

**PROTECT HUMAN & MOBILE MACHINERY  
ASSETS FROM THE RAVAGES OF FIRE!**



The use of electrical equipment is essential to the productivity of every mining operation. But where there is a heat source, there is always the potential for fire, a huge and devastating hazard to both operators and equipment.

The **Safety Solutions MicroFire Protection System** is a personnel and asset safety-driven initiative which protects all of your key assets from electrical fires and assists any fire-suppression system in minimising the damage in case of a mechanical fire by shutting down the machine completely.



The system acts as an early-warning alert for operators and mine managers of a pending fire due to an electrical short.

### How it Works

The **MicroFire Protection System** is triggered either by the fire-suppression system or an electrical short. Each system is set up against customised, pre-set parameters defined by the customer.

**MicroFire Protection** will monitor the current being drawn from the machine, and if the system current is higher than the parameter settings, the system will send out a visual and audible alert. The operator is warned via the in-cab display, and any number of predefined individuals will receive an alert via the Telegram communication portal. These alerts will identify the error type i.e. over-current or mechanical. A pre-set timer will begin the countdown to a complete, fail-to-safe vehicle shutdown, giving the operator enough time to pull the vehicle over and evacuate safely and without a recurrent incident.

The **MicroFire Protection System** will switch off all current supplied from the battery, minimising equipment damage, and stay locked out until an investigation has been done and any threat has been neutralised.

The system intelligently logs a history of all DC parameters for further analysis.

## Features & Benefits

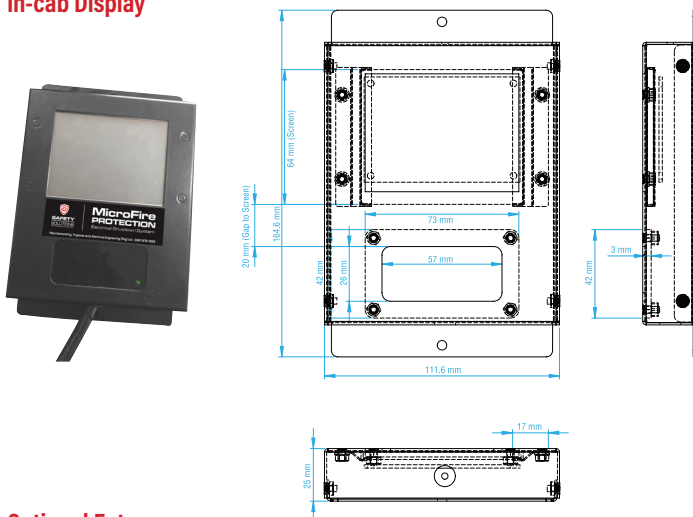
- In-cab display with built-in, 3-line LCD screen for easy viewing
- The in-cab display will show voltage, amperage, and the RFID.
- The RFID on the in-cab display will flash red when an error occurs to alert the operator.
- Diverse power monitoring functions (V, A, KWh)
- Onboard data logging provides historical logging of all DC metering parameters for analysis.
- When the system activates, it immediately sends SMS's via Telegram.
- Customisable parameter settings for alerts and notifications
- Password-protected parameter settings
- Resetting of the system is limited to authorised personnel only (card reader)
- Assist in preventing an electrical fire by neutralising power from the battery before it starts burning, minimising damage to the equipment.
- A shut-off timer that will be adjustable to the customer's needs
- To ensure that the operator exits the equipment safely,
- Dual fire prevention on electrical wiring, as it works in conjunction with the existing fire-suppression system.
- Detects overcurrent on the main supply and gives out a warning, which automatically cuts off the machine.
- The telemetric data dashboard feeds visuals of machine location, voltage, amperage, KWh, time of error, and type of error (overcurrent or mechanical). Audible error alerts are also sent to the dashboard.
- Live streaming from the dashboard to check the status (V, A, Kwh), position of the machine within the operation (GPS coordinates), time of error, and flash red when an alarm occurs, showing either an overcurrent or mechanical fire alarm.
- Fully automated system with no human intervention required
- No cutting of OEM wiring
- The system can be tailored for all makes and models of machines.

## System Compromises:

### Main Unit

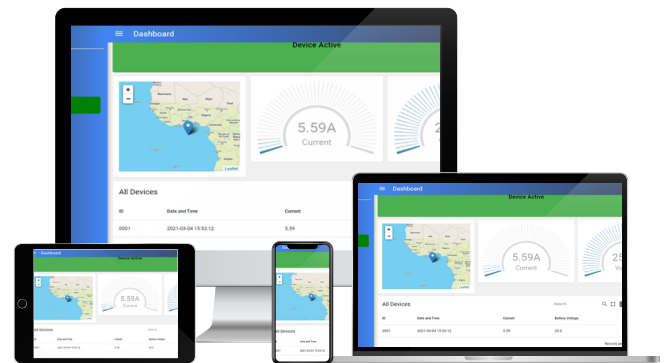


### In-cab Display



### Control Room/Interface

Desktop, cellphone, and tablet



## Optional Extras

- Solenoid valves, connected directly to the main supply from diesel tanks and hydraulic tanks, that close upon system activation to minimise fire damage that might be caused by diesel or hydraulic leaks.

Please note that the MicroFire Protection System should only be installed and configured by Trysome Auto Electrical Engineering to ensure that the system works to its full capability and to avoid unnecessary shutdowns.

This product may not be a stock item. Please speak to our sales representative about lead times. Lead times, price, and availability can only be determined on receipt of an official quote from our supplier. This can sometimes take up to 3 days.

### Gauteng - Jet Park (HQ):

T: +27 (0)11 823 5650

### Free State - Bloemfontein:

T: +27 (0)63 257 0505

### Eastern Cape - Port Elizabeth:

T: +27 (0)82 450 6596

### KwaZulu Natal - Pinetown:

T: +27 (0)31 303 4129

### Mpumalanga - Middelburg:

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### North West - Rustenburg:

T: +27 (0)14 596 5257

### Western Cape - Cape Town:

T: +27 (0)21 945 1453

### Botswana, Gaborone:

T: +267 399 4150

### Botswana, Letlhakane:

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### Mozambique, Tete:

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