

## ELD V3 - EARTH LEAKAGE RELAY

Compliant with AS/NZS 2081:2011, Section 6

### Applications

The Ampcontrol ELD V3 Earth Leakage Relay has been designed and approved for use on earth fault limited systems, namely coal mining applications, providing earth leakage protection (earth fault protection) as per AS/NZS 2081:2011. The relay is also suitable for other applications where equipment or system earth leakage protection is required.

### Features

- AS/NZS 2081:2011 (Section 6) compliant
- Fail safe operation
- Continual monitoring of the toroid
- Adjustable trip level and time delay settings
- Bar graph to monitor leakage
- 4-20 mA output for remote indication
- Maximum leakage since last power up/reset stored in memory
- AC or DC supply operation
- Functions normally for two (2) seconds during extreme power dip or power loss



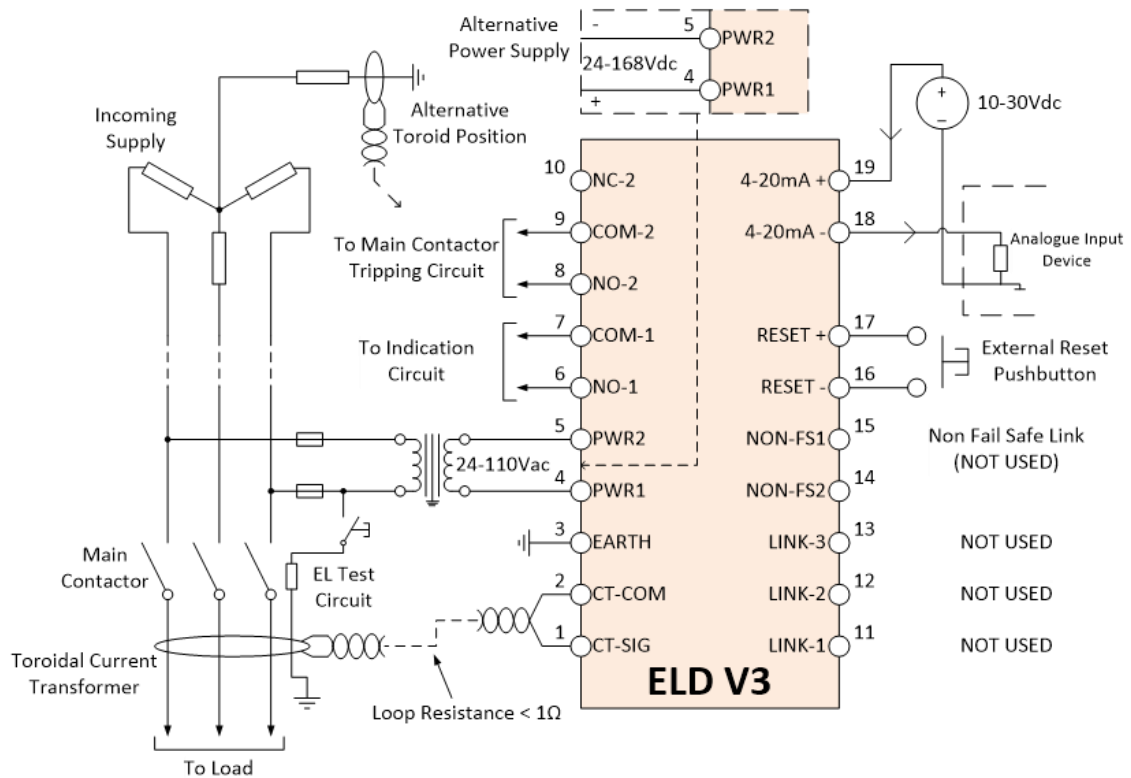
\* Dial colour may vary

### Product description

The ELD V3 Earth Leakage Relay utilises a microprocessor design, providing a definite time operating characteristic with adjustable trip sensitivity and time delay. The relay latches when tripped and provides normally open and change-over relay contacts. The relay supports an external reset switch, and a 4-20 mA interface allows external monitoring.

The ELD V3 Earth Leakage Relay is housed in a stainless-steel case and can be either 'DIN Rail' or 'Panel' mounted through a 69 x 39 mm cut out. When panel mounted the front of the ELD relay is designed to provide IP56 ingress protection. An attachment to prevent unauthorised adjustment of the trip settings is available separately

Diagram



**SPECIFICATIONS**

Supply Voltage	
<i>Voltage</i>	24-110 VAC +/- 20 %, 50 Hz 24-168 VDC +/- 10 %
<i>Power Consumption</i>	< 3W
<i>Operating Temperature</i>	0 °C to 60 °C
<i>Humidity</i>	Between 10% relative humidity and the dew point, non-condensing
Operating Frequency	
<i>Frequency</i>	50 Hz
<i>Accuracy</i>	10 % @ 50 Hz
Compliance	
<i>AS/NZS 2081</i>	Section 6 – Earth Fault Protection Devices
Relay Contacts	
<i>Contacts</i>	1 x NO / 1 x CO
<i>Ratings</i>	250 V, 1.6 A, 400 VA
<i>Relay to Toroid</i>	< 1 Ω
4-20 mA Output	
<i>4-20 mA Output</i>	The 'Loop Powered' current represents the leakage current as a % of the trip level. 4 mA => 0 % leakage, 20 mA => 120 % leakage (100 % = 17.33 mA)
<i>Loop Supply Voltage</i>	10 – 30 VDC
<i>Max. Loop Resistance</i>	700 Ω at 24 VDC loop supply
<i>Accuracy</i>	+/- 2 % of full scale

## SPECIFICATIONS Cont'd

<b>Mechanical</b>		
<i>Dimensions</i>	77 w x 47 h x 116 d (mm)	
<i>Cut-Out Dimensions</i>	69 w x 39 h (mm)	
<i>Weight</i>	500 g	
<i>IP Rating</i>	IP56 (When panel mounted)	
<b>Trip and Time Delay Settings</b>		
<i>Switch Position</i>	<i>Trip Level (mA) ±10 %</i>	<i>Time Delay (ms) +0 ms, -20 ms</i>
0	100	50
1	150	100
2	200	150
3	250	200
4	300	250
5	350	300
6	400	350
7	450	400
8	500	450
9	750	500
A	1000	500
B	1250	500
C	1500	500
D	1750	500
E	2000	500
F	2500	500
<b>Part Numbers</b>	<b>Description</b>	
167259	ELD V3 Earth Leakage Relay	
179721	ELD V3 NO CT TRIP (See User Manual for details)	
179722	ELD V3 EXTENDED TRIP TIME (See User Manual for details)	
179513	ELD, ELV, ELM Service Kit	
101399	DIN Rail Mounting Kit (Suit ELD, ELV & ELM)	
120255	ELD-ELC/F Adapter Kit	
164672	Lockable Front Cover (Suit ELD, ELV & ELM)	
175279	Adaptor BRAMCO to ELD/ELV/ELM	
121023	Clip ELD Panel Mount Retaining (1x)	
174378	Clip ELD DIN Rail Mount Retaining (1x)	
115437	Toroid – 25 mm ID (DIN Rail Mounted)	
101649	Toroid – 60 mm ID (Alternative Item 101658)	
101656	Toroid – 112 mm ID	
<b>Find Out More</b>		
For more information on this product, contact Ampcontrol Customer Service on +61 1300 267 373 or <a href="mailto:customerservice@ampcontrolgroup.com">customerservice@ampcontrolgroup.com</a> or visit the Ampcontrol website: <a href="http://www.ampcontrolgroup.com">www.ampcontrolgroup.com</a>		

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