AMPETRONIC

Datasheet

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 200m^2 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 >200m^2**
- **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, e.g. SCART lead, assorted microphones
- **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	120	150	200

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	34	39
1.5mm^2 copper	40	49
2.5mm^2 copper	46	59
1.8mm^2 flat copper tape	60	70

* 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
- 1 microphone (see options table)
- 1 SCART to phono 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	**EM195A**: Footprint 93 x 76mm. Directional microphone for improved sound pickup. Weighted base for stability. Mounted on horizontal or vertical surface (mounting accessories supplied). 3m cable.
Boundary microphone	**Q400:** AKG manufactured hypercardioid boundary microphone 43 x 23mm footprint. Can be fixed to any flat surface. 3m 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 Low impedance speaker line Line Level	**ATT-UJ & ATT-UX** transformer isolated attenuators

Standards compliance

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

All Ampetronic amplifiers can be used to create a sytem that meets the requirement of IEC118-4 and the relevant recommendation of BS7594. However, the design and installation of the system is equally important to meet these Induction Loop standards.

INPUTS	
Power	15W 230V AC nominal, 45-65Hz 120V and 12V DC options also available Power switch and LED indicator on front panel
Microphone input	2 inputs: 3.5mm mono connector for electret microphones DC powering for electret capsules. (Requires MAT60 adaptor to take XLR balanced microphone input). Front panel recessed gain control
Line input	2 x phono (RCA) connectors, impedance 60kΩ each side, 20kΩ differential. Sensitivity matched to SCART signal level. Front panel recessed gain control
OUTPUTS	
Drive voltage	$3.0V_{rms}$ ($4.2V_{pk}$) at maximum output current.
Drive current	• $3.4A_{rms}$ ($4.8A_{pk}$) continuous 1kHz sine wave • Short term peaks. 6.5A • Front panel recess drive control • Front panel LED indicates current peaks
Loop connector	Lever cable clamp.
AUDIO SYSTEM	
Freq. response	80Hz to 6.5kHz
Automatic Gain Control	The AGC is optimised for speech. Dynamic range >36dB Front panel recessed input level control
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	• Freestanding • Wall mounting – mounting holes provided on rear panel
Weight	1.2kg
Environment	IP20 protection; 20 to 90% relative humidity; 0 to 35°C

Boundary Microphone
Q400

Tie clip Microphone
EM1.2

Desktop
Microphone
EM195A

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Issue no ILD100 UP35601-5