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.

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

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.

MONITOR TECHNOLOGIES, LLC
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Tel: 1-630-365-9403 ▼ In US/CAN 1-800-766-6486
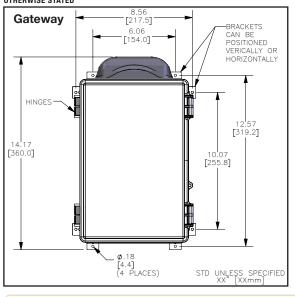**www.monitortech.com ▼ monitor@monitortech.com**

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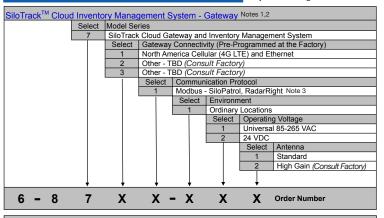**Linked in**
Google+

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

BULLETIN 393T

MONITOR

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   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) → Modbus Communication → Gateway(s) on Site (up to 32 sensors per Gateway) → Cellular or Ethernet Connection → Cloud-Based Server → Internet Access to SiloTrack Cloud Application → Access SiloTrack™ CLOUD with Smartphone, Tablet, Laptop, PC → See Current Status, View History & Create Reports