CAPTIS PULSE VERSION 1.2

With all of the features of the Captis Pulse Lite, the Captis Pulse provides the added security of tamper protection for applications where the device is situated in a high-traffic location or can be easily accessed by others.

Features

- Sensor agnostic: connect to any off-the-shelf sensor to the industry standard interfaces and protocols
- Cellular connected (LTE-M1, NB1, NB2)
- 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)
- Tamper protection
- Non-removable data storage
- Hardware encryption of parameters and credentials
- Able to be installed in-ground (IP68)
- Battery powered
- 5 year product warranty
- Designed and manufactured in Australia

Edge Processing

Alarming/Fast Logging

The Captis Pulse 1.2 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 Pulse 1.2 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.

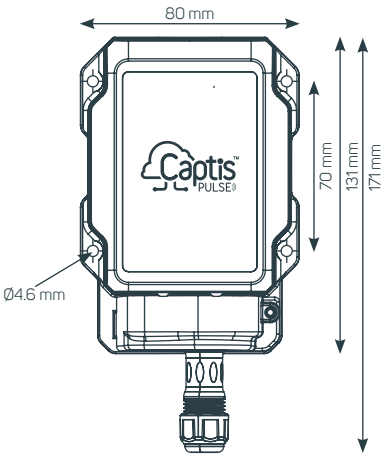
Process Alarms

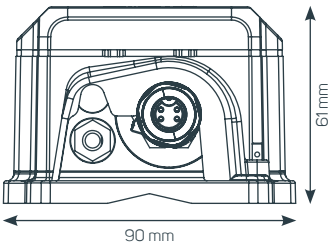
The alarms will trigger based on the process data values at the time of logging. The alarm trigger contains a setpoint and a hysteresis value. The alarming can happen on process values above the setpoint+hysteresis or below setpoint-hysteresis, or on both conditions. Connection can be made to the client's selected platform on an alarm state, where the SMS and email alert functionality can be actioned.

Cable Cut Loopback Detection

The Captis Pulse 1.2 supports 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

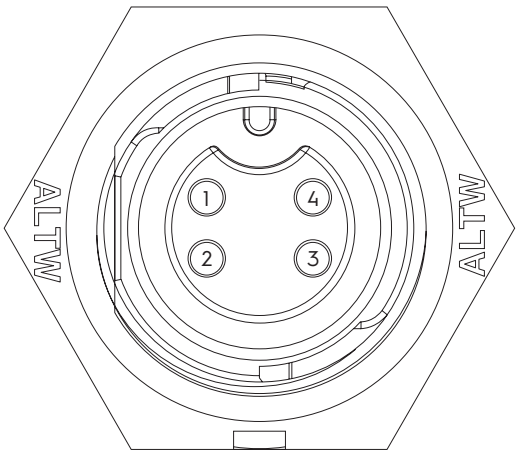




SPECIFICATIONS

Battery Voltage	3.6V
Battery Capacity	19000 mA
Battery Type	"D" Size Non-Rechargeable $LiSoCl_2$
Product Warranty	5 years / 5,000 transmissions*
Pulse/Digital Inputs	Switch and Pulse Modes: -48v to 48v Max Pulse Rate: 1000Hz
Protocols	MQTT, MQTTS
Certification	RoHS, RCM, CE & FCC
Platform Supported	Platform Agnostic including Software AG Cumulocity and Microsoft Azure
GPS	External SMA (GPS antenna not included)
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°C to 70°C
Unit Dimensions	131 x 90 x 61 (LxWXD) w/ connector 171 x 90 x 61

PINS & FUNCTIONS



AMPHENOL FRONT VIEW

Pin	Function
1	Pulse -
2	Pulse +
3	Switch +
4	Switch -

* 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.