WASP-LTE Datalogger

DATASHEET

SPECTO TECHNOLOGY

Product Overview

The WASP is a low power, easily installed, wireless and web-enabled datalogger that can read many analog & digital sensors. Controlling and configuring is also simple using a cloud-based web portal.

The WASP has a built-in 4G/LTE modem with a preinstalled SIM card. Once on site, the sensors are plugged in to a waterproof connector that is attached to a flying lead from the WASP. The user then logs on to the web portal to configure the sensors and set up a logging and reporting schedule.

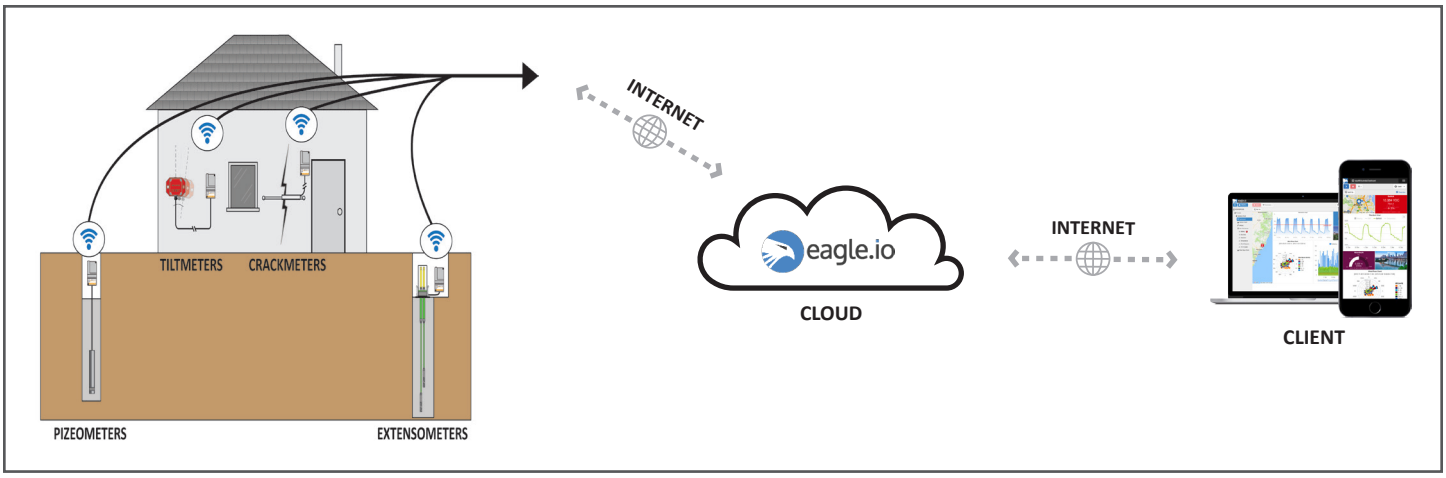
The WASP may be used with many sensors for geotechnical, structural & environmental monitoring in projects such as buildings, bridges, railways, highways, dams, slope stability & mines.

Features

- Can read up to 2 x analog or digital sensors
- Data uploaded wirelessly and automatically to the web
- Connects to the Internet using a built in modem
- No fixed IP address required
- Can store thousands of data-points
- Low power, internal battery life of up to 3-years
- Multiple permission levels on the web portal

Benefits

- Compatible with sensors that output 4-20mA current, 0-5 voltage, pulse or SDI-12 digital signals
- Minimum site set up required
- Ideal for long-term, unattended, wireless data acquisition projects
- Quick and easy to install
- Tested and proven with over 10,000 units in use worldwide



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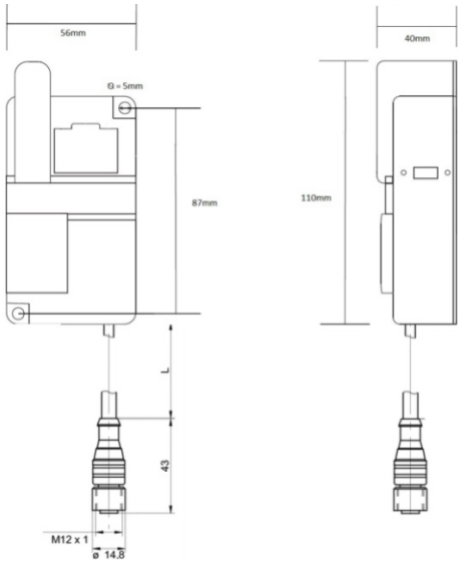
Technical Specifications

Analog Electrical Inputs

Type	Current output (4-20mA) or Voltage (0-5V) or Resistance Thermistor
Accuracy	0.1%
Sensor Requirements (mA)	0-20mA output, loop powered
Sensor Requirements (V)	single ended
Sensor Requirements (Thermistor)	0-10Kohm resistance



Pulse/Counter Inputs

Open-circuit voltage	2.8V
Close circuit voltage threshold	1.2V
Input Impedance	1MOhm
Minimum Pulse Width	20ms
Maximum Frequency	25 Hz

Digital Inputs SDI-12 (contact Specto to confirm compatibility)

Datalogger

Flash Memory	300kb
Storage	10,000 data points (i.e. 1-ch sampling @15-mins for 3.5 months)
Channel Sampling Rate	Max every minute per channel
Data Upload Rate	max twice/day

Communications

4G (CatM1) Frequencies	700/750/800/850/900/1700/1800/1900/2100 MHz
Antenna	2" stubby whip antenna, 2dBi gain, SMA Connector

Physical

Size	110mm x 56mm x 40mm
Weight	255g (9 oz)
Temperature	-5 Deg C to 60 Deg C

Power

Battery	3.6V Lithium
Switched Power Output (SPO) Max	Up to 12V @ peak capacity of 300mA*
Battery Life	3 years **

Environmental

Ingress Protection	IP68 (electronics fully potted)

*some high-draw sensors may not be compatible, please confirm with Specto prior to use.
**sample 1 x mA channel once/hour, upload data once/day

Ordering Info

WASP-LTE	WASP with LTE/4G modem module
WASP2-ACC-EXP-2M0.3A	Expander module – reads 2 x mA channels
WASP2-ACC-EXP-M0.3V	Expander module – reads 1 x V channel
WASP2-ACC-EXP-L0.3AAO	Expander module – reads 2 x mA & 1 x thermistor channels
VWS-STK	Vibrating wire interface – reads 2 x VW sensors with thermistors
WASP-YR	Annual subscription for web portal and cell communication