

Industrial Electrical Contractor Optimizes Inventory Management

ICS Electrical Services Industrial Electrical Contractors

Instrumentation and Control Systems Inc. (ICS Electrical Services) is a Cincinnati based electrical contractor specializing throughout the industrial process. They focus on process controls, power distribution, instrumentation, automation, and preventative maintenance. ICS has been expanding the limits of industrial automation since 1997.



Applications:
Chemical Inventory
Management

Market:
Manufacturing

ICS Electrical Services main goals are solving customer instrumentation and control challenges with modern and reliable technology solutions while maintaining a safe and environmentally sound field operation. Similar to many industrial automation organizations, ICS deals with clients who need fast and consistent “remote” access to the bulk liquid inventory in the tanks in their onsite tank farm. The ICS client also wanted to share the tank inventories securely with their offsite vendors. Previously they would need to check their tank inventories multiple times a week to ensure a steady manufacturing output.

“TankScan was a completely new product to us and making sure our clients have a consistent supply of chemicals played an important role in the automation process.” said Doug, Supervisor

Physically traveling to the tank or tank farm control room takes time and it is often missed. Having to check the inventory multiple times a week was really not frequent enough and adding a higher frequency check was an unnecessary cost.

Key concerns are minimizing chemical management efforts and maintaining a consistent and reliable supply of chemicals for the manufacturing schedule.



Solution

In 2023, ICS Electrical Services installed the TankScan TSG 4-20mA Sensor Gateway to monitor 5 chemical tanks in Lebanon, Ohio. The remote monitoring system leverages existing wireless cellular infrastructure and a cloud software application to eliminate large startup and setup costs associated with typical SCADA systems. The install requires connecting the gateway to an existing analog 4-20mA sensor loop, in this case in series with the existing PLC and existing level sensor. The cloud application is setup remotely and offers unlimited users, historical trending, and email/text notifications.

The tank levels are viewed from the users cell phone or from a PC at a remote office. The system is cost effective due to its use of existing infrastructures through internet connectivity, internet browser, email, text message and cloud compute. The user is provided with accurate readings to devices he already owns, understands and supports.



Results

ICS Electrical Services has seen numerous benefits from remote level monitoring including:

- Optimizing inventory management reduces labor and overhead costs
- Enhanced operational reliability of their facility with remote tank level visibility
- Automated notifications decrease environmental risk and improve confidence

“TankScan has helped our client by automatically sending out chemical orders to their vendors which simplified their inventory management”, said Frank.

