PRODUCT DATA

Brüel & Kjær® Microphones

½″ CCLD Microphone Preamplifier Type 2695

½″ CCLD Microphone Preamplifier Type 2695 enables you to make acoustical measurements with a CCLD input module. Prepolarized microphones can be connected to the preamplifier. The preamplifier has a 10-32 UNF connector. The preamplifier's low output impedance allows problem-free use with long extension cables. The robust, compact design enables Type 2695 to be used in a wide range of environmental conditions and in narrow spaces.*

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Uses:
- *Coupler measurement*
- *Where space is limited*

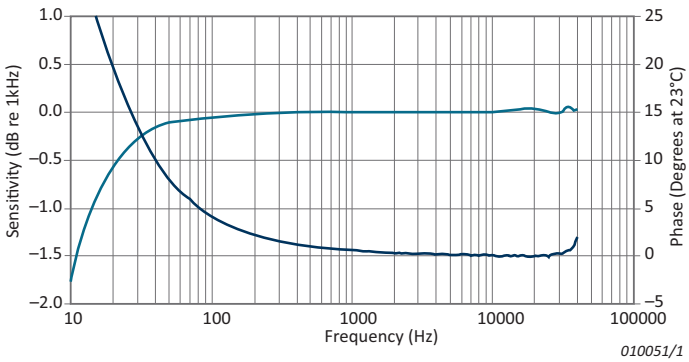
Features:
- *10-32 UNF output connector*
- *Connects directly to CCLD sockets*
- *Low output impedance allowing the use of long extension cables*
- *ICP® compatible*
- *Supports "Smart Transducer Interface" IEEE P 1451.4 containing TEDS (transducer electronic data sheet)*

Description

Preamplifier Type 2695 preamplifier 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. The low output impedance means that you can connect long cables between the preamplifier and measurement equipment. Type 2695's main application is in vibration analysis configurations with CCLD or ICP input modules where it is also desired to make acoustical measurements. It presents a very price competitive solution compared to a system with both vibration and acoustical inputs.

CCLD identifies products that 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 system is that it allows you to use inexpensive coaxial cables. The preamplifier converts the CCLD or ICP constant current line drive supply, which must be between 2 and 20 mA (nominal 4 mA), into a constant 12 V DC level. The output signal from the microphone swings around this DC level. As no polarization voltage is available, only prepolarized condenser microphones can be used, for example, Types 4176, 4188, 4189, 4942 and 4944. For further details of prepolarized condenser microphones, see the appropriate product data at www.bksv.com.

***Fig. 1** Typical frequency and phase response curves for Preamplifier Type 2695*



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* Constant current line drive, also known as DeltaTron® (ICP and IEPE compatible)

Specifications – ½″ CCLD Microphone Preamplifier Type 2695

Note: All values are typical at 23 °C (73.4 °F), 101.3 kPa, 50% RH, power supply ≥4 mA, cable length <40 m and a microphone capacitance of 15 pF, unless specified otherwise

Frequency Response (re 250 Hz)		200 Hz to 20 kHz ±0.2 dB 31.6 Hz to 50 kHz +0.2 dB, −0.5 dB Lower −3 dB limit at <12Hz
Phase Linearity		1 kHz to 10 kHz <±1° 100 Hz to 20 kHz <−1°, +10°
Attenuation		0.2 dB (typical)
Input Impedance		1.7 GΩ|| < 0.4 pF
output Impedance		<75 Ω
Max. Output Current		3 mA (peak) (19 mA with 20 mA CCLD supply current)
Max. Output Voltage	7 V peak (< −30 dB THD, 1 kHz) corresponding to:	141 dB SPL for microphone sensitivity of 30 mV/Pa 138 dB SPL for microphone sensitivity of 50 mV/Pa
DC Output Level		12 V ±2 V
Distortion (THD)		<−70 dB at 1 V_{out}, 1 kHz
Output Slew Rate		2 V/ms (typical)
Noise		< 4 mV A-weighted <12 mV Lin., 22.4 Hz to 22.4 kHz
Power Requirements		CCLD supply: 2 to 20 mA. Nominal 4 mA shock Max.100 m/s^2
Influence of Magnetic Fields		80 A/m, 50 Hz: Max. <4 mV A-weighted
Environmental	Temperature Range:	Operating: −20 to +60 °C (−4 to +140 °F) Storage: −25 to +70 °C (−13 to +158 °F)
	Humidity:	0 to 90% RH, non-condensing at 40 °C (104 °F)
Dimensions		∅ 12.7 × 35.7 mm (∅ 0.5 × 1.4 in) including connector Microphone thread: 11.7 mm − 60 UNS Output socket: 10-32 UNF connector

COMPLIANCE WITH EMC DIRECTIVE

Ordering Information

Type 2695 **½″ CCLD Microphone Preamplifier**
includes:
- AO-0531: 10-32 UNF to BNC connector, 5 m (16.4 ft)

OPTIONAL ACCESSORIES

AO-0589	Cable, 10-32 UNF – MCX (right-angle)
ZG-0328	CCLD power supply adaptor, BNC to B&K 7-pin microphone socket adaptor

SERVICE AND CALIBRATION

MIC-PAMP-CAI	Microphone Preamplifier Accredited Initial Calibration
MIC-PAMP-CAF	Microphone Preamplifier Accredited Calibration

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