



# PRA528DS

Desktop Gooseneck  
Condenser Microphone

# User Guide



## Specifications

### Type

Desktop Gooseneck  
condenser microphone

### Element

Pressure gradient,  
FET preamplifier

### Polar pattern

Unidirectional (Super Cardioid),  
rotationally symmetrical about  
microphone axis, uniform with  
frequency. (Figure 1)

### Frequency response

50 to 16,000 Hz (Figure 2)

### Sensitivity

(at 1,000 Hz Open Circuit Voltage)  
-35dBV/Pa (17.8mV/Pa)  
1Pa=94dB SPL

### Rated impedance

Phantom: 200Ω  
Battery: 600Ω

### Minimum load impedance

Phantom: 1000Ω  
Battery: 600Ω

### Equivalent noise level

(A-weighted)  
24dB

### Max. SPL (1 kΩ load)

Phantom: 124dB SPL  
Battery: 114dB SPL  
(THD ≤ 1% 1kHz)

### Dynamic range (1 kΩ Load)

Phantom: 100dB  
Battery: 90dB

### noise ratio-to-ignal

70 dB

### Power supply

Phantom: 12 to 52 Vdc  
Battery: 1.5V AA(UM3)

### Current consumption

Phantom: 3mA  
Battery: 1.2mA (1.5V alkaline  
battery 900 hrs upward)

### Output type

Phantom: balanced  
Battery: unbalanced

### Polarity

Pin 2 output positive voltage  
(related to pin 3) when diaphragm  
receives positive pressure.  
(Diaphragm moving inward)

### Connector

3 pin male XLR type

### Finish

Black paint

### Environmental conditions

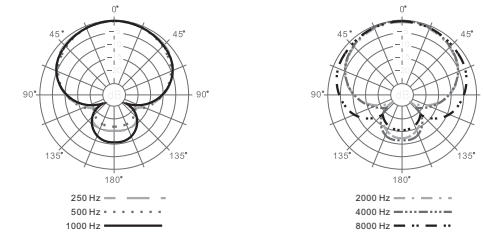
The PRA528DS operates between  
-10? to +50? (14? to  
122? ) with relative humidity  
between 0 to 95%.

### Dimensions

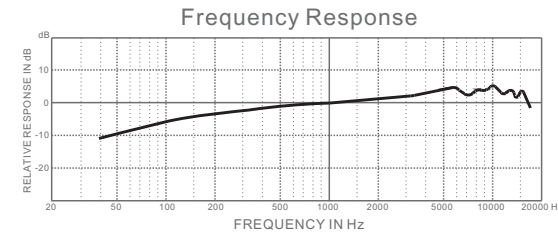
PS418F base: figure 3  
PRA528D microphone: figure 4

### Net weight

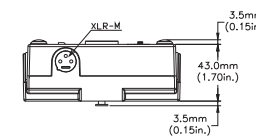
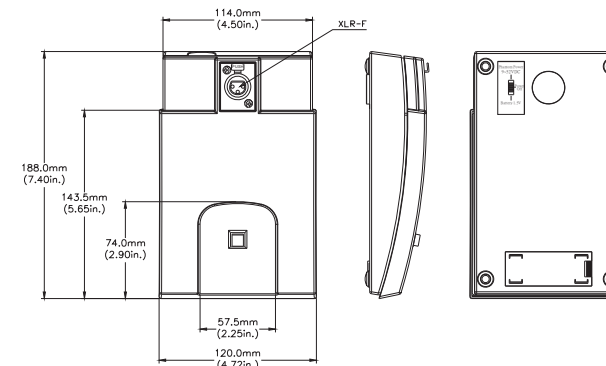
Microphone: 240g (8.45oz.)  
Base: 790g (27.85oz.)  
Packing included: 1500g(52.90oz.)



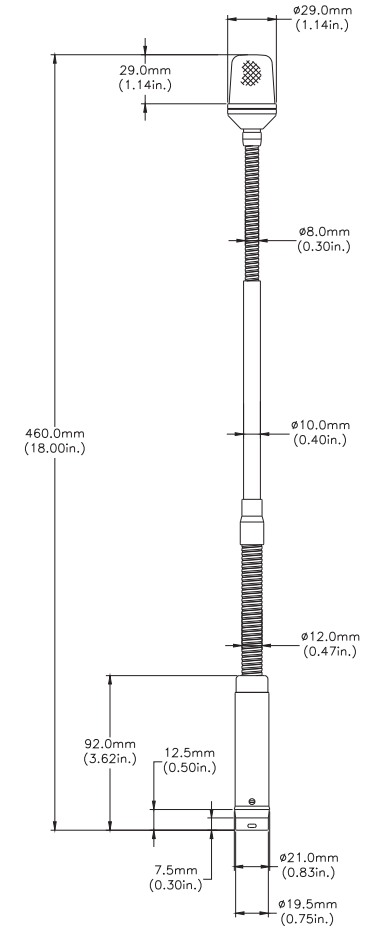
TYPICAL POLAR PATTERN (Figure 1)



TYPICAL FREQUENCY RESPONSE (Figure2)



PS418F Base  
Dimensions (Figure3)



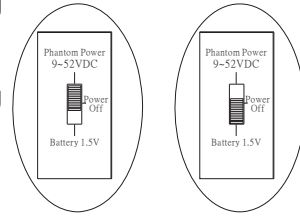
PRA528D microphone  
Dimensions (figure 4)

## Description

The PRA528DS is a desktop gooseneck microphone set. It comes with a sturdy base (PS418F), where a latching push switch incorporated for microphone on and off control. Underneath the PS418F, there is a 3-position sliding switch to set the power mode between external phantom power, power-off, and internal battery power. The capsule of the PRA528DS is a condenser type, which is tailored for conference speech applications. The gooseneck microphone can be easily plugged into PS418F or be removed to stow away. Complete set of this gooseneck desktop microphone is shipped with a A3 carrying case.

## Features

- ✎ Back electrets condenser capsule
- ✎ Switch control phantom power or battery power operation
- ✎ High GBF (Gain before feedback)
- ✎ Detachable base and microphone, plug and play.
- ✎ Latching microphone on/off push switch
- ✎ 2000 noiseless bending cycle life tested, 90 degrees bending with less than 5mm bouncing back offset.
- ✎ Metal sturdy base, reducing structure bound noise



Base cut (figure 5)

## Supplied accessories

- Pop screen ----- S18
- 1.5V alkaline battery -----



S18  
Pop screen



AA(UM3)  
1.5V alkaline battery

## Knowing your microphone

Superlux provides variety selection of microphones for professionals and amateurs. To know your microphone is the first step to successful result.

### Type of transducer



#### Condenser

Extremely light weight diaphragm, very sensitive to sound. Very small versions available for hiding applications. High performance condenser microphones are regarded as standard equipment of recording studios for extreme detail capturing. Operates with power, such as phantom or battery.

### Powering microphone

Condenser microphones work with power. Professional standard is 48VDC phantom power. Some microphones work with lower voltage as low as 1.5VDC, such as battery power model. PRA528DS work with 9~52VDC phantom only. Please make sure your sound system provide adequate power to the microphone.

### About Frequency Response

#### Flat

Suitable for working at controlled environment, or for acoustic measurements. Although people pursuit flatness, but for non-professionals, it is a challenge to makes it works as expectation.

#### Popular curve response

Based on years of practical experience of pro users. There are curves to be build for various applications, so that it is very simple to use the microphone for the purpose. Limiting bandwidth, and emphasizing are typical skills.

#### Variable response

Incorporating switchable filters to eliminates interference, such as sub-sonic filter to cut air-conditioner and floor vibrations. And allows full flat when used in controlled environment.

## Directivity



### Super Cardioid

Narrower than cardioid pattern. Suitable for multiple microphone setup. Least sensitive angle pointing toward side to rear where most stage monitors are located. Same proximity effect as cardioid microphone.

### Using condenser gooseneck microphone

Uni-directional condenser microphone features very high sensitivity at -35dBV/Pa for high intelligible speech application. Reduced off-axis sensitivity to keep lower background noise and maximized on-axis sensitivity for highest gain before feedback in live sound system.

User shall keep 15 cm or 40 cm from microphone, and maintain average speech level. Up close will result excessive bass due to proximity effect which interfere intelligibility. Maintain their speaking in front of the microphone for high gain before feedback.

Quality conference microphone incorporating built-in limiter to prevent distortion due to exciting user or close up speaker.

Choices of gooseneck for various demands. For aesthetic, single or double bend goosenecks are better choice over fully bend design. Low bending noise is another important feature of good gooseneck microphone. User shall not bend the gooseneck to hard or rush which may generate excessive noise which disturbs the audience.

In most cases, each attendee has his own microphone or share a microphone every 2 attendee. Although there are numbers of microphones in one space which is not a good criterion for feedback problem, system operator shall keep as less turn-on microphone as possible for best result. Auto-mixer is a good choice for multiple microphones installation which limit the number of turn-on microphone at the one time. Advanced auto mixer features dynamic threshold and auto gain reduction according to the number of turn-on microphones to keep the same system gain.

Wind screen is vital for windy environment such as outdoor or close to air-conditioning fan.

Keep capsule and wind screen clean for good audio performance.

## Maintainence

Condenser microphone shall be kept in low humidity environment for best sound performance. Store the condenser microphones in airconditioned room or dehumidifier to keep away from moisture. Clean air is another important factor. Keep away from smoking environment to avoid tar residuals.



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