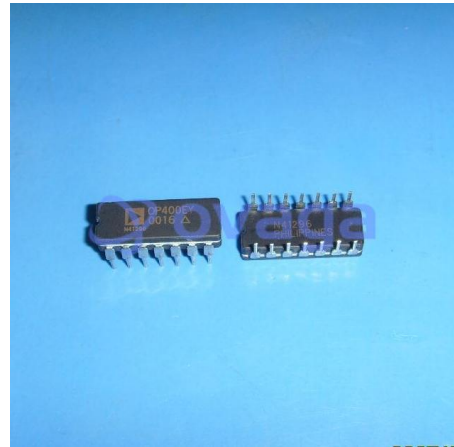


Quad Low Offset, Low Power Operational Amplifier

| | |
|---------------|-------------------------------------|
| Manufacturers | Analog Devices, Inc |
| Package/Case | DIP-14 |
| Product Type | Amplifier ICs |
| RoHS | |
| Lifecycle | |



Images are for reference only

Please submit RFQ for OP400EY or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The OP400 is the first monolithic quad operational amplifier that features OP77-type performance. Precision performance is not sacrificed with the OP400 to obtain the space and costsavings offered by quad amplifiers.

The OP400 features an extremely low input offset voltage of less than 150 μV with a drift of less than 1.2 $\mu\text{V}/^\circ\text{C}$, guaranteed over the full military temperature range. Open-loop gain of the OP400 is more than 5 million into a 10 $\text{k}\Omega$ load, input bias current is less than 3 nA, CMR is more than 120 dB, and PSRR is less than 1.8 $\mu\text{V}/\text{V}$. On-chip Zener zap trimming is used to achieve the low input offset voltage of the OP400 and eliminates the need for offset nulling. The OP400 conforms to the industrystandard quad pinout, which does not have null terminals.

The OP400 features low power consumption, drawing less than 725 μA per amplifier. The total current drawn by this quad amplifier is less than that of a single OP07, yet the OP400 offers significant improvements over this industry-standard op amp. Voltage noise density of the OP400 is a low 11 $\text{nV}/\sqrt{\text{Hz}}$ at 10 Hz, half that of most competitive devices.

The OP400 is an ideal choice for applications requiring multiple precision operational amplifiers and where low power consumption is critical.

Features

Low input offset voltage: 150 μV maximum

Low offset voltage drift over -55°C to $+125^{\circ}\text{C}$: 1.2 $\mu\text{V}/^{\circ}\text{C}$ maximum

Low supply current (per amplifier): 725 μA maximum

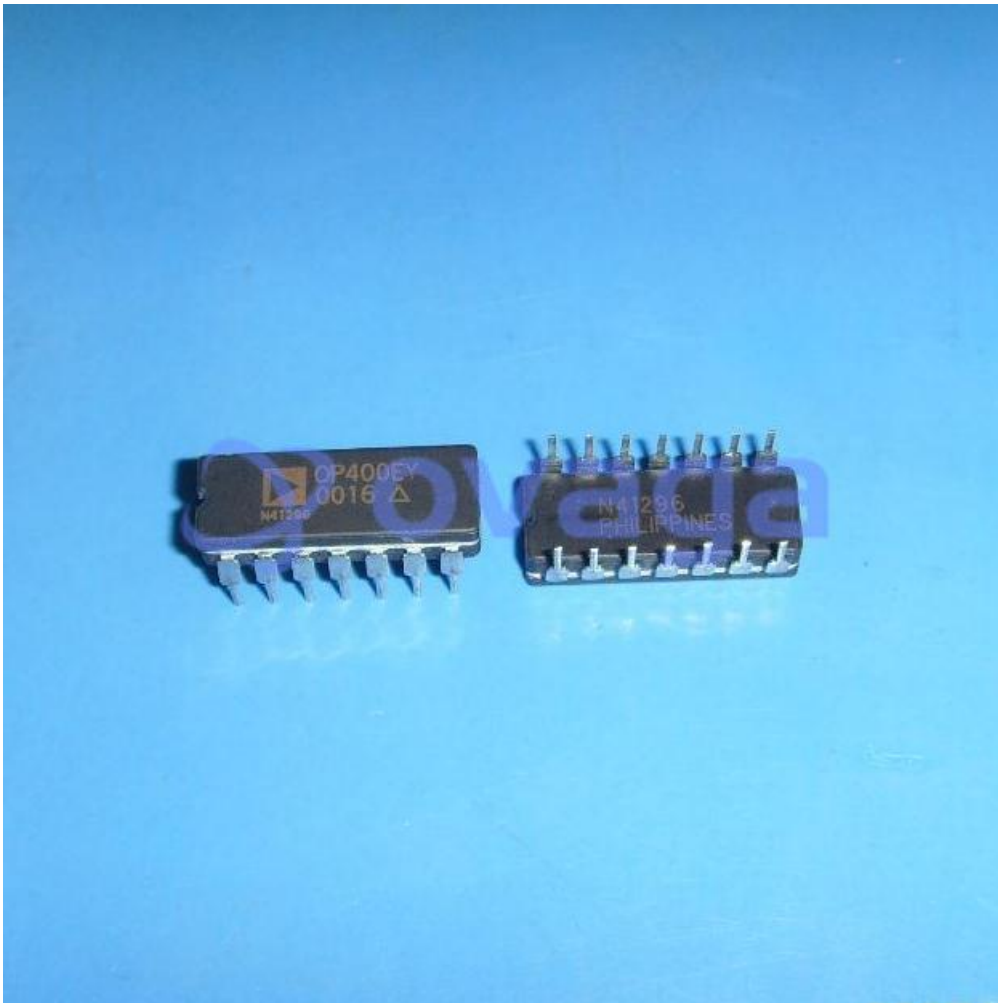
High open-loop gain: 5000 V/mV minimum

Input bias current: 3 nA maximum

Low noise voltage density: 11 $\text{nV}/\sqrt{\text{Hz}}$ at 1 kHz

Stable with large capacitive loads: 10 nF typical

Available in die form



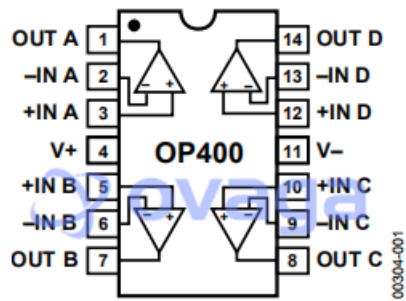
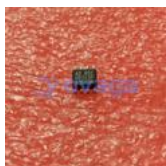


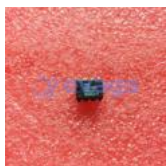
Figure 1. 14-Pin Ceramic DIP (Y-Suffix)
and 14-Pin Plastic DIP (P-Suffix)

Related Products



[OP213F](#)

Analog Devices, Inc
SMD/DIP-8/SOP-8



[OP27GP](#)

Analog Devices, Inc
PDIP-8



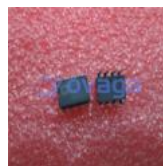
[OP462GSZ](#)

Analog Devices, Inc
SOIC-14



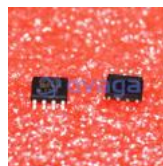
[OP467GPZ](#)

Analog Devices, Inc
PDIP-14



[OP42AZ](#)

Analog Devices, Inc
CDIP-8



[OP37GS](#)

Analog Devices, Inc
SOIC-8



[OP2177ARM](#)

Analog Devices, Inc
MSOP8



[OP400GPZ](#)

Analog Devices, Inc
PDIP-14