

*PolarChoice Series:*  
*PC-12/FL*  
*PC-18/FL*



**Threaded/Flange Mount Miniature  
Multi-Pattern Podium Microphone**

**Key Features:**

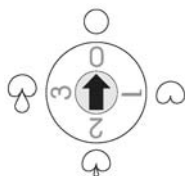
- **Dual Capsule Design with four polar patterns: Omnidirectional, Cardioid, Supercardioid, and Hypercardioid.**
- **Thread or flange mount**
- **Cable can exit from the side or through the bottom of the gooseneck**
- **Switchable high pass filter**
- **Consistent on-axis response.**
- **Available in 12 or 18 inch versions.**
- **Non-reflecting black finish**
- **Phantom powered back-electret condenser**
- **Packaged with a two-piece shock mount**



**General Description:**

The PC-12/FL and PC-18/FL are multi-pattern miniature gooseneck podium microphones designed for sound reinforcement systems where sound quality and gain-before-feedback is of major importance. The multi-pattern versatility of the PolarChoice microphone makes it true “problem solver”. With three directional and one non-directional polar pattern available, the PolarChoice™ microphone is ideal for virtually any installation. Polar patterns can be easily changed, using a small flat bladed screwdriver with the front mounted rotary control on the external electronics module. The control switch has the following settings:

**Switch Setting Polar Pattern**



**Switch Positions:**  
0 Omnidirectional  
1 Cardioid  
2 Supercardioid  
3 Hypercardioid

Altering the polar pattern does not change the on-axis sonic character of the microphone; therefore changes in equalizer settings are unnecessary. The PC-12/FL and PC-18/FL are acoustically designed for high-quality sound reinforcement and broadcast applications. The frequency response is tailored for wide-range sound reproduction with very natural sound pick-up for either distant or close-up use.

The PC-12/FL and PC-18/FL microphones can be mounted in several different ways. They can be mounted on any fixture that has a standard 5/8" X 27 microphone thread (such as a microphone stand), or they can be mounted to any flat surface using the included threaded flange. Additionally, they can be mounted using the included shock mount and adapter. The cable can be easily changed to exit from either the side, or through the bottom of the microphone.

The small, dual 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 module is terminated with a male XLR-type 3-pin connector that allows the microphone to be plugged directly into an existing panel-mount XLR receptacle. The electronics module can also be surface mounted using the included mounting clips. The housing is machined brass for ruggedness and superior EMI/RFI attenuation. The PC-12/FL and PC-18/FL are designed to be phantom-powered with a wide voltage range of 12-52V dc (DIN Standard 45 596).

# PolarChoice Series PC-12/FL and PC-18/FL Microphones

## Applications:

The PC-12/FL and PC-18/FL can be used on lecterns, podiums, desk and tabletops, or other applications that require a threaded or flange mounted gooseneck microphone. To maximize gain-before-feedback the PolarChoice's™ three directional polar patterns allow the user to pick the directional polar pattern for optimum effect. For those applications where gain-before-feedback is not a problem, an omnidirectional pattern is included. Applications requiring speaking close to the microphone 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.

## Technical Specifications:

### Generation Element:

Dual condenser, back electret

### Frequency Response:

50 Hz to 20,000 Hz (see chart)

### Polar Patterns: (see chart)

Omnidirectional  
Cardioid  
Supercardioid  
Hypercardioid

### Sensitivity,

Open Circuit Voltage, 1 kHz:  
5.6mV/Pascal

### Clipping Level (1% THD):

>135 dB SPL

### Equivalent Noise:

<26 dB SPL "A" weighted  
(0 dB=20 micropascals)

### Dynamic Range:

>109 dB

### Output Impedance, 1 kHz:

200 ohms

### Power Requirements:

Phantom, 12 – 52 VDC

### Current Consumption:

< 8 mA with P12 supply

### Polarity:

Pin 2 positive, referenced to pin 3, with positive pressure on the diaphragm

### Dimensions

Gooseneck Length:

PC-12/FL: 313.2 mm (12.3 in.)

PC-18/FL: 457.7 mm (18.0 in.)

Maximum Head Diameter: 14.6 mm (0.58 in.)

Gooseneck Diameter:

Lower section, 7.9 mm (0.31 in.)

Upper section, 6.4 mm (0.25 in.)

Electronics Module Diameter: 20 mm (0.79 in.)

Connector Diameter: 19 mm (0.75 in.)

### Accessories Furnished:

Windscreen

Two-piece shock mount, with shock mount adaptor

Mounting clips for electronics module

### Optional Accessories:

FMK flange-mount kit

WS-PC1 large windscreen

CPSM shock-mount kit

### Color:

Nonreflecting black

### Environmental Conditions,

Relative Humidity 0-50%:

-29° to 74°C (-20° to 165°F)

Relative Humidity 0 to 95%:

-29° to 57°C (-20° to 135°F)

### Net Weight:

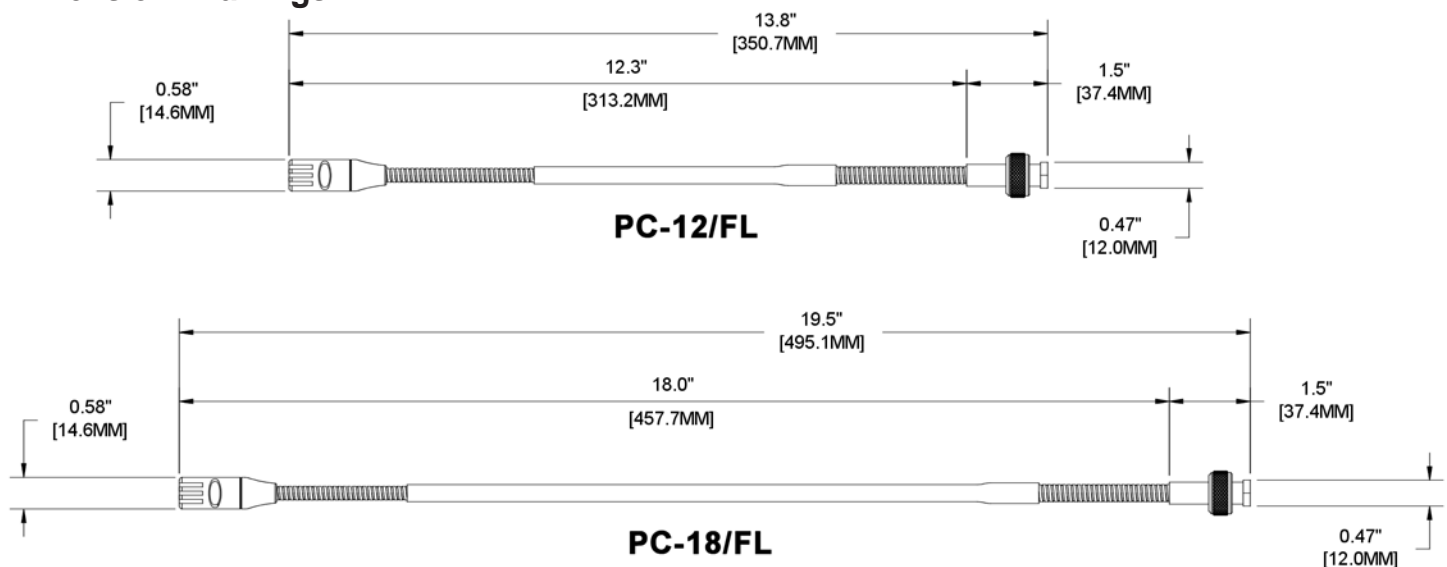
PC-12/FL:

111 grams (3.9 oz), 252 grams (8.9 oz) with electronics module

PC-18/FL:

119 grams (4.2 oz), 261 grams (9.2 oz) with electronics module

## Dimension Drawings:



## EV Multi-Port Windscreen:

All PolarChoice microphones come with the exclusive EV Multi-Port Windscreen. This unique one-piece ported design offers greatly improved resistance to "P"-popping noise by creating a two-stage filter that has an air space between the stages. This makes the multi-port windscreen as effective as much larger traditional designs.

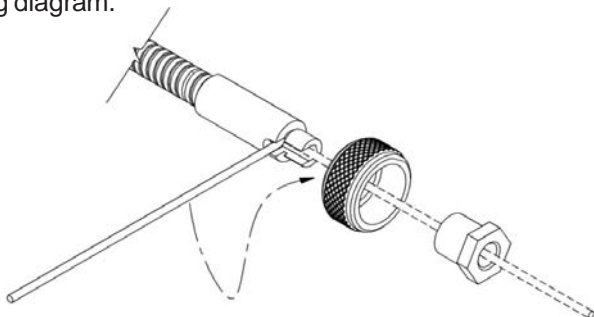


## Mounting the Electronics Module:

The external electronics module can either be plugged directly into any standard 3-pin XLR input, or it can be surface mounted in a location adjacent to the microphone using the provided mounting clips. If required, the cable between the microphone and the electronics module can be shortened. Simply cut the cable to the desired length, and remove sufficient insulation from the wires to allow the conductors to be inserted into the terminal strip in the electronics module. Connect the wires to the module as shown in the wiring guide on this page. For best results, the conductors should first be tinned with solder.

## Changing the Cable from Side Exit to Bottom Exit:

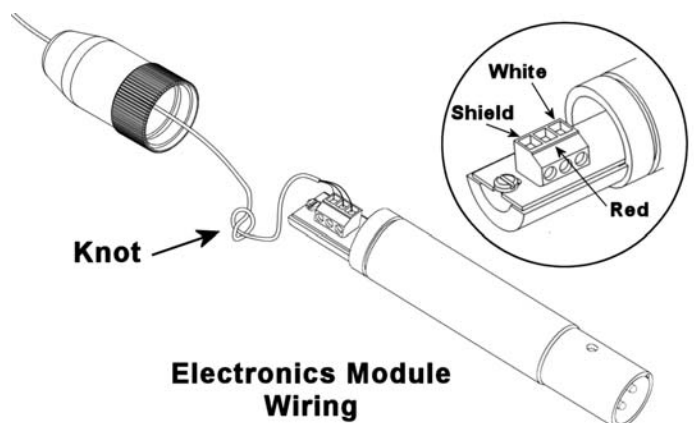
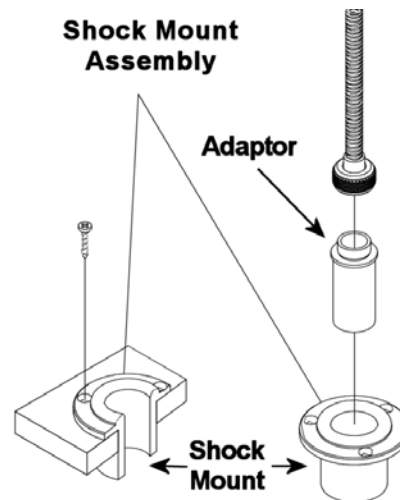
- 1) Disconnect the cable from the electronics module
- 2) Unscrew the hex retainer from the bottom of the gooseneck.
- 3) Thread the cable through the knurled ring and hex retainer.
- 4) Screw the hex retainer back on the bottom of the gooseneck and tighten securely.
- 5) Reconnect the cable to the electronics module, according to the wiring diagram.



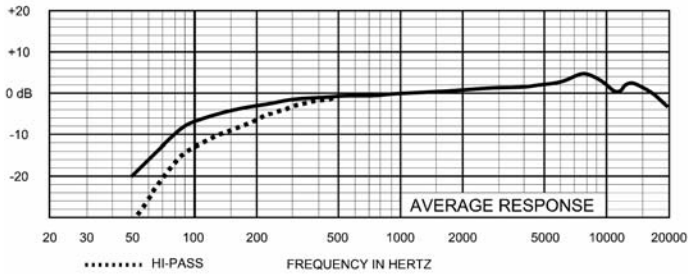
## Shock Mount Installation:

Drill a 1-3/8 inch hole to mount the hard plastic flange into the desk, table, or lectern top. Drill three holes to secure the flange. The type of screws used to fasten the flange will depend on the desktop material. To insert the flexible shock mount:

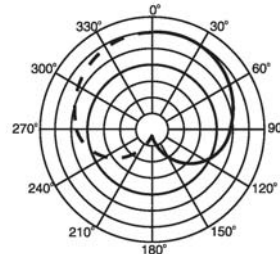
1. First route the cable, as desired, either out the side of the mic, or through the bottom.
2. Screw the included shock mount adaptor into the bottom of the microphone.
3. Gently push the flexible shock mount onto the adaptor.
4. Insert the microphone and shock mount into the hard plastic flange using a twisting action to seat the shock mount.



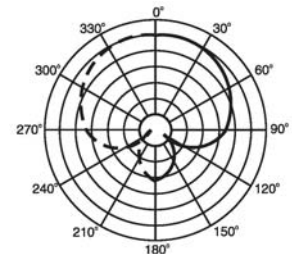
## Frequency Response:



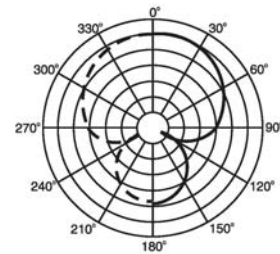
## Polars:



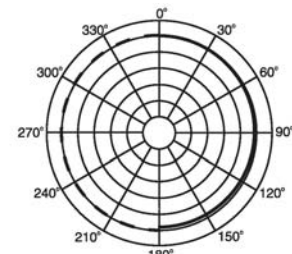
Cardioid  
500 Hz — — — 1,000 Hz



Supercardioid  
500 Hz — — — 1,000 Hz



Hypercardioid  
500 Hz — — — 1,000 Hz



Omni  
500 Hz — — — 1,000 Hz

## Architectural & Engineering Specs:

### PolarChoice™ Series PC-12/FL, PC-18/FL

The microphone shall be a back-electret condenser type with a frequency response of 50 Hz to 20 kHz. The microphone shall have a nominal, balanced output impedance of 200 ohms. The microphone shall have four selectable polar patterns: omnidirectional, cardioid, supercardioid, and hypercardioid. The microphone shall have an output level of 5.6 mV/Pascal, and outputs shall not be appreciably affected by the following temperature and humidity extremes: -29° to 74° C (-20° to 165°F) when the relative humidity is 0-50%; -29° to 57°C (-20° to 135°F) when the relative humidity is 0-95%. Dimensions shall be 350.7 mm (13.8 in.) long (PC-12/FL), and 495.1 mm 19.5 in.) long, (PC-18/FL) with a maximum head diameter of 14.6 mm (0.58 in). The PC-12/FL microphone shall include a 313.2 mm (12.3 in.) gooseneck. The PC-18/FL microphone shall include a 457.7 mm (18.0 in.) gooseneck. The PC-12/FL and PC-18/FL goosenecks microphones will include an external electronics module, which is terminated with a professional XLR-type 3-pin style connector. The electronics module will have a switchable high pass filter to roll off low frequencies. The microphone shall be of metal construction. The microphone will include an external windscreen. The microphone shall have a nonreflecting black finish. The Electro-Voice PolarChoice™ series PC-12/FL or PC-18/FL is specified.



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[www.electrovoice.com](http://www.electrovoice.com)

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Specifications subject to change without notice.