

Made to measure

OPERATING INSTRUCTIONS AND SYSTEM DESCRIPTION FOR THE

AUDIS-01D/2-16

AUDIO MONITOR With THRESHOLD Control



VERSION 1.7
npi 2021

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1. Safety Regulations

VERY IMPORTANT: Instruments and components supplied by npí electronic are NOT intended for clinical use or medical purposes (e.g. for diagnosis or treatment of humans), or for any other life-supporting system. npí electronic disclaims any warranties for such purpose. Equipment supplied by npí electronic must be operated only by selected, trained and adequately instructed personnel. For details please consult the GENERAL TERMS OF DELIVERY AND CONDITIONS OF BUSINESS of npí electronic, D-71732 Tamm, Germany.

- 1) **GENERAL:** This system is designed for use in scientific laboratories and must be operated by trained staff only. General safety regulations for operating electrical devices should be followed.
- 2) **AC MAINS CONNECTION:** While working with the npí systems, always adhere to the appropriate safety measures for handling electronic devices. Before using any device please read manuals and instructions carefully.
The device is to be operated only at 115/230 Volt 60/50 Hz AC. Please check for appropriate line voltage before connecting any system to mains.
Always use a three-wire line cord and a mains power-plug with a protection contact connected to ground (protective earth).
Before opening the cabinet, unplug the instrument.
Unplug the instrument when replacing the fuse or changing line voltage. Replace fuse only with an appropriate specified type.
- 3) **STATIC ELECTRICITY:** Electronic equipment is sensitive to static discharges. Some devices such as sensor inputs are equipped with very sensitive FET amplifiers, which can be damaged by electrostatic charge and must therefore be handled with care. Electrostatic discharge can be avoided by touching a grounded metal surface when changing or adjusting sensors. **Always turn power off when adding or removing modules, connecting or disconnecting sensors, headstages or other components from the instrument or 19" cabinet.**
- 4) **TEMPERATURE DRIFT / WARM-UP TIME:** All analog electronic systems are sensitive to temperature changes. Therefore, all electronic instruments containing analog circuits should be used only in a warmed-up condition (i.e. after internal temperature has reached steady-state values). In most cases a warm-up period of 20-30 minutes is sufficient.
- 5) **HANDLING:** Please protect the device from moisture, heat, radiation and corrosive chemicals.

2. AUDIS-01D/2-16

The AUDIS-01D/2-16 is a digital acoustic monitor in a small desktop cabinet with a built-in loudspeaker and two audio modes. In PITCH mode the voltage input signal is converted to a tone, and in NOISE mode the signal is highpass filtered to monitor the noise. A THRESHOLD function (in NOISE mode) can be used for masking the noise of the baseline.

2.1. Description of the Front Panel and Operation

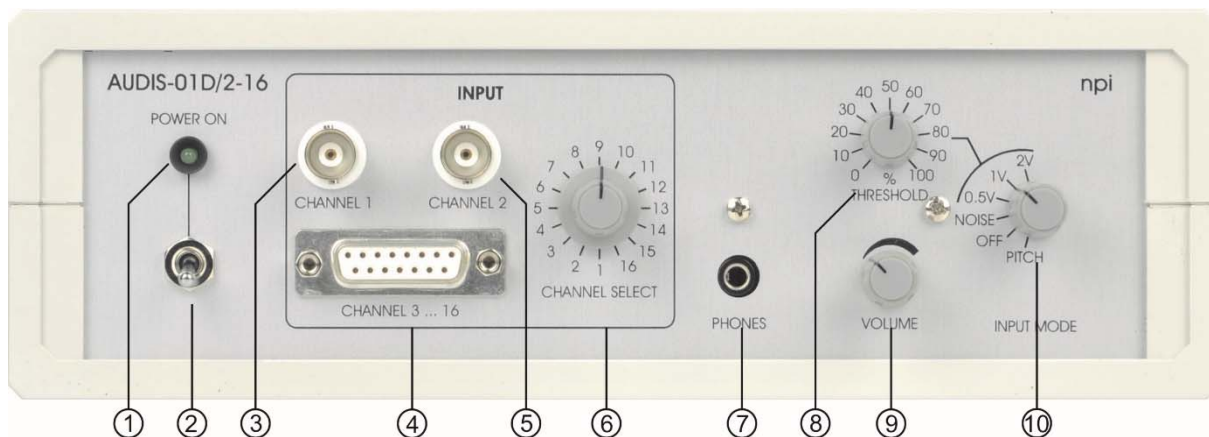


Figure 1: AUDIS-01D/2-16 front panel view

In the following description of the front panel elements each element has a number that is related to that in Figure 1. The number is followed by the name (in uppercase letters) written on the front panel and the type of the element (in lowercase letters). Then, a short description of the element is given.

(1) POWER ON LED

This LED indicates that an AC power supply is connected and the POWER ON switch is set to ON position.

(2) POWER ON switch

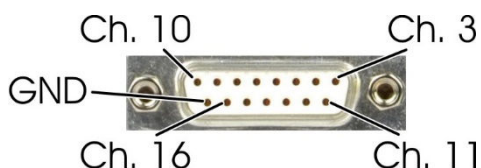
Switch to power up the system.

(3) CHANNEL 1 INPUT connector

BNC connector for connecting the input signal for channel 1.

(4) CHANNEL 3...16 INPUT connector

SUB-D connector for additional signal inputs. The pinout is depicted below:



An optional connection cable is available on request.

(5) CHANNEL 2 INPUT connector

BNC connector for connecting the input signal for channel 2.

(6) CHANNEL select switch

16-position switch for selecting the input channel to be monitored.

(7) PHONES connector

Stereo jack connector for PHONES or an external amplifier (e.g., active speakers).

(8) THRESHOLD potentiometer

Potentiometer for setting the THRESHOLD in % of the value set by INPUT MODE switch #7 (0.5 V, 1 V, 2 V). For example, if the INPUT MODE switch #7 is set to 2 V and the THRESHOLD potentiometer is set to 50%, the resulting THRESHOLD for monitoring the OUTPUT signal will be at 1 V, i.e. only signals greater than 1 V will be converted into a sound (NOISE).

(9) VOLUME potentiometer

Potentiometer for setting the VOLUME of the internal speaker or HEAD PHONES connected to PHONES #4. Turning clockwise will turn up the sound.

(10) INPUT MODE switch

Switch for selecting the INPUT MODE.

PITCH: The voltage of the INPUT signal is converted into a tone with a frequency equivalent to the amplitude of the INPUT voltage.

OFF: The audio monitor is switched OFF.

NOISE: The voltage of the INPUT signal is high pass filtered, amplified and transduced to a sound.

2 V, 1 V, 0.5 V: The audio monitor works in NOISE MODE with THRESHOLD function. 100% THRESHOLD is set to the selected value (2 V, 1 V or 0.5 V) (see also #5).

2.2. Description of the Rear Panel

The only rear panel element is the connector for the external power supply with the following specifications:

AC power supply (18 V AC, 1 A min)

3. Technical Data

AUDIO MODE:	PITCH / NOISE / THRESHOLD, selected by rotary switch with OFF position
THRESHOLD:	RANGE and FINE control, range: 0.5 V, 1 V or 2 V max.
INPUT:	BNC and SUB-D connectors: impedance 100 k Ω , high-pass filtered in NOISE mode
Input Voltage RANGE:	± 10 V
VOLUME Control:	volume of the speaker, one-turn potentiometer
HEAD PHONES:	3.5 mm stereo jack audio connector, 1 k Ω , 1 V max.
Size:	front panel 12 HP (60.6 mm) x 3U (128,5 mm), 7" (175 mm) deep
Power Requirements:	18 V AC, 1 A min (external AC Power Supply included)
Dimensions:	(W x D x H) 225 x 210 x 85 mm ³