

ILD20 Audio Induction Loop Driver

The ILD20 is a high performance, local area loop driver backed by a 5 year warranty and free technical support. With two independently controlled microphone inputs and excellent sound clarity, it provides superior intelligibility for one to one communications. All connections are designed for simple installation. It is available with a range of microphones and interface accessories making it equally suited to applications such as ticket counters, reception desks and supermarket checkouts as well as meeting rooms, confessionals and interview rooms. For vehicle installation, a 12V D.C. version is also available.



Features

- **Preformed counter loop and choice of microphone included**
- **Low lifetime cost**
 - Proven reliability
 - 5 year warranty
- **Unrivalled intelligibility**
- **2 microphone inputs** (electret)
- **Tone control**
- **Area coverage to >30m² with a perimeter loop**
- **Free technical support** – advice on specification, design and install

Applications include:

- **Reception desks**
- **Ticket counters**
- **Supermarket checkouts**
- **Interview rooms**
- **Vehicles**
- **Confessionals**
- **Cars, Boats, Minibuses**

Counter Loops

A multi-turn preformed loop is supplied with the ILD20, which should be mounted in accordance with the installation instructions

Perimeter Loops – Area Coverage (maximum)

The ILD20 is designed primarily for counter loop applications however, it can be used to cover a small room in which case, a single turn loop should be used for optimum audio quality.

Room aspect ratio	1:1	2:1	3:1
Maximum area m ²	20	30	35

For maximum coverage, the follow conditions are assumed:

- the loop is 1-2m above or below the receiver height
- there are no metal structures in the plane of the loop
- there is sufficient voltage to drive the loop – check table below

Maximum Cable Length

When maximum current output is required the ILD20 can drive:

- Loops with DC resistance from 0.3 to 1.0Ω
- Impedance up to a maximum of 1.5Ω

When operating below maximum output, the ILD20 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	57	65
1.5mm ² copper	65	82
2.5mm ² copper	77	99
1.8mm ² flat copper tape	100	116

* 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 deliver sufficient voltage to reproduce critical high frequencies – ask Ampetronic for more details.

ILD20 Product Information

Equipment supplied as standard with the ILD20

- Handbook, installation instructions and design guide
- 1 x preformed counter loop coil 350mm x 310mm and self-adhesive fixings
- 1 x microphone (see options)
- 1 x power cable (region specific)

Microphone options

1 of the following microphones is supplied with the ILD20. Additional microphones may be purchased separately:

Microphones	Product code/ details
Tie Clip	EM336: 10mm diameter x 18mm long supplied with tie clip (crocodile clip).
Desk Top	EM195A: Footprint 93 x 76mm. Directional microphone for improved sound pickup. Weighted base for stability. Can be mounted on vertical or horizontal surface (mounting accessories supplied). 3m cable.
Boundary	Q400: AKG Hypercardioid. Footprint 43 x 23mm. Can be fixed to a flat surface. 3m cable.

Input adaptors and preamplifiers

By using the appropriate adaptor or preamplifier, the ILD20 can be used with multiple inputs or inputs from other sources:

Input type	Adaptor
Balanced dynamic mic (XLR)	MAT60
Balanced capacitor 15V phantom Power mic (XLR)	MAT60 + 15V PSU
Balanced line level	ATT100-T40
70V / 100V line input Transformer isolated	ATT100-T70
Low impedance speaker line transformer isolated	ATT100-T60 or T50

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 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.

Boundary Microphone Q400



Tie clip Microphone EM336



Desktop Microphone EM195A



INPUTS

Power	15VA 230V AC, 45-60Hz 120V AC and 12 V DC options Power switch and LED indicator on unit
Microphone	2 inputs: 3.5mm unbalanced jacks with DC power for electret microphones. (use adaptor MAT60 for XLR balanced mics.) Independent controls recessed on front panel.

OUTPUTS

Drive voltage	3.5V min at max drive current
Drive current	<ul style="list-style-type: none">• 1kHz sine wave peaks >3A• Recessed control on front panel• LED Peak indicator on front panel
Loop Impedance	0.3Ω to 1Ω resistive 1.5Ω impedance at 1.6kHz
Loop connector	Lever cable clamp

AUDIO SYSTEM

Freq. response	80Hz to 5.5kHz ±1.5dB
Automatic Gain Control	AGC optimised for speech Dynamic range >40dB Recessed control on front panel LED indicator on front panel
Tone Control	Control on front panel

PHYSICAL

Cooling	Natural convection
Dimensions	width 124mm, depth 216mm, height 44mm
Weight	1.1kg
Environment	IP20 : 20 to 90% relative humidity, 0 to 35°C



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