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Data Sheet

August 14, 2026

ITHACO

Ithaco 3961B

Literature: Ithaco 3961B two-phase lock-in amplifier published specifications Display Class: analog/digital lock-in readout per 3961B panel Outputs: in-phase and quadrature (two-phase) Sensitivity, frequency, impedance, CMRR, interfaces, power, and mechanical rows from published Ithaco 3961B two-phase lock-in amplifier specification listings. Dynamic-reserve and output-time-constant tables are in the 3961B manual if present on the unit. Display Class: analog/digital lock-in readout per 3961B panel Outputs: in-phase and quadrature (two-phase) Sensitivity, frequency, impedance, CMRR, interfaces, power, and mechanical rows from published Ithaco 3961B two-phase lock-in amplifier specification listings. Dynamic-reserve and output-time-constant tables are in the 3961B manual if present on the unit.



MODEL

Ithaco 3961B

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

3961B

LISTING

<https://aumictechlabs.com/products/3961b-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Ithaco 3961B is a dual-phase lock-in amplifier engineered for precision measurement of weak AC signals in high-noise environments. Phase-sensitive detection enables signal extraction and amplification across multiple disciplines including physics, chemistry, and engineering research where detection of subtle signals drives discovery. Technical Specifications Signal Detection & Sensitivity Frequency range: 0.5 Hz to 200 kHz (0.5 Hz mode); DC to 500 kHz (alternative mode) Input sensitivity: 100 nV to 1 V full scale across 15 ranges (1-3.16-10 steps) Maximum resolution: 1 nV Noise floor: Less than 10 μ V RMS; less than 1 nV/ $\sqrt{\text{Hz}}$ Dynamic reserve: 90 dB at 1 Hz Input &

Output Input configuration: Single-ended or true differential Input impedance: $10\text{ M}\Omega // 40 \pm 10\text{ pF}$ or $1\text{ M}\Omega // 20\text{ pF}$ Common mode rejection: 110 dB or greater Output voltage: $\pm 10\text{ V}$ maximum
Signal Processing Gain range: 1 to 1000 Time constant range: $1\text{ }\mu\text{s}$ to 10 ks Phase control: 0 to 360 degrees Harmonic distortion: Less than 0.1% at 1 kHz, 1 V RMS output Linearity: Less than 0.1% from 10 Hz to 100 kHz Key Features TTL/CMOS compatible reference input from 1 Hz to 100 kHz 19" rack-mountable form factor, 3U height (17.0" W $\times$ 20.0" D $\times$ 5.25" H; 31 lb) Dual-phase detection for enhanced signal discrimination 15-step sensitivity scaling for flexible measurement ranges Typical Applications Phase-locked detection of modulated signals, materials characterization, impedance spectroscopy, lock-in measurements of periodic phenomena, and weak-signal recovery in presence of broadband noise. Compatibility & Integration IEEE and RS-232 interfaces support remote control and data acquisition. Operates on 115/230 V AC or 120/220 V AC, 50/60 Hz (50 VA maximum; 2.0 A / 1.0 A at 47–63 Hz, single phase).

3961B Characteristics / Specifications

PARAMETER	VALUE
Instrument Type	Two-phase lock-in amplifier
Frequency Range	0.5 Hz to 200 kHz
Sensitivity Range	100 nV to 1 V full scale
Sensitivity Steps	1-3.16-10 sequence, 15 ranges
Maximum Resolution	1 nV
Input Type	single ended or true differential
Input Impedance	10 MOhm
Input Capacitance	40 plus or minus 10 pF
Cmrr	110 dB or greater
Filter	tracking input filter
Phase	two phase system
Ieee Port	IEEE-488
Serial Port	RS-232
Mains Voltage	120/220 V
Mains Current	2.0 A at 120 V class / 1.0 A at 220 V class (published listing)
Mains Frequency	47 to 63 Hz, single phase
Width	17.000 in (43.2 cm)
Height	5.250 in (13.3 cm)
Depth	20.000 in (50.8 cm)
Weight	31 lb (14 kg)
Literature	Ithaco 3961B two-phase lock-in amplifier published specifications
Display Class	analog/digital lock-in readout per 3961B panel
Outputs	in-phase and quadrature (two-phase)

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Notes	
Sensitivity, frequency, impedance, CMRR, interfaces, power, and mechanical rows from published Ithaco 3961B	

two-phase lock-in amplifier specification listings. Dynamic-reserve and output-time-constant tables are in the 3961B manual if present on the unit.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.