

TECHNICAL DATA SHEET

Live-Line Indicator Ring for Couplers LLIR8/15A

SKU E202008002

■ Description

The live-line indicator is an aluminum ring that gives three redundant light signals to the outside of the cable coupler, informing about voltage and current presence inside the cable coupler.

The luminous interface is all mounted on an aluminum structure that gives continuity to the mechanical properties of the plug.

The voltage presence signal is obtained by harvesting the electric field inside the cable coupler, without making electrical contact with the main conductors of the SHD cable.

The live-line indicator ring uses the same concept of the warning lights on electrical panels: lights-on mean voltage presence; lights-off mean no information about voltage presence and a mandatory need to double check voltage presence before unplugging.

The three redundant warning light signals are:

- **Low intensity white flashing light:** voltage presence inside the cable coupler over 3.5kV AC phase to phase.
- **High intensity red flashing light:** voltage presence inside the cable coupler over 3.5kV AC phase to phase, plus internal battery with charge.
- **High intensity red light:** current presence inside the cable coupler over 15A AC.

The live indicator ring is the user interface of the system in the outside of the cable coupler. Along with the ring, in the inside the coupler are located the other components: toroidal transformer, CPU, battery and antennas.

The toroidal transformer harvests the magnetic field when there is current flowing through the cable. It charges the battery that powers the red flashing lights. Battery fully charged can last more than 80 hours flashing the red lights (just voltage presence).

The battery LiFePO₄ (LFP) used in the LLIR8/15A was specially selected for being “intrinsically safe” and because of its long shelf and cycle life.





■ Application

Mining cable couplers of 8 kV for 1 AWG to 500 MCM and mining cable couplers of 15 kV for 1 AWG to 4/0 AWG, both used to power electric shovels, drilling machines, electrical distribution lines and others. The LLIR8/15 can be energized with 7,2 kV or 13,8 kV.

■ Installation

Install the kit on the coupler according to the instruction sheet. Check the correct installation before sending to the field.

Attention: if there is no light indication on the ring, there is no information on voltage presence and the operator must follow the unplugging protocol.

■ Characteristics

- Voltage presence indication over 3.5kV AC phase to phase.
- Current presence indication over 15 Amps.
- Lights embedded in insulating epoxy resin (18 kV/mm), with vacuum and oven, over the aluminum body.
- High mechanical resistance.
- Compatible for Patton&Cooke®, UEE®, Wünkhaus® and 3M® mining couplers.
- Available for KONNX®, AUSPROOF®

■ Benefits

- Key safety tool to support the process of unplugging mining couplers.
- Enables the use of the “Five Golden Rules” because allows to check the high voltage absence.
- High brightness that can be seen from a distance to prevent running over.

■ Warranty

The only responsibility of the seller or manufacturer will be to replace products that have a factory default. The seller and the manufacturer will be not responsible for any personal injury, loss, or damage whether direct or consequential resulting from the use of this product. Before using the product, the user must determine if it is appropriate for the use and the user will assume all responsibility and risk related with such use.

The accessory indicates voltage or current presence with lights signals. The light signal indicates voltage presence; however, the absence of light signal does not assure the absence of voltage in all phases of the cable. Therefore, if there are not light signals, the voltage presence must be double checked, and the unplugging protocol must be activated.