



LLm

Live Line Indicator Module

PRODUCT OVERVIEW

Clear, reliable live-line monitoring to help keep your team safe.

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The LLM Live Line Monitor provides remote, high-visibility indication of 3-phase AC load circuits. Designed for mining and industrial switchgear, the LLM gives operators clear confirmation of energised or isolated status — reducing risk during switching and lockout procedures.

The LLM builds on decades of Bramco technology, continuously engineered and supported by the Leishman family and m-tronix.

Fully compliant with AS 2081:2011 for live-line indication in mining applications.

APPLICATION

The m-tronix LLM is intended for:

- Underground and surface switchgear
- Longwall, conveyor and pump starters
- OEM enclosures
- MCC panels
- Fixed plant
- Any installation requiring remote live-line indication at the operator door

Typical use: provide clear door-mounted LED status via the LLM Remote Display.

FEATURES

General

- Compact low-power 3-phase monitor
- DIN-rail or screw-mount module
- High-visibility dual LED indicators for each phase
- ELV-powered remote display for front-panel safety
- Robust mining-grade design

Normal Operation

- **No AC present:** all LEDs OFF
- **AC present:** LEDs ON for all energised phases
- If **any** LED is ON → **circuit is LIVE**

Fault Indication

- LEDs ON when circuit should be isolated
→ Indicates welded contactor, leakage, or isolation failure

LED Indicators

- Phase A (U) — dual LEDs
- Phase B (V) — dual LEDs
- Phase C (W) — dual LEDs

4. SPECIFICATIONS

Supply Voltage Options

- 375–635 V AC
- 660–1100 V AC

Connections

- A, B, C phases
- Earth
- Terminals for Remote Display

Display Module

- Door-mounted LLD remote display
- Extra-low-voltage signalling for operator safety

Power Consumption

- < 2 VA typical

Environmental

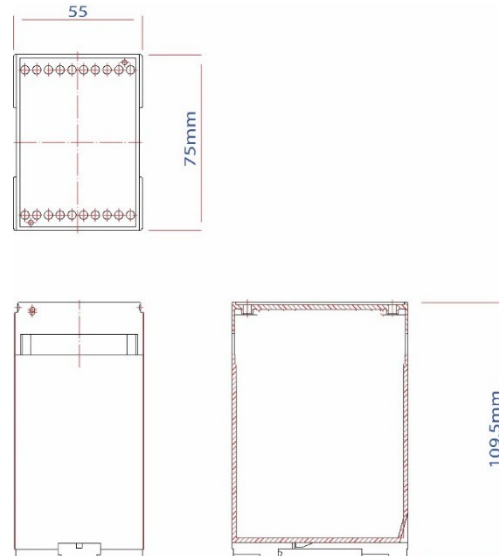
- Operating Temperature: 0–60°C
- Humidity: 0–95% non-condensing

Enclosure

Material: High-impact polycarbonate

Mounting: DIN-rail or screw mount

Terminals: Cage screw

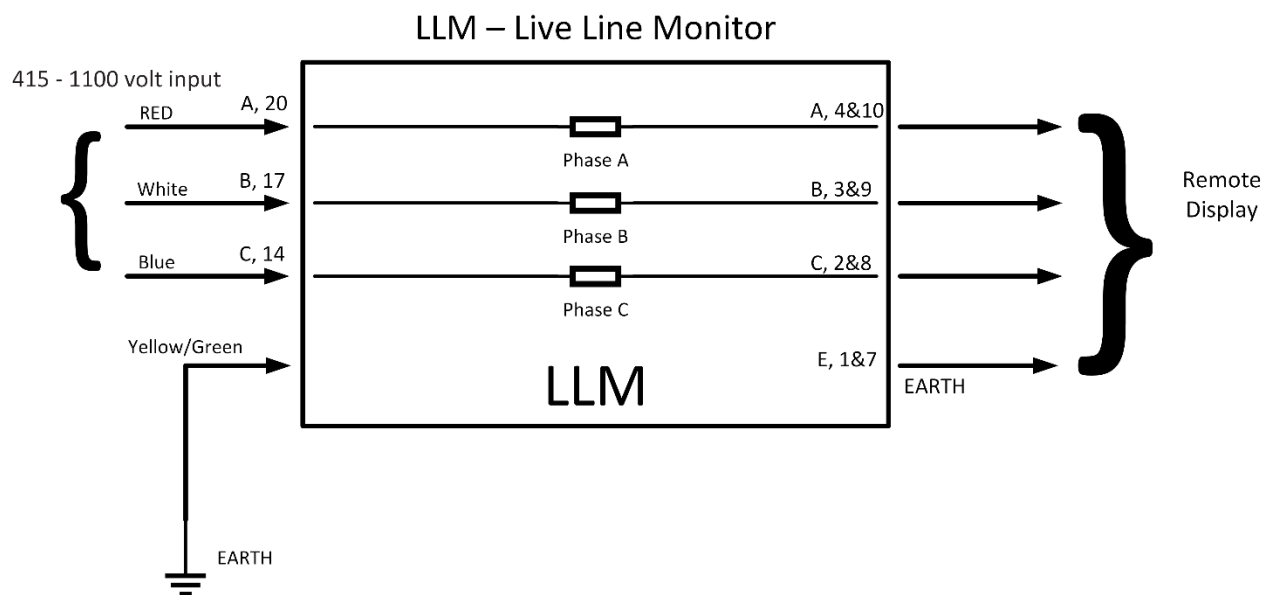


ORDERING INFORMATION

Part Number	Description
A00971	LLM Module — 660–1100 V AC
A01247	LLM Module — 375–635 V AC
A00739	LLM Remote Display

COMPLIANCE

- **AS 2081:2011** (relevant live-line indication requirements)
- Designed for use in mining and industrial electrical protection systems
- Manufactured to applicable AS/NZS and IEC standards



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