

# Intensity Power Module Type 12AB

## Product Data and Specifications

### Typical applications

- **Sound-intensity measurements**
- **G.R.A.S. Sound Intensity Probe Type 50AI versions B, C, and D**

The G.R.A.S. Intensity Power Module Type 12AB (Fig. 1) is a two channel power supply for use with versions B, C and D of the G.R.A.S. Sound Intensity Probe Type 50AI.

The Type 12AB is built into a sturdy anodized aluminium cabinet and can be powered either by internal standard batteries or an external DC supply (12V -18V), e.g. a mains/line adapter.

The polarization voltage for the probe's microphones can be set to:

- 200 V\* — for use with Type 50AI, or
- 0 V — for prepolarized microphones

The voltage supply for the probe's preamplifiers can be set to:

- 120 V\* — for use with Type 50AI, or
- 28 V — for minimum power consumption

The Type 12AB will run for up to 10 hours on fresh standard alkaline batteries. A **Battery** meter indicates the condition of the batteries.

The Type 12AB has a 9-pin D-sub socket wired up for connecting directly to the RS232 port of a computer (Fig. 3); thus enabling software to make use of the remote control facilities of the Sound Intensity Probe Type 50AI.

The input is a 12-pin LEMO socket on the front panel which is wired up (see Fig. 2) for the G.R.A.S.

\* Factory settings for use with G.R.A.S. Sound Intensity Probe Type 50AI version B



Fig. 1 Intensity Power Module Type 12AB

Sound Intensity Probe Type 50AI versions B, C and D. This input is also connected to the 9 pin D-sub connector in order to:

- Transmit the state (pressed/not pressed) of the two push buttons on the handle of the Type 50AI  
When pressed:  
the blue button transmits DSR  
the grey button transmits CTS
- Signal the responses via the two LEDs also on the handle of the Type 50AI  
When lit:  
the red LED is signalling RTS  
the white LED is signalling DTR

By suitably programming the computer's software, measurements and data acquisition can be controlled interactively via these push buttons and LEDs.

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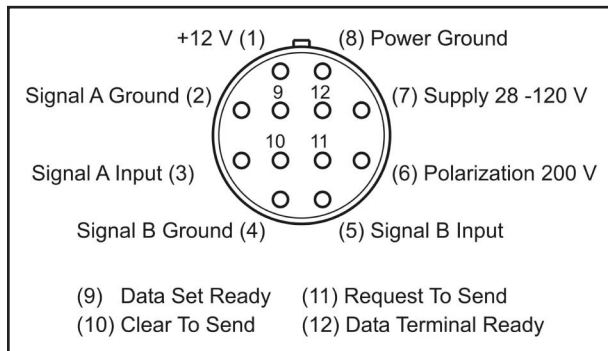


Fig. 2 12-pin LEMO female socket 1B (external view). The four inner pins are connected to the socket shown in Fig. 3

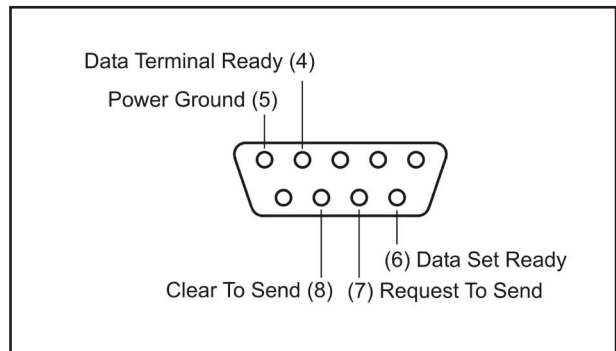


Fig. 3 9-pin female D-sub connector socket for connecting directly to an RS232 computer port (external view)

The two output signals of the probe are directly available via two standard BNC connectors (A and B) on the front panel.

The cabinet of the Type 12AB is  $\frac{1}{12}$  of a standard 19-inch rack; meaning that up to 12 of these Power Modules can be mounted in a standard 19-inch rack using the AK0040 Rack-mounting System.

## Specifications

<b>Input/Output sockets:</b>		<b>Fuse:</b>	
2-channel input: . . . . .	12-pin LEMO 1B female		500 mA (Slow)
Outputs: . . . . .	2 BNC coaxial	<b>Battery life (valid for 23 °C and alkaline cells) for:-</b>	
<b>RS232:</b>		120 V supply: . . . . .	≈ 9 hours
	9-pin female D-sub connector	28 V supply: . . . . .	≈ 11 hours
<b>Output-voltages:</b>		<b>Operating temperature range:</b>	
Preamplifier supply: . . . . .	28 V or 120 V	-10 °C to +50 °C	
Polarization voltage: . . . . .	0 V or 200 V	<b>Dimensions:</b>	
<b>Frequency response:</b>		$(\frac{1}{12}$ of a standard 19-inch rack)	
0 Hz - 200 kHz: . . . . .	± 0.2 dB	Height: . . . . .	132.6 mm (5¼ in)
<b>Output impedance:</b>		Width: . . . . .	34.6 mm (1.3 in)
	30 Ω	Depth: . . . . .	196.0 mm (7.7 in)
<b>Power supply:</b>		<b>Weight:</b>	
10 x LR6 (AA) standard alkaline cells, or		770 gm (1.69 lbs)	
DC line adapter supply: . . . . .	12 V - 18 V	<b>Accessories available:</b>	
<b>Power consumption:</b>		19-inch Rack-mounting System: . . . . AK0040	
With a G.R.A.S preamplifier using:-			
120 V: . . . . .	210 mA		
28 V: . . . . .	180 mA		

G.R.A.S. Sound & Vibration reserves the right to change specifications and accessories without notice

**G.R.A.S.**  
**Sound & Vibration**

Skovlytoften 33  
2840 Holte, Denmark  
Tel +45 45 66 40 46 Fax +45 45 66 40 47  
e-mail: gras@gras.dk www.gras.dk