COBALT 2 Professional wireless monitoring

4-20 Milliamp Loop

APPLICATIONS

Module and probe used for monitoring 4-20 milliamp loops.

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

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

SERVICE DISCOVERY PROTOCOL (SDP)

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)

- **Measured current range**: from 4 to 20 milliamps.
- **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 double-sided Velcro® 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 standard 4 – 20 mA output devices

Cobalt 2 is the industry's leading battery powered remote temperature monitoring solution. Cobalt 2 is an end-to-end 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.

This module is designed to manage any type of sensor delivering a 4-20mA output current. The module does not supply current to the sensor. Any current higher than 20 mA or lower than 3.9 mA generates a measurement error.

Cobalt collects and stores current measurement 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)

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ON-DEMAND TEMPERATURE READING

Following a short press on the green button, Cobalt 2 reads the sensor immediately. On devices with two sensors, such as temperature/humidity sensors, the temperature reading on the first sensor is displayed for 3 seconds. Press the button again to read the second sensor.

FIND OUT MORE

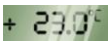
Get more information on any of our products or services by visiting our Web site: www.oceasoft.com

Large LCD Display

 Alarm icon

 Battery level indicator

 Performance indicator: wireless range (RSSI)

 Most recent value reading

 Display text: this customizable text shows the sensor name, as well as various alert messages, such as “Sensor Fail”, “Low Bat”, “High Value” and Unit.

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.

4-20 milliamp loops

Units and range customizable by user

User can easily adjust parameters via software:

- Unit to be displayed on the LCD (4 characters)
- Lowest value
- Highest value
- Fine-tune adjustment with linear correction parameters
- Resolution: 25 µA

Active loop

Cobalt 2 input: 2 wires (signal, ground)

Cobalt 2 4-20 milliamps requires:

- Active loop with 4-20 milliamp output
- Insulated signal transmitter (non-insulated may damage the wireless module)

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