

MEC-1 EARTH CONTINUITY RELAY

Product overview

The MEC-1 is an electrical protection relay designed for operation in metalliferous mining applications. It provides earth continuity protection functions that ensure the electrical distribution system in the mine operates safely in accordance with AS/NZS 2081:2011.

Typically the MEC-1 relay will be connected to the pilot conductor of a trailing or reeling cable. With the pilot conductor terminated to earth through a diode, the relay measures the resistance of the pilot-earth loop (series resistance), to ensure the integrity of the earth conductors, and the pilot to earth resistance (shunt resistance), to ensure the integrity of the pilot-earth loop. If either the series resistance exceeds, or the shunt resistance falls below, the configured settings, a trip will remove power.

The MEC-1 relay is based on microprocessor digital logic, and features a user friendly LED and switch interface. It is installed within a compact, DIN rail mounted unit with pluggable connectors for easy change out if required.

The MEC-1 supersedes previous Ampcontrol metalliferous relays including the ECM and ECM-R.

Features

- AS/NZS 2081: 2011 Compliant
- 24VAC/DC operation
- 5 x diagnostic LEDs
- Trip time settings – 50ms, 100ms, 200ms, 300ms, 400ms, 500ms
- Trip resistance settings - 10Ω, 15Ω, 20Ω, 25Ω, 35Ω, 45Ω
- Selectable remote start
- Selectable trip latching
- Diode termination

Applications

The MEC-1 is designed for use in metalliferous mines. The relay continually monitors the integrity of the earth connection in a mining trailing or reeling cable, and is normally installed in a substation or distribution box.

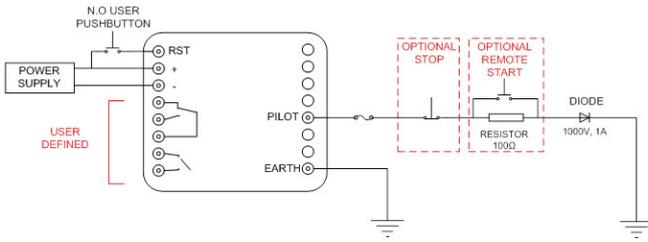


Developed for



This product has been developed to meet the needs of operating environments in the countries listed. For more information on tailoring a specific solution for use in your country, please contact us today on +61 2 4961 9000 or via email on info@ampcontrolgroup.com.

Block diagram



Specifications

Power Supply Inputs	
Voltage	24VAC/DC \pm 20%, 5W
Ambient temperature	-20°C to +65°C

Earth continuity protection: AS/NZS 2081:2011	
Series Resistance Trip Settings (\pm 3)	10, 15, 20, 25, 35, 45
Shunt Resistance	1.25k
Trip Time Settings	50ms, 100ms, 200ms, 300ms, 400ms, 500ms
Optional Start Button	100, 1%, 5W

Mechanical

Weight	503gms
IP Rating	IP20

Dimensions



Front Panel

