

# Datalog X-PRO

## INTERNET OF THINGS MULTI-SENSOR WIRELESS DEVICE



### Description

Designed for remote monitoring in multiple fields, such as Cold Chains, Tracking, Agriculture, or Smart Cities; thanks to its ports for up to three (3) sensors. Offered with WEB platform support.

### General Features

- Ports for three sensors.
- Wi-Fi®, Sigfox wireless transmission modules.
- Rechargeable Li-Ion Battery.

### Visualization

Web App interface for visualization of:

- Current measurements.
- Alarm limits configuration, among other parameters.
- 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 or Telegram messaging service.

### Contact Information

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### Ordering Information

<b>X-PRO1.0</b>	Datalog X PRO 1.0 main unit with in-built Accelerometer. Inbuilt WiFi 802.11/ 2.4GHz. Module for Sigfox, RC2 902 905Mhz / RC4 920 -923Mhz, 22dBm ERP transmission.
<b>DIG_DIY1</b>	Sensor interface for two inputs: dry contact, switch, or digital 1/0.
<b>ANA_420mA</b>	Sensor Interface for 4..20mA Analog Signal.
<b>ANA-010V</b>	Sensor Interface for 0-10V Analog Singal
<b>DIG-TEMP1</b>	Digital Sensor for temperature.
<b>DIG-TH1</b>	Digital Sensor for Temperature and Humidity.
<b>DIG-THP1</b>	Digital Sensor for Temperature, Humidity and Atmospheric Pressure.
<b>DIG-LUX1</b>	Digital Light Sensor
<b>DIG-MOB485</b>	Digital interface for Modbus RTU

## POWER REQUIREMENTS

Parameter	Type	Value	Units
Power Adapter	5.08 mm screw terminals	--	--
Max. Electric Current	--	0.5	A
DC Voltage	--	6 to 24	V
Battery Ratings			
Type	Li-Po		
Electric Current	--	1800	mAh
Nominal Voltage	--	3.7	V

## RECOMMENDED OPERATING CONDITIONS

Operating Conditions	Value	Units
Storage Temperature	50 (20) – 113 (45)	°F (°C)
Storage Humidity	Up to 100	% R.H./Non-Condensable
Ambient Temperature	41°F – 104°F (5°C to 40 °C)	°F (°C)
Ambient Humidity	Up to 100	% R.H./Non-Condensable
Standard	Protection Type	
IEC standard 60529/ EN 60529	<p><b>IP67.</b>                      No ingress of dust; complete protection against contact (dust tight). No ingress of water when submerged up to a depth of 1 meter for 30 minutes.  <b>Suitable for indoor/outdoor use.</b></p>	

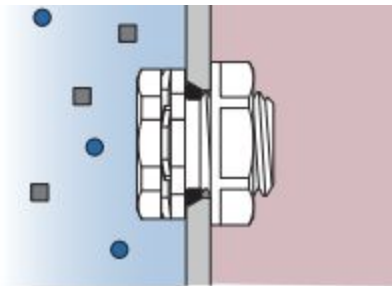
## WIRELESS SPECS

Device Type	Standard	Note
Wi-Fi®	Wi-Fi® (IEEE 802.11) 2.4 GHz. WPA2 encryption.	Stores configuration data for up to 3 networks.
Sigfox	Sigfox, RC2 902 – 905Mhz / RC4 920 -923Mhz, 22dBm ERP	Zone 2 (USA, Mexico) and Zone 4 (Latin America).

## PROTECTIVE VENT

The user can order **Datalog X-PRO** with a protective vent accessory (**P/N PFM-12**) if plans to use the device in harsh environmental conditions.

- The protective vent prevents ingress of a variety of contaminants, such as water, dust and other particles while allowing water vapor molecules to diffuse through its microporous membrane.
- The vent equalizes pressure and reduces condensation by allowing air to flow in and out of the sealed enclosures.
- The protective vent has IP68 protection class (submerged in water 2m/60min) and -40°C ~ +125°C operating temperature range.



## SENSOR TYPES SUPPORTED BY DATALOG X PRO

Sensor Interfaces for Datalog X PRO can be programmed to receive sensors that communicate through the types of signals listed below. This list should not be taken as invariable; sensors with many other types of communication can be supported as well.

Digital	Analog
I <sup>2</sup> C	0-10V DC
1-Wire	0-5V DC
Binary (dry-contact, switches)	4-20 mA
Modbus RTU(RS485)	....

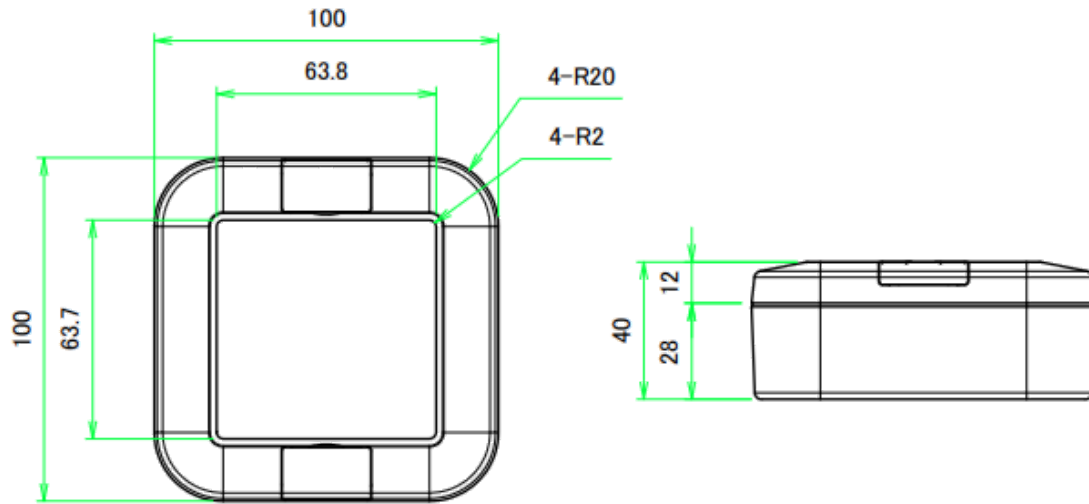
Other sensor types can be ordered, for more information, please contact the manufacturer.

## POSSIBLE APPLICATIONS AND SENSORS FOR DATALOG X-PRO

Datalog X-PRO is enabled to receive up to 3 sensors. Internally it could have up to three(3) programmable interfaces to receive external digital or analog sensors of the multiple indicated types, which follow the specifications and requirements listed by Datalog X-PRO manufacturer (more information on this subject can be found in the Sensors Guide on Datalog X PRO User Manual). Below are presented possible applications for some groups of sensors that the device can be set to receive.

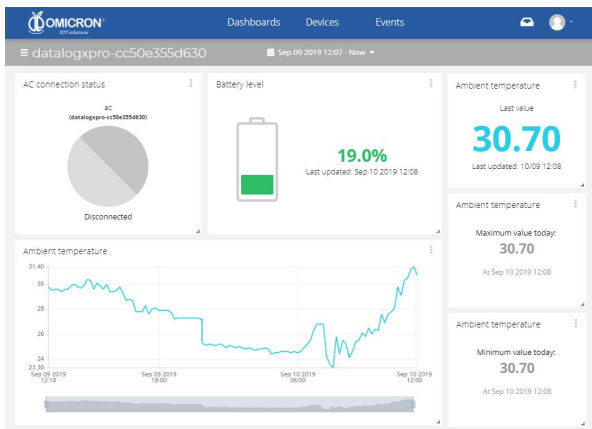
Purpose	Related Sensors
<p>Measurement of industrial Signals: <b>Industrial Applications</b></p>	<ul style="list-style-type: none"> <li>✓ Temperature and humidity               <ul style="list-style-type: none"> <li>✓ Pressure</li> <li>✓ Flow</li> </ul> </li> <li>✓ Analog Signals: 4 to 20 mA /0 to 10VDC for different types of sensors and transmitters.               <ul style="list-style-type: none"> <li>✓ Digital Modbus RTU signals.</li> <li>✓ CO, CO2, O2 transmitters.</li> <li>✓ Digital (Dry Contact Signals)</li> </ul> </li> </ul>
<p>Security monitoring in private spaces: which require <b>presence sensors, smoke sensors, or door or window opening sensors.</b></p>	<ul style="list-style-type: none"> <li>✓ Temperature + Humidity + Pressure               <ul style="list-style-type: none"> <li>✓ Luminosity</li> </ul> </li> <li>✓ Presence - PIR (Digital Signal).</li> <li>✓ Smoke Sensor (Relay Output)</li> </ul>
<p>Measurement of variables in <b>early warning systems.</b></p>	<ul style="list-style-type: none"> <li>✓ Ultrasound (0 to 10VDC or 4 to 20mA Sensor), for solids and liquids</li> <li>✓ Gas sensors (4 to 20mA Sensors)               <ul style="list-style-type: none"> <li>✓ Pluviometer</li> <li>✓ Wind vane</li> <li>✓ Anemometer</li> </ul> </li> </ul>
<p>Measurement of meteorological variables: in <b>weather stations and Precision Agriculture</b></p>	<ul style="list-style-type: none"> <li>✓ Temperature + Humidity + Pressure               <ul style="list-style-type: none"> <li>✓ Luminosity</li> <li>✓ PAR Radiation</li> <li>✓ Soil Humidity</li> <li>✓ Soil Temperature</li> <li>✓ Soil E. Conductivity</li> </ul> </li> </ul>

## DIMENSIONS



Dimensions in mm. Enclosure molded from resistant ABS material.  
**Weight:** 220g, without accessories.

## WEB PLATFORM AND SERVICES



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

Users can access Centriomega® platform, via PC, Smartphone, or Tablet, to perform:

- ✓ Remote monitoring and visualization of sensor's variable records, in graphs and data tables, from up to 2 years.
- ✓ Alarm management for variables out of range, battery levels and AC power fails.
- ✓ Add comments to records.
- ✓ Set alarm limits, among other custom settings like sensors' names.
- ✓ Set alarm events such as e-mail or SMS notifications.