

CATHODIC PROTECTION MONITORING

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.

Utilizing NB-IoT delivers a communication life beyond 2030. NB-IoT communications also provide greater geographical coverage than existing 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. Controllable from iCPSM4 the SUNBIRD TR interrupts in perfect synchronization with other Abriox SUNBIRD units.

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.

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

FEATURES AND BENEFITS

- ▶ NB-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
- ▶ Synchronized to 10ms precision interruption with other Abriox SUNBIRD units
- ▶ Start with the ON or OFF for interruption, cycles up to 120 seconds
- ▶ Compatible with Solid State Relays (SSRs) 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

- ▶ The SUNBIRD TR utilizes NB-IoT communications 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 Texas and European and International Headquarters in the UK.

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www.abriox.com

usinfo@abriox.com

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