# IIoT Solutions:
## Battery powered wireless data transmission for remote locations
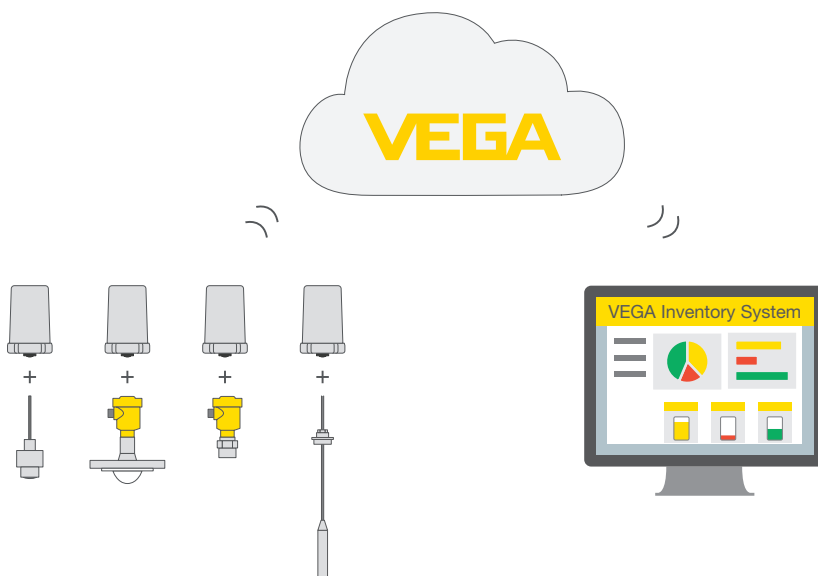
## Overview

The SignalFire Ranger is an IIoT (Industrial Internet of Things) cellular transmitter using the latest LTE CAT M1 or NB-IoT technology for level and pressure sensors. It provides battery power to the sensor and cellular data transmission to the VEGA Inventory System (VIS) in remote locations.

### Battery life
Battery power will provide years of service in most applications. Total battery life is dependent on sensor type, mode of operation, and transmission interval time. Solar power options are available for applications requiring frequent reporting or higher power consumption. The batteries are replaceable.

| Transmission interval time | VEGABAR 10/20, VEGAPULS C11/C21/C23/11/21, and VEGAWELL 52 |
|---|---|
| 30 minutes | 2.7 years |
| 60 minutes | 6.7 years |
| 3 hours | 7.9 years |
| 6 hours | 8.2 years |
| 12 hours | 8.4 years |

The Ranger can receive inputs from 4 … 20 mA, HART, or Modbus level and pressure sensors and is supplied with fully-integrated cloud monitoring and alerting services through VEGA's web-based hosting service. No programming or additional hardware is required.



Once installed and commissioned, measurements can be scaled, alert levels set, and reports configured using the web-based portal. Sensors can be remotely accessed via PACTware to make adjustments. REST API is available for automated data exchange with other systems and applications.

## SignalFire Ranger

- Easy setup and connectivity of a sensor to the cloud over cellular networks
- Optimized for battery life using latest cell modem technology LTE CAT M1 or NB-IOT
- Single 4 … 20 mA or HART input to connect to level and pressure sensors
- Transmission interval can be accelerated for upset conditions based upon measurement or using the optional digital input such as a float switch
- Cloud monitoring and alerting services through VIS hosting solution



## VEGA Inventory System

The VEGA Inventory System (VIS) is a web-based solution for remote monitoring that pairs with VEGA measurement sensors to deliver up-to-date information. Users can view measurements and trends, receive notifications by text or email, access data 24/7 via mobile app, and share data with other systems via a REST API.
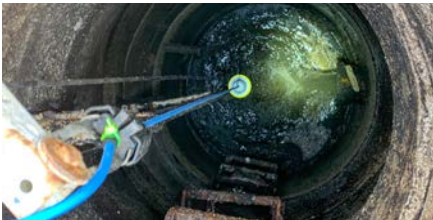
# IIoT Solutions:

## Battery powered wireless data transmission for remote locations

## Common Applications

### Water and wastewater


Lift stations


Storm overflows


Deep wells

Water collections systems and drinking water resources can be spread far and wide, especially in rural areas. Level monitoring and pump control are vital to keep these processes running.

### Inventory management


Storage tank monitoring


Holding tanks


Silo level

Remote storage sites often operate with limited personnel in out-of-the-way locations. These sites may not have ready access to power, but remote monitoring for inventory management is vital.

### Upstream Oil & Gas


Wellhead


Drilling product


Product inventory

Drilling sites are often found in remote locations and great distances from one another. Powering a sensor and sending the data to a central location may be cost-prohibitive or impractical.

Contact your local VEGA seller
for more information.

www.vega.com