# SiloTrack™ CLOUD

**MONITOR**

## Remote Inventory Management System - Continuous Level Measurement

### Monitor vessel levels using a web-based application

Use any device...

to connect with the cloud...

to view silo inventories at any location, any time!

## FEATURES & ADVANTAGES

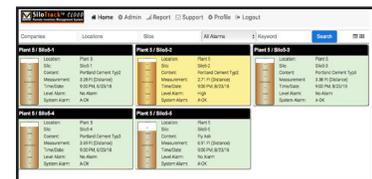▼ **Flexible Remote Inventory Management**
- ▼ Access real-time material inventory data from any device that has an Internet connection.
- ▼ Intuitive, flexible and powerful graphical user interface.
- ▼ Manage multiple locations with multiple silos / vessels.
- ▼ Control user permissions through secured login profiles.

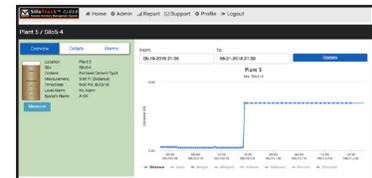▼ **Inventory Information at Your "Fingertips"!**
- ▼ View distance, level, volume, weight, percentage and ullages (empty space) for silos.
- ▼ See multiple silos on one screen. Filter to see only specific locations or silos.
- ▼ Set level alarms and monitor sensor status... Configure e-mail and text notifications.
- ▼ Create, save and generate configurable reports.
- ▼ Automatically e-mail reports to specific users. (Facility Manager, Dispatcher, etc.)
- ▼ Access historical data to create trends, improve inventory / procurement efficiencies.

▼ **Secure and Reliable Communications**
- ▼ Data is secure and encrypted.
- ▼ Connection from Gateway(s) to the Cloud-based server can be either through cellular or Ethernet.


View multiple silos at one time.


See overview & history of a silo.

## PRINCIPLE OF OPERATION

**SiloTrack**™ *CLOUD* Inventory Management System is a web-based application that provides users with an unmatched, flexible user interface from any device with Internet access for Monitor's "Smart" RS-485 (Modbus) continuous level sensors. **SiloTrack**™ *CLOUD* allows for monitoring up to 32 sensors per Gateway including the **SiloPatrol**® SMU cable-based sensors and/or Monitor's **RadarRight**™ non-contact radar sensors. The sensor data collected through the cloud-based server can be accessed at any time from any place to view current status, review history and create reports to optimize inventory management.

## PRACTICAL APPLICATIONS

▼ **Ideal for Remote Managed Inventory / Vendor Managed Inventory (RMI / VMI) solutions.**

▼ Optimize frequency of deliveries & transportation costs.

▼ Receive timely material inventory levels from anywhere.

▼ Does not require the installation of software on your computers (i.e. "no code on the client").

▼ Access data history and create customizable reports to share information across functional departments.

For more detailed information, please contact a Monitor representative or visit Monitor's website at https://www.monitortech.com/product _conti.shtml Or scan this with a smartphone QR-Code app.

## OPTIONS

▼ Universal 85-265VAC or 24VDC Operating Voltage (Gateway)

▼ Standard or High Gain Antenna (Gateway)

▼ Cellular or Ethernet Connectivity (Gateway)

▼ **WirelessEZ** Communication Interface (radio modem) can be used to replace the RS-485 wiring between level sensors & the Gateway

**MONITOR TECHNOLOGIES, LLC**
44W320 Keslinger Road, Elburn, IL 60119 USA
Tel: 1-630-365-9403 ▼ In US/CAN 1-800-766-6486
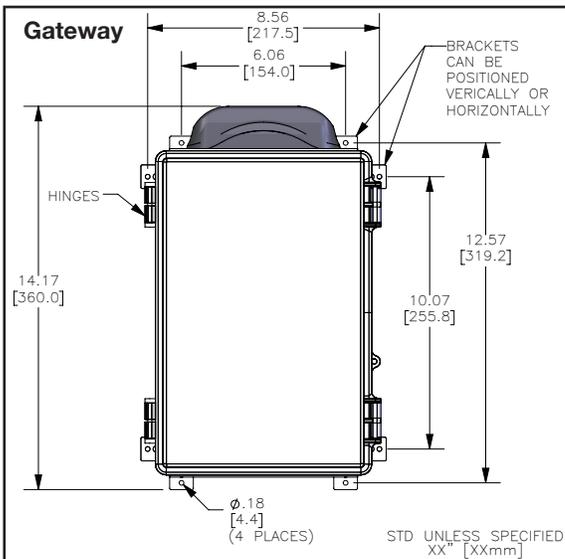www.monitortech.com ▼ monitor@monitortech.com

follow us on **facebook**

**Linked in**

**Google+**

*Level Blog – http://monitortech.typepad.com*

## SPECIFICATIONS

### SiloTrack™ CLOUD Gateway

| | |
|---|---|
| **Power Requirements** | |
| AC: | 115-230VAC ± 15%, 50/60 Hz |
| DC: | 24VDC ± 15% |
| **Power Consumption** | |
| AC: | 70W (1.5A max @ 115VAC) |
| DC: | 18W max |
| AUX 24VDC Output: | 1.7A max ( AC Version Only) |
| Ambient Operating Temp: | -30° F to 149° F (-34° C to 65° C) |
| Sensor Communication: | RS-485 half-duplex, non-isolated, Modbus RTU protocol 9600/8/N/1 |
| Sensor Channels: | One (1) 32-channel network (32 channels total) |
| Cellular Wireless Interface: [LTE - North America (M5)] | LTE CAT 4: 700(B12,13)/850(B5)/AWS(B4)/1900(B2) 3G HSPA+: 850/1900 MHz Transfer rate (max): 150 Mbps down, 50 Mbps up |
| FCC ID: | R17LE910NA V |
| Emissions / Immunity: | CE, FCC Part 15 Class B, AS/NZS CISPR 22, EN55024, EN55022 Class B |
| Indicators: | 7 LEDs (Power, Service, WWAN, 3x Signal Strength, User Programmable) |
| Enclosure Material: | PBT / PC |
| Enclosure (HxWxD): | 12" x 8" x 6.4" (305mm x 203mm x 163mm) |
| Environmental Protect: | ENCLOSURE TYPE 4X, IP65 |
| Approvals: | UL Listed (Power Supply & Router) |

### SiloTrack™ CLOUD Application

| | |
|---|---|
| Device Operating System: | Designed to work with most operating systems such as Mac, iOS, Windows, Linux, Android |
| Device Browser Requirement: | Designed to work with most Internet browsers such as Chrome, Firefox, Safari, Explorer, Edge |
| Export File Format: | .csv |

## MECHANICALS

DIMENSIONS ARE SHOWN IN INCHES WITH MILLIMETER EQUIVALENT IN BRACKETS UNLESS OTHERWISE STATED

**Gateway**

8.56 [217.5]
6.06 [154.0]
BRACKETS CAN BE POSITIONED VERICALLY OR HORIZONTALLY
HINGES
14.17 [360.0]
12.57 [319.2]
10.07 [255.8]
∅.18 [4.4] (4 PLACES)
STD UNLESS SPECIFIED XX" [XXmm]

## ORDERING INFORMATION

Information on this sheet is subject to change without notice.

### SiloTrack™ Cloud Inventory Management System - Gateway Notes 1,2

| Select | Model Series | | | | | |
|---|---|---|---|---|---|---|
| 7 | SiloTrack Cloud Gateway and Inventory Management System | | | | | |
| | Select | Gateway Connectivity (Pre-Programmed at the Factory) | | | | |
| | 1 | North America Cellular (4G LTE) and Ethernet | | | | |
| | 2 | Other - TBD (Consult Factory) | | | | |
| | 3 | Other - TBD (Consult Factory) | | | | |
| | | Select | Communication Protocol | | | |
| | | 1 | Modbus - SiloPatrol, RadarRight  Note 3 | | | |
| | | | Select | Environment | | |
| | | | 1 | Ordinary Locations | | |
| | | | | Select | Operating Voltage | |
| | | | | 1 | Universal 85-265 VAC | |
| | | | | 2 | 24 VDC | |
| | | | | | Select | Antenna |
| | | | | | 1 | Standard |
| | | | | | 2 | High Gain (Consult Factory) |

| 6 | – | 8 | 7 | X | X | X | – | X | X | X | Order Number |
|---|---|---|---|---|---|---|---|---|---|---|---|

### SiloTrack™ Cloud Inventory Management System - Subscription Service  Note 1

| Select | Service | | | | |
|---|---|---|---|---|---|
| 7 | SiloTrack Cloud Application Subscription | | | | |
| | Select | Subscription Configuration Note 4 | | | |
| | 8 | Host and Ethernet Connectivity (Annual Contract) | | | |
| | 9 | Host and Cellular Connectivity (Annual Contract) | | | |
| | | Select | Cellular Data Package Size | | |
| | | 0 | No Cellular Data Plan Required | | |
| | | 1 | Standard | | |
| | | 2 | Enhanced (Consult Factory) | | |
| | | | Select | Geographic Coverage | |
| | | | 1 | United Sates | |
| | | | 2 | TBD (Consult Factory) | |
| | | | 3 | TBD (Consult Factory) | |
| | | | | Select | Carrier Note 5 |
| | | | | 0 | No Cellular Carrier Required |
| | | | | 1 | Verizon |
| | | | | 2 | AT&T |
| | | | | 3 | TBD (Consult Factory) |
| | | | | 4 | TBD (Consult Factory) |

| 6 | – | 8 | 7 | X | X | – | X | X | Order Number |
|---|---|---|---|---|---|---|---|---|---|

**NOTE:**
1. A Subscription Service is required for each Gateway.
2. Up to 32 sensors per Gateway. Minimum one Gateway per location.
3. If Gateway is to be used with pre-existing SiloPatrol® SMU's and / or RadarRight™ sensors, please consult the factory to confirm that the sensors are Modbus (RS-485) compatible.
4. Subscription fee is charged once a year, in advance.
5. Verizon® is the primary (default) cellular carrier. Please select Verizon unless they do not provide adequate coverage in your area.

**ACCESSORIES / REPLACEMENT PARTS:**

| Part # | Description |
|---|---|
| 6-8010 | Tablet, WiFi / Bluetooth |
| 17-8021 | Rplc. Power Supply, Universal AC to 24VDC |
| 6-1964 | Rplc. PCB Assembly, D-Sub Adapter |
| TBD | Rplc. Antenna, Low Profile, Standard (Consult Factory) |
| TBD | Rplc. Antenna, High Gain (Consult Factory) |
| TBD | Rplc. Module, Router, 4G, Cellular / Ethernet (Consult Factory) |

Durable Gateway for wireless or Ethernet connection to the Cloud-based server.

## OVERVIEW

Continuous Level Sensor(s) on Vessel(s)
Gateway(s) on Site (up to 32 sensors per Gateway)
Cloud-Based Server
Access SiloTrack™ CLOUD with Smartphone, Tablet, Laptop, PC
See Current Status, View History & Create Reports

Modbus Communication
Cellular or Ethernet Connection
Internet Access to SiloTrack Cloud Application