

ILD100 Audio Induction Loop Driver

The ILD100 audio induction loop driver is in a class of its own. This compact and stylish unit is capable of driving loop areas in excess of 150m² with an unrivalled clarity of sound for superior intelligibility. Based on proven and highly reliable technology it is backed by a full 5 year warranty and free technical support. All connections are plug and socket style for simple quick installation. Configuration VOX switching sets priorities for each input. Twin phono (RCA) inputs provide a simple interface to hi-fi systems and televisions. Available with a range of microphones, interface cables and accessories. Freestanding or wall mounted, the ILD100 is the obvious choice for smaller installations such as video conference rooms, private homes, TV rooms, nursing homes, receptions and waiting rooms.

Features

- **Area coverage to >150m²**
- **Low lifetime cost**
 - Excellent proven reliability
 - 5 year warranty
- **Unrivalled intelligibility**
- **VOX switching** – configured to prioritise Mic 1 input
- **Built in tone control**
- **Very compact** – 216 x 124 x 44mm
- **2 microphone inputs (electret)**
- **1 line input** – twin phono (RCA) connectors for TV / hi-fi connection
- **Input adaptors and accessories** for any audio input requirements
- **Free technical support line** for advice, design and install

Applications include

- **Video conference facilities**
- **Meeting rooms**
- **Small seminar rooms**
- **Television rooms**
- **Nursing homes**
- **Private homes**
- **Receptions and waiting rooms**
- **DC version for minibuses, boats, cars etc.**



Perimeter Loops – Area Coverage (maximum)

Room aspect ratio	1:1	2:1	3:1
Maximum area m ²	104	128	155

For any Induction Loop System, area coverage is dependent on several factors. Please check these assumptions and contact Ampetronic for advice if required:

- Loop must be 1-2m above or below the receiver height
- There should be no metal structures in the plane of the loop
- Sufficient voltage to drive the loop – check the cable table below

Maximum Cable Length

The ILD100 is designed for SINGLE TURN loops for optimum audio quality. When maximum current output is required the ILD100 can drive:

- Loops with DC resistance from 0.2 to 0.8Ω
- Impedance up to a maximum of 0.9Ω

When operating below maximum output, the ILD100 can drive longer cable lengths – contact Ampetronic for more details.

Maximum cable length is dependent on cable type and on the application:

Cable type	Maximum Total Cable Length (m)	
	Normal use*	Transient speech*
1.0mm ² copper	32	38
1.5mm ² copper	39	47
2.5mm ² copper	45	57
1.8mm ² flat copper tape	58	67

* Short term speech (e.g. service counter, airport PA system) can cope with limited clipping at high frequencies – Ampetronic recommends delivery of full current up to 1.2kHz for these applications. Longer term usage or signals with music or high quality audio must deliver full current to at least 1.6kHz to prevent fatigue and give acceptable intelligibility. Many commercially available systems do not deliver sufficient voltage to reproduce critical high frequencies – ask Ampetronic for more details.

ILD100 Product Information

Equipment supplied as standard with the ILD100

- Handbook and installation instructions
- 99 x 128mm loop system present sign (deaf logo)
- Region specific mains cable

Ampetronic can supply an extensive range of additional accessories for installation – discuss your requirements with our sales team and we will provide materials and equipment to suit your application.

Microphone options

The ILD100 can be purchased as a stand-alone unit or with microphones. If you require additional options, please contact Support for specification or supply of a microphone to suit your application (Microphones pictured below).

Microphones	Product code / details
Tie clip microphone	EM1.2: Diameter 10 x 18mm long, supplied with tie clip (crocodile clip) and 3m cable.
Desktop microphone	ACDTMIC: Directional microphone for improved sound pickup. The microphone should be placed so that it points towards the wanted sound source (e.g. the receptionist at a counter). Base diameter 84mm, gooseneck length 355mm (semi-rigid). 2.4m cable.
Boundary microphone	ACBMIC: Half-cardioid boundary microphone. 39 x 42mm footprint. Can be fixed to any flat surface. 2m cable.

Input adaptors and preamplifiers

By using the appropriate input adaptor or preamplifier the ILD100 will accept multiple additional inputs or audio inputs from other sources:

Input type	Adaptor
Balanced dynamic microphone (XLR)	MAT60
Balanced capacitor 15V phantom power microphone (XLR)	MAT60 + 15V PSU
100V line input	ATT-UJ & ATT-UX transformer isolated attenuators
Low impedance speaker line	
Line Level	

Standards compliance

The ILD100 is CE marked to all relevant safety and EMC standards.

All Ampetronic amplifiers can be used to create a system that meets the requirements of IEC60118-4 and the relevant recommendations of IEC TR 63079. However, the design and installation of the system is equally important to meet these Induction Loop standards.

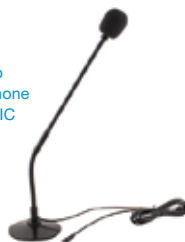
Boundary Microphone
ACBMIC



Tie clip Microphone
EM1.2



Desktop
Microphone
ACDTMIC



INPUTS

Power	20W 230V AC nominal, 45-65Hz 2 pole IEC figure-8 connector. Fuse T 100mA L. Range 207-253V AC. Quiescent current 48mA Typical current 85mA (O/P 1.6 r_{ms} pink noise) Power switch and LED indicator on front panel
Microphone input	2 inputs: 3.5mm mono connector for electret microphones DC powering for electret capsules. Impedance: 8k Ω / Sensitivity: -60dBu / Overload: >-12dBu (Requires MAT60 adaptor to take XLR balanced microphone input). Front panel recessed gain control
Line input	2 x phono (RCA) connectors, impedance 60k Ω each side, 20k Ω differential. Sensitivity: -30dBu. Overload: +10dBu Front panel recessed gain control

OUTPUTS

Drive voltage	3.0V r_{ms} (4.2V p_k) at maximum output current.
Drive current	<ul style="list-style-type: none">• 3.4Ar_{ms} (4.8Ap_k) continuous 1kHz sine wave• Short term peak. 6.5A• Front panel recessed drive control• Front panel LED indicates current peaks• THD <0.5% @ 1kHz 4.8pk
Loop Connector	Lever cable clamp.

AUDIO SYSTEM

Freq. response	80Hz to 6.5kHz +/-3dB
Automatic Gain Control	The AGC is optimised for speech. Dynamic range >36dB Front panel LED indicates AGC active
Tone control	Front panel recessed control

ADDITIONAL FUNCTIONS

VOX switching	To control prioritisation of microphone 1 input. 4 different actions when microphone 1 level is at the onset of compression. Options to attenuate or turn off other inputs when microphone 1 is active, and to turn microphone 1 off when below threshold if required.
Mobile applications	A DC version is available which provides similar performance for mobile applications, powered from a 12V DC supply.
Cooling	Cooling is by natural convection from the product casing.

PHYSICAL

Size	Width 124mm Depth 216mm Height 44mm
Mounting options	<ul style="list-style-type: none">• Freestanding• Wall mounting – mounting holes provided on rear panel
Weight	1.4kg



AMPETRONIC



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