

## MONITORING AND CONTROL FOR OIL AND GAS

### OVERVIEW

The **SUNBIRD TR (Transformer Rectifier) Monitor** is a compact Remote Monitoring Unit (RMU) that can be housed within the rectifier cabinet or supplied in a separate enclosure ready for mounting externally. It carries out the functional checks of rectifier output (voltage and current) required in order to ensure a continuous CP supply to the pipeline and to comply with regulatory guidelines.

The SUNBIRD TR checks that the rectifier remains powered by its external electrical supply. If the power fails, an alarm is transmitted and the unit's internal batteries take over monitoring for up to 30 days.

SUNBIRD quickly repays its capital cost when compared to monthly manual checks.

Utilizing 5G IoT delivers a communication life beyond 2030. 5G IoT communications also provide greater geographical coverage than existing 3G and 4G networks, meaning the unit will work in more locations than was previously possible with cellular communication.

The SUNBIRD TR offers additional CP measurements (ON and OFF potentials) as well as the facility to synchronize remotely with other rectifiers on a pipeline for CIPS (Close Interval Potential Surveys) or DCVG (Direct Current Voltage Gradient) surveys.

Additionally, the SUNBIRD TR controls a solid state Interrupter to provide a signal for tracing the pipeline route.

All measurements are taken automatically by the SUNBIRD TR and data is seamlessly sent in a management report to the system HQ where it is displayed and archived online via **iCPSM4**.

### FEATURES AND BENEFITS

- ▶ 5G IoT communications
- ▶ Automatic installation
- ▶ On-demand readings and control of rectifier output relay via iCPSM4
- ▶ Sealed, weatherproof unit with robust lightning protection and wide operational temperature
- ▶ AC or DC powered with 30 day battery backup
- ▶ Hourly check of rectifier outputs, ON/OFF potentials
- ▶ Synchronization enables close interval surveys to be carried out more quickly, with no rectifier setup. Synchronised to 10ms precision
- ▶ Start with the ON or OFF for interruption, cycles up to 120 seconds
- ▶ Compatible with Solid State Relays (SSR's) and mercury relays
- ▶ Pipeline locate
- ▶ Immediate alarm generation (user preset thresholds on all channels)
- ▶ Alarms when protection inadequate or power fails at rectifier
- ▶ Uses the same terminal connection block and GPS antenna as previous MERLIN TR models making upgrade to a SUNBIRD TR fast and easy



### SPECIFICATIONS

#### DIMENSIONS (H x W x D)

3.35" x 4.9" x 2.17"

#### INGRESS PROTECTION

NEMA 4

#### TEMPERATURE RANGE

-22°F to +185°F 100% condensing humidity

#### COMMUNICATIONS

5G IoT. The SUNBIRD TR utilizes NB-IoT communications which is a 5G technology designed for the Internet of Things and intended to endure beyond commercial fast 5G.

#### BATTERY BACKUP

30 day battery backup

#### SOFTWARE PLATFORM

iCPSM4

### ABOUT US

Abriox is a dynamic high technology company specializing in remote monitoring and control for pipelines with US Headquarters in Ohio and European and International Headquarters in the UK.

### GET IN TOUCH

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