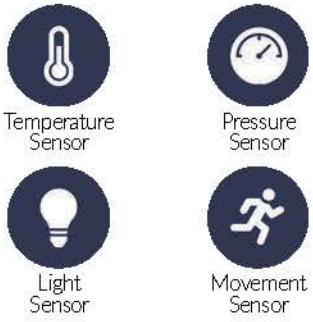
RockBLOCK Sense

Global, low-latency variable IoT sensing using satellite connectivity

iridium connected



Note: example uses

The RockBLOCK Sense facilitates satellite connectivity and backhaul of remote IoT sensor data (such as temperature, pressure, light, movement, flow) via classic IoT voltage and current-sensing input. It provides a means of taking variable measurements from sensors in remote, hard to reach places, with limited power sources or connectivity, and transmitting the data back to a base of your choosing.

If the unit sends values every five minutes, it consumes just 500mW. Lowering that to every hour reduces the power consumption to 380mW, providing a reliable, cost-effective means of data transfer. Using the Iridium Short Burst Data (SBD) service providing low latency coverage globally over the Iridium LEO satellite network. RockBLOCK Sense ensures your IoT sensor data can be reliably consumed anywhere with a clear view of the sky.

Key Features

- **IO Capability**
  1 open drain output (30V open, 100mA closed)
  2 digital inputs (dry contact - 300uA wetting)
  1 Analogue input configurable as either 0-10V or 4-20mA
- **Global Satellite Transmission**
  Iridium's reputable LEO satellite network provides low latency data transmission with global coverage
- **Simplicity and Ease**
  Utilizing Ground Control's leading IoT management platform Cloudloop, or our API, for remote data, device and IoT system management

Physical & Environmental

Size	137mm D x 40mm H
Weight	550g (including 3m cabling)
Operating Temperature	-40C to +85C
Antenna	Internal Iridium
Modem	Iridium SBD transceiver
Form Factor	Waterproof casing
Ingress Rating	IP68
EMC Compliance Certification	CE & FCC

Showing RockBLOCK Sense powered by a combination of Lithium-based cell and supporting solar panel for Arctic location

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Compute Module

Processor	ARM Cortex M3, 100MHz
Memory	64kB RAM, 256kB Flash
Configuration	Wireless configuration using a smartphone app via BLE. Remote configuration via Cloudloop Device Manager or integrated API

Electrical / Power

Voltage Required	8-32V DC
Power Consumption	Unit sending values every 5 minutes is 500mW. Sending values every hour lowers the power to 380mW
Peak Current Draw	700mA at 12V

Communications

Iridium Network	Iridium SBD Service
WAN	SBD
Bluetooth	BLE 5.0
Serial	Serial comms option (RS232 or RS485) connected via 8 way cable
Cloudloop Device Manager	For remote management, device update and configuration of the RockBLOCK Sense or integrate into your own IoT system with our simplified APIs

Supporting RockBLOCK Sense

Mounting Options	Two options available to purchase: Rokk or flat steel mount
Cable Length	Available in 3, 5, 10 & 15m cable lengths

Please select cable length and preferred serial communications at purchase

Related Products

RockBLOCK Switch	Global satellite connectivity in a compact, waterproof, low power, lightweight, satellite IoT device - providing input/output representing on/off or binary switch capabilities
RockBLOCK Plus	Contained in protective, ruggedized casing, RockBLOCK Plus offers global satellite connectivity for low speed serial data connections