your existing solution
- › Extending the life of your monitoring system
- › Fast delivery available

# Training

## Customer and partner training

From beginner to advanced levels on every aspect of Dickson's hardware and service offering

Dickson provides complete user training to help ensure the ongoing efficiency of your solution. After a monitoring solution is installed, our technicians tell you and your teams everything about it, with training sessions tailored to users' real needs. This includes equipment maintenance, software use, data analysis and reports, alarm acknowledgment, metrology aspects, and more.

- Training can take place at customer site or Dickson offices
- Teaching materials provided
- Courses include both theoretical explanations and hands-on time experimenting with hardware and software

### Sessions adapted to meet your needs

- Training on administration and daily use of your monitoring solution
- Expand your knowledge of metrology and calibration
- Groups or one-on-one sessions
- Prerequisites generally start with basic computer knowledge for "User" level training, with more proficient system knowledge recommended for "Administrator" and "Metrology" level training
- Training courses vary in length from 1/2 day to a full day



## LoRaWAN™ solution

This course focuses on administration for OCEAView monitoring solutions using LoRaWAN technology. After taking this course, you will be able to deploy Dickson monitoring solutions and use related web and mobile applications.

- Covers OCEAView, Cobalt X, Cobalt L3, Cobalt ML3
- Solution architecture and hardware
- LoRaWAN™ connectivity and receiver
- Configuring user accounts
- Adding equipment, data loggers, and sensors
- Accessing sensor data
- Managing alarms, alerts, and technical issues
- Using map view
- Troubleshooting



- › Course materials, practical exercises
- › Prerequisites: basic computer knowledge
- › For users and administrators of OCEAView LoRaWAN™ solutions
- › Duration: 1 day (1/2 day for theory only)

## Bluetooth solution

This course teaches you how to use the OCEAView solution based on Bluetooth wireless technology. You will learn how to program data loggers, collect recorded data, generate reports using web and mobile applications.

- Covers OCEAView, OCEAView Mobile, Emerald, Atlas
- Solution architecture and hardware
- Bluetooth connectivity and OCEABridge receiver
- Configuring user accounts
- Adding equipment, data loggers, and sensors
- Accessing sensor data
- Managing alarms, alerts, and technical issues
- Using map view
- Troubleshooting

- › Course materials, practical exercises
- › Prerequisites: basic computer knowledge
- › For users and administrators of OCEAView Bluetooth solutions
- › Duration: 1 day (1/2 day for theory only)

## Metrology basics

This training course is presented by experts from Dickson's metrology laboratory. You will learn the foundations of temperature metrology and understand calibration certificates and thermal enclosure characterization reports to make your laboratory life easier. Course content focuses on standardized and internationally accepted Quality methods.

- Various sensor technologies
- International Temperature Scale of 1990 (ITS-90)
- Standards related to temperature metrology
- Metrology terms (International Vocabulary of Metrology)
- Introduction to uncertainty
- Calibration certificates and verification certificates
- Climatic chamber characterization
- For staff and sub-contractors

- › Course materials, laboratory tour (for training at Dickson site)
- › Prerequisites: basic computer knowledge
- › For all audiences
- › Duration: 1 day

## Calibration

Presented by experts from Dickson's metrology laboratory, this course teaches you how to calibrate temperature sensors and apply the results. For sessions taking place at our site, the course features hands-on exercises using professional calibration equipment such as reference probes and temperature-controlled baths.

- Determining needs
- Overview of the main standards
- Prerequisites before calibration
- Establishing uncertainty reports
- Calibration certificates
- Calibration process
- Using results
- Managing sensors over time

- › Course materials, laboratory tour (for training at Dickson site)
- › Prerequisites: Metrology basics or equivalent metrology knowledge
- › For all audiences
- › Duration: 1 day

# Maintenance & support

## Keeping your solution healthy

### MAINTENANCE AND TECHNICAL SUPPORT CONTRACTS

The Dickson team has unmatched expertise assisting customers with their monitoring, system, and maintenance issues. Two maintenance contract options are available – Basic and Silver – to keep your wireless monitoring solutions up and running reliably over the long run.

Services	Basic	Silver
<b>Remote</b>		
Hotline (2-hr callback), troubleshooting, problem analysis	●	●
E-mail technical support	●	●
Data logger configuration assistance	●	●
Downloads / Tools / FAQs	●	●
OCEAView solution updates provided for customers with On-premises installations <sup>(1)</sup>	●	●
<b>On-site</b>		
Annual preventive maintenance visit, functional checks		
• Annual sensor calibration <sup>(2)</sup> /certificates, configuration		●
• Battery replacement (as necessary) for all data loggers		●
• Technical training		●
• 25% discount off Dickson training courses		●
<b>Other</b>		
Duration (months)	12	36

Often, the most effective way to serve customers is to connect remotely to their system and troubleshoot problems directly. In order to benefit from a Dickson Technical Support Contract, you must allow limited remote access to your system, used exclusively under your direct supervision:

- Priority support for maintaining your monitoring system
- All maintenance and support services are provided by experienced and dedicated Dickson technicians
- Remote connections for fast and direct service, with your permission

<sup>(1)</sup> Dickson provides application update files for customers running their solution locally. Installation services are included. With Cloud hosting, updates are performed automatically.

<sup>(2)</sup> Dickson Smart-Sensors and digital sensors are calibrated via exchange. Analog sensors calibrated at customer site or by return to Dickson laboratory.





# TRANSITION TO OCEAVIEW

Move to OCEAView from Dickson's legacy monitoring solutions.

# Transition to OCEAView

**Are you still using Cobalt 1 or Cobalt 2 data loggers with ThermoServer-ThermoClient? This is the perfect time to make the change!**

For the past decade, customers around the world have equipped their labs and facilities with our robust and flexible monitoring system, enjoying the peace of mind that comes with timely alerts in case of problems involving critical goods and equipment of all kinds.

If you are still using first- or second-generation Cobalt data loggers with ThermoServer-ThermoClient, the time has come to step into our new-generation OCEAView Solution. You will find a wide range of familiar features as well as numerous new features and flexibility. Users switching to the new system find everything they need quickly and easily.

Our teams are more active than ever to help you update your monitoring solution to benefit from Dickson's latest generation tools. The first step is to address your migration to the OCEAView™ Solution and make sure you benefit from the latest improvements to cover your monitoring needs for the coming years.

We offer commercial and technical assistance to help ensure a smooth, secure, and efficient transition. This program includes an option to trade in your current data loggers for our latest generation data loggers.

Please contact your sales representative for more information.

- Trade-in offer for Cobalt X, Cobalt L3, Cobalt ML3 data loggers
- Expert technical support for a smooth transition
- Benefit from the power of the OCEAView Solution and its new features



## Contact us

### Europe

Dickson Europe  
720 rue Louis Lépine  
34000 Montpellier  
France

Tel: +33 4 99 13 67 30

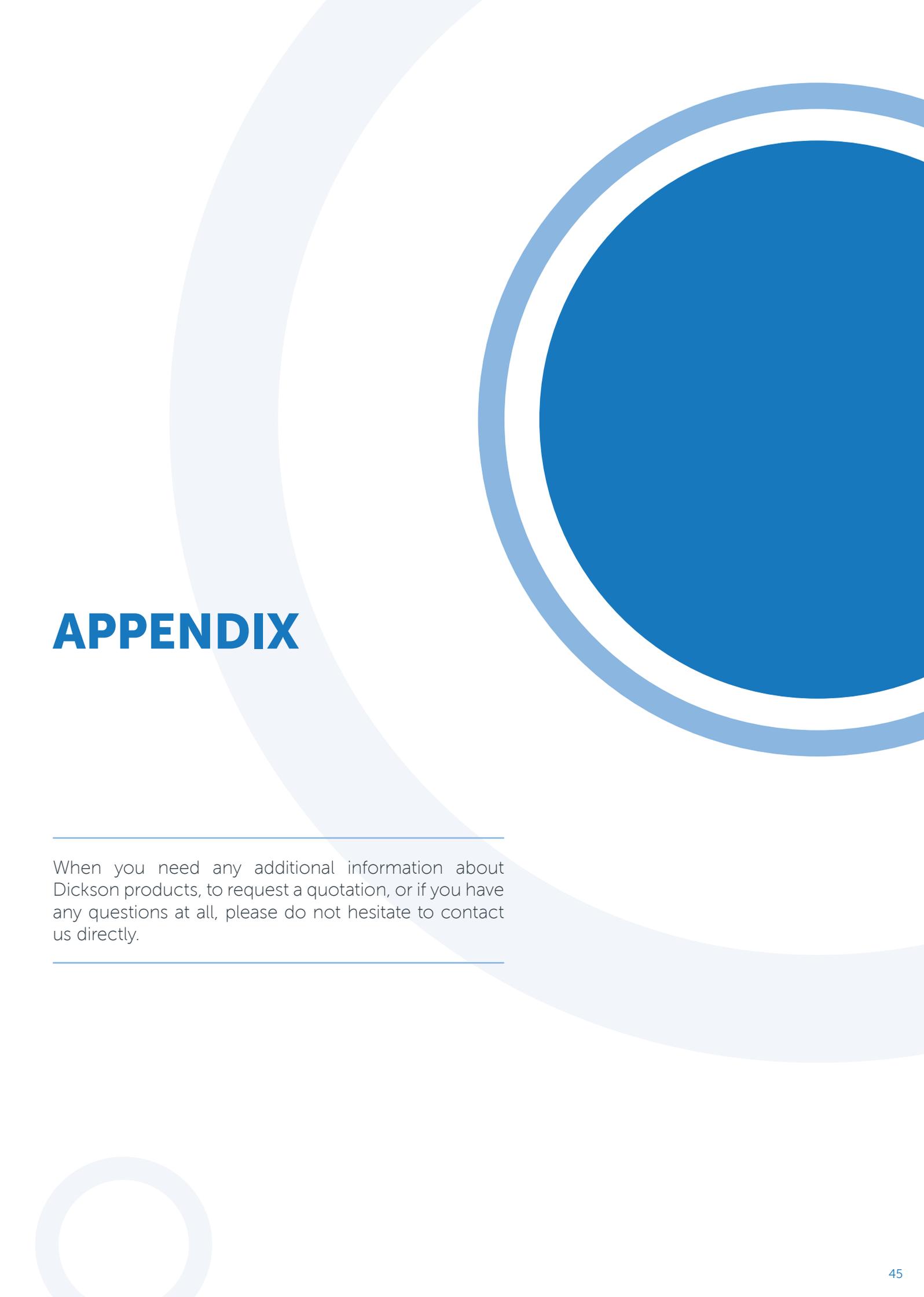
### North America

Dickson, Inc.  
930 S Westwood Ave  
Addison, IL 60101  
USA

Tel: +1 (630) 543-3747

[www.oceasoft.com](http://www.oceasoft.com)  
[contact@dicksondata.fr](mailto:contact@dicksondata.fr)





# APPENDIX

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When you need any additional information about Dickson products, to request a quotation, or if you have any questions at all, please do not hesitate to contact us directly.

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# Contact, warranties, notices

## Contact us

[www.oceasoft.com](http://www.oceasoft.com)  
[contact@dicksondata.fr](mailto:contact@dicksondata.fr)

### Europe

Dickson Europe  
720 rue Louis L epine  
34000 Montpellier  
France

Tel: +33(0)4 99 13 67 30

### North America

Dickson, Inc.  
930 S Westwood Ave  
Addison, IL 60101  
USA

Tel: 1 (630) 543-3747

## Dickson warranty information

- Dickson products are covered by a Limited Warranty. Warranty service for eligible repairs is available at no charge during the warranty period, excluding shipping costs, starting from the invoice date. Products under warranty must be returned to Dickson for repair.

## Hardware warranties

- Cobalt data loggers, receivers, repeaters, alert devices, and sensors are covered by the Limited Warranty for a period of two years.
- Emerald data loggers are covered by the Limited Warranty for a period of one year.
- Atlas data loggers are covered by the Limited Warranty for a period of one year (based on the products' intended battery life).

## Accessory warranties

- Accessory products such as cables and casing are covered by the Limited Warranty for a period of one year.
- Please do not hesitate to contact Dickson for more information on Warranty coverage, out-of-warranty repairs, and replacement parts.

## Delivery

- Dickson solutions can be shipped nearly anywhere (please contact your sales representative).
- We keep a large quantity of products in stock in order to meet your needs as quickly as possible. Products that require assembly and calibration may take longer to deliver.

## Exclusions

- Dickson assumes no liability for any loss or claims by third parties arising through the use of the products or services described in this catalog. This document is non-contractual, and the contents and images contained herein are subject to change without notice.
- Dickson and its distributors shall not be held liable either directly or indirectly for cost, damage, expenses and legal fees, or personal injury related to the use of Dickson solutions, even in the case of faulty design or manufacturing of said solutions. Dickson solutions, including accessories and replacement parts, are provided as-is without any additional warranty, explicit or implied, with respect to files, their suitability for a particular application, their quality, their commercialization, or any other related aspect.
- The liability of the seller and/or creator with respect to the solution warranty is strictly limited to the amount paid by the client for said solution. Under no circumstances shall the seller or creator assume responsibility for any damage or prejudice whatsoever, direct or indirect, specific or consequential, particularly with respect to any down-time, loss of data, or any other financial loss resulting from the use or impossibility to use the solutions, even if Dickson is aware of the potential occurrence of said prejudice. The product seller and creator advise each solution user to verify the results of using these products and files, and neither the seller nor the creator shall be held liable for any damage related to using the delivered solution. Dickson informs all future buyers and users of its solutions that Dickson solutions would not be able to exist without the above limitations.

## Notices

- Do not use Dickson solutions for protection or as part of an automated emergency system or for any other application that involves protecting the lives of people and/or the security and/or safety of property. Customers and users of Dickson solutions are responsible for making sure that said solutions are fit for the intended usage.
- Do not open the product casing and do not disassemble or modify internal components in any manner.
- Dickson solutions do not contain any internal components that require user intervention or repair. If the device shows signs of improper operation, disconnect it immediately from its power source, or remove the battery, and contact Dickson technical services.
- All Dickson solutions and software components are tested thoroughly. However, it is not feasible or realistic to test and qualify all computers, devices, operating systems, and configurations. Our experience has shown that computer and mobile device operating systems are subject to frequent evolution. It is therefore important for users to avoid unnecessary risk by testing the products and validating processes internally to ensure stability and reliability of both wired and wireless communications in their environment.

**ABS plastic** — Acrylonitrile Butadiene Styrene, a highly shock-resistant thermoplastic polymer.

**Alarm (condition)** — An alarm is a state that occurs when the system observes a sensor reading that is out-of-bounds, such as a temperature reading that is too high or too low with respect to programmed range limits. The system can notify users when alarms occur by sending alerts.

**21 CFR Part 11 (FDA)** — Food and Drug Administration guidelines establishing regulations regarding electronic records and electronic signatures to ensure that those records and signatures are considered trustworthy, reliable, and equivalent to paper records.

**Alert (action)** — An alert is a notification issued by the system and sent to users when the system observes an alarm condition or potential problem.

**Bluetooth** — A short-range wireless communication technology that allows devices such as data loggers, smartphones, computers, and peripherals to transmit data wirelessly over a short distance. Bluetooth Smart® offers a range of about 50 m (about 160 ft).

**Cloud** — A global network of remote servers accessed via the Internet. Cloud platforms store and manage data and host software applications.

**Correction** — Compensation of a known sensor measurement effect through mathematical adjustment.

**Data logging** — The process of using an electronic device to record data from a built-in or external sensor over time.

**Data logger** — Wireless device that logs sensor data on a regular basis and transmits it to the server.

**Drift (sensor)** — Variation over time of sensor readings due to variations in the metrology properties of measurement instruments.

**Equipment** — The material or space being monitored with a data logger

**Expanded uncertainty** — Expression of uncertainty of measurement results with a confidence level of 95% ( $K=2$ ).

**Gateway** — Device that forwards information from data loggers to a server or Cloud platform.

**Installation Qualification (IQ)** — The first step in qualifying new equipment. A documented process that verifies that all aspects that affect product quality with respect to approved design specifications, and that the piece of equipment or instrument has been delivered, installed, and configured correctly.

**IP Protection Index** — Classifies the degree of protection provided against intrusion, dust, accidental contact, and water by mechanical casings and electrical enclosures.

**ISM bands** — License-free wireless frequencies for Industrial Medical Scientific applications around the world.

**Line-of-sight (LOS) / Free-field** — An indication of the maximum wireless range between two points without any obstacles.

**LoRaWAN™** — A long-range, low-power networking protocol designed to wirelessly connect devices, offering line-of-sight range up to nearly 16 km (10 miles).

**Measurement chain** — All the elements in a data logger device comprising the path taken by the signal from the sensor to its wireless transmission.

**Measurement interval** — Time period between two sensor readings by the data logger.

**MKT (Mean Kinetic Temperature)** — Simplified expression of the overall effect of temperature fluctuations during storage or transit of perishable goods.

**Network** — Computers, data loggers, and infrastructure equipment such as receivers connected with servers. Networks can be "local" (LAN) within a specific area or building, or "wide area" (WAN), covering geographically separated locations as well as Cloud platforms.

**OCEAlert** — Internet-based platform that delivers alerts via voice message and SMS/text messages.

**Operational Qualification (OQ)** — The testing of every component in the system. Once the equipment has passed the IQ phase the operational requirements, as well as the operational consistency of the equipment, must be put to the test.

**PTFE** — Polytetrafluorethylene: Polymer with remarkable insulation properties (temperatures up to +380 °C) and protection from humidity.

**Receiver** — Device that collects information from data loggers and forwards it to a server or Cloud platform.

**Reference (calibration)** — Reliable and stable measurement chain that can be used to calibrate other measurement chains (sensors).

**Resolution (sensor)** — Smallest change in quantity being measured that causes a perceptible change in the corresponding indication.

**Sensor** — Device that measures physical parameters such as temperature, humidity, CO<sub>2</sub> levels, electrical current, etc.

**Server** — Computer that collects data from data loggers.

**Stability profile monitoring** — Provides evidence regarding the quality of a drug substance or drug product temperature conditions as related to recommended storage conditions.

**Web application** — Solution and browser interface based on web services and architecture running on the Cloud or a local server

# DICKSON

Environmental Monitoring + Compliance Experts

