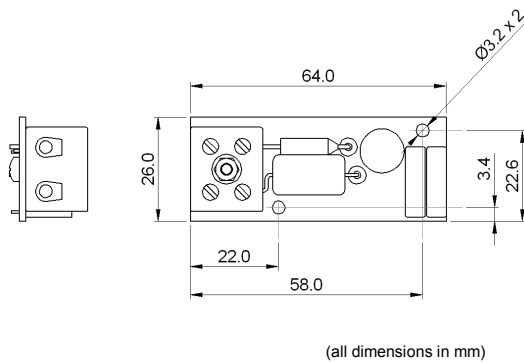
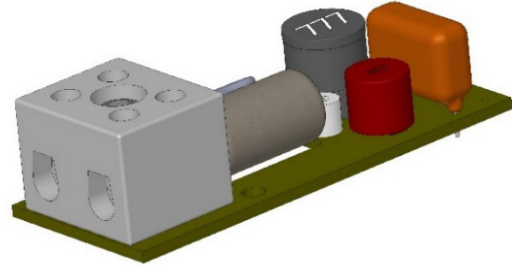


The EOLZ01 is a tuned load for use with the V2000 impedance monitoring surveillance function. By adding a load at the end of the speaker circuits, surveillance is achieved to the end of the line as the disconnection of the EOLZ01 causes a significant change in line impedance. Up to four EOLZ01 devices can be used on a single amplifier.

The EOLZ01 device is intended to be mounted either inside a speaker enclosure, or, if space does not permit, an additional enclosure box.

This guide covers the installation of the device and its use cases. For V2000 configuration refer to the Impedance Monitoring Technical Note [U-0623-0611].



Technical Specification

Operational Frequency	20kHz
Maximum Surveillance Tone Level.....	10V RMS
Current Rating	200mA
Maximum Input Voltage.....	140V RMS (20Hz – 20kHz)
Nominal Impedance at 20kHz	109 - 170 ohms
Fuse Rating (*)	200mA
Thermal Fuse Temperature (*).....	121°C
Operating and Storage Temperature.....	-25 to 70°C
Humidity Range	0% to 93% non-condensing
Dimensions (H x W x D)	20.0mm x 26.0mm x 64.0mm
Weight	31g

(*) not a user serviceable part

Safety and Precautions

Observe all safety information both on the equipment and in this section.

Environmental



- 1) The temperature and humidity ranges shown in the specifications for this equipment must not be exceeded.
- 2) This equipment must not be installed in an area that is subject to a corrosive atmosphere, excessive moisture or that may allow water or other liquids to come into contact with the unit or its external connections.

Electrical Safety



- 1) The EOLZ01 must be installed in a restricted access location such that there is no operator access to the EOLZ01 equipment or wiring.
- 2) Ensure connection cabling is adequately rated for the unit's operating current and temperature.
- 3) 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 qualified personnel who have had appropriate training in the hazards.
- 4) The product must be securely fixed in place and wiring secured to prevent it moving.

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Speaker Circuit Restrictions



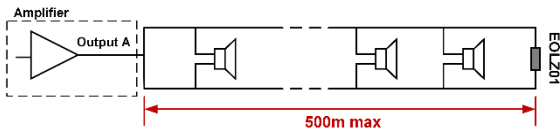
- 1) EOLZ01 devices must be fitted to the **last** speaker on a speaker line in order to detect to end of line.
- 2) Circuits that follow the following restrictions have typically been found to work reliably, but there are many other variables (such as cable characteristics) which mean these configurations are not guaranteed to work.
- 3) Correct operation of speaker circuit monitoring using impedance techniques is dependent on a number of factors outside of ASL's control. Installations should always be thoroughly tested to ensure circuits are monitored appropriately.
- 4) For advice on monitoring systems which fall outside of the recommended examples in this document, please contact ASL for advice.

Single Output Mode

Up to four EOLZ01 devices can be used on a single amplifier. However, the maximum cable length reduces as more devices (and spurs) are added (see table on right).

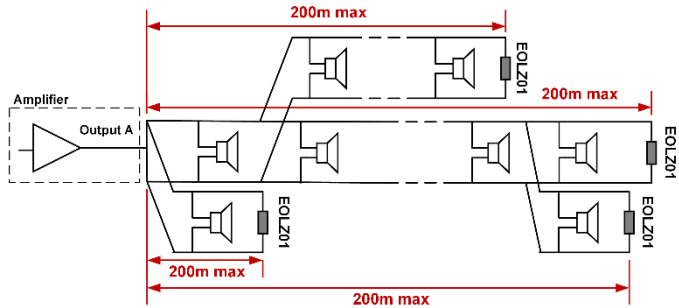
1 EOLZ01 / 1 Spur	500m
2 EOLZ01 / 2 Spurs	400m
3 EOLZ01 / 3 Spurs	300m
4 EOLZ01 / 4 Spurs	200m

Single Loudspeaker Line



The maximum cable length must be no more than 500m when one device fitted.

Spurred Loudspeaker Line



The maximum cable length must be no more than 200m when four devices fitted.

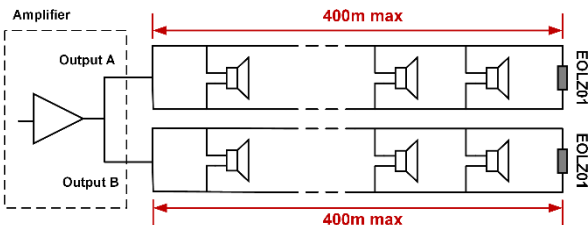
Dual Output Mode

The EOLZ01 can be used in dual output mode with either **two** or **four** EOLZ01 devices fitted. The devices can be used with up to 400m (if two devices) or 200m (if four devices) of speaker cable.



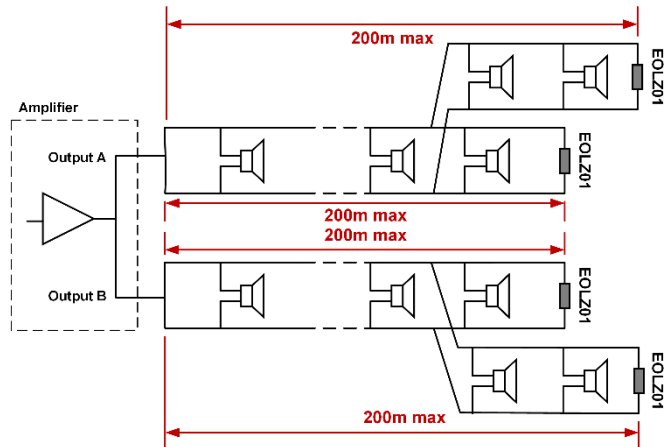
- 1) EOLZ01 devices must be fitted to the **last** speaker on a speaker line spur in order to detect to end of line.
- 2) When using dual output mode **an equal number** of EOLZ01 devices **must** be fitted to each output.
- 3) In dual output mode, the cable length for A and B circuits should be matched to within 10%, and should have the same number of speakers on each of the same type and power.

Dual Loudspeaker Lines



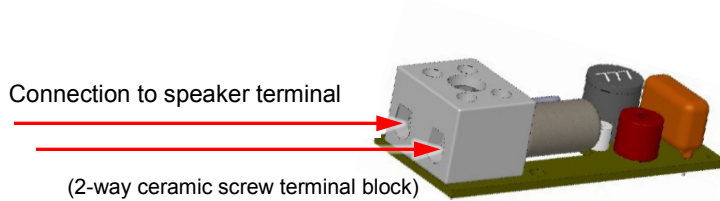
The maximum cable length must be no more than 400m when two devices fitted, and speaker lines should be balanced.

Dual Spurred Loudspeaker Lines



The maximum cable length must be no more than 200m, when four devices fitted, and speaker lines should be balanced.

Installation



Note:

DC blocking capacitors are **not** required to be fitted on loudspeakers. If DC blocking capacitors are already fitted, they will not need to be removed because their presence will not interfere with EOLZ01 operation.

Inside speaker enclosure

1. Remove the termination cover from the last loudspeaker in the spur or speaker line.
2. Fit the EOLZ01 device across the speaker's input termination block.



- 1) The product must be securely fixed in place and wiring secured to prevent strain and movement
- 2) Ensure the device's exposed circuitry does not touch any speaker circuitry or metalwork.
- 3) When fitting the EOLZ01 device inside a speaker enclosure ensure connection wiring is insulated.

3. Re-fit any termination covers.

Additional enclosure box



Ensure enclosure box is suitable for the intended environment, and does not impair safety or reliability.

1. Fit the EOLZ01 inside the enclosure box.
2. Mount the enclosure box close to the last loudspeaker in the spur or speaker line.
3. Remove the termination cover from the last loudspeaker in the spur or speaker line.
4. Connect the enclosure box to the speaker's input terminations.



Suitable fire rated cable should be used to connect the enclosure box to the speaker

5. Re-fit any termination covers.



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

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.

