

ILD14 Audio Induction Loop Driver

The ILD14 is a robust loop amplifier providing local area coverage for installation in any environment, inside or out. The rugged aluminum enclosure is IP65 rated and vandal resistant. It features 3 independent inputs and metal loss correction. Delivers superior sound quality and intelligibility with compensation where there is metal content in the loop location. It is backed by Ampetronic's 5 year warranty and free technical support. Area coverage is in excess of 30m². The unit is ideally suited to outdoor, local loop applications in environments such as stations, car parks and drive throughs. With 3 transformer isolated inputs, it offers an alternative solution for lift applications where PA, VA and intercom is in use.



Features

- Area coverage to > 30m² with a perimeter loop
- Compatible with Multi-turn 'counter style' loops
- Rugged aluminium construction vandal resistant
- IP65 rated enclosure
- 3 Independent inputs
 - 100V line
 - low impedance speaker
 - factory configured low impedance speaker / mic
- Metal loss correction
- 5 year warranty
- Free Technical Support

Applications include:

- Car parks
- Stations
- Help points
- Information kiosks
- Drive throughs
- Lifts
- Outdoor leisure facilities

Counter and other vertically mounted loops

The ILD14 can be used to drive small multi-turn 'counter' style loops. These offer limited area coverage, up to approximately 1m distance from the loop. However, they are often the most practical solution for installation. Ampetronic can provide a standard preformed loop, or a loop can be custom designed for your application. Consult our support team for more information.

Perimeter Loops - Area Coverage (maximum)

The ILD14 can be used to cover a small area using a perimeter loop in which case, a single turn loop should be used for optimum audio quality.

Room aspect ratio Maximum area m ²	1:1	2:1	3:1	
	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 ILD14 can drive:

- Loops with DC resistance from 0.3 to 1Ω
- \bullet Loop impedance up to a maximum of 1.5Ω

Maximum cable length is dependent on the cable type and on the application: When operating below maximum output, the ILD14 can drive longer cable lengths – contact Ampetronic for more details.

Cable type	Maximum Total Cable Length (m)		
	Normal use*	Transient speech*	
1.0mm ² copper	57	65	
1.5mm ² copper	67	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.

ILD14 Product Information

Power Options

There are 2 versions of the ILD14, a switchable 115/230V AC version and a 15V DC version

ILD14 230V AC

Nominal supply Voltage 230V AC 45 - 65 Hz

T100mAL Maximum current 83mA Quiescent current 70mA 9W Power consumption

ILD14 115V AC

Nominal supply Voltage 115V AC 45 - 65 Hz

T200mAL **Fuse** 166mA Maximum current Quiescent current 140mA 9W Power consumption

ILD14 15V DC

Nominal supply Voltage 12V DC Suppy Voltage range 12 - 18V **Fuse** T1.6AL Maximum current 1A Quiescent current 65mA 9W Power consumption

LRA11

Loop ratio adaptor 5:1 ratio gives >15A into

> single turn loop Weight: 340g

Ratio can be tailored to the application.

Standards compliance

The ILD14 is CE marked to all relevant safety and EMC standards.

The ILD14 will meet the requirements of IEC118-4 and the relevant recommendations of BS7594 if specified and installed according to Ampetronics' instructions.

INPUTS

Power Power on LED on control panel. See specifications on the left.

Input 1 Low Z Input impedance: 5kΩ differential

Speaker Sensitivity: 20dBu (78mVrms) for full output

Overload: > 19dBu (6.8Vrms)

Input 2 100V Input impedance: 120kΩ line PA

Sensitivity +22dBu (10Vrms) for full output Overload: >+48dBu (190Vrms)

Adjustment made on control panel

Isolation: 1500V Input 3 Low Z

speaker or Microphone – Input impedance: $8K\Omega$ differential Sensitivity: -60dBu (1mVrms) for full output mic option (factory fitted) Overload: > -12dBu (195mVrms)

Speaker - As input 1

suitable for electret microphones (8V DC bias)

NOTE Each input has a dedicated gain control located on the control

panel inside the unit.

OUTPUTS

Drive voltage 4.5V peak at max drive current

Drive current >3A peak into 1Ω with 1kHz sine

Adjusted on control panel

LED indicator on control panel

Loop connector Cage clamp vibration proof. Push to connect

Loop Impedance 0.3Ω to 1Ω resistive

1.5Ω impedance at 1.6kHz

Monitor Dry isolated contact (1500V isolation). Closed when

amplifier functional.

Silver alloy contact rating: 3A 30V DC or 3A 125V AC.

AUDIO SYSTEM

80Hz to 5.5kHz ± 1.5dB relative to 1kHz at low level, measured as Freg. response

loop current with no metal loss correction.

Automatic AGC optmised for speech **Gain Control** Dynamic range 40dB

Controlled by adjusting input level LED indicator on front panel

Metal Loss 0dB to 3dB / octave boost Correction Adjusted on control panel

PHYSICAL

Dimensions width 120mm, length 220mm, height 85mm

Weight 2.04kg

Environment IP65 suitable for external use:

20 to 90% relative humidity

-30 to 75°C operating temperature range





