Leaders in Innovative Protection Systems, Bramco’s NLM4 is compliant to the latest statutory and industry standards. The Bramco Neutral Link Monitor relay (NLM4) is a NER integrity protection device designed to continuously monitor the current limitation system on the secondary star point to earth connection of a supply transformer. The unit can also be utilized to monitor a direct connection to earth from the star point. The NLM4 monitors the NER Resistance integrity, excess phase voltage rise, neutral earth leakage current, with the ability to adjust trip times for protection coordination. The NLM4 offers a Remote Screen that takes your fault indication and controls from the inside of your panel to the outside where it is more visible. Yet your heavy power wiring stays inside the panel preventing thick wiring bundles going out to the door. The EL4 and EL4R are interconnected with a ribbon cable that is available in different lengths. (Custom made lengths are available on request)

**Features**

- The NLM4 connects directly to AC supply systems with line voltages up to 1100 Volt without any additional barrier assembly.
- It can also be utilized on systems with line voltages up to 4160 Volt with the addition of a barrier assembly.
- Earth Leakage Current is monitored in the neutral to earth circuit using and external EL toroid. (Toroid not included)
- LED indication of Power On, NER integrity, Excess Voltage and Earth Leakage current.
- The unit is configured as fail safe and latch on fault.
- Back up protection is provided by detecting voltage rise across the NER.
- Trip Delay Times are individually adjustable for Earth leakage, NER integrity, and Over - voltage.
- Adjustable earth leakage current trip
- Adjustable excess voltage trip
- Adjustable NER resistance limits
- Earth leakage frequency response range selectable, 50 - 60Hz or 5 - 100Hz, when used on transformers feeding Variable Frequency Drives.
- Open circuit toroid protection
- Reset push button input provided
- Time - stamped log of trip events

**Specifications**

<table>
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<tr>
<th>Mounting</th>
<th>DIN Rail mounting with screw terminals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communications</td>
<td>RS485 serial port Modbus ASCII / RTU</td>
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<tr>
<td>Instrumentation output</td>
<td>4 - 20mA or 2 - 10 Volt</td>
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<tr>
<td>Power input</td>
<td>110 - 240vAC 50/60Hz</td>
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<tr>
<td></td>
<td>24 - 48v AC/DC</td>
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<tr>
<td>Operating Temperature</td>
<td>0 - 60°C</td>
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<tr>
<td>Enclosure Dimensions</td>
<td>150mmW x 75mmH x 110mmD</td>
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<tr>
<td>Weight</td>
<td>900 gram</td>
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<tr>
<td>NER Resistance Values</td>
<td>NER 24 to 650 ohms depending on system voltage and limiting current required</td>
</tr>
<tr>
<td>Earth Leakage System</td>
<td></td>
</tr>
<tr>
<td>Voltages</td>
<td>415/1100V - 240/635V phase</td>
</tr>
<tr>
<td></td>
<td>3.3kV/4.16kV - 1900/2500V phase</td>
</tr>
<tr>
<td>NER trip value Adjustment</td>
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<tr>
<td>Trip Tolerance</td>
<td>-10% to +0%</td>
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<tr>
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<tr>
<td></td>
<td>2 to 10 seconds for NER integrity</td>
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<td>5 - 50% phase voltage trip</td>
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<tr>
<td>Excess Voltage Relay Contacts</td>
<td>2 pole changeover 5A 240vAC for earth leakage</td>
</tr>
<tr>
<td></td>
<td>2 pole changeover 5A 240vAC for over-voltage and NER integrity</td>
</tr>
</tbody>
</table>

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Neutral Link Monitor
Model NLM4
Suitable to be used on Transformers feeding Variable Speed Drives
Neutral Link Monitor
Model NLM4

Wiring Diagram

Compliance:
AS/NZS 2081:2011
• Electrical Equipment for Mines
• Electrical Protection Devices.

Ordering Information
Equipment Part no
Neutral Link Monitor - NLM4 A01243A
Remote Screen - NLM4R A01243B
40mm Toroid 1000:T A01334
Nlm3 Isolation Barrier 3.3kV A01447

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