



REMOTE MONITORING

Clearly the best protection...

Cathodic Protection Co Ltd, founded in 1950, was one of the first companies in the United Kingdom set up specifically to provide equipment and engineering services for the cathodic protection of pipelines, storage tanks, well casings and marine structures for the oil, gas, petrochemical, water and power industries.

The company has teamed with Automa SRL, from Ancona in Italy, who has been providing remote monitoring and control solutions for 30 years, with over 16,000 units in service worldwide. The partnership will ensure the continuing development of products and services to meet the demands of our clients.

Automa's Goliah range of remote monitoring devices has been developed to service specific cathodic protection markets across Europe, making Automa a global brand leader. The range includes the latest G4C model developed for the UK market.

The Goliah forms part of an integrated solution offered by Automa which includes the Webprocat & FIDO suites of software. The complete system is designed to offer anti-corrosion monitoring of metal structures in the water, gas and oil industries. The all-inclusive solution provides the data which owners of pipeline assets need to prioritise maintenance activities, and to meet their regulatory obligations.

The purpose designed architecture allows the user complete ownership of all data, devices, operating procedures and functional results. This enables the direct real-time and accurate control of systems without the need for middleware or licenses.

Automa's solution for CP data monitoring is unique, having much greater functionality than existing products on the market. The Goliah unit logs 86,400 data samples each and every day but only sends back a simple summary of the maximum, minimum, and average readings. Typically this is all that is required to confirm normal operation is being achieved and the asset is protected. However, should the summary report suggest an issue, the CP engineer can remotely download all the data to identify the cause of the problem, such as AC interference, DC traction problems, telluric currents, TR failure etc..

Installing a corrosion coupon with a Goliah unit also allows real time instant off measurements to be recorded. Experience in Europe has shown that using this approach allows Transformer Rectifier outputs to be reduced, saving energy and extending the lives of anodes and groundbeds. On potentials are no longer required to gauge if a pipeline is protected.

...for your investment



Goliah



The Goliah G4C is a Remote Monitoring Unit (RMU) specifically developed for the UK market. It is derived from the proven G2 / G4 family of remote monitoring units which are used extensively in Europe. It is a remotely controlled data logger, developed to suit test posts particular to the UK and Ireland.

When installed with a compatible Transformer Rectifier, the Goliah unit also offers the ability to remotely control the Rectifier. Using low power consumption technology, it is powered by lithium batteries which give a typical autonomous working life of 48 months. Alternatively, mains power or a solar panel with a battery back-up can be used to provide indefinite operation.

The Goliah unit can be accessed locally or remotely to set up monitoring protocols and to retrieve stored data. Local access is achieved by connecting the device to a computer, or more conveniently by bluetooth connection to a portable device such as laptop, tablet or mobile phone. A bespoke application for mobile devices makes this bluetooth interface both simple and fast, powered through both Android and iOS. Remote access is through a range of options including GSM/GPRS/UMTS (2G/3G/4G) connection.

Technical Specifications:

Measurement Channels

Up to 5 configurable channels for Transformer Rectifiers or Test Posts.
Configurable for Volts, Amps, On, Off or Coupon potentials

Control

Transformer Rectifiers with a suitable digital interface can be controlled remotely by the Goliah G4C and WebProCat software. Auto-potential control of the TR can be based on potentials recorded on any Goliah Test Post Monitor, or the potential measured at the Transformer Rectifier.
Not applicable to manual TRs

Battery Life:

Operating Life

48 months.

External Source

Solar Panel (12V/24V)
Mains (with a 12V AC/DC adapter)

Operational Data:

Operating Temperature

-20°C to + 60°C

Lightning and Surge Protection

Impulsive transient protection
8/350uS > 5KV

Data Sampling:

Instant Off Logging

Instant off cycles (>1ms intervals),
with Eon and Eoff coupon logging

Transmission Rate

Detailed data (up to 86,400 samples)

Storage

Up to 86,400 samples per day (1 reading per second, per channel) stored in a cyclic queue of 7 to 62 days depending on configuration.
Daily summary data stored for a period of 365 days



Simple Set up of Monitoring Equipment

FIDO is the support application for the installation and maintenance in the field for Goliah products.

The interface is accessible with any OS browser. Available on Windows laptop platform or smartphone and tablet devices.

It provides the following features:

- Bluetooth communication with Goliah devices (BLE)
- Multi-language capability
- Configures parameters to be recorded by Goliah device
- Downloads stored data from Goliah
- Remote control of TR when Goliah unit fitted to compatible unit
- Analysis tools for CP data

The FIDO infrastructure has been developed using the latest RIA (Rich Internet Application) technologies, guaranteeing a fast and easy user experience and high level performance when accessing extensive data records.

Automa’s solution for CP data monitoring is unique, having much greater functionality than existing products on the market.

Powerful Data Management Tools

The WebProCat software suite manages the cathodic protection data from Goliah remote monitoring devices. Designed specifically to be simple and easy to use, it provides all the data required by the CP engineer to make informed decisions on the integrity of cathodic protection systems.

Benefits of WebProCat include:

- Daily summary of CP potentials based on 86,400 data records (Max, Min, Average)
- Ability to download 86,400 daily data points when further investigation required
- Instant off potentials give accurate assessment of protection levels
- Reporting by specific pipelines or systems
- Graphical presentation of CP data
- Customisable user access levels
- Mapping feature showing location of Goliah installations
- Remote configuration of Goliah devices

Detailed Investigation

The powerful display tool allows the user to analyze the 86,400 daily measurements recorded by the Goliah Remote Monitoring Unit. The data records are shown graphically for the purpose of time trend analysis. Areas of interest can be expanded by using the zoom function, either selecting between two points or a fixed period from a certain time. Different periods in the day can be compared in detail by overlaying the colour-coded graphs from each selected.

The display tool also allows the daily summary data to be viewed over a longer time period. In addition to maximum, minimum and average potentials, additional data such as TR current can also be displayed. In this way seasonal or longer term trends can be identified.

A wide range of reports can be exported from the WebProCat software in most commonly used formats (PDF, XLS, CSV, TXT). This makes it easy to provide data to interested third parties such as regulatory authorities, or for offline analysis.

Standard reports are available at a mouse click and comply, both in content and form, to APCE guidelines and UNI regulations.

Mapping

The WebProCat system is linked to Google Maps. Users can display their network arrangement of installed sites with this mapping tool, and view the corresponding data for each of these sites. Sites which are outside criteria or user defined limits can be automatically highlighted. In addition, sites can be colour-coded based on functional features such as road crossings etc. New assets or data points can be easily added using the mapping tool without the need for detailed GPS co-ordinates.



HEAD OFFICE

Cathodic Protection Co Ltd
Venture Way
Grantham
Lincolnshire
NG31 7XS
United Kingdom
Tel: +44 (0)1476 590666
Email: cpc@cathodic.co.uk

GLOBAL AGENCIES

For details of our network
of agencies please visit our website:
www.cathodic.co.uk

MIDDLE EAST OFFICE

Al Mazroui Engineering Company LLC
Cathodic Protection Division
Commercial Bank of Dubai Building
Office M01
Near FGB Metro Station
PO Box 72324
Sheikh Zayed Road
Dubai
UAE
Email: cpc@cathodic.co.uk



Accreditations:



www.cathodic.co.uk

