APOLLON Q GENERAL DESCRIPTION

OVERVIEW

The Apollon-Q series stands for wireless IoT level sensors with high-quality measurement results, which are possible thanks to a unique complementary measuring principle. The sensor combines optical measurement with radar and can be used for level measurement of up to 2.50 meters. Regardless of whether they are used for piece, liquid or bulk goods, the devices in the Apollon-Q series deliver precise results and are suitable for various level measurement applications, for example in containers, shafts, ducts or in the smart waste sector. The sensor also provides reliable data in small containers such as waste bins. In addition to an optimized range and short measurement and transmission intervals, the product offers numerous extended functionalities and supports the most common communication standards such as MIOTY®, NB-IoT, LoRaWAN®, LTE-CAT-M1 and now also Bluetooth Low Energy (BLE).

MAIN FEATURES

Sentinum's Apollon-Q series comprises a versatile range of wireless IoT level sensors that are designed for a wide variety of applications thanks to their modular design and flexible communication options. All models combine optical time-of-flight (ToF) measurements with radar technology to provide accurate and reliable level data up to 2.5 meters - even in challenging environmental conditions or on irregular surfaces such as those found in bulk or unit loads.

Thanks to their robust IP69k housing, the sensors are suitable for demanding environments - from industrial applications to municipal infrastructures. The different model variants are tailored to specific areas of application, such as the monitoring of liquids in tanks and shafts or the detection of fill levels in containers.

In addition to proven functions such as opening and vandalism detection, integrated GPS support and configurability via NFC or downlinks, the devices now also have BLE communication options for local interactions. A particular highlight is the support of modern positioning and localization methods. The sensors enable positioning via technologies such as GNSS, GNSS scan, LoRa® cloud-based tracking, Wi-Fi SSID scanning, cellular positioning (Cell Locate). Through the intelligent, application-specific use of these technologies, energy consumption can be significantly reduced and positioning accuracy can be flexibly adjusted.

The replaceable batteries and easy integration into existing IoT infrastructures ensure a long service life and high system compatibility. The Apollon-Q series therefore offers a powerful and future-proof solution for precise level detection and localization in a wide range of scenarios.

APPLICATION EXCAMPLES

- Smart waste management - Reliable fill level detection in public waste garbage cans and containers for needs-based emptying and route optimization.
- Industrial container monitoring - Measurement of fill levels of liquids, bulk goods or solid materials in tanks, silos or IBC containers.
- Sewer and manhole monitoring - Detection of water levels or blockages to support flood protection and maintenance planning.
- Waste bins and small containers - Precise fill level measurement even in small volumes, e.g. in offices, train stations or airports.
- Warehouse and rack logistics - Detection of the presence of pallets, boxes or cartons for automated warehouse management (PP series).
- Conveyor technology and vehicle parking spaces - presence monitoring in entrance areas or on conveyor lines to control the material flow (PP series).
- Door and flap monitoring - Status monitoring of doors, roller shutters or flaps to detect opening statuses and theft protection (PP series).
- Automatic replenishment systems - Trigger-based measurement to identify empty storage locations or removed goods in the Kanban system (PP series).
- Smart building and facility management - combination of fill level detection (e.g. hygiene containers) and presence detection for automated cleaning and maintenance schedules.
- Tracking of IBC containers and industrial containers - tracking of locations via GNSS, Wi-Fi SSID scanning or mobile phone tracking to increase transparency in logistics processes.
- Outdoor asset tracking - GNSS or GNSS scan-based tracking of devices and vehicles on factory premises or in urban areas.
- Location verification for mobile applications - proof of the actual location of temporary installations, e.g. in construction site or maintenance scenarios.

SCOPE OF DELIVERY

- 2x batterien (already inserted)
  - For LoRaWAN® and mioty® sensors
    - Energizer® Ultimate Lithium-Batterien – AA
    - VARTA ULTRA LITHIUM Mignon AA
  - For cellular sensors (NB-IoT and LTE-CAT-M1)
    - VARTA-CR-AH-R
- Apollon sensor in the ordered version