

## IEL01

### Intelligent End of Line Device



## Installation Guide

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Part Number: M0733\_03



This product must be disposed of in accordance with the WEEE directive.

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Application Solutions (Safety and Security) Limited

Unit 17 Cliffe Industrial Estate

Lewes - East Sussex

BN8 6JL - UK

Tel: +44 1273 405411

Fax: +44 1273 405415

[www.asl-control.co.uk](http://www.asl-control.co.uk)

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# 1 Introduction

The IEL01 is used for monitoring speaker line integrity. It is powered directly from a surveillance tone generated by the amplifier and so does not require any external power. DC blocking capacitors are not required to be fitted to loudspeakers.

Up to 15 devices can be fitted to a single amplifier. It can be used on spurred speaker line circuits and each device can be placed anywhere along a speaker line spur. It is possible to fit multiple devices to a single spur giving increased line fault location accuracy.

Each device must be set to a unique ID by the installer. When a device (or devices) is lost due to a speaker line fault the ID(s) is reported by the PAVA system. Thereby, assisting the maintainer in locating the fault in the speaker line circuit.

The device can be used with amplifiers operating in dual output mode. IEL01 can be used on loudspeaker circuits up to 1000m in length.

Each IEL01 is supplied as circuit board and is intended to be fitted into an enclosure by the OEM or user. Restrictions apply to the enclosure and the way the circuit board is fitted - see section **3 Installation**.



This product is classified as a component and, as such, cannot be individually CE marked. Its EMC and safety performance depends on its installation - in particular, how it is cabled and enclosed.

The responsibility for EMC and LVD compliance therefore falls on the system integrator responsible for incorporating these products into the system.

## 2 Safety and Precautions

### Environmental



The temperature and humidity ranges shown in the specifications for this equipment must not be exceeded.



This equipment must not be installed in an area that is subject to a corrosive atmosphere, excessive moisture or may allow water or other liquids to come into contact with the unit or its external connections.

### Electrical Safety



The IEL01 is designed for professional use only and must be installed in a restricted access location such that there is no operator access to the IEL01 equipment or wiring.



Ensure connection cabling is adequately rated for the unit's operating current and temperature.



This equipment contains exposed wiring that is energised to 100V RMS audio signals at up to 20kHz. It must be installed such that it is only accessible to skilled persons that have been given appropriate training in the hazards.



The product must be securely fixed in place and wiring secured to prevent it moving.



Observe any safety labels on this product.

### ESD Precautions



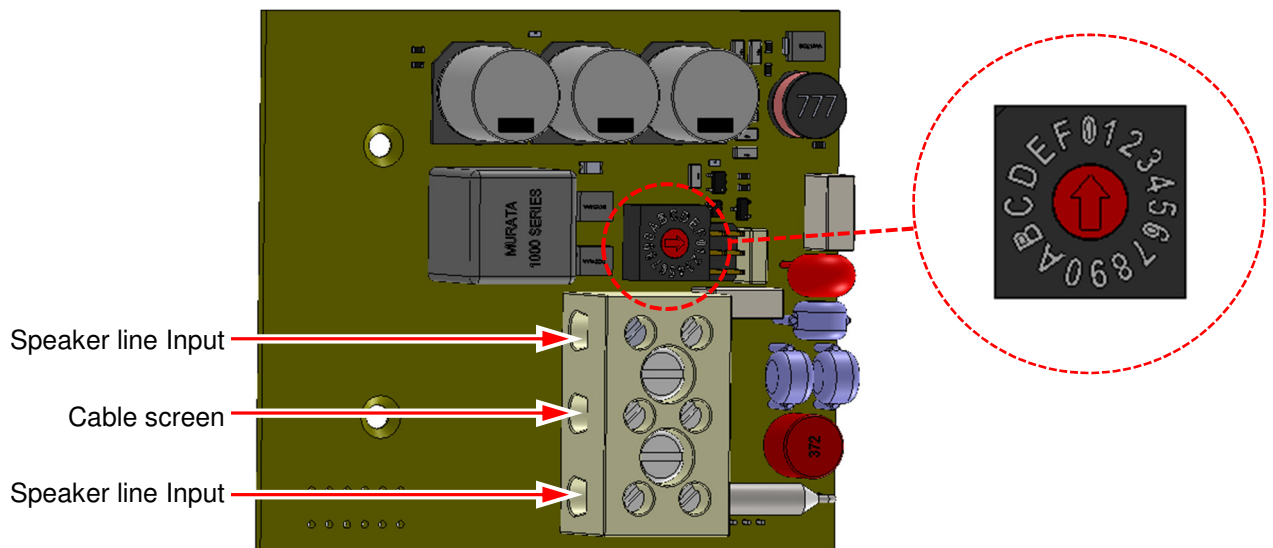
The IEL01 contain static-sensitive devices. Observe ESD precautions when handling the device.

## 3 Installation



Read and observe the safety instructions and guidelines in **2 Safety and Precautions**. Failure to follow these instructions and guidelines may cause personal injury and/or damage to the equipment.

### 3.1 Connections



Before installation, ensure the ID switch is set to the correct ID according to PAVA SCT configuration.

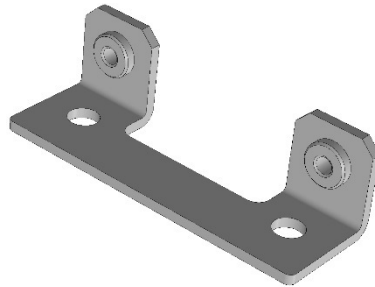
## 3.2 Mounting Options

The IEL01 should be mounted in such a way that nearby conductive surfaces do not compromise creepage and clearance requirements. The clearance distance should be in accordance with the relevant regulations governing the application and locality of installation. As a guide, a distance of at least 2mm from any conductive part of the circuit board to any other conductive surface is recommended for earthed enclosures and at least 4mm for non-earthed enclosures.

### 3.2.1 Mounting brackets for enclosures

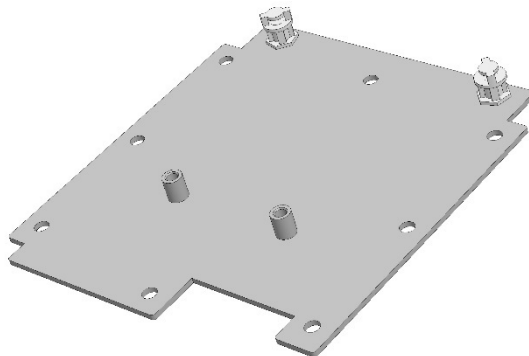
#### 3.2.1.1 IEL1-MNT-01

Right angled mounting bracket.



#### 3.2.1.2 IEL1-MNT-02

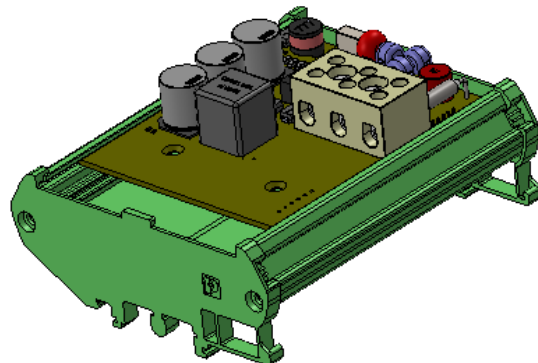
For Fibox enclosure part no. MNX PC 125/75 HG



### 3.2.2 Mount to DIN rail

To mount device to DIN rail the following components are required:

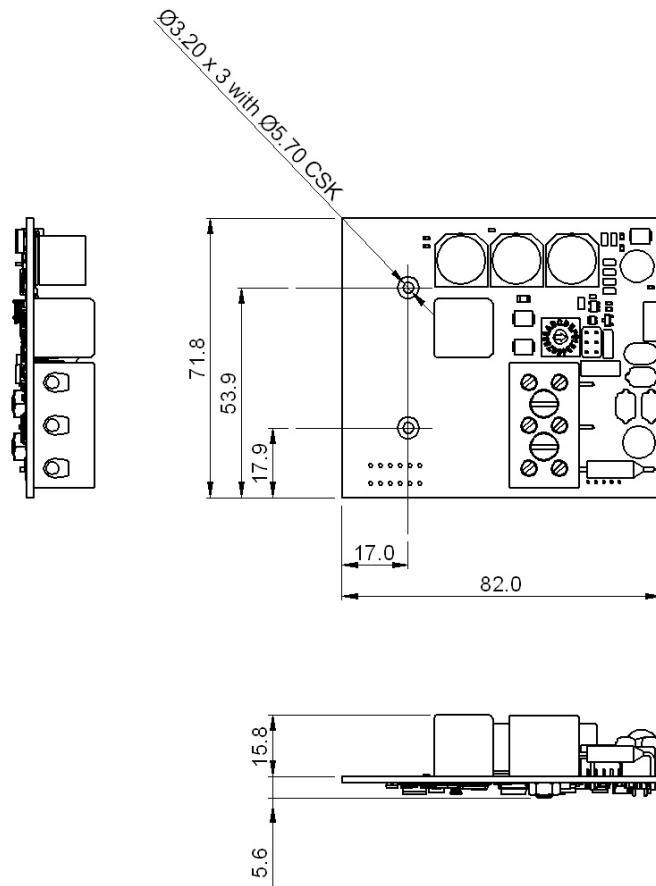
1. Phoenix Contact part no. 2907583 (cut to appropriate size).
2. Phoenix Contact part no. 2959340 (end piece).
3. Phoenix Contact part no. 2959353 (end piece).



## 4 Technical Specification

Surveillance Tone Frequency.....	20kHz
Typical Surveillance Tone Level.....	8V to 15V RMS
Thermal Fuse Temperature (not a user serviceable part).....	121 °C
Operating and Storage Temperature.....	-25 °C to 70 °C
Humidity Range .....	0% to 95% non-condensing
Dimensions (H x W x D) .....	23.5mm x 71.8mm x 82.0mm
Weight.....	77g

## 5 Mechanical Dimensions



(all dimensions in mm)



## Service and Warranty

Name and Address of Authorised Distributor:

This product carries a full warranty. For full details of warranty and service agreements, please contact the Authorised Distributor who supplied the product to you.

### Exclusions

The warranty does NOT cover:

1. Customer misuse, including incorrect installation.
2. Damage other than manufacturing defects.
3. Transit / Courier damage.
4. Incorrect voltage or power supply used.
5. Incorrect input signal.
6. Abnormal environmental operating conditions.
7. Damage incurred by accident, fire, lightning or other hazard.
8. Modification to the unit or inexpert / attempted repair.
9. No fault found – where no fault can be found after extensive testing, indicating user error or failure in ancillary equipment.
10. Electronic assemblies which are improperly packed when returned for repair or service. All electronics assemblies must be properly packed in ESD protective packing for transport to prevent physical and ESD damage.

Should any of the above apply, Application Solutions (Safety and Security) Limited reserves the right to raise any relevant charges to the customer.

Application Solutions (Safety and Security) Limited shall not be liable for any indirect, special or consequential loss or damage (including without limitation any loss of profits) arising from the use of this product or for any breach of this warranty.

In the interest of continual product development, Application Solutions (Safety and Security) Limited reserves the right to make changes to product specification without notice or liability.

