AMPETRONIC

Datasheet

ILD1000G Professional Audio Induction Loop Driver

The ILD1000G sets a new standard for high performance professional induction loop systems. Utilising a new amplification technology, the ILD1000G provides the highest output available in a single amplifier, while halving power consumption and heat dissipation. It is capable of driving the largest perimeter loops to over 1300m², and with high voltage headroom, the longest cable runs and large array systems. All of this power and performance is packaged in an elegant and space efficient 19"1U case. The ILD1000G is also designed for versatility, with 3 configurable inputs to cope with any scenario, useable freestanding, wall mounted or rack mounted with the included brackets. The ILD1000G is built to our exacting standards and is backed by our 5 year warranty.

Features

- **Very high output for the largest applications**
- **High efficiency class-G amplifier with low heat dissipation**
- **Very compact 1U rack mount, wall mount or free standing**
- **Versatile input selection**
  - 1 XLR microphone
  - 1 XLR mic / line switchable input
  - 1 6.3mm jack line input
- **Low lifetime cost**
  - Excellent reliability
  - 5 year warranty
- **Unparalleled sound quality**
- **Metal loss corrector**
- **Rack mount brackets included**
- **Free technical support**

Applications include:

- **Conference facilities**
- **Stadia**
- **Theatres**
- **Sports halls**
- **Confidential rooms**
- **Courts**
- **Lecture halls**
- **Cinemas**

Perimeter Loops – Area Coverage

Capable of driving the largest practical perimeter loops - theoretical area coverage >1000m² for square areas, >1300m² for rectangular areas, though the practical limit may be set by the installation environment. Ampetronic design tools and support are available to check the expected performance for your application.

Low Overspill or Low Loss Systems

ILD1000G amplifiers are designed for use in combination with Ampetronic Ultra-Low Spill™ technology. Two amplifiers, an SP5 and an array design can be used to:

- minimise 'spill' – confines signal to within 1.5m of room, suitable for adjacent rooms e.g. cinemas, classrooms, or confidential rooms
- compensate for high losses due to metal structures
- drive large areas where perimeter loops cause too much variation

Combined systems for very large areas

Multiple ILD1000G amplifiers can be combined using Ampetronic ILC Parallel Drive™ technology to drive systems in excess of 4000m². Contact Ampetronic support for details.

Maximum Cable Length

The ILD1000G is designed for SINGLE TURN loops for optimum audio quality.

For loops with DC resistance from 0.5 to 3.0Ω , impedance to 3.5Ω

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

Cable type	Maximum Total Cable Length (m)	
	Normal use*	Transient speech*
1.0mm² copper	132	153
2.5mm² copper	181	230
4.0mm² copper	188	246
1.8mm² flat copper tape	233	271

* 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.

ILD1000G Product Information

Equipment supplied as standard with the ILD1000G

- Handbook and installation instructions
- 197 x 252mm loop system present sign (deaf logo)
- Region specific mains cable
- Loop connector
- Rack mount brackets
- Status Connector

ILD1000G optional accessories

Ampetronic can supply a range of accessories to meet the specific needs of your installation:

Microphones	A range of microphones can be supplied or specified for most applications on request
Input adaptors	A range of input adaptors and interface cables to accept most audio source inputs, see table below
Installation accessories	• 18mm x 0.25mm copper tape • PVC extrusion to protect copper tape • Installation / warning tape to fix cable or tape to a floor
Wall mount brackets	**WMF1-U**
Phase shifter	**SP5** for an array system – use of and SP5 requires a design which can be provided by Ampetronic

Input adaptors and preamplifiers

By using the appropriate input adaptor or preamplifier the ILD1000G will accept multiple additional inputs or audio inputs from other sources:

Input type	*Adaptor*
Additional microphone and / or line inputs	**MP101 / MP221 / MP522** mixers and preamps can drive up to 5 mics + 2 line inputs
70V / 100V line input	**ATT100** adaptor
40V / 70V / 100V line inputs, with transformer isolation	**ATT T series** adaptors
Low impedance speaker line	**ATT30** adaptor
Unbalanced microphones	**MAT1** adaptor

Standards compliance

The ILD1000G 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 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.

Some Ampetronic products are CSA registered for sale in the USA and Canada – contact Ampetronic for details.

INPUTS

Power	120W 230V AC nominal, 45-65Hz [120V option available] Power switch and LED indicator on front panel
Input 1	XLR balanced microphone input for 200-600Ω microphones; 15dB user selectable gain boost; + 15V DC phantom power (selectable); sensitivity – 70dBu; front panel recessed gain control
Input 2 Selectable microphone / line	XLR balanced input, switched between microphone and line on the rear panel. Microphone specifications as for input 1 Line specifications: 15dB user selectable gain boost; sensitivity -50dBu; overload protected; phantom power disabled in line mode; front panel recessed gain control
Input 3 Line input	6.3mm jack socket balanced line input; sensitivity – 30dBu; overload protected, front panel recessed gain control
Slave I/O	6.3mm jack insert point for connection of SP5 phase shifter 0dBu signal can be used for recording

OUTPUTS

Drive voltage	31.8Vrms 45V peak at maximum output current
Drive current	• 9.2 Vrms (13A peak) continuous 1kHz sine wave peak >13A • Short term peaks >19A • Front panel recessed control • Drive current indicated on 6-LED display in 3dB increments
Loop connector	Neutrik NL4 Speakon (supplied)
Loop monitor	Provides access to actual audio signal in loop 3.5mm stereo headphone connector on front panel
Status	A pair of isolated relay contacts to indicate system status; fault = open circuit: system O.K. = short circuit

AUDIO SYSTEM

Frequency response	80Hz to 6.5kHz
Distortion	THD+N <0.2% 1kHz sine at full current
Automatic gain control	The AGC is optimised for speech. Dynamic range >36dBu
Metal loss correction	Corrects system frequency response due to metal structures in a building. Gain constant at 1kHz, adjustable gain slope from 0 to 3dB per octave. This does not compensate for signal loss from metal structures which can be significant.

ADDITIONAL FUNCTIONS

Fault monitoring	Three LED fault indicators on the front panel; • Overload – delivering over the rated current or voltage • Overheat – unit is too hot (mutes output signal) • Loop error – short circuit / open circuit error
Status Contact	A pair of relay contacts are provided for remote fault monitoring
Ancillary	To supply Ampetronic ancillary units ±15V DC 0.15A power outlet on rear panel
Cooling	Forced ventilation. Air intake on left panel, air ejection at rear

PHYSICAL

Size	Full width 1U 19" rack mount. Width 430mm Depth 220mm Height 44mm
Mounting options	• Freestanding • 1U 19" rack mount (brackets included) • Wall mounting (requires additional brackets)
Weight	3.75kg
Environment	IP20 rated; 20 to 90% relative humidity; 0 to 35°C

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