PRODUCT DATA

CCLD Microphone Preamplifier Type 2671-W-001

CCLD Microphone Preamplifier Type 2671-W-001 enables you to make acoustical measurements with a CCLD input module. You can connect ½″ prepolarized microphones to the preamplifier. The preamplifier's low output impedance allows problem-free use of long extension cables. The robust, compact design means that you can use Type 2671-W-001 over a wide range of environmental conditions.

Uses

- Low price, multichannel sound measurement setups with ½″ Brüel & Kjær prepolarized condenser microphones
- Multichannel signal analysis measurements
- Multichannel sound power measurements
- Industrial machinery noise measurements

Features

- Optimised noise specifications
- ICP® compatible
- BNC connector for easy installation and use with inexpensive BNC cables
- Connects directly to CCLD sockets and to LEMO sockets with adaptor
- Low output impedance allows long extension cables to be used
- Falcon Range® product
- Supports "Smart transducer Interface" IEEE 1451.4 containing TEDS (Transducer Electronic Data Sheet

Introduction

CCLD Microphone Preamplifier Type 2671-W-001 is very compact and operates over a wide range of temperature, humidity and other environmental conditions. It has a very high input impedance, presenting virtually no load to the microphone. Its low output impedance means that you can connect long cables between the preamplifier and measurement equipment.

Description

CCLD products operate on a constant-current power supply and give output signals in the form of voltage modulation on the power supply line. One of the advantages of this is that you can use inexpensive BNC coaxial cables.

The preamplifier converts the CCLD supply, which must be between 2 and 20 mA (nominal 4 mA), into a constant 12 V DC voltage level. The output signal from the microphone swings around this DC level. Since no polarization voltage is available, only prepolarized condenser microphones can be used. This preamplifier is also available in a version with a 20 Hz high-pass filter (Type 2671) and in a version with built-in A-weighting (Type 2699).

TEDS

"Supports TEDS" means that the preamplifier can be used with the Smart Transducer interface according to IEEE 1451.4. The ability to store and recall TEDS data drastically reduces test setup time and allows cost savings in most measurement situations.

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Specifications – CCLD Microphone Preamplifier Type 2671-W-001

Specification	Value
Frequency Response (re 250 Hz)	20 Hz to 50 kHz, ±0.2 dB Lower –3 dB limit at <1.2 Hz Upper –0.5 dB limit at >50 kHz
Attenuation	–0.3 dB (typical)
Gain Matching	200 Hz to 10 kHz, 0.1 dB
Phase Linearity	1 kHz to 10 kHz, <±1° 20 Hz to 20 kHz, <–3°, +10°
Phase Matching	5° at 50 Hz 2° at 100 Hz
Input Impedance	10 GΩ ‖ <0.4 pF
Output Impedance	<50 Ω
Max. Output Current	At 4 mA supply, 3 mA (peak) At 20 mA supply, 19 mA (peak)
Max. Output Voltage	7 V peak for *f* <20 kHz Corresponding to: 141 dB SPL for microphone sensitivity of 30 mV/Pa 138 dB SPL for microphone sensitivity of 50 mV/Pa
Max. DC Output Level	12 V ±2 V
Distortion (THD)	<–70 dB at 1.0 V_{out}, 1 kHz <–60 dB at 1.0 V_{out}, 10 kHz
Output Slew Rate	2 V/µs (typical)
Noise	<3 µV (typ. 2 µV) A-weighted <5 µV (typ. 4 µV) Lin., 22.4 Hz to 22.4 kHz
Start-up Time	Signal within 0.1 dB within <60 s
Power Requirements	CCLD supply, 2 to 20 mA. Nominal 4 mA
Connector Type	BNC socket
Dimensions	∅12.7 mm × 85 mm (∅½″ × 3.3″) (including connector)
Thread for Preamplifier Mounting	11.7 mm — 60 UNS
Temperature Range	**Operating:** –20°C to +60°C (–4° to +140°F) **Storage:** –25°C to +70°C (–13° to +158°F)
Humidity	0 to 90% RH, non-condensing at 40°C (104°F)
Shock	Max. 100 g
Influence of 80 A/m, 50 Hz Magnetic Field	Max. 4 µV

Unless otherwise specified, the data above are valid at 23°C and 4 mA supply, cable length < 40 m and microphone capacitance = 12 pF

Ordering Information

Cables	
AO-0087-D-xxx*	Single-screen coaxial cable, BNC (M) to BNC (M)
Power Supply Adaptors	
WB-1421	LEMO to BNC Adaptor

* Cables are available in different lengths: xxx is the length in decimetres

Compliance with EMC Directive and Low Voltage Directive of the EU

Compliance with the EMC requirements of Australia and New Zealand

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