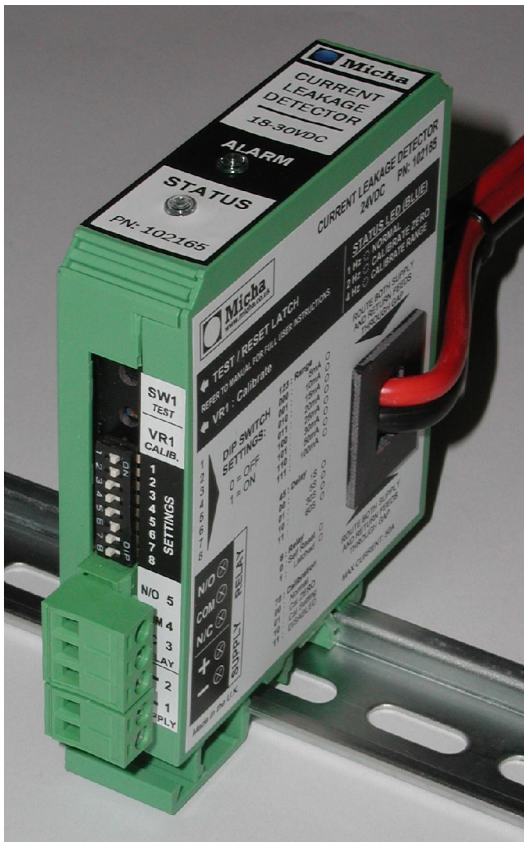
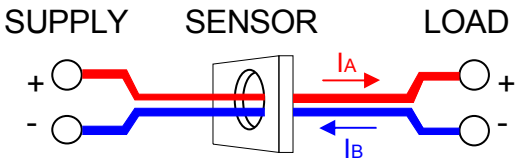
DRM Current Leakage Detector
Datasheet: 801755

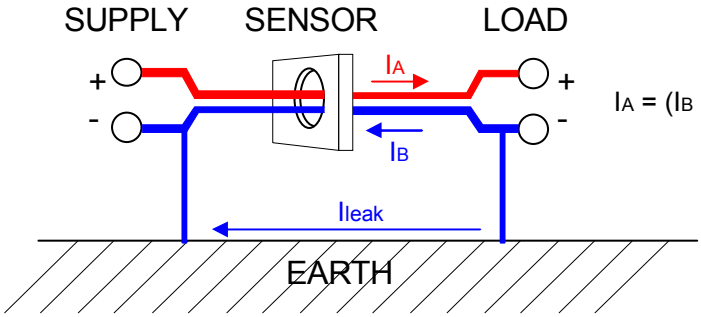


The Current Leakage Detector module is designed for use in DC systems up to a maximum of 50A. The outgoing and return cables are passed through a Hall detector and, under normal operating conditions, the current through each cancels the other out.



$I_A = I_B$

In the event of a leakage current, the imbalance (I_{leak}) is detected and measured by the onboard microcontroller.



$I_A = (I_B + I_{leak})$

If used in an 'earthed' system, it is imperative that grounding be done at only one point or, by definition, leakage current will pass through the common ground.

Connections and Setup:

The aperture opening is 7mm x 12.5mm, and the maximum practical sense cable diameter is 6.0mm. Typically, 6mm² cable (<5mm OD) fits comfortably, and allows a reasonable bend radius after exiting the sensor (as shown above). Sensor modules should be placed with a 35-40mm gap between them.

The desired trip level and any delay before alarm activation is selected by setting the appropriate DIP switches on the front face. Optionally, the alarm can be set to latch even if the fault condition disappears.

Example setting:

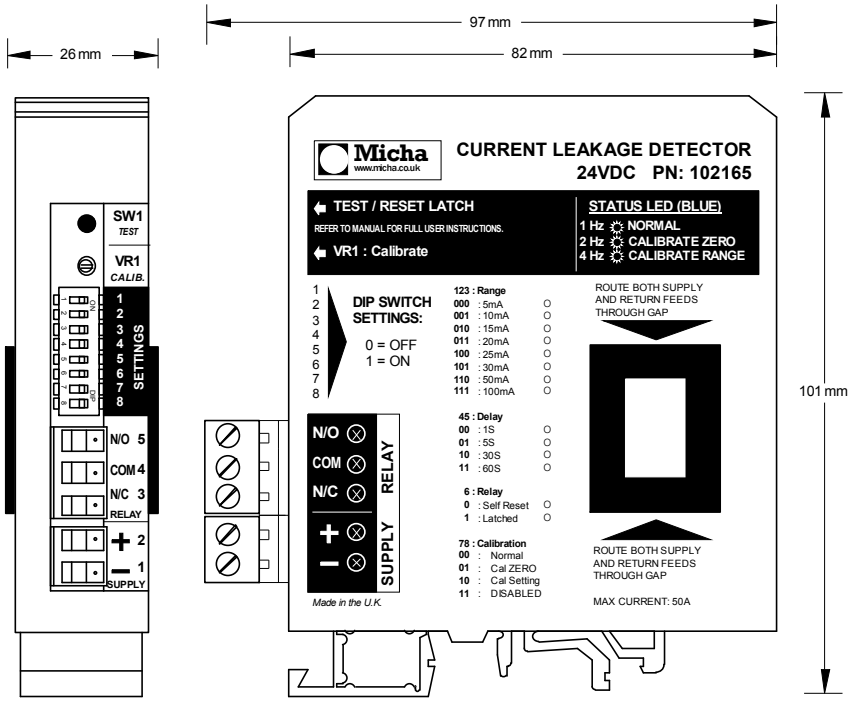
30mA Trip, 30sec delay, latched alarm:

DIP Switches 1-8: **01 0 1 1 0 0 0**

A latched alarm can be reset by pressing SW1, which can also be used to test the function of the alarm contacts.

Supply:

A suitable fused supply should be made to terminals 1 & 2. The module is protected against reverse polarity connection.



Part Numbers:	**102 164: 12VDC (10-16VDC)**	**102 165: 24VDC (20-30VDC)**	**102 166: 48VDC (40-60VDC)**
Operating Current:	Quiescent: approx. 750mW	In Alarm: approx 900mW	Relay contacts: 1A at 125VAC / 24VDC