



#### 4090, 4090 Omni Mic, Hi-Sens, P48

The DPA 4090 is a high quality omnidirectional condenser microphone, suitable for instrument miking applications in the studio or on stage.

- natural and open sound
- suitable for instrument miking applications in the studio or on the stage
- lends itself to acoustic guitar, strings, piano and wind instruments

The DPA 4090 is a high quality omnidirectional condenser microphone. Due to its uniquely natural and open sound, the 4090 is suitable for instrument miking applications in the studio or on the stage.

The 134 dB SPL handling means it can be used with essentially any instrument from acoustic guitar and strings to piano and wind instruments. Due to their remarkably linear frequency response in the 20 Hz to 20 kHz range, sound system engineers can also use these mics for sound system alignment, testing and tuning.

The rugged and compact design features a 5.4 mm diameter pre-polarized condenser capsule in a tapered body measuring just 12 cm (4.75 in).

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For more information please visit:  
[www.dpamicrophones.com](http://www.dpamicrophones.com)

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### Directional characteristics:

Omnidirectional

### Principle of operation:

Pressure

### Cartridge type:

Pre-polarized condenser

### Frequency range, $\pm 2$ dB:

20 Hz – 20 kHz

### Sensitivity, nominal $\pm 3$ dB at 1 kHz:

20 mV/Pa; -34 dB re. 1 V/Pa

### Equivalent noise level, A-weighted:

Typ. 23 dB(A) re. 20  $\mu$ Pa (max. 26 dB(A))

### Equivalent noise level, ITU-R BS.468-4:

Typ. 35 dB (max. 38 dB)

### S/N ratio (A-weighted), re. 1 kHz at 1 Pa (94 dB SPL):

71 dB(A)

### Total harmonic distortion (THD):

< 1 % up to 123 dB SPL peak

### Dynamic range:

Typ. 100 dB

### Max. SPL, peak before clipping:

134 dB

### Output impedance:

< 40 ohm

### Cable drive capability:

Up to 300 m (984 ft)

### Output balance principle:

Impedance balanced

### Common Mode Rejection Ratio (CMRR):

> 40 dB

### Power supply:

48 V Phantom power  $\pm 4$  V

### Current consumption:

2 mA

### Connector:

3-pin XLR-M

### Color:

Black

### Microphone weight:

38 g (1.34 oz)

### Microphone diameter:

19 mm; at tip: 6.7 mm (0.75 in; at tip: 0.26 in)

### Capsule diameter:

5.4 mm (0.21 in)

### Microphone length:

122 mm (4.8 in)

### Polarity:

Positively increasing sound pressure produces positive going voltage at pin 2

### Temperature range:

-40 °C to 45 °C (14 °F to 113 °F)

### Relative humidity (RH):

Up to 90 %

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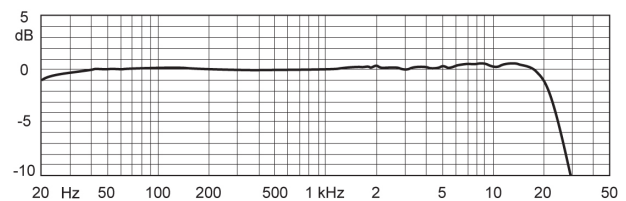
## Diagrams

### 4090, 4090 Omni Mic, Hi-Sens, P48

4090

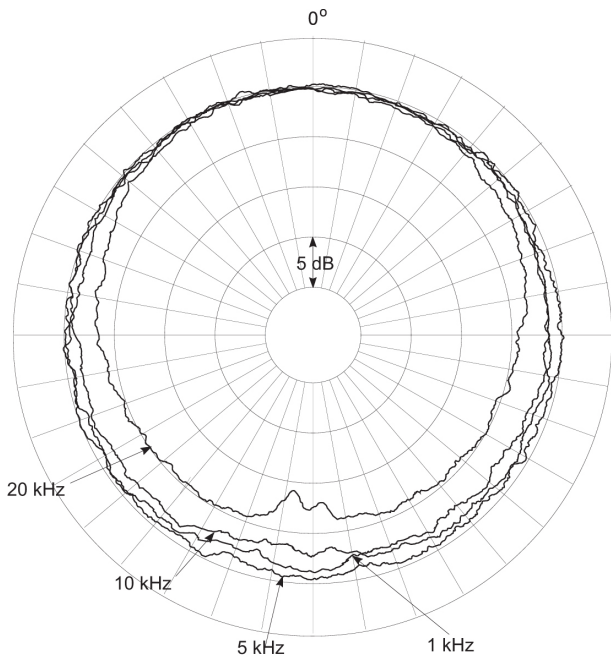


Typical on-axis frequency response of DPA 4090 in free field



Typical on-axis frequency response of DPA 4090 in free field

## Directional Characteristics of DPA 4090



Directional Characteristics of DPA 4090



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