

# EFL8

## Earth Fault Lockout and Phase Loss Relay



Figure 1 EFL8

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# 1. Introduction

## About this manual

This manual was prepared to aid the engineer in the implementation of the EFL8 in systems with easy to understand terms and procedures.

## About the EFL8

The EFL8 is an Earth Fault Lockout and Phase Loss Relay.  
The EFL8 is manufactured to international standards utilizing the best components available. We offer 24/7 toll free technical support, backup service and training.

### The EFL8 has all the following functions available.

1 x NO Relay Contact  
Phase loss detection  
Earth Fault detection with a lockout function

### The EFL8 is available in the following versions.

| Control Voltage | Phase voltage |
|-----------------|---------------|
| 110             | 1000          |
| 110             | 525           |
| 110             | 380           |
| 220             | 1000          |
| 220             | 525           |
| 220             | 380           |

## 2. EFL8 HMI

HMI (human machine interface)

The EFL8 operates as a user friendly device with colour indication.



|                 |   |
|-----------------|---|
| EARTH LOCKOUT:- | Flashes Red indicating that there is an earth fault present<br>On M1, M2 or M3. No continuity between COM and NO. |
| SYSTEM OK:-     | Flashes Green indicating system healthy<br>Continuity between COM and NO.   |
| PHASE LOSS:-    | Flashes White indicating a phase has been lost on<br>L1, L2 or L3. No Continuity between COM and NO.              |

### 3. EFL8 Connections



- L1, L2, L3 are the Line connections feeding the system and monitored for phase loss
- M1, M2, M3 are the Load connections and monitored for Earth Fault
- COM and NO are the Relay contacts and will have continuity when the SYSTEM OK indication is present, and not have continuity when the EARTH LOCKOUT or PHASE LOSS indication is present, or if the control voltage is not present
- Earth point should be connected to the systems high quality earth
- 220V is the control voltage point and be 110V on the 110V models
- 0V is the Neutral point of the system

## 4. Warranty

The EFL8 carries a one year limited warranty on all parts and labour.  
(Full warranty details available on request)

## 5. Safety information

Dangerous voltages can occur on the connectors, even if the auxiliary voltage has been disconnected.

Only a certified electrician is allowed to carry out the electrical installation.  
Breaking the seal on device will result in loss of warranty.  
Electrical safety regulations must always be followed.

## 6. Electrical specifications

|                       | Min | Typical | Max  | Unit |
|-----------------------|-----|---------|------|------|
| Control Voltage (110) | 100 | 110     | 120  | VAC  |
| Control Voltage (220) | 210 | 230     | 240  | VAC  |
| Relay Contacts (AC)   |     |         | 250  | VAC  |
| Relay Contacts (AC)   |     |         | 16   | A    |
| Relay Contacts (DC)   |     |         | 30   | VDC  |
| Relay Contacts (DC)   |     |         | 16   | A    |
| Phase Voltage 380     |     |         | 450  | VAC  |
| Phase Voltage 525     |     |         | 600  | VAC  |
| Phase Voltage 1000    |     |         | 1200 | VAC  |

# 7. Terms and conditions

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