pizzi instruments

IoT Acquisition Node

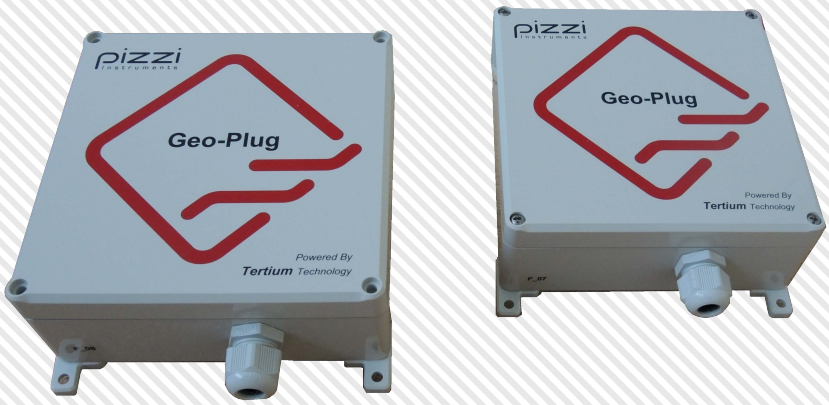
Geoplug

www.pizzi-instruments.it

Strumenti e Sistemi di Monitoraggio Geotecnico e Strutturale

IoT Acquisition Node

Geoplug



Description

IoT data acquisition node based on low consumption and long life of internal batteries, able to detect both analog and digital signals and transmit them to the cloud

Applications

- **Landslides, in earth or rock**
- **Bridges**
- **Viaducts**
- **Dams**
- **Walls and diaphragms**
- **Galleries and caves**
- **Excavations in general**
- **Poles**
- **Buildings of residential and historical interest**
- **Monuments**
- **Archaeological structures**
- **Mines and excavations**
- **Various**

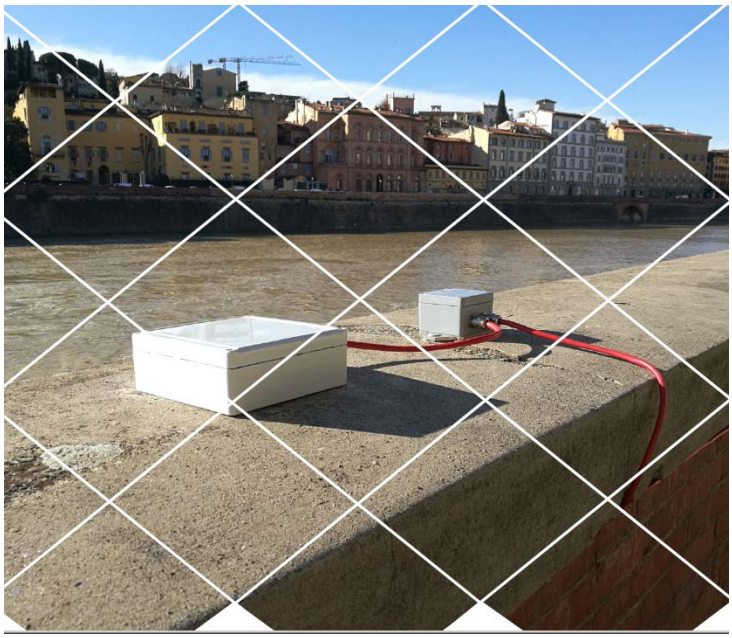
Features and benefits

- **Small size**
- **Easy to use**
- **Speed of installation**
- **Possibility of configuration on site or remotely**
- **Reduction of the risk of errors during installation and the configuration**
- **Long distance communication and reduced consumption**
- **Configuration with Iot networks such as: SigFox,**
- **LoRaWAN, NB-IoT**
- **Interchangeability of the IoT module**
- **Reading of analog and digital signals**
- **Powered by internal battery or solar cell**

Measurement principle

Data transmission shall be done according to IoT standards, i.e. by carrying out automatically the measurement, according to the set frequencies and immediately transmitting the data to a Cloud or to a centralized gateway.
The aim of Geo-Plug is to simplify, as much as possible, the on site activities, allowing the operator to perform a simple sensor wiring and, after having connected the batteries, the system will be immediately active and functioning.
Data transmission shall be done according to various IoT communication standards:
- Sigfox network
- LoRaWAN network
- NB-IoT

The type of IoT network is selected at the moment of the order, it is still convertible to instrumentation already installed.
In the case of a LoRaWAN network and the related gateway or the NB-IoT Network, the node will be also remotely configurable as it has a bidirectional communication technology. The IP65 BOX protection makes make ideal for outdoor applications.



Technical features

Analogue Output	n. 1 capable of reading signals in V, mV / V, 4-20mA, potentiometers, electric resistors, vibrating wire
Digital Input	N°1 able to read up to 60 sensors. Modbus Protocol
Converter	24 bit
Power supply	N°3 batteries of "D" type
Battery life	3 years about, with n.1 measurement every 3 minutes
Environmental Conditions	Temperature: -25°C…+85°C. Relative Humidity: 0%...100%
Modem Transmission	Sigfox o LoRaWAN o NB-IoT
Containment Box	In PVC, IP65 protection degree
Box dimensions	(150x150x60mm)

Doc. Rev02, 03/15

Pizzi Instrumets S.r.l
Via del Fornaccio, n.46
50012 - Bagno a Ripoli (FI)

Tel: +39 055 6810722
Fax: +039 055 6584923
Email: info@pizzi-instruments.it
Web: www.pizzi-instruments.it