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## Single-ended, BNC Connector, Low Noise Lock-In Amplifier



#90-642 Single-ended, BNC, Lock-In Amplifier

Stock #90-642 NEW **2 In Stock**

⊖ 1 ⊕ **\$3,787<sup>00</sup>**

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### Product Downloads

### General

Single-Ended **Type:**

3 ms – 10s **Time Constant:**

Yes **Remote Control:**

2 @ Fast Setting  
4 @ Slow Setting **Maximum Acquisition Time (s):**

**Note:**

Includes:  
LEMO® 3-pin connector  
Datasheet

**Phase Control:**

0 - 360° Digital Phase Shifter

**Phase Temperature Drift (°/K):**

0.01

## Physical & Mechanical Properties

**Weight (g):**

370

**Dimensions (mm):**

Case Size: 170 x60 x30

## Sensor

**Dynamic Reserve (dB):**

Low Drift Setting: 35  
High Dynamic Setting: 55

## Electrical

**Frequency (Hz):**

10 - 45,000

## Hardware & Interface Connectivity

**Connector:**

BNC

**Power Requirement:**

±15 V, 100 mA

**Power Supply:**

Power Supply Required and Sold Separately.  
USA: [#59-180](#)  
Europe: [#59-180](#)  
Japan: Not Available  
Korea: Not Available  
China: [#59-180](#)

## Environmental & Durability Factors

**Operating Temperature (°C):**

0 to +60

## Regulatory Compliance

**RoHS 2015:**

[Compliant](#)

**Certificate of Conformance:**

[View](#)

## Product Details

- Recovers Low-Amplitude, Modulated Signals from Noisy Backgrounds, Significantly Improving Measurement Sensitivity
- Compact Design Shielded for Electromagnetic Interference (EMI)
- Wide Working Frequency Range, 10Hz – 45kHz

Low-Noise Lock-In Amplifiers utilize synchronous detection to selectively amplify and extract weak modulated signals from noise. These amplifiers feature a compact, 170 x60 x30mm form factor and an EMI-shielded design that enables seamless integration into OEM systems or placement close to the signal source for optimal performance. With a broad operating frequency range from 10Hz to 45kHz, they support a wide range of modulation and measurement techniques. Low Noise Lock-In Amplifiers' adjustable phase, sensitivity, and time constants give users precise control to fine-tune measurements for maximum accuracy. These lock-in amplifiers are ideal in applications such as spectroscopy, laser stabilization, optical sensing, and other precision scientific or industrial measurement systems.

**Note:** Power supply sold separately. Please see specifications for more details.