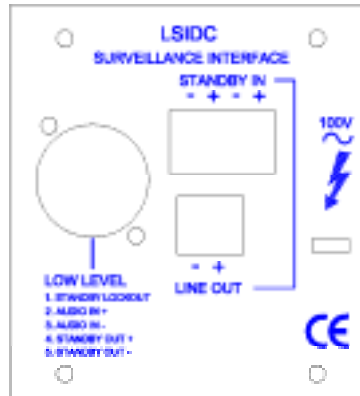


Product Description



The LSIDC is an amplifier interface card for use with the M100, M200 and M400 Class D Amplifiers in a V400 Amplifier Mainframe for Public Address and Voice Alarm applications.

This interface card provides; amplifier health monitoring via subsonic or supersonic surveillance tones, automatic control of changeover to standby amplifier, loudspeaker line earth leakage monitoring, and loudspeaker line “End Of Line” (EOL) monitoring.

EOL resistor terminations are available from suppliers of Application Solutions Ltd PA/VA equipment.

For further details please refer to the Amplifier Mainframe Handbook and the Application Solutions PA/VA Systems Design Handbook.

CE Declaration



This equipment is designed and manufactured to conform to the following EC standards:

EMC	EN 55103-1	Environment E1,	EN 55103-2	Environment E5
Safety	EN 60065			

Failure to use the equipment in the manner described in the product literature will invalidate the conformity. A ‘Declaration of Conformity’ statement to the above standards and a list of auxiliary equipment used for compliance verification is available on request.

Safety and Precautions

ELECTRIC SHOCK SAFETY

This product contains wiring that is energised to 100V rms with audio signals at up to 20kHz. Terminals marked with the ⚡ symbol are hazardous and the external wiring connected to these terminals requires installation by an instructed person.

It is important to ensure fixing screws are fully tightened so that the interface panel is electrically bonded to the mainframe chassis. If it is not correctly bonded to the chassis, dangerous voltages can be present on the panel.

ENVIRONMENTAL PRECAUTIONS

Always ensure adequate ventilation is provided for the equipment and do not obstruct ventilation holes. The temperature and humidity ranges shown in the specifications for this product 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

ESD PRECAUTIONS

This product contains static-sensitive devices. Observe ESD precautions when handling this product.

WARNING

You must switch-off AC mains and Battery supplies before plugging/unplugging modules or interface cards, or you may damage the mainframe, module, and interface card electronics.

Ensure that the total speaker load does not exceed the rating of the amplifier. Check loading with an impedance meter if necessary.

Ensure that the speaker line is not shorted to earth. This can be checked with a multimeter on a resistance range.

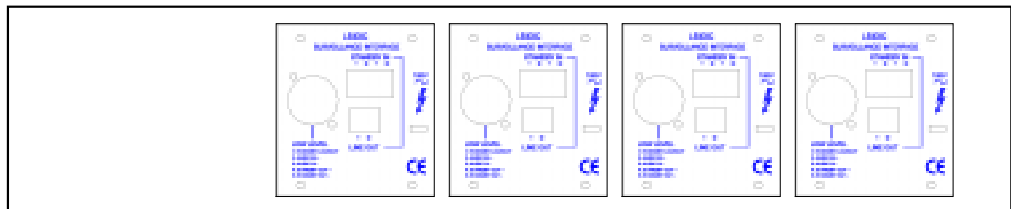
To configure and install this product you will need;

- This interface card
- Corresponding amplifier module (M100, M200 or M400, see Systems Design Handbook for details of amplifier choice)
- A V400 Amplifier Mainframe
- A mainframe front panel to suit the amplifier configuration
- A small flat-bladed screwdriver
- A small posidrive screwdriver
- A pair of wire cutters/strippers
- A soldering iron
- A 19"-standard rack wired with AC and/or DC power supply, signal, and control wiring (see Systems Design Handbook for details)

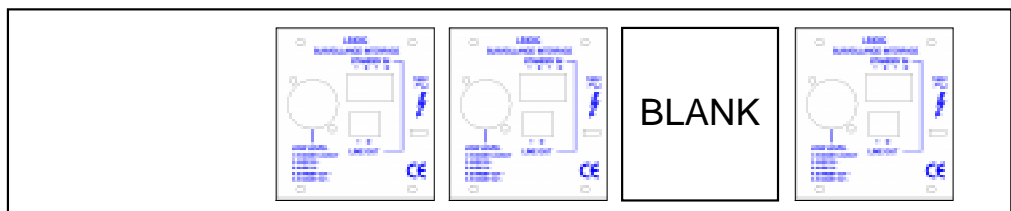
Recommended installation procedure

Insert the interface card into the rear of the V400 amplifier mainframe, ensuring it is in the correct position to mate with its amplifier module, and push it home. Fit blank panels to any unused rear panel spaces.

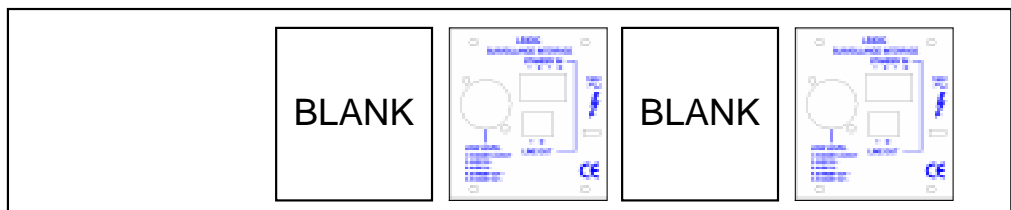
4 x 100W



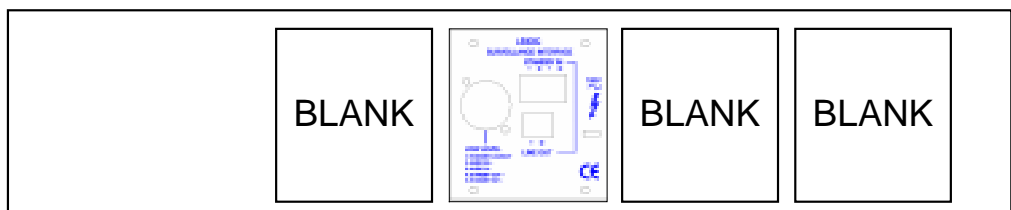
2 x 100W and
1 x 200W



2 x 200W



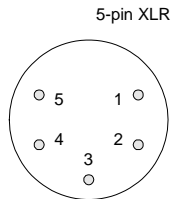
1 x 400W



CAUTION

Install fixing screws to bond the interface panel to the amplifier mainframe chassis and fully tighten the screws. It is important to make sure the screws are fully tightened to prevent dangerous voltages being present on the panel.

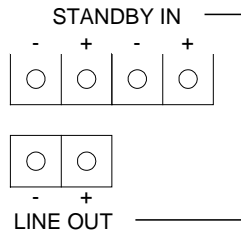
Connections



LOW LEVEL

1	STANDBY LOCKOUT	Bi-directional signal control line; prevents multiple amplifiers accessing one standby amplifier
2	AUDIO IN + (HOT)	Balanced audio input at 0dBu
3	AUDIO IN - (COLD)	Balanced audio input at 0dBu
4	STANDBY OUT + (HOT)	Balanced audio output to standby amplifier at 0dBu
5	STANDBY OUT - (COLD)	Balanced audio output to standby amplifier at 0dBu

Note: ALWAYS use screened cables for the input connections. For best EMC performance, always connect cable screen to the back shell of the connector.



100V
LINE

LINE OUT	100V line audio output to loudspeaker circuit.
STANDBY IN	100V line audio circuit from standby amplifier. Two sets of connections are provided for 'daisy-chain' wiring from mainframe to mainframe. Note: ensure +/- phase is preserved.

Cables for the amplifier LINE OUT and STANDBY IN connections should be adequately rated for the expected currents, and of appropriate fire-protection in VA applications. Using too thin a cable can cause a safety hazard and will give excessive voltage drop and loss of power. Always route output cabling away from input cabling to reduce the risk of instability (feedback from output to input).

Specifications

Current consumption (average, without changeover, 24V supply)	12.5mA
Current consumption (average, with relays operating, 24V supply)	44mA
Maximum amplifier output power	400W
Surveillance tone frequency and level compatibility (level referred to amplifier output)	20-40Hz, 1-2V RMS 18-22kHz, 1-10V RMS
Pulsed surveillance tone compatibility	Repetition: Continuous to 50 seconds Duration: 1 second to continuous
Ground (earth) resistance fault threshold	500k Ω
Loudspeaker line 'End of Line' monitoring capability	Up to 10 EOL resistors can be monitored (10 loudspeaker line spurs).
Dimensions (H x W x D)	87mm x 79mm x 130mm
Weight	0.25kg
Temperature Range (storage and operating)	-5°C to +50°C
Humidity Range	0% to 93% Non Condensing

Manufacturer

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This equipment is designed and manufactured in the UK by Application Solutions Ltd to a quality system certified to the internationally recognised quality standard: BS EN ISO 9001: 1994

Certificate number: 96-LON-AQ-041

QUALITY ASSURED FIRM
CERTIFICATE NUMBER 96-LON-AQ-041

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