

## **OVERVIEW**

The LLi3 is a safety monitoring device which is continuously rated to be connected across the line or load terminals of an electrical system and will provide LED indication of the presence of voltage on each phase.

Designed to suit latest VSDs, our LLi3 module is a compact, DIN rail/panel mount, low power (24V AC/DC), three phase monitoring device which provides indication of the presence of Voltage on any or all phases of a 3 phase electrical system.

Visual indication is by an isolated, low voltage remote display (LLD). Two (2) LEDs per phase are fitted on the remote indicator, providing redundancy of indication.

The three (3) line/load phases and earth are connected directly to the LLi3 module.

A push button Test function ensures correct operation of the main module and remote indicator.

In operation the LLi3 will detect the presence of a voltage above 50 volts on any or all of the phases. The LEDS on the remote indicator will illuminate for each of the phases that are energised.

The remote display is optically isolated from the module/phase voltages with Zener diode clamped output (maximum of 24V AC/DC touch potential). Two LEDs for each phase are provided to provide redundancy.

A normally open, momentary push button is provided to activate the test function which will illuminate all three phases on the remote indicator for approx. 2 seconds.



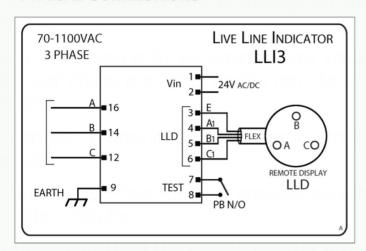


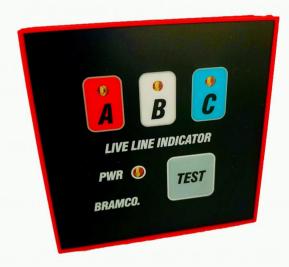
#### **GENERAL RECOMMENDATIONS**

Mount the module as close as is practical to the point of connection. Connect the 3 phase and Earth cables to the terminals of the supply to be monitored as shown on the connection diagram. The connecting leads should be as short as is practical and consistent with good wiring practice.

Install the remote Indicator and ensure a gap of 50mm is maintained between any mains and/or control cables and the remote indicator leads at all times.

#### **TYPICAL CONNECTIONS**





### **SPECIFICATIONS**

The LLi3 module is designed to couple directly across any 3 phase electrical system that is rated within the voltage as specified below.

All components in the barrier network are rated at 2.5 times the maximum network voltage impressed on them, relative to the maximum system voltage and are impulse voltage rated to 7 times the maximum network voltages applied.

The LED network in the indicator is engineered to operate at the lowest practical power level to ensure maximum LED life.





System Voltage 110 – 1100V AC/DC

Phase Voltage Nominal 70 – 700V AC/DC

**Test Voltage** AC 2000 Volts for max 1 minute (Ph to Earth)

DC 3500 Volts for max 1 minute (Ph to Earth)

Phase Loadings 11M Ohms

**Remote Display** 24 Volt maximum touch potential

**LLi3 Module:** 

Dimensions:  $55W \times 75L \times 110H$ 

Material: High impact resistant polycarbonate enclosure.

Mounting: DIN rail or 2 x screw panel mount

Connections: Terminals - cage screw slotted terminals

Weight: 185gms

**Remote Display/Push Button:** 

Panel cut out: 22.5mm diameter

Bezel: 30mm diameter x 20mm projection

Depth: 40mm excluding cable (allow 100mm for cable)

Connection LLi3: 1m x 6 core cable (2 cores for PB)

Weight: 150gms Ingress Protection: IP 67

Display: High Intensity red LEDS and red lens

Pushbutton: SP NO momentary

**Operating Temperature:** -25 to +65° C

**Ordering Information:** 

LLi3 Module with Remote Display and Push Button - Part Number A01503

# **Bramco Contacts**

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