SigSense

Telemetry for non-urban water metering made simple

Approved Datalogging and Telemetry devices under the NSW non-urban Water Metering Framework.

- Guaranteed for 5000 transmissions / 5 years
- Only approved LID operating on the low-cost ultra-high coverage Telstra NB-IoT network
- Suitable for outdoor installation
- Shipped pre-configured and tested to meet specific meter configuration
- IP68 rated enclosure
- External aerial to maximize range (sold separately)

Captis Multi 1.2

GOOD DESIGN AWARD® GOLD WINNER

AUSTRALIAN MADE

With multiple industry standard sensor interfaces, connect the appropriate sensor for your use case and receive valuable insights into your assets and infrastructure.

Compatible pattern approved meters:
Aquamaster3; Siemens MAG 8000CT; Euromag MUT 2200 EL; Rubicon Sonaray Pipe Meter; Krohne Waterflux 3070; Aquamonix / Pentair I500; Arad Octave; ABB AquaMaster4 Krohne Optiflux 2300C; Siemens MAG5100W; Arad WSTsb; Sensus WP-Dynamic

Find your local Duly Qualified Person (DQP) supplier here

www.sigsense.com.au/where-to-buy

Captis Multi 1.2

Features

- Sensor agnostic: connect to most off-the-shelf sensor to the industry standard interfaces and protocols
- Run all inputs simultaneously
- Supported Connectivity: LTE (CAT-M1, NBIoT)
- Embedded SIM
- Encrypted configuration over-the-air (COTA)
- Encrypted firmware upgrades over-the-air (FOTA)
- Secure firmware downloads
- Data transferred over encrypted connection (SSL/TLS)
- Physical tamper notification
- Onboard data storage
- IP68 rated
- Battery powered
- Designed and manufactured in Australia
- Edge processing for on-demand alarming

Edge Processing

Alarming/Fast Logging

The Captis Multi 1.2 has on board capabilities for handling process alarms and higher resolution logging and sending, based on measured values. This feature ensures that critical alarm conditions are never missed and users are informed.

Fast Log/Send

The "fast log" feature enables higher resolution data logging and sending, triggered by exception alarming at the device. The Captis Multi 1.2 will swap the default log and send interval to a second set of higher frequency logging and sending intervals on a configurable alarm value - returning to the default log interval and send interval when the alarm state has cleared.
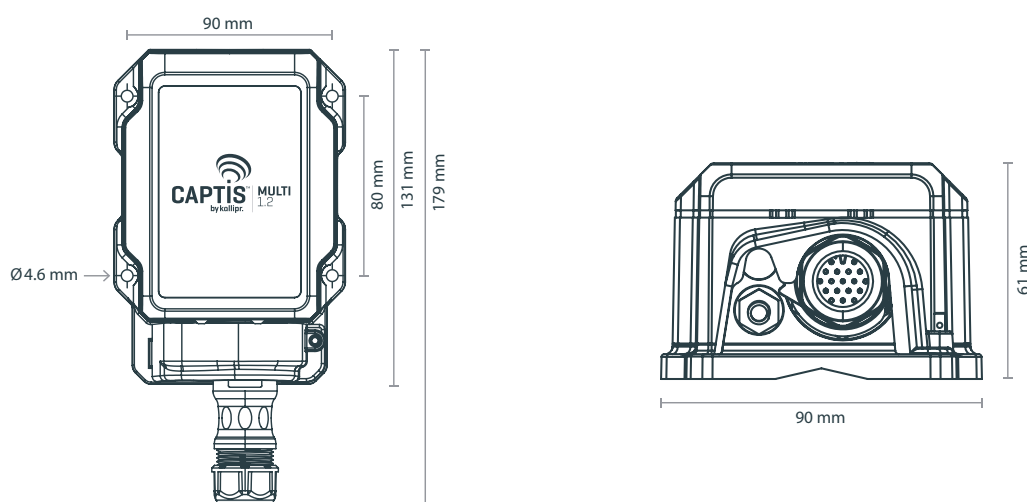
Process Alarms

Alarms will trigger based on the processed 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.

Cable Cut Loopback Detection

The Captis Multi 1.2 supports a loopback cable cut detection if required for identifying physical tamper. It is recommended that the tamper loop is as close as possible to the sensor to ensure the cable cut functionality is effective.
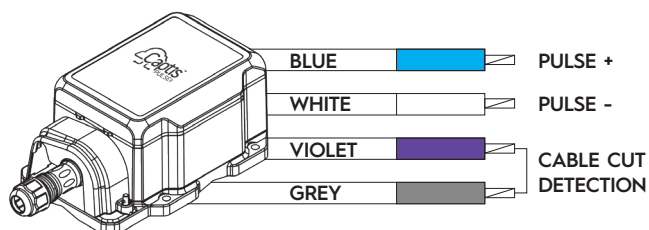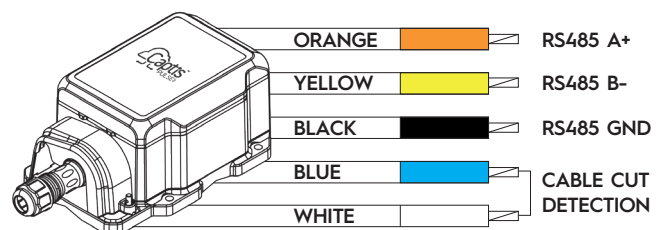
Dimensions

Specifications

Battery Voltage	3.6V
Battery Capacity	19000 mA
Battery Type	Non-Rechargeable LiSoCl$_2$
Product Warranty	5 years / 5,000 transmissions
Digital Inputs (2)	Active and Passive Switch and Pulse Modes: -48v to 48v Max Pulse Rate: 1000Hz
Digital Outputs	Solid State Relay, max 24V 0.5A
Analog Input 1	0-10VDC
Analog Input 2	4-20mA
Serial Input	RS232/RS485, Modbus RTU
1-Wire Channel	Temperature/Humidity Sensors
Sensor Power Output 1	5VDC, 100mA
Sensor Power Output 2	12A VDC, 40mA
Protocols	MQTT
Certification	RoHS, RCM
Platform Supported	Out of the box integration with SAG's Cumulocity and Microsoft Azure
LTE Antenna	Built-in internal antenna, external antenna capability (auto-swtich for best signal strength, external antenna not included)
IP Rating	IP68
Log Interval - Min	10 seconds
Send Interval - Min	5 minutes
Operating Temperature	-20° to 70°C
Unit Dimensions	131 x 90 x 61 (LxWXD) w/connector 179mm (L)

Installation

How to connect a Captis Multi 1.2 to a Pulse Meter

BLUE	PULSE +
WHITE	PULSE -
VIOLET	CABLE CUT DETECTION
GREY	

How to connect a Captis Multi 1.2 to a Modbus Meter

ORANGE	RS485 A+
YELLOW	RS485 B-
BLACK	RS485 GND
BLUE	CABLE CUT DETECTION
WHITE	

Captis LED Behaviour

SYMPTOM	MEANING	ACTION
STATUS x20	Device is on / awake.	Device is working as it should, leave device to collect data.
CELLULAR Solid	Device connected to LTE network.	Device is working as it should, leave device to collect data.
STATUS No LED Status	The device battery may be depleted, or a device fault may have occurred.	The device battery may be depleted, or a device fault may have occurred.
STATUS x2 long + x1 short	Module Not Booting Up	Check network provider coverage map to ensure the site is covered by the LTE-M or NBIoT cellular network. If the area is covered, and the device cannot connect, contact the supplier.
STATUS x2 long + x8 short	No Cellular Registration	Return the device to the supplier if the issue persists.
STATUS x2 long + x2 short	Low battery	TBA

RSRP

Signal Quality		RSSI	SINR (dB)	RSRQ (dB)	RSRP (dB)	SC/Io (dB)
	Technology	LTE and 3G	LTE Only	LTE Only	LTE Only	HSPA+ and EVDO
	Excellent	> -65	> 12.5	> -5	> -84	> -2
	Good	-65 to -75	10 to 12.5	-6 to -10	-85 to -102	-2 to -5
	Fair	-75 to -85	7 to 10	-6 to -10	-103 to -111	-5 to -10
	Poor	<-85	<7	<-11	<-112	<-10

Radio Frequency Parameters

GET IN TOUCH

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