



## Datalog X-PRO 2.0

### INTERNET OF THINGS MULTI-SENSOR WIRELESS DEVICE

For LoRaWAN™ and Sigfox Networks

#### Description

Remote monitoring device for use in fields of application such as cold chain, industry, precision agriculture, climate monitoring, early warning systems, and water quality, among others; thanks to its ports for up to three (3) sensors. It is offered with WEB IoT platform support for variable monitoring.

## FEATURES

#### General

- Ports for three sensors.
- LoRaWAN and Sigfox wireless transmission module.
- Rechargeable Li-Ion Battery.
- Stores the last 140 sent messages for sync after the loss of network coverage.
- Can be configured remotely
- IP67 Protection.

#### Visualization

Web App interface for visualization of:

- Current measurements.
- Remote configuration of parameters, such as alarm limits, among others.
- Graphic record of each variable for up to 2 years.

#### Alarms

- Remotely displays alarms on WEB or mobile application.
- External alarms sent by SMS, e-mail, voicemail, Telegram messaging service, or via webhooks.

## ORDERING INFORMATION

<b>P/N: X-PRO2.0 USA</b>	Datalog X-PRO 2.0 Sigfox/LoRaWan USA / LATAM / AU
<b>P/N: X-PRO2.0 EU</b>	Datalog X-PRO 2.0 Sigfox/LoRaWan EU

## POWER REQUIREMENTS

Parameter	Specifications	Value	Units
DC supply voltage	--	12 - 24	V
Max. Electric current	@12V DC	0.5	A
Max. current without sensors	In Tx Mode and Charging the Internal Battery	130	mA
Standby current	The device reads sensors every minute and enters Sleep Mode.	8	mA
Power Rating with sensors	@12V DC	6	W
Average Power consumption (No sensors and fully recharged battery)	@12V DC	0.12	W

Can be powered by an AC/DC adapter\*, or by a solar panel of 12V

\*details of the electric parameters of the AC/DC adapter can be found in the user's manual.

### Battery Ratings

Battery Ratings			
Model	DTP563567		
Type	Li-Ion		
Rated capacity	--	1500	mAh
Nominal voltage	--	3.7	V

## Standards in compliance

Standard	Description
<b>EMC (Electromagnetic Compatibility)</b>	47 CFR Part 15B / ICES-003 Issue 6
<b>EMC (Electromagnetic Compatibility)</b>	EN 301 489-1 + EN 301 489-3
<b>Sigfox RF testing</b>	EN 300 220-1 + EN 300 220-2
<b>LoRa RF testing</b>	EN 300 220-1 + EN 300 220-2
<b>RF exposure safety</b>	EN 62311:2020
<b>Electrical safety</b>	EN 62368-1

## RECOMMENDED OPERATING CONDITIONS

Operating Conditions	Value	Units
Storage Temperature	20 (68) – 45 (113)	°C (°F)
Storage Humidity	60±25	% R.H.
Ambient Temperature	5 (41) – 40 (104)	°C (°F)
Ambient Humidity	Up to 100	% R.H.
Standards	Protection Type	
IEC standard 60529/ EN 60529	<p><b>IP67.</b></p> <p>No ingress of dust; complete protection against contact (dust tight). No water ingress when submerged up to a depth of 1 meter for 30 minutes.</p> <p><b>Suitable for indoor/outdoor use.</b></p>	
UL94-V0	UL94-V0 plastic for high flammability rating (most flame retardant).	

## WIRELESS COMMUNICATION SPECIFICATIONS

Device Type	Standard	Note
X-PRO2.0 USA	Sigfox, RC2 902 - 905Mhz / RC4 920 - 923Mhz, 22dBm ERP LoRaWAN, US902-928, AU915-928	Zone 2 (USA, Mexico, Brazil) and Zone 4 (Latin America, Australia).
X-PRO2.0 EU	Sigfox, RC1 868MHz LoRaWAN, EU863-870	Zone 1 (Europe).

## SENSOR TYPES SUPPORTED BY THE DATALOG X-PRO

There are more than 60 different sensors that the user can connect to the **Datalog X-PRO**. **One device can receive up to three different sensors** communicating with the main unit through their sensor interfaces

**NOTE:**

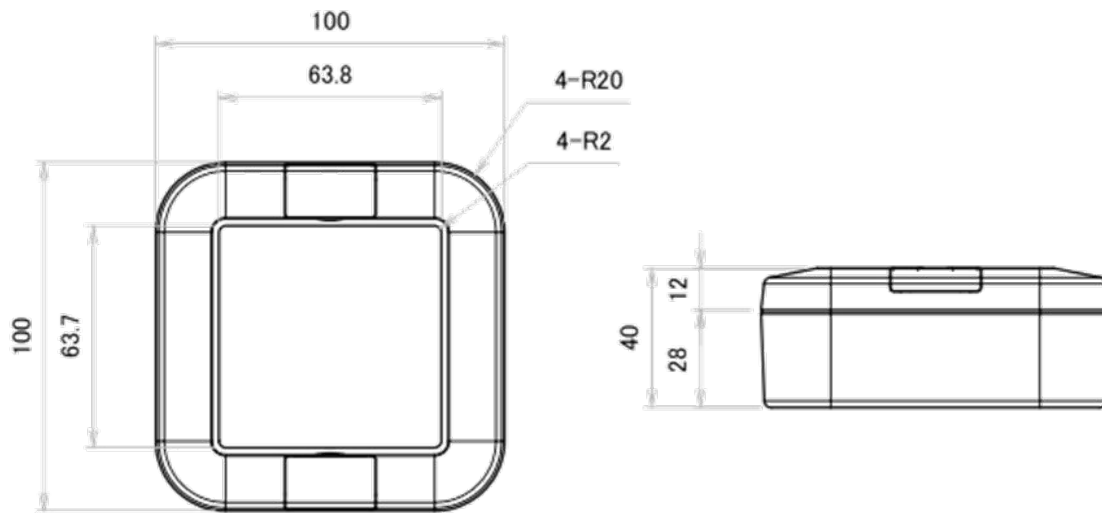
**Other types of sensors can be ordered, for more information on sensor customization please contact us.**

**The sensors selected can be used to measure multiple and different variables** and be implemented in **different use cases**. Shown below is a list of possible applications; related to sensors for different variables:

Purpose	Related Sensors
Measurement of industrial Signals: <b>Industrial Applications</b>	<ul style="list-style-type: none"> <li>→ Temperature and humidity.</li> <li>→ Pressure and flow.</li> <li>→ Analog Signals: 4-20 mA / 0-10 V for different types of sensors and transmitters.</li> <li>→ Digital Modbus RTU signals.</li> <li>→ CO, CO2, O2, transmitters.</li> <li>→ Digital (dry contact signals).</li> </ul>
Security monitoring in private spaces: which require <b>presence sensors, smoke sensors, or door or window opening sensors.</b>	<ul style="list-style-type: none"> <li>→ Temperature + Humidity + Pressure.</li> <li>→ Luminosity.</li> <li>→ Presence - PIR (Digital Signal).</li> <li>→ Smoke Sensor (Relay Output).</li> <li>→ Air Quality Sensors: CO, SO2, NO2.</li> </ul>
Measurement of variables in <b>early warning systems.</b>	<ul style="list-style-type: none"> <li>→ Ultrasound or radar distance sensors (0 to 30 meters).</li> <li>→ Air Quality Sensors: CO, CO2, SO2, NO2.</li> <li>→ PM 1.0, PM 2.5, and PM 10.</li> </ul>

Purpose	Related Sensors
Measurement of meteorological variables: <b>in weather stations and Precision Agriculture</b>	<ul style="list-style-type: none"> <li>→ Temperature, Humidity, and Pressure.</li> <li>→ Luminosity and UV Radiation.</li> <li>→ Rain gauge.</li> <li>→ Wind Speed and Wind direction.</li> <li>→ Temperature, PH, Soil Moisture.</li> <li>→ 7 in 1 Weather station.</li> </ul>
Measurement of water Quality: in <b>fish farms and water treatment plants</b>	<ul style="list-style-type: none"> <li>→ Dissolved Oxygen.</li> <li>→ Temperature.</li> <li>→ PH.</li> <li>→ Ions: NO3, NH4, CL-, Na+ K+.</li> <li>→ Water Turbidity.</li> </ul>

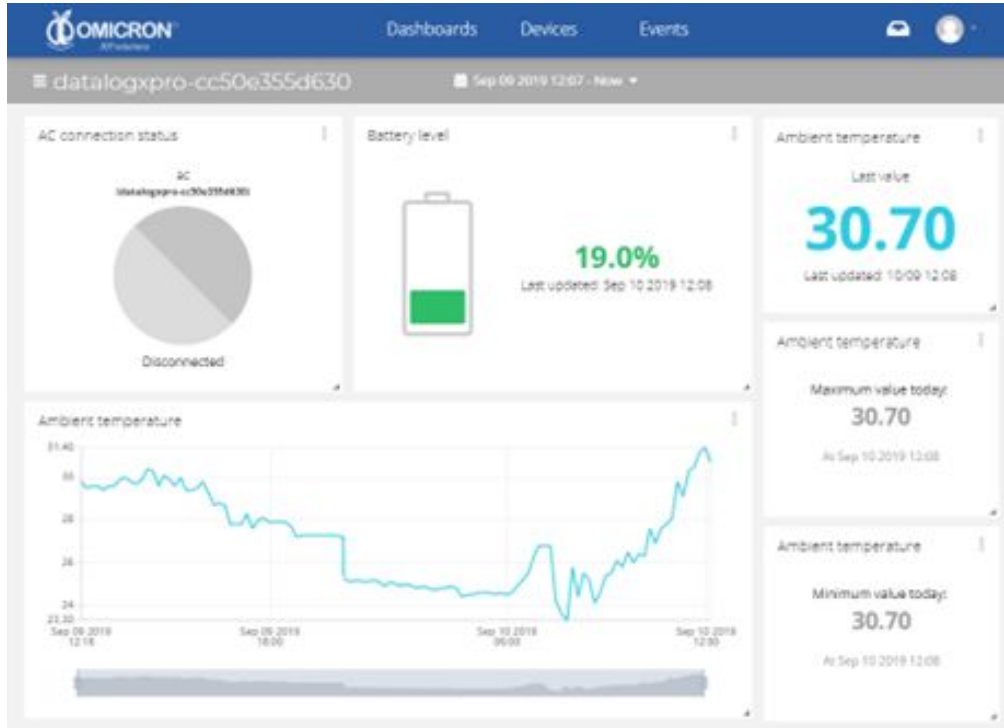
## DIMENSIONS



Dimensions in mm. Enclosure molded from resistant ABS material.

**Total weight:** 230g, without accessories and sensors attached.

## WEB PLATFORM AND SERVICES



**Datalog X-PRO devices are offered with the IoT Centriomega® WEB monitoring platform.**

Users can access the Omicron platform via PC, Smartphone, or Tablet, to perform:

- ✓ Remote monitoring and visualization of sensor's variable records, in graphs and data tables, for up to 2 years.
- ✓ Remote configuration of the device parameters.
- ✓ Alarm management for variables out of range, battery levels, and AC power failure.
- ✓ Add comments to records.
- ✓ Set alarm limits, alarm events, and notifications via email, SMS, voicemail, Telegram messaging service, or webhooks.