### **Temperature - Digital Internal Probe**



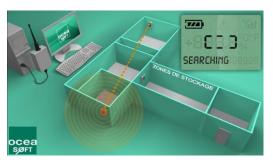
- Measured temperature range: from +10°C to +50°C
- Battery operated: up to 2 years autonomy depending on use (battery model: LS17500 Saft Mazda 3.6V Lithium, p/n COB03400000)
- Wireless module mount: includes doublesided Velcro<sup>®</sup> or magnetic adhesive on wall bracket back
- ISM (Industrial Scientific Medical) band with 3 frequencies: US/CAN 915 MHz, Europe 868 MHz, APAC 434 MHz

### A cost-effective solution for monitoring ambient temperature in your storage areas

Cobalt 2 is the industry's leading battery powered remote temperature monitoring solution. Cobalt 2 is an end-toend wireless solution for remote temperature and sensor monitoring.

The Cobalt 2 system is easy to install and easy to use. Since it is wireless, no cabling is required. It lets you measure storage temperatures for temperature-sensitive products accurately, remotely and in real-time. Cobalt 2 checks temperature automatically, stores temperature data for tracking and traceability purposes, and alerts you in case anomalies are detected.

Cobalt collects and stores temperature data at regular intervals, transmitting it wirelessly to a PC running the system management software. This software also handles alarms and data storage, giving you a fast and easy way to see all your measurements and anomalies in just a few clicks.



- FCC 15 compliant: CE EN-300-220
- Channel width: 50 kHz
- Frequency deflection: 16 KHz
- Transmission speed: 9600 Baud in NRZ mode
- Modulation type: GFSK
- Driven receiver sensitivity for BER= 1%: from -107dbm to -110 dbm
- · Driven transmission: from 8 dbm to 10 dbm
- Power output: 25 mW

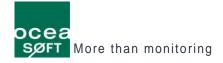
Plastic enclosure: ABS and Polycarbonate

Temperature range for exposure of the module (functioning of the electronics of the radio module): 0°C to 50°C (32° to 122°F). 0 to 90% RH non-condensing.

Protection index: IP65.

Depending on usage, battery change may be required between 1 and 3 years of operation. Cobalt notifies you approximately two months before the end of battery life (when 10% battery life remains). You may change your own batteries or have it done by OCEASOFT or another qualified technician.

Size: 132.74 x 64.15 x 34 mm (5.2 x 2.5 x 1.3 in) Weight: 150 g (5.3 oz)



### APPLICATIONS

Module with internal probe used for monitoring ambient temperature.

#### WIRELESS

Range up to 700 meters (2,300 ft) in open space, from 25 meters (82 ft) to 100 meters (330 ft) indoors, and up to 400 meters (1,312 ft) indoors with 3 repeaters.

### DATA LOGGING

Storage for 3,000 temperature measurements in wireless module memory (equivalent to 3 weeks of readings with a measurement every 10 minutes).

## SERVICE DISCOVERY

Cobalt 2 setup is automatic. Simply press the button on the Cobalt 2 module for 3 seconds to connect it with your wireless receiver. If the wireless signal is not optimal, Cobalt 2 seeks a better path by using other Cobalt modules to relay its signal to the receiver.

(starting with Thermo-Server software Version 4.1)

## Large LCD Display



Alarm icon
Battery level indicator
Performance indicator: wireless range (RSSI)
CONT Most recent temperature reading
DRTFLOGGER
Display text: this customizable text shows the sensor name, as well as various alert messages, such as "Sensor Fail", "Low Bat", "High Value", etc.

### Spontaneous alarm emission

Cobalt 2 sends an alarm to the Thermo-Server software, which forwards alerts to the appropriate user(s) in case values exceed pre-determined upper or lower limits. Cobalt 2 can also send spontaneous alarms with additional information:

- Sensor failure: For example, if a probe is disconnected, Cobalt attempts to establish communication with its sensor. If connection is not possible, a technical alarm is sent. The user is therefore notified immediately if there is a problem obtaining readings.
- Low battery: When the battery-life counter reaches 10%, a technical alarm is automatically sent to let the user know that the battery needs to be changed soon.

# INTERNAL PROBE SPECIFICATION

### Range of temperatures measured: from +10°C to +50°C (50°F to 122°F)

Probe type: built-in probe with unique serial number

Measurement uncertainty: 0.5°C

Resolution: 0.0625°C

Response time: 4 min (90% of 20°C variation)

**Calibration certificate**: calibration available upon request; laboratory certified in compliance with NF EN ISO/CEI 17025 Calibration of probe only in comparison to a 1-point reference standard: 23°C

Protection index: IP65

ING-ENR-090926-01 V 1.2

Following a short press on the

green button, Cobalt 2 reads

the sensor immediately. On

as temperature/humidity

sensors, the temperature

reading on the first sensor is

the button again to read the

Digital technology sensor is

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www.oceasoft.com

insensitive to interference thanks to the use of errorcorrecting code and CRC

second sensor.

(checksum).

displayed for 3 seconds. Press

devices with two sensors, such

OCEASOFT Bat 4, Parc club du Millénaire – 1025 rue Henri Becquerel 34000 Montpellier, France www.oceasoft.com info@oceasoft.com

