

Remote Tank Monitoring of methanol in hazardous areas



Level Sensor in hazardous area



M853 DAC-Module and D077 Level Monitor



Remote monitoring with ProcessMonitor Cloud-Portal

Problem case

Hauck Heat Treatment is a very modern facility which provides heat treatments to different market segments like tools/moulds, semiconductors, automotive, aerospace and mechanical engineering industry. When their old methanol tank needed replacement, Hauck opted for a brand-new and safe set-up underground. Due to the flammable contents, the application is labelled as “Hazardous Area”, resulting in an important legislative requirement as the installation needs an ATEX approval and 100% guaranteed safety. Previously, the inventory level of the old tank was measured daily with a dipstick, which was very time consuming and inaccurate. Hauck wanted a reliable and user-friendly solution to monitor the methanol level continuously and if possible an automated refilling process. Furthermore, due to the horizontal cylindrical shape of the new tank, the level measurement required a conversion from level height to volume. For Hauck it was important to have one supplier for both the instrumentation and the remote monitoring (IIoT).

The Solution

ProcessMonitor installed an M853 Data Acquisition & Communication Module (DAC-Module) and a local Fluidwell D077 Level Monitor to the pre-mounted level sensor. The M853 provided the 2-wire or “loop-powered” level sensor with power supply via a barrier with the analog output of the sensor. This barrier ensures a safe electrical separation between the “Safe Area” and the “Hazardous Area”. The D077 Level Monitor is equipped with a level input linearization function. This calculates the linear tank-height signal of the sensor into a volumetric level indication in Liters. The D077 was installed inside the facility for local and quick insights of the methanol level for process operators on site. In addition, with the ProcessMonitor Cloud-Portal, Hauck can visualize, monitor and control the inventory level of the methanol tank from anywhere and anytime. The complete turnkey solution combines the instrumentation, installation and process optimization: Intrinsically safe power supply, remote tank monitoring (IIoT) and local display of the methanol level.

The results

The solution brought the Hauck Production Manager quite some advantages. Now the methanol inventory level is been taken care of by automated replenishment. Whenever the contents of the tank reach a pre-programmed level, the automated low-level alarm is sent to the methanol supplier so they can schedule a new delivery. This results in a smooth optimized process.

The trust and confidence from Hauck for this ProcessMonitor solution was commendable whereby the inventory management of an essential raw bulk material for their production process is transferred to the methanol supplier. The provided ProcessMonitor solution gives Hauck the tools to fulfill their own brand promise: *“For Hauck, ‘best in class’ is not about our core technologies, but about the flexibility with which we service our clients and the way we are able to integrate our processes in their supply chain.”*

ProcessMonitor and Fluidwell understand: Your success counts!