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Data Sheet

August 15, 2026

CAPACITEC

Capacitec 4100-S Single Channel Capacitance Amplifier

Aumictech offers NIST-traceable calibration and repair for the Capacitec 4100-S. All calibrations are performed to NIST-traceable standards and ship with a certificate. Turnaround is typically 1–3 business days after receipt. This Capacitec 4100-S is listed at . Calibration is available separately from . Contact us for volume pricing or if you need multiple units. NIST-traceable calibration for the Capacitec 4100-S is (standard — pass/fail certificate and calibration sticker) or (full measured data at every test point, reference standards documented, traceability chain included). Turnaround is 1 to 3 business days after receipt. See full calibration details →



MODEL

Capacitec 4100-S

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

4100-S

LISTING

<https://aumictechlabs.com/products/4100-s-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

Capacitec 4100-S Single Channel Amplifier Card The Capacitec 4100-S is a single-channel amplifier card designed for signal conditioning and amplification of capacitive displacement sensors. It is engineered for precision measurement applications requiring high resolution and low noise. The 4100-S is intended for integration into existing measurement systems or for the development of new sensor applications. This amplifier card is a foundational component within the Capacitec 4000 Series of modular instrumentation. Technical Specifications * Product Type:

Single Channel Amplifier Card Series: 4000 Series Channels: 1 Linearity: $\pm 2\%$ of full scale (typical) * Note: For enhanced linearity of $\pm 0.2\%$ of full scale, the 4100-SL model is available with an add-on linearization board. Repeatability: 0.01% Signal Conditioning: Provides signal conditioning for capacitive displacement sensors. Gain and Offset Control: Screwdriver-adjustable gain and offset controls are available. Excitation Signal: Features an amplitude drive adjustment pot for supplying a variable 15kHz excitation signal. An additional x1 to x6 screwdriver adjustable amplitude control is provided for a total of $3 \times 6 = 18$ V P-P drive amplitude capability. Output: Standard analog output is 0-10VDC. The 4100-SL model includes a "+ A / A" sums amplifier. Rack Mountability: Designed for rack mounting with a 1.0-inch wide rack mountable front panel. Requires one slot within a 4000 Series rack. Compatibility: Compatible with all Capacitec sensors. The 4100-S can operate with various probe diameter configurations and sensitivity ranges through simple recalibration. Electrical Characteristics * Power Requirements: Operates with ± 15 VDC. Specific rack configurations may include integrated AC power supplies (-P100, -P115, -P220, -P240) or a ± 15 VDC/350mA power supply with optional 5VDC and -5VDC outputs. Interfaces * Data Acquisition and Computer Interface: Designed for applications where computer interface and potential linearization are available. The 4000 Series racks offer three input/output terminals for computer or data acquisition interface on Centronics-style connectors or a 24-pin phone connector. Analog Output: 0-10VDC standard. The 4000 Series racks provide individual 0-10VDC analog outputs for each amplifier card. Physical Characteristics * Form Factor: 2U high Euro-style board. Occupies a 1.0-inch wide slot in a 4000 Series rack. Rack Slot Requirement: 1 slot Compatibility * Sensor Compatibility: Works with all Capacitec sensors. System Integration: Suitable for integration into existing measurement systems or for building new sensor assemblies. Rack Systems: Designed for use with Capacitec 4000 Series racks, such as the 4004 (4-channel) and 4016 (16-channel). A clock driver card (4100-C) is required to drive amplifier cards within these racks. Applications * OEM and high-volume, multi-point applications. Precision measurement applications requiring high resolution and low noise. Systems requiring computer interface and post-measurement linearization. Why Choose Aumictech for the Capacitec 4100-S Single Channel Amplifier Card? At Aumictech, we specialize in supplying high-end capacitive displacement sensor instrumentation. Whether you need solid signal conditioning, high-resolution amplification, or seamless integration into your test and measurement systems, our team ensures the Capacitec 4100-S delivers maximum performance for your application.

4100S Characteristics / Specifications

PARAMETER	VALUE
Model	4100-S
Instrument Type	Single channel capacitance displacement amplifier
Family	Capacitec 4000 / 4100 series
Channels	1
Form Factor	2U high, 1 inch wide rack-mountable front panel
Linearity	plus or minus 2 percent of full scale typical
Repeatability	0.01 percent
Front Controls	offset and gain
Intended Use	external data acquisition with post linearization
Linearized Sibling	4100-SL plus or minus 0.2 percent FS with four additional pots
Wide Front Sibling	4100-L large offset/gain dials, uses 2 rack slots
Standalone Analog Out	0 to 10 VDC on 4100-SC enclosure module
Standalone Power	external AC/DC adapter providing +5 V (4100-SC)
Analog Cable	12 ft / 3.66 m (4100-SC kit)
Ground Cable	12 ft target grounding cable (4100-SC kit)
Open Frame Rails	plus or minus 15 VDC (410-SC series)
Open Frame Linearity	1.0 percent full scale (410-SC)
Meter Overlay	4101-SC/SL 4.5 digit LED or 3.5 digit LED readout
Clock	built-in clock/driver on 4100-SC enclosure
Manufacturer	Capacitec Inc.
Literature	Capacitec 4000 series amplifier / 4100-S product pages
System Role	rack capacitance signal conditioner

4100S Specifications

PARAMETER	VALUE
Applications	Non-contact capacitive gap and displacement with rack 4000-series cards feeding an external analyzer.
Key Features	Single-channel 2U x 1 inch rack card
Technical Specifications	Model: 4100-S

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.

performance in an enclosure with 0-10 VDC analog output, external AC/DC adapter providing +5 V, 12 ft (3.66 m) analog cable and 12 ft target ground cable. 410-SC open-frame runs on plus or minus 15 VDC with 1.0 percent FS linearity.

Applications

Non-contact capacitive gap and displacement with rack 4000-series cards feeding an external analyzer.

Key Features

Single-channel 2U x 1 inch rack card

Plus or minus 2 percent FS typical linearity, 0.01 percent repeatability

Offset and gain on the front panel

Post-linearization path for Bargrafx-class DAQ

4100-SL linearizer overlay to plus or minus 0.2 percent FS

Technical Specifications

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Intended Use	external data acquisition with post linearization
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Open Frame Linearity	1.0 percent full scale (410-SC)
Meter Overlay	4101-SC/SL 4.5 digit LED or 3.5 digit LED readout
Clock	built-in clock/driver on 4100-SC enclosure
Manufacturer	Capacittec Inc.

PARAMETER	VALUE
Literature	Capacitec 4000 series amplifier / 4100-S product pages
System Role	rack capacitance signal conditioner

Notes
From Capacitec 4000/4100 series amplifier pages for 4100-S. Probe/range millivolts belong on the matched sensor calibration; this SKU is the rack amplifier card, not the 4100-SC enclosure.

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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

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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.