



4099 Instrument Microphone

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**Specifications - 4099 Extreme SPL**

<b>Directional pattern</b>	Supercardioid
<b>Principle of operation</b>	Pressure gradient
<b>Cartridge type</b>	Pre-polarized condenser
<b>Frequency response</b>	20 Hz - 20 kHz

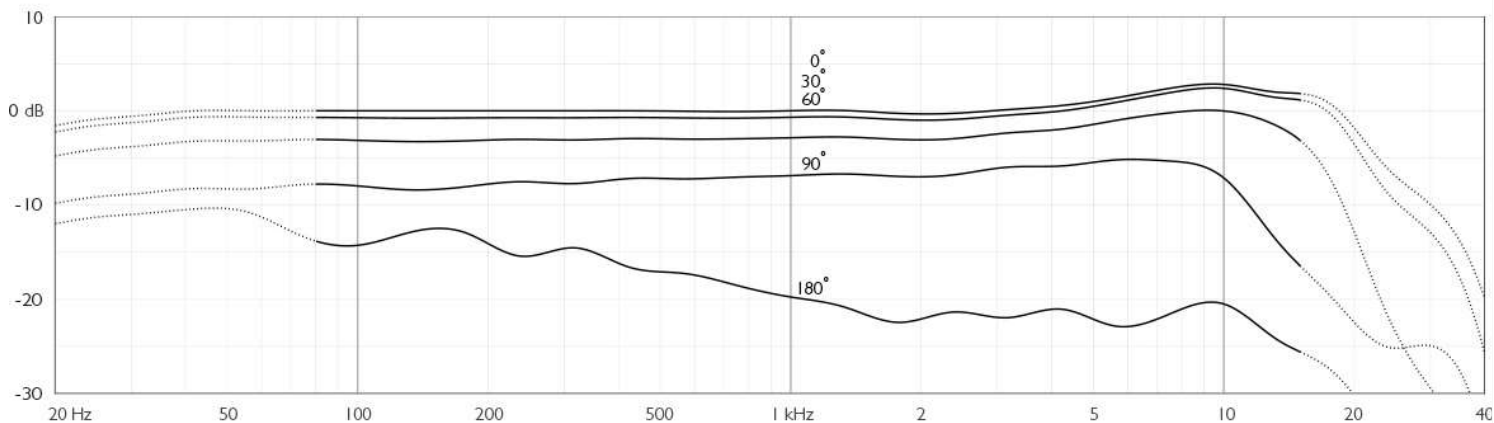
<b>Effective frequency range <math>\pm 2</math> dB, at 20 cm (7.9 in)</b>	80 Hz - 15 kHz with 2 dB soft boost at 10-12 kHz. Second order low-cut filter at 80 Hz with DAD4099-BC
<b>Sensitivity, nominal, <math>\pm 3</math> dB at 1 kHz</b>	2 mV/Pa; -54 dB re. 1 V/Pa
<b>Equivalent noise level, A-weighted</b>	Typ. 28 dB(A) re. 20 $\mu$ Pa (max. 31 dB(A))
<b>Distortion, THD &lt; 1%</b>	134 dB SPL RMS, 137 dB SPL peak
<b>Dynamic range</b>	Typ. 109 dB
<b>Max. SPL, THD 10%</b>	152 dB SPL peak (label color yellow)
<b>Rated output impedance</b>	From MicroDot: 30 - 40 $\Omega$ . From DAD4099-BC or DAD6001-BC: 100 $\Omega$
<b>Cable drive capability</b>	Up to 300 m (984 ft) with DAD6001-BC/DAD4099-BC XLR Adapter
<b>Output balance principle</b>	Signal balanced with DAD4099-BC or DAD6001-BC XLR Adapter
<b>Common mode rejection ratio (CMRR)</b>	> 60 dB from 50 Hz to 15 kHz with DAD4099-BC or DAD6001-BC XLR Adapter
<b>Power supply (for full performance)</b>	For wireless systems: Min. 5 V - max. 10 V through DPA adapter With DAD6001-BC or DAD4099-BC: P48 (Phantom Power). Will work from 12 V
<b>Current consumption</b>	Typ. 1.5 mA (microphone). 3.5 mA with DAD4099-BC or DAD6001-BC XLR Adapter
<b>Connector</b>	MicroDot
<b>Color</b>	Black
<b>Weight</b>	Microphone: 17 g (0.60 oz) Instrument Microphone Clamp Mount (CM4099): 16 g (0.56 oz) Instrument Microphone Clip for Accordion (AC4099): 5 g (0.18 oz) Instrument Microphone Clip for Bass (BC4099): 20 g (0.71 oz) Instrument Microphone Clip for
<b>Microphone diameter</b>	5.7 mm (0.22 in)
<b>Microphone length</b>	45 mm (1.8 in)
<b>Cable length</b>	1.8 m (5.9 ft)
<b>Cable diameter</b>	1.6 mm (0.06 in) / 2.2 mm (0.09 in)

**Polarity** +V at MicroDot pin for positive sound pressure (and pin 2 on DAD4099-BC or DAD6001-BC XLR adapter)

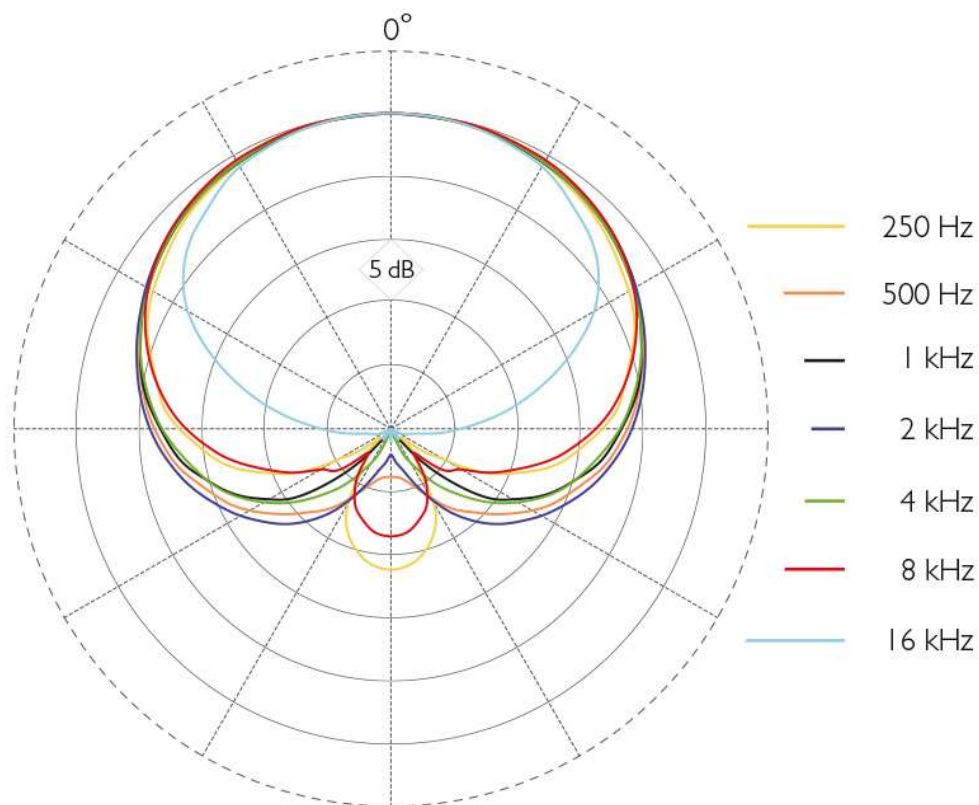
**Temperature range** -40°C to 45°C (-40°F to 113°F)

**Relative humidity (RH)** Up to 90%

**Gooseneck length** 140 mm (5.5 in)



Typical on and off-axis response of a 4099 measured at 20 cm (7.9 in)



## Typical directional characteristics of a 4099

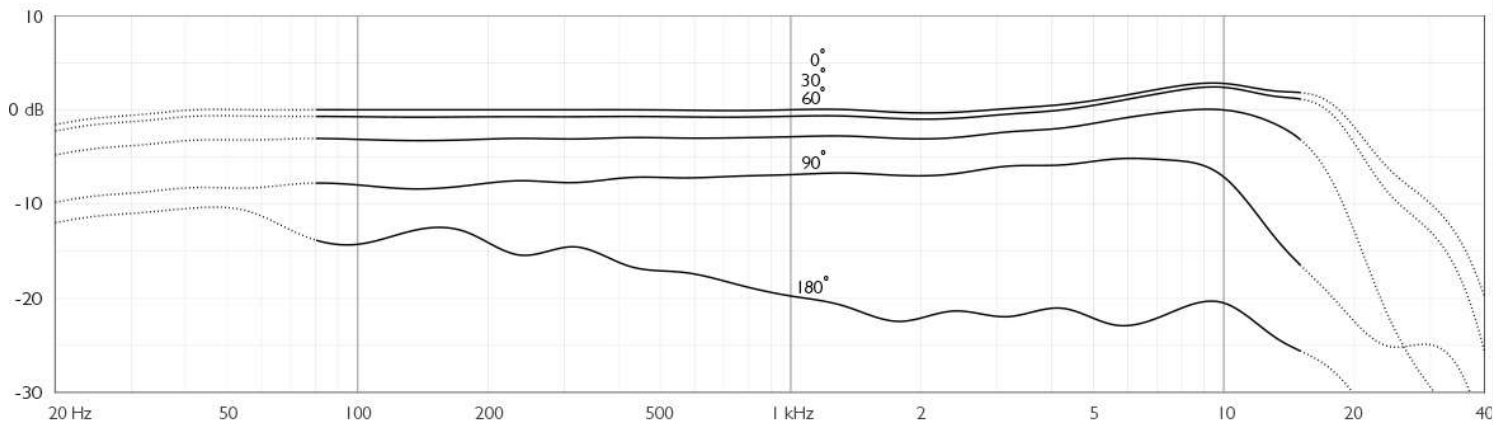


### Specifications - 4099 Loud SPL

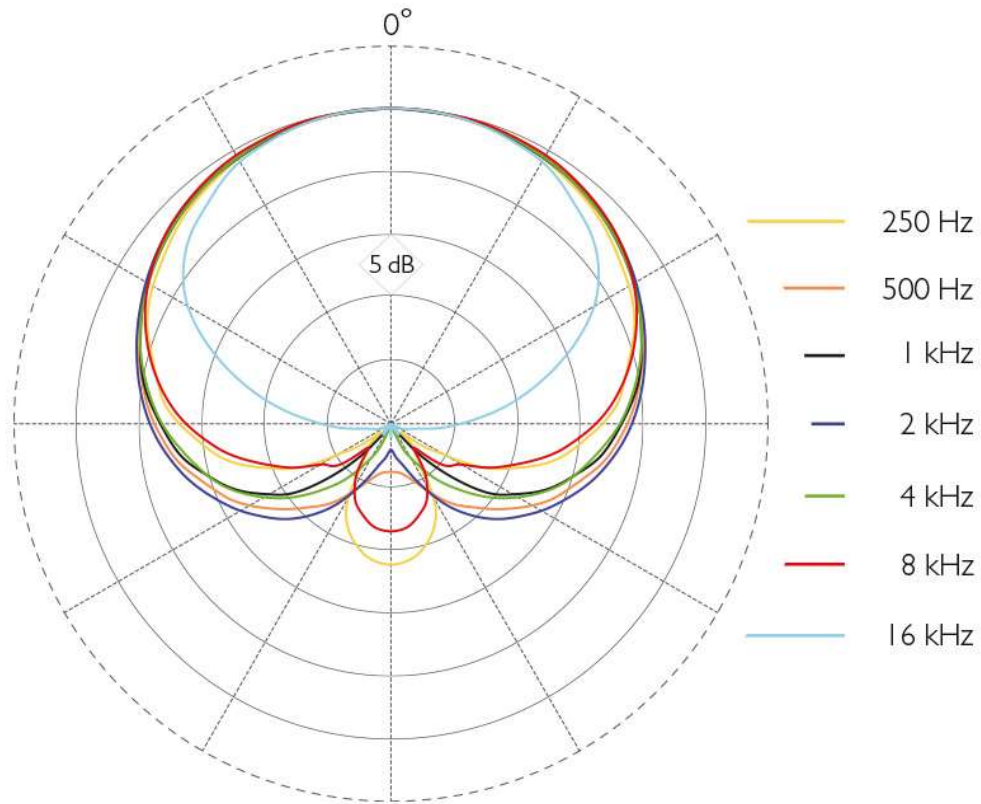
<b>Directional pattern</b>	Supercardioid
<b>Principle of operation</b>	Pressure gradient
<b>Cartridge type</b>	Pre-polarized condenser
<b>Frequency response</b>	20 Hz - 20 kHz
<b>Effective frequency range <math>\pm 2</math> dB, at 20 cm (7.9 in)</b>	80 Hz - 15 kHz with 2 dB soft boost at 10-12 kHz. Second order low-cut filter at 80 Hz with DAD4099-BC
<b>Sensitivity, nominal, <math>\pm 3</math> dB at 1 kHz</b>	6 mV/Pa; -44 dB re. 1 V/Pa
<b>Equivalent noise level, A-weighted</b>	Typ. 23 dB(A) re. 20 $\mu$ Pa (max. 26 dB(A))
<b>Distortion, THD &lt; 1%</b>	128 dB SPL RMS, 131 dB SPL peak
<b>Dynamic range</b>	Typ. 108 dB

<b>Max. SPL, THD 10%</b>	142 dB SPL peak (label color red)
<b>Rated output impedance</b>	From MicroDot: 30 - 40 $\Omega$ . From DAD4099-BC or DAD6001-BC: 100 $\Omega$
<b>Cable drive capability</b>	Up to 300 m (984 ft) with DAD6001-BC/DAD4099-BC XLR Adapter
<b>Output balance principle</b>	Signal balanced with DAD4099-BC or DAD6001-BC XLR Adapter
<b>Common mode rejection ratio (CMRR)</b>	> 60 dB from 50 Hz to 15 kHz with DAD4099-BC or DAD6001-BC XLR Adapter
<b>Power supply (for full performance)</b>	For wireless systems: Min. 5 V - max. 10 V through DPA adapter With DAD6001-BC or DAD4099-BC: P48 (Phantom Power). Will work from 12 V
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<b>Microphone length</b>	45 mm (1.8 in)
<b>Cable length</b>	1.8 m (5.9 ft)
<b>Cable diameter</b>	1.6 mm (0.06 in) / 2.2 mm (0.09 in)
<b>Polarity</b>	+V at MicroDot pin for positive sound pressure (and pin 2 on DAD4099-BC or DAD6001-BC XLR adapter)
<b>Temperature range</b>	-40°C to 45°C (-40°F to 113°F)
<b>Relative humidity (RH)</b>	Up to 90%
<b>Gooseneck length</b>	140 mm (5.5 in)

**Sensitivity selection tolerance (at 1 kHz)** ±1 dB  
**kHz)**



Typical on and off-axis response of a 4099 measured at 20 cm (7.9 in)



Typical directional characteristics of a 4099