

CAPTIS SOLAR.

Log and send data more frequently or extend your Captis battery life with the Captis Solar

www.miot.com.au



The Captis cellular data logger opens up a new world of IoT connectivity and remote data logging

The Captis device has been developed to fill various measurement requirements across a broad range of applications and remote locations.

Captis is designed to measure a range of parameters; be small in size; run for extended periods of time on a single battery; and have connection across cellular networks including CAT M1 and NB-IoT.

The Captis Solar requires an external antenna, not included. We have provided a list of approved antennas that are tried and tested with the Captis device, however if you intend to use an antenna not listed, please contact our team to check compatibility with the Captis Solar device.

Captis Features

Features

- Cellular connected (CAT M1, NB-IOT)
- Embedded SIM card
- Remotely configurable over the air; recording interval, offset, scaling, factor and send interval
- Device and Cellular module upgrade over the air (FOTA)
- Measure and monitor various inputs and broken wire sensor
- 2 different inputs can run simultaneously
- No external power or data connection required
- Low profile for unobtrusive installation
- Expected battery life of 5+ years
- Replaceable battery
- Low Cost: Short payback. Fraction of the cost of alternative solutions
- Reduces manual reading
- Designed & Assembled in Australia

Security Features

- Firmware Upgrades
- Over the air firmware downloads over SSL
- AES encrypted firmware image file
- Data transferred over encrypted connection, SSL/TLS
- Physical device tamper detect
- Data Storage
- Non-removable data storage
- Hardware encryption of parameters and credentials

Alarming/Fast Logging

The mIoT Captis has on board capabilities for handling process alarms and higher resolution logging, based on measured process values. This feature ensures that critical alarm conditions are never missed and users are informed immediately

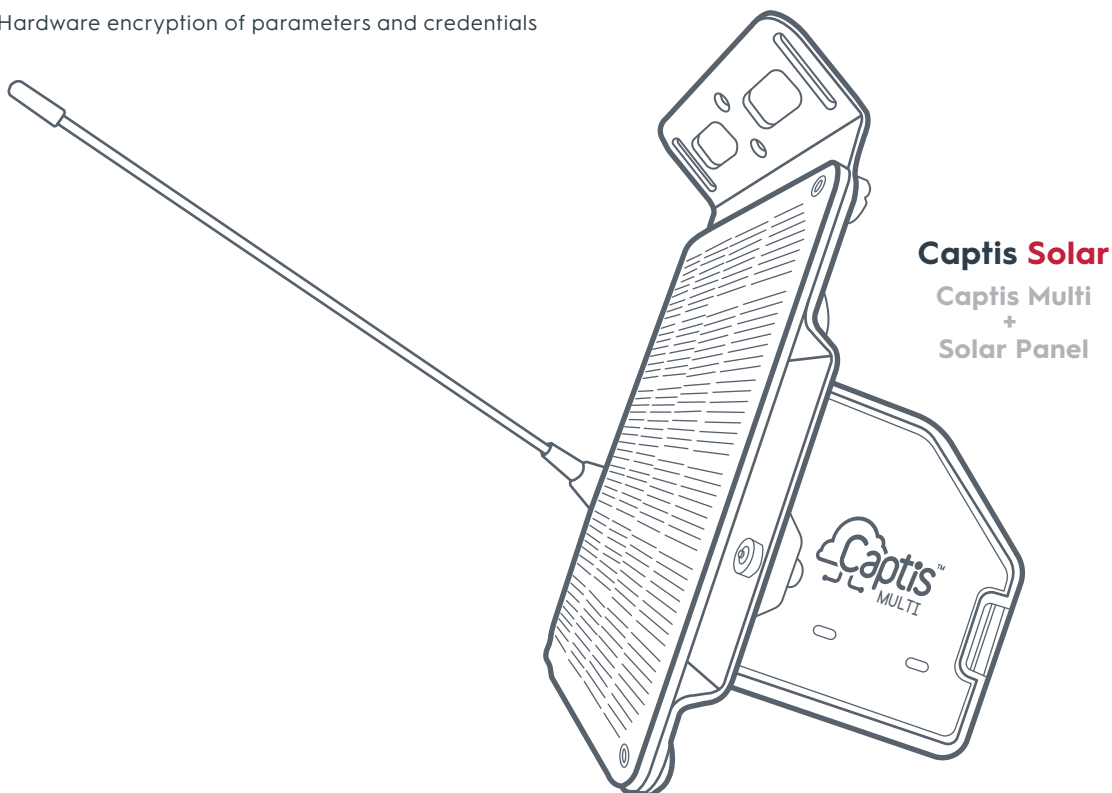
Fast Log/Send

The “fast log” feature provides higher resolution data logging based on certain alarm conditions. The Captis will swap the normal log interval and send interval to a second set of higher frequency logging and sending intervals on a configurable alarm value - returning to the normal logging interval and send interval when that state has cleared.

Process Alarms

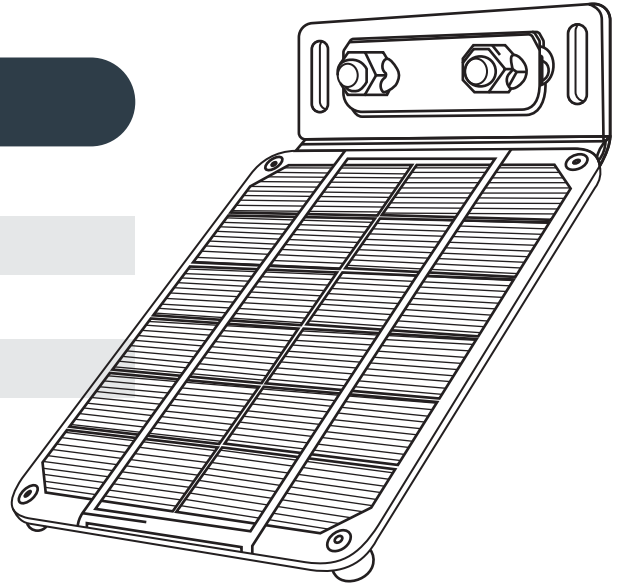
The alarms will trigger based on the process data values at the time of logging, the alarm trigger contains a setpoint and a hysteresis value. The alarming can happen on process values above the setpoint+hysteresis or below setpoint-hysteresis, or on both conditions.

Connection can be made to the client’s selected platform on an alarm state, where the SMS and email alert functionality can be actioned.



Captis Solar Specifications

IP Rating	IP67
UV Resistance	10+ Years
Monocrystalline Cells	19%
Unit Dimension	13.6 x 11.2 x 0.5 cm
Unit Weight	99g



Captis Multi Specifications

Battery Voltage	3.6V
Battery Type	"D" Size Lithium
Battery Life	5 years*
Digital Inputs	2
Digital Outputs	1
Analogue Inputs	1
Serial Input	RS232/RS485
1-Wire Channel	2
Sensor Power Output	5VDC
Protocols	MQTT, MQTTS, CSV
Platform Supported	Cumulocity and others
GPS	Yes
Unit Dimensions	105.5 x 75 x 50.5 mm
Antenna	External****
Minimum Cable Bend Radius	85 mm
IP Rating	IP 68***
Measurements - Max	1 per minute**
Send Intervals - Max	1 per 10 minutes**

Inputs

Digital Inputs: operates in low power mode. Can be set to Pulse (up to 500Hz) or Switch input type and configured Normally Open and Normally closed situations

Digital Output: 48VDC max, 1.0 A Max, passive output (voltage free switch)

5V Out (Sensor power): the 5VDC is only active during Measurement. There is a configurable sensor boot time between power on and measurement taken. Max 5VDC current draw is 100mA

Analogue In (0-2.5V): connects to the output of the analogue sensor.

Serial: connects to sensors that have Modbus RTU (RS232/485) outputs.

One Wire Sensor: connects to a range of one wire sensors such as Temperature, Humidity, Ultrasonic Level

Power Modes

The Captis has several power modes during operation:

Sleep: 7 - 20µA: Pulse 1 input remains operational.

Measure: 10 to 20mA, wake occurs at the beginning of every logging interval.

Send: 0 - 500mA - Unit wakes for transfer of data to the cloud platform.

* Dependent on environmental cellular network and log and send frequency

** Has direct impact on battery life

*** Capable of constant submersion to 1.5m for 24 hours for both Internal and External antenna variants, however, internal antenna devices will not be able to transmit due to signal attenuation when submerged.

**** Not Supplied - please purchase separately.

Applications

Agriculture

Tank/dam level monitoring; Temperature/humidity; Weather stations; Soil moisture; Rain gauges; Weight scale interfaces; Water metering

Environment

Weather stations; Air quality; Temperature/humidity; Dust monitoring

Rail

Ambient temperature; Weather stations; Rail temperature

Mining

Environmental monitoring; Condition monitoring

Smart Cities

Unauthorised entry; Water metering; Drain levels; Noise levels; Environmental monitoring; Temperature/humidity

Oil & Gas

Cathodic protection monitoring; Tank level monitoring; Door/gate entry; Pipeline pressure monitoring

Water/Wastewater

Water metering; Sewer riser monitoring; Pipeline pressure monitoring; Flow monitoring; Water Quality (pH, turbidity, conductivity, chlorine); Tank/dam level monitoring

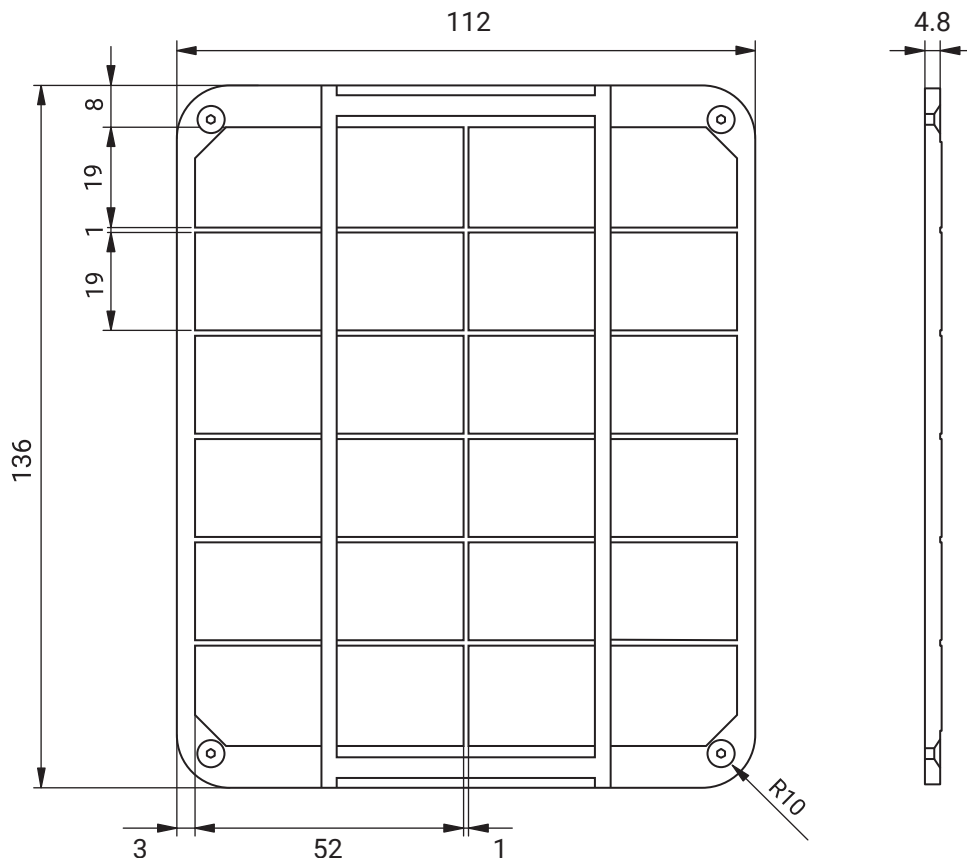
Intelligent Transport Systems

Ambient temperature/humidity; Sump/drain levels; Waterway levels

Infrastructure

Vibration monitoring

Dimensions



GET IN TOUCH.

mIoT strives to stay on the edge of accessible portable and comprehensive IoT data logging technology, so that we may provide our clients with the best solution to meet their needs.

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