

RE90P-12 and RE90P-18

Condenser Cardioid Gooseneck Microphones

- **Small size – unobtrusive for podium applications**
- **Frequency and cardioid polar response uniform across the range, for natural sound and high resistance to feedback**
- **All-metal construction substantially reduces noise from stray magnetic fields and RFI**
- **Low, 200-ohm output allows long cable runs**
- **Optional CPSM podium shock mount provides more than 15 dB of mechanical shock isolation at 200 Hz**

Description

The RE90P-12 and RE90P-18 podium microphones are phantom-powered “back-electret” miniature condenser gooseneck microphones. The back-electret feature provides greater sensitivity, wider frequency response, and superior immunity from handling noise than a diaphragm-electret microphone. The RE90P-12 and RE90P-18 are mechanically designed for quick, easy mounting to a lectern, pulpit or podium equipped with a bulkhead female XLR-type 3-pin receptacle. For permanent installation, optional fixed (FMK flange-mount kit) and shock-mounted (CPSM shock-mount kit) accessories are also available. The RE90P-12 and RE90P-18 are designed for sound reinforcement applications. The frequency response is tailored for full-range sound reproduction with natural sound pick-up optimized for close-up use. The small-diameter gooseneck has two supple joints and a rigid center tube. The rigid tube prevents unsightly twisting of the gooseneck but permits the user to exactly position the microphone. The electronics housing has a $\frac{3}{4}$ -inch diameter base terminated with an XLR-type 3-pin connector which allows the micro-

phone to be plugged directly into an existing panel-mount XLR-type receptacle. The housing is machined steel for ruggedness and superior EMI/RFI attenuation. The electronics’ output circuit utilizes a transformerless balanced construction with a low-output impedance, which is typically 200 ohms. This permits very long cable runs without degrading the microphone performance. The RE90P-12 and RE90P-18 are designed to be phantom powered with a wide voltage range, 9-52 V dc (DIN Standard 45 596).

Applications

The RE90P-12 and RE90P-18 gooseneck microphones are designed for sound reinforcement applications requiring high quality, wide response and a uniform polar pattern in a slender, adjustable gooseneck microphone. The RE90P-12 and RE90P-18 can be employed on lecterns, podiums, and on mixing consoles as a talk-back microphone or other applications which require a quick plug-in gooseneck microphone.

Applications of close or normal miking of speech at podiums, lecterns or pulpits normally require a windscreen to control breath noise and P-popping or, in some cases, wind

noise from circulating air. A small foam windscreen is included with the RE90P-12 and RE90P-18 mics. This windscreen is made of two stages of foam (a dense exterior surrounding a sparser core) which is easily slipped over the transducer. This two-stage filtering provides greater isolation from P-pop noise in a smaller package.

In some locations, there is a desire to permanently attach the foam windscreen to the microphone to prevent loss. Included with the microphone are two strips of double-sided tape (the second strip is a spare). To permanently attach the foam windscreen, first crack and peel off the protective back layer of one strip of tape. Apply the tape to the transducer by wrapping it around the gooseneck adapter. The eight screened ports on the transducer should be well above the tape so as to not disturb the sound reception. Next remove the protective front layer of the attached tape. Now, pull the windscreen down over the tape, stopping when the end of the foam is even with the flexible gooseneck. **Caution: the windscreen foam is delicate and therefore easily ripped by applying too much force.**

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Mounting Accessories

CPSM SHOCK-MOUNT KIT

The Electro-Voice CPSM shock mount effectively isolates the mounted RE90P-12 and RE90P-18 podium microphones from shock-induced vibrations that would be experienced on podiums, pulpits, table and desk tops, plus it provides theft-resistant security. Compared to hard mounting, the CPSM shock mount provides 15 dB (over 5 times) of shock isolation at 200 Hz.

FMK FLANGE-MOUNT KIT

For installations which do not require a shock mount, the FMK flange mount is designed for quick installation on podiums, pulpits, table and desk tops and provides theft-resistant security.

Architects' and Engineers' Specifications

RE90P-12

The microphone shall be a single-D cardioid back-electret condenser type with frequency response of 100 to 15,000 Hz.

The microphone shall have a 200-ohm nominal balanced output, with an output level of -43.0 dB (0 dB = 1 mW/pascal). The microphone shall have a back-electret generating element whose output shall not be appreciably affected by temperature extremes from -17.8° C (0° F) to 54.4° C (130° F) and/or by humidity extremes.

Dimensions shall be 20 mm (0.79 in.) diameter and 392 mm (15.43 in.) long. The microphone shall include a 280.7-mm (11.05-in.) gooseneck with professional XLR-type 3-pin style terminating connector and an external windscreen. The microphone shall be of metal construction.

The Electro-Voice RE90P-12 is specified.

RE90P-18

The microphone shall be a single-D cardioid back-electret condenser type with frequency response of 100 to 15,000 Hz.

The microphone shall have a 200-ohm nomi-

nal balanced output, with an output level of -43.0 dB (0 dB = 1 mW/pascal). The microphone shall have a back-electret generating element whose output shall not be appreciably affected by temperature extremes from -17.8° C (0° F) to 54.4° C (130° F) and/or by humidity extremes.

Dimensions shall be 20 mm (0.79 in.) diameter and 557.5 mm (21.95 in.) long. The microphone shall include a 443.2-mm (17.45-in.) gooseneck with professional XLR-type 3-pin style terminating connector and an external windscreen. The microphone shall be of metal construction.

The Electro-Voice RE90P-18 is specified.

Warranty (Limited)

Electro-Voice products are guaranteed against malfunction due to defects in materials or workmanship for a specified period, as noted in the individual product-line statement(s) below, or in the individual product data sheet or owner's manual, beginning with the date of original purchase. If such malfunction occurs during the specified period, the product will be repaired or replaced (at our option) without charge. The product will be returned to the customer prepaid. **Exclusions and Limitations:** The Limited Warranty does not apply to: (a) exterior finish or appearance; (b) certain specific items described in the individual product-line statement(s) below, or in the individual product data sheet or owner's manual; (c) malfunction resulting from use or operation of the product other than as specified in the product data sheet or owner's manual; (d) malfunction resulting from misuse or abuse of the product; or (e) malfunction occurring at any time after repairs have been made to the product by anyone other than Electro-Voice Service or any of its authorized service representatives. **Obtaining Warranty Service:** To obtain warranty service, a customer must deliver the product, prepaid, to Electro-Voice Service or any of its authorized service representatives to-

gether with proof of purchase of the product in the form of a bill of sale or receipted invoice. A list of authorized service representatives is available from Electro-Voice Service at 600 Cecil Street, Buchanan, MI 49107 (800/234-6831 or FAX 616/695-4743).

Incidental and Consequential Damages

Excluded: Product repair or replacement and return to the customer are the only remedies provided to the customer. Electro-Voice shall not be liable for any incidental or consequential damages including, without limitation, injury to persons or property or loss of use. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you. **Other Rights:** This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Electro-Voice Wired Microphones are guaranteed against malfunction from any cause for two (2) years from the date of original purchase. In addition, the Limited Warranty for the acoustic system contained in these microphones shall apply for the life of the product, defined as a period of ten (10) years from the date that the manufacture of the specific microphone has been discontinued. Any and all active electronics incorporated in these microphones are guaranteed against malfunction due to defects in materials or workmanship for a period of three (3) years from the date of original purchase. The Limited Warranty does not extend to cables, cable connectors, or switches. Additional details are included in the Uniform Limited Warranty statement.

For warranty repair, service information, or a listing of the repair facilities nearest you, contact the service repair department at: 616/695-6831 or 800/685-2606.

For technical assistance, contact Technical Support at 800/234-6831 or 616/695-6831, M-F, 8:00 a.m. to 5:00 p.m. Eastern Standard time.

Specifications subject to change without notice.

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Figure 1—Frequency Response

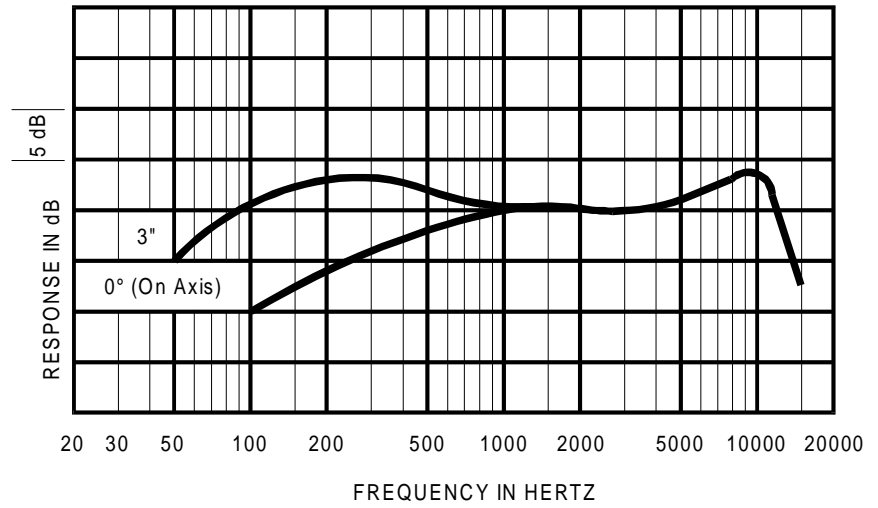


Figure 2—Polar Response

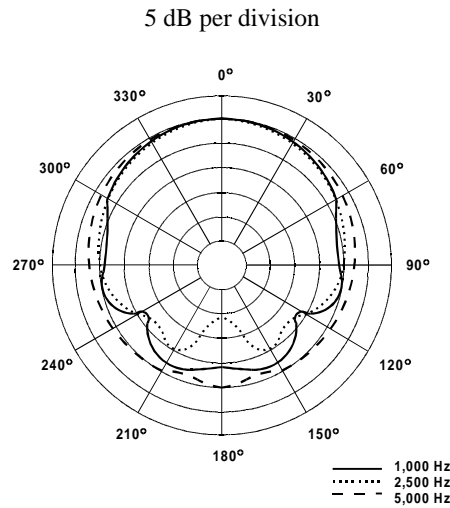
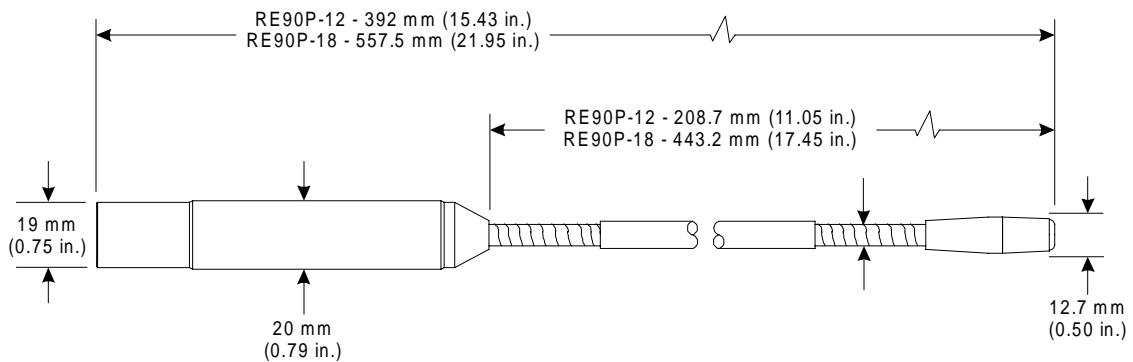


Figure 3—Dimensions



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Specifications

Generating Element:

Condenser, back electret

Frequency Response (see Figure 1):

100-15,000 Hz (5 in. or greater)

70-15,000 Hz (3 in. distance)

Polar Pattern:

Cardioid (see figure 2)

Sensitivity,

Open Circuit Voltage:

4.5 mV/pascal @ 1,000 Hz

Power Level:

-43dB at 1,000 Hz

(0 dB = 1 mW/pascal)

Dynamic Range:

102 dB

Equivalent Output Noise:

<28 dB SPL "A" weighted

(0 dB=20 micropascals)

Impedance:

measured at 1,000 Hz

(works with all low-Z mic inputs)

Power Requirements:

9-52 V dc phantom supply

Current Consumption:

2.5 mA

Polarity:

A positive pressure on the diaphragm

produces a positive voltage on

output pin 2(+)

Color:

Nonreflecting black

Environmental Conditions,

Relative Humidity 0-50%:

-29° to 74° C (-20° to 165° F)

Relative Humidity 0-95%:

-29° to 57° C (-20° to 135° F)

Net Weight,

RE90P-12: 182 grams (6.4 oz)

RE90P-18: 244 grams (8.6 oz)

Shipping Weight,

RE90P-12: 400 grams (14.1 oz)

RE90P-18: 528 grams (18.6 oz)

Mounting:

Male XLR-type 3-pin connector

Dimensions (see Figure 3),

Gooseneck and Head Length:

RE90P-12: 280.7 mm (11.05 in.)

RE90P-18: 443.2 mm (17.45 in.)

Maximum Head Diameter:

12.7 mm (0.50 in.)

Gooseneck Diameter:

6.4 mm (0.25 in.)

Electronics Module Diameter:

20 mm (0.79 in.)

Connector Diameter:

19 mm (0.75 in.)

Accessories Furnished:

Windscreen

Double-sided tape

Optional Accessories:

FMK flange-mount kit

CPSM shock-mount kit

Electro-Voice®

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