

DIWICON-K

SOLUTION FOR SUPERVISION AND CONTROL OF CATHODIC PROTECTION SYSTEMS

By the supervised oxidation of steel structures cathodic protection systems elongate the lifespan of such costly infrastructure as underground pipelines and tanks. Systems built by Cason using the DIWICON technology provide a reliable, cost effective, continuous supervision for the operators of cathodic protection systems. Next to the hardware and software elements these systems incorporate the SCADA application as well and can be used as a fee-based service.

PROPERTIES

- redundant, GPRS-based communication
- GPS-based, precise time synchronization
- CAN bus communication among modules

BENEFITS

- lower maintenance costs
- recurrent on-field measurement can be replaced
- immediate feedback and intervention possibility on malfunctions
- when using active cathodic protection, infrastructure in a less than perfect condition might also be linked to the network
- electricity consumption of the system can be optimized

REFERENCES

- GDF-Suez ÉGÁZ-DÉGÁZ
- MOL



PRODUCTS

DW 631 K Intelligent Field Cathodic Station Control Unit

This combined unit ensures the long distance supervision of the cathodic protection of pipelines, and the monitoring of the efficiency of the protection. One unit per station is needed that can perform all occurring measurement and control functions and send an alarm on programmed events due to its high resolution I/O channels.

DW 631 K consists of the following elements:

▶ **DW 297 K Field Communication Unit**

Intelligent, industrial field communication unit specifically designed for the supervision of cathodic protection stations. The device provides GPS-based time synchronization and two-way communication with the control center, and serves as the communication module of the DW 631 K field cathodic station control unit.

▶ **DW 821 K Cathode Station Controlling Module**

Designed specifically for the supervision of cathodic protection stations, with built-in I/O tools and local link to the additional modules. Ideal choice in the case of numerous supervised stations. Due to its modular build an ideal sized system can be assembled.

▶ **DW 128 DI Digital Input Module**

(DW 124 AO, DW 128 AI, and DW 128 DO modules are also available if the field system requires more contact points.)

DW 5844 K Intelligent Minimum Point Cathodic Communication Unit

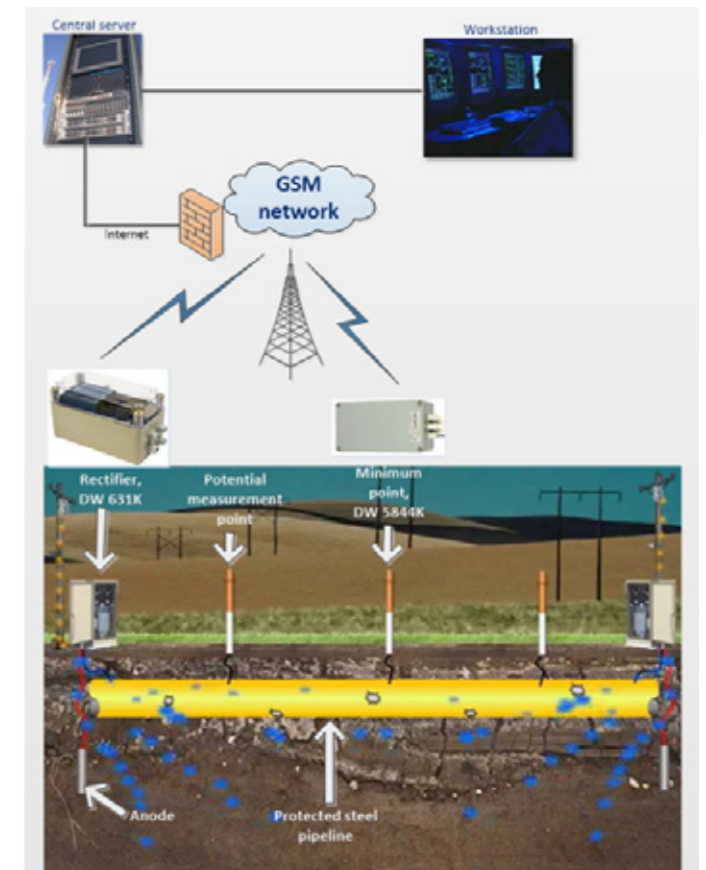
This autonomous device measures the minimum point cathodic potential. Via its 4 channels it can simultaneously gather data from 4 measuring points. Measured data is transferred to the center by GPRS-based, cyclic communication. Due to asset protection reasons and to ensure operability below freezing point the device is designed to be used underground. Its high capacity batteries ensure an unsupervised operation for up to 5 years.



SERVICE

If the available resources are limited but a continuous stream of income is expected the best solution might be the use of the cathodic protection system as a service, for a monthly or quarterly fee.

Cason's service model is based on the latest cloud technologies and provides a 24/7 assistance as well as a SCADA interface tailor made for the client.



FULL SYSTEMS

If needed Cason is able to design and implement full-scale cathodic protection systems in which its own DIWICON solutions are paired with an up-to-date rectifier produced by NES.

- Extended I/O interfaces
- Sabotage protection
- Potential control is feasible



TECHNICAL DATA

	DW 631 K (DW 821 K)
ENERGY SUPPLY	
Energy supply	24 V DC
I/O-k	
Analogue input	6 channels to measure the cathodic potential of protected
1 channel to measure outgoing voltage	
1 channel to measure outgoing power	
Number of analogue inputs	8
Number of analogue outputs	2
Outgoing voltage	0 – 5 V
Number of digital inputs	8
PHYSICAL PARAMETERS	
Measurements (L x W x H)	330 x 140 x 170 mm
(25 x 125 x 120 mm)	
Weight	950 g (350g)
Operational temperature	-20 °C - +60 °C
Max. humidity	95%
IP protection	IP65 (IP42)

	DW 5844 K
ENERGY SUPPLY	
Energy supply	3,6 V DC
Energy consumption	10 - 100 mW
Analogue input	4 channels to measure the cathodic potential of protected
Number of analogue inputs	4
PHYSICAL PARAMETERS	
Measurements (L x W x H)	220 x 190 x 90 mm
Weight	1,5 kg
Operational temperature	-30 °C - +60 °C
IP protection	IP68

