HYCONTROL

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with

CALDIC

ATEX certified TDR level measuring system provides exceptional accuracy

A comprehensive ATEX certified multi-point TDR level measuring and data recording system installed by Hycontrol is providing invaluable stock management information for leading chemical distributors Caldic UK Ltd at of their operation in Chesterfield.

ATEX certified radar level measuring system provides exceptional accuracy

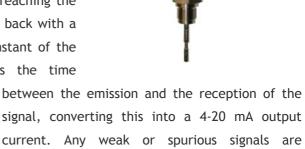A comprehensive ATEX certified multi-point TDR radar level measuring and data recording system installed by Hycontrol is providing invaluable stock management information for leading chemical distributors Caldic UK Ltd.

The VF series Guided Wave Radar Transmitters are fitted to Caldic's nineteen 55,000 litre bulk storage vessels, which are at the heart of their operation in Chesterfield. Caldic UK are a division of Rotterdam based Caldic B.V., a major international manufacturer and distributor of chemicals. Caldic's core business in the UK is the storage, handling, blending, repacking and distribution of industrial chemicals for use in diverse applications, ranging from petrochemical and refinery operations to cleaning products and water treatment. Typical chemicals which are being accurately measured include toluene, ethyl acetate and trichloroethylene.

The VF radar units, which work on the principle of Time Domain Reflectometry commonly known as TDR, are ideal for such retrofit applications and can be fitted inside tanks via very small apertures. The transmitter sends low-power electromagnetic pulses of one nanosecond width along the instrument's probe. Upon reaching the surface of the vessel contents, the pulses are reflected back with a signal strength that is dependent on the dielectric constant of the medium being measured. The instrument measures the time between the emission and the reception of the signal, converting this into a 4-20 mA output current. Any weak or spurious signals are analysed and ignored by the electronics.

All the ATEX certified level measuring transmitters at the Caldic site are linked back via intrinsically safe barriers to a central control panel, which incorporates a versatile paperless chart recorder. This powerful instrument gives clear pictograms of the changing tank contents so that operators and management, either locally or remotely via the Caldic LAN, can see at a glance how much stock they have in real time. The TDR units provide an unrivalled accuracy of better than ±3 mm over the 9.5 metre measuring range, ensuring precise

stock control. An external ATEX certified flashing beacon and siren warn of any potentially dangerous high level excursions in any of the tanks during filling.

Specialist electrical panel design and build is a key part of Hycontrol's total level measuring system capabilities and the company claim this versatility sets them apart from most of their competitors, ensuring customers receive comprehensive tried and tested systems specifically designed for their application.
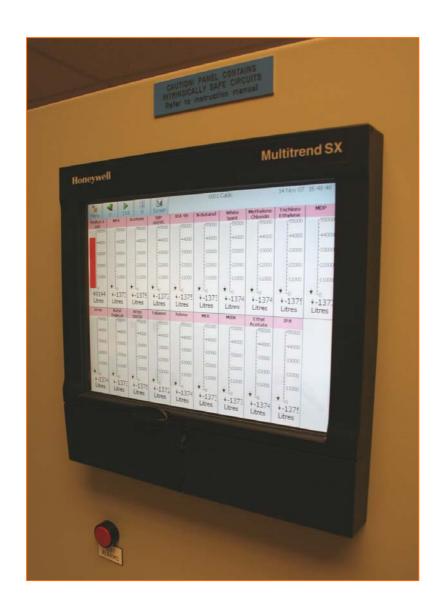
Caldic's MD Roger Collis is very pleased with the Hycontrol system and as he explains: *"Our previous vessel level measuring system gave very limited and often unreliable results. We recognised we needed to upgrade the instrumentation but were concerned about the disruption to production. Hycontrol came up with the ideal solution and took complete responsibility for the design and commissioning of the ATEX certified system. A key benefit of their TDR units is that they can be calibrated prior to installation. This removed the need for the tanks to be emptied and then filled to effect calibration, thereby causing minimum disruption to our plant operation.*

Part of our stockholding is held on a consignment basis and the Hycontrol system provides important information for managing this. We are confident that the availability of real time accurate level data will bring important efficiency and operational benefits to us and our suppliers, ensuring all parties concerned can optimise their production and delivery schedules."

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