Captis™ Assure

PRODUCT DATA SHEET

JUNE 2021

CAPTIS POWER+

The Captis Power+ has the added advantage of external power and the ability to transmit as frequently as needed.

Features

- Sensor agnostic: connect to any off-the-shelf sensor to the industry standard interfaces and protocols
- Run all inputs simultaneously
- Cellular connected (LTE-M1, NB1)
- Embedded SIM card
- Remotely configurable (COTA)
- Firmware upgrades over-the-air (FOTA)
- Firmware downloads over SSL
- AES encrypted firmware image file
- Data transferred over encrypted connection (SSL/TLS)
- Physical tamper detection
- Non-removable data storage
- Hardware encryption of parameters and credentials
- DIN rail mounted
- 2 year product warranty
- Designed and manufactured in Australia

Edge Processing

Alarming/Fast Logging

The Captis Power+ 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.

Fast Log/Send

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

Process Alarms

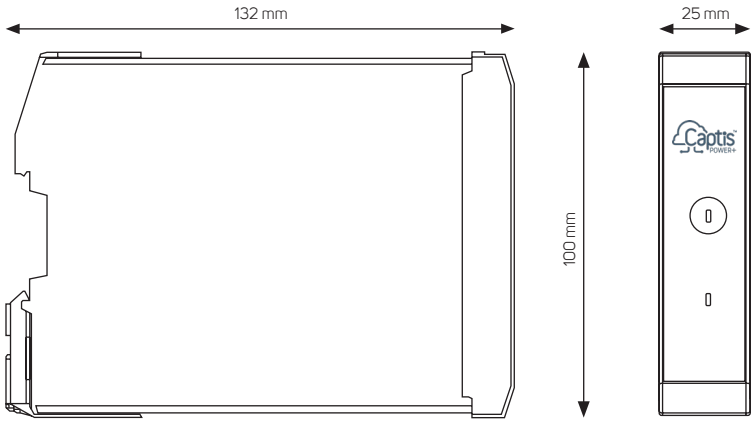
The alarms will trigger based on the process data values at the time of logging. The alarm trigger contains a setpoint and a hysteresis value. The alarming can happen on process values above the setpoint+hysteresis or below setpoint-hysteresis, or on both conditions.

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

Cable Cut Loopback Detection

The Captis Power+ supports a loopback cable cut detection if required for identifying physical tamper. It is recommended that this is performed as close as possible to the sensor to ensure the cable cut functionality is effective.

DIMENSIONS



SPECIFICATIONS

Supply Voltage	12 - 24VDC, 0.1A
Product Warranty	2 year warranty
Pulse/Digital Inputs (2)	Switch and Pulse Modes: -0.3v to3.5v Max Pulse Rate: 1000Hz
Digital Outputs (1)	12V 1.0A, Solid State Relay
Analog Inputs (1)	4-20 mA
Serial Inputs (1)	RS232/RS485, Modbus RTU
1-Wire Channels (2)	Temperature/Humidity Sensors
Sensor Power Output	5VDC 0.1A
Protocols	MQTT, MQTTS
Certification	RoHS, RCM, CE & FCC
Platform Supported	Platform Agnostic
GPS	External SMA (antenna not included)
LTE Antenna	External SMA (antenna not included)
IP Rating	IP20
Log Interval – Min	10 seconds
Send Interval – Min	5 minutes
Operating Temperature	-20°C to 70°C
Unit Dimensions	100 x 25 x 132 mm (HxWxD)

WIRE TERMINALS & FUNCTIONS

Terminal 1

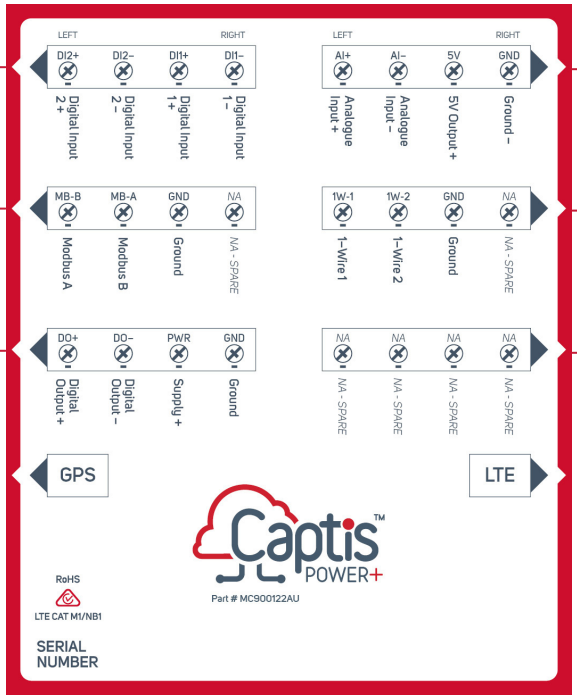
DI2 +	Digital Input 2 +
DI2 –	Digital Input 2 –
DI1 +	Digital Input 1 +
DI1 –	Digital Input 1 –

Terminal 2

MB – B	Modbus B
MB – A	Modbus A
GND	Ground
NC	Not Connected

Terminal 3

DO+	Digital Output +
DO–	Digital Output –
PWR	Supply +
GND	Ground



Terminal 4

AI +	Analogue Input +
AI –	Analogue Input –
5V +	5V Output
GND –	Ground

Terminal 5

1W – 1	One Wire – 1
1W – 2	One Wire – 2
GND	Ground
NC	Not Connected

Terminal 6

DB3	Daughter Board 3
DB4	Daughter Board 4
DB5	Daughter Board 5
DB6	Daughter Board 6

* Battery life of <5,000 transmissions based on; an average signal strength of -96dB (RSRP), 15 minute data logging frequency, normal payload of ~ 20KB. Other considerations affecting battery life; use of multiple sensors and connected power requirements, use of multiple sensors can increase data payloads and transmission times, higher logging frequencies due to more frequent powering of sensors and larger data payloads.