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**Data Sheet**

August 13, 2026

FLUKE

# Fluke 734A Voltage Reference & DC Voltage Standard

Fluke 734A Voltage Reference / DC Voltage Standard The Fluke 734A is a laboratory DC voltage reference consisting of four electrically and mechanically independent 732B DC standards in a rack-width enclosure. Each 732B provides 10 V and 1.018 V outputs for maintaining and disseminating the volt, with portable battery-backed transfer capability while the remaining cells stay in the lab. The Fluke 734A is a laboratory DC voltage reference consisting of four electrically and mechanically independent 732B DC standards in a rack-width enclosure. Each 732B provides 10 V and 1.018 V outputs for maintaining and disseminating the volt, with portable battery-backed transfer capability while the remaining cells stay in the lab.



MODEL

**Fluke 734A**

CALIBRATION

**Available on request**

CONDITION

**Used**

STATUS

**In stock**

RFQ / SKU

**734A**

LISTING

<https://aumictechlabs.com/products/734a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

## This unit

The Fluke 734A is a precision DC voltage standard for primary and secondary calibration laboratories, comprising four electrically and mechanically independent Fluke 732B units housed in a rack-mountable enclosure. This modular architecture enables intercomparison of standards to reduce uncertainty through statistical methods and permits removal of individual 732B units for portable deployment to remote measurement sites. The system maintains traceability to national standards and meets NIST Technical Note NBS 1239 design requirements. Technical Specifications

Voltage Outputs 10 V 1.018 V Stability 10 V output:  $\pm 0.3$  ppm (30-day),  $\pm 1.2$  to  $\pm 2.0$  ppm (1-year),  $\pm 2$  ppm per year (long-term) 1.018 V output:  $\pm 0.8$  ppm (30-day),  $\pm 0.8$  ppm per month Output Characteristics 10 V output current drive: up to 12 mA Short-term and day-to-day noise specifications included Power Supply AC line input: 90–132 V and 180–264 V AC, 47–63 Hz AC line current at 120 V AC: 0.13 A Internal 12 V lead-acid gelled electrolyte battery: ~70 hours runtime at 23 °C Optional external battery (732B-7001): >130 hours runtime Overvoltage Protection Inputs: indefinite short protection General protection: up to 1100 V DC, 25 mA continuous 10 V output:  $\leq 220$  V DC (50 mA continuous);  $\leq 1100$  V DC (25 mA continuous or 0.6 joules pulsed) Key Features Four independent 732B standards allow intercomparison and statistical uncertainty reduction Portable 732B modules: small, light, rugged construction rated for shipment Direct traceability to Fluke 10 V Josephson Array via Fluke calibration services High current drive capability (12 mA at 10 V) compatible with low-impedance instruments Typical Applications Primary and secondary voltage calibration standards Intercomparison of precision DC standards Remote voltage reference transfer and site calibration Integration with precision multimeters and calibrators requiring stable reference inputs Compatibility & Integration The 10 V output drives up to 12 mA, simplifying direct connection to instruments with low output impedance such as the Fluke 5700A. Individual 732B units operate independently and transfer voltage values without compromising primary reference integrity.

## Features & description

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From manufacturer datasheet

### Features

• Four independent 732B cells in one enclosure • Separate 10 V and 1.018 V outputs per cell • Portable 732B modules with multi-day battery life • Low-impedance 10 V drive for calibrators and DMMs • Optional characterization and Josephson-array-traceable certificates

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### Applications

• Primary/secondary lab maintenance of the volt • Intercomparison of four independent reference cells • Artifact calibration support with resistance standards • Portable transfer of 10 V / 1.018 V to remote sites

## 734A Characteristics / Specifications

| PARAMETER                 | VALUE                                                                                                                                                                                                                                                                            |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Model                     | 734A                                                                                                                                                                                                                                                                             |
| Manufacturer              | Fluke                                                                                                                                                                                                                                                                            |
| Instrument Type           | DC Voltage Reference Standard                                                                                                                                                                                                                                                    |
| Alias                     | 734A; Fluke 734A; 732B four-cell reference                                                                                                                                                                                                                                       |
| Cell count                | four independent 732B standards                                                                                                                                                                                                                                                  |
| Outputs per cell          | 10.0 V and 1.018 V 10 V stability 30 days: +/-0.3 ppm 10 V stability 90 days: +/-0.8 ppm 10 V stability 1 year: +/-2.0 ppm 1.018 V stability 30 days: +/-0.8 ppm 10 V output current: up to 12 mA 10 V output impedance: <=1 mohm class 1.018 V output impedance: <=1 kohm class |
| Battery operation 732B    | 70 to 72 hours typical at 23 degC fully charged                                                                                                                                                                                                                                  |
| External battery option   | extends to more than 130 hours class                                                                                                                                                                                                                                             |
| Operating temperature     | 15 degC to 35 degC                                                                                                                                                                                                                                                               |
| Relative humidity         | less than 95% to 30 degC; less than 75% to 35 degC                                                                                                                                                                                                                               |
| Altitude operating        | less than 3049 m / 10,000 ft                                                                                                                                                                                                                                                     |
| Size 734A enclosure       | 17.8 cmHx 43.2 cmWx 50.3 cmDwith handles                                                                                                                                                                                                                                         |
| Size 732B module          | 13.4 cmHx 9.8 cmWx 40.6 cmDWeight 734A: 29 kg / 65 lb                                                                                                                                                                                                                            |
| Weight 732B               | 5.91 kg / 13 lb                                                                                                                                                                                                                                                                  |
| AC power 732B             | 100/120/220/240 V +/-10%; 50-60 Hz; 66 W max Notes Specs from Fluke 734A/732B DC reference standard datasheet. Confirm characterization certificates, battery state, and which cells are included.                                                                               |
| Non-operating Temperature | 51 degC to 71 degC with battery pack off                                                                                                                                                                                                                                         |
| Humidity                  | less than 95% to 30 degC; less than 75% to 35 degC                                                                                                                                                                                                                               |

# General Specifications & Supplementary Characteristics

| PARAMETER                 | VALUE                                                                                                                                                                                              |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating temperature     | 15 degC to 35 degC                                                                                                                                                                                 |
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| Humidity                  | less than 95% to 30 degC; less than 75% to 35 degC                                                                                                                                                 |
| Relative humidity         | less than 95% to 30 degC; less than 75% to 35 degC                                                                                                                                                 |
| Altitude operating        | less than 3049 m / 10,000 ft                                                                                                                                                                       |
| Size 734A enclosure       | 17.8 cmHx 43.2 cmWx 50.3 cmDwith handles                                                                                                                                                           |
| Size 732B module          | 13.4 cmHx 9.8 cmWx 40.6 cmDWeight 734A: 29 kg / 65 lb                                                                                                                                              |
| Weight 732B               | 5.91 kg / 13 lb                                                                                                                                                                                    |
| AC power 732B             | 100/120/220/240 V +/-10%; 50-60 Hz; 66 W max Notes Specs from Fluke 734A/732B DC reference standard datasheet. Confirm characterization certificates, battery state, and which cells are included. |

# 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| Specifications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                    |
| PARAMETER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | VALUE                                              |
| Relative humidity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | less than 95% to 30 degC; less than 75% to 35 degC |
| Altitude operating                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | less than 3049 m / 10,000 ft                       |
| Size 734A enclosure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 17.8 cm H x 43.2 cm W x 50.3 cm D with handles     |
| Size 732B module                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 13.4 cm H x 9.8 cm W x 40.6 cm D                   |
| Weight 734A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 29 kg / 65 lb                                      |
| Weight 732B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5.91 kg / 13 lb                                    |
| AC power 732B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 100/120/220/240 V +/-10%; 50-60 Hz; 66 W max       |
| Specifications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                    |
| PARAMETER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | VALUE                                              |
| Model                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 734A                                               |
| Manufacturer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Fluke                                              |
| Instrument Type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | DC Voltage Reference Standard                      |
| Alias                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 734A; Fluke 734A; 732B four-cell reference         |
| Cell count                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | four independent 732B standards                    |
| Outputs per cell                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 10.0 V and 1.018 V                                 |
| 10 V stability 30 days: +/-0.3 ppm<br>10 V stability 90 days: +/-0.8 ppm<br>10 V stability 1 year: +/-2.0 ppm<br>1.018 V stability 30 days: +/-0.8 ppm<br>10 V output current: up to 12 mA<br>10 V output impedance: <=1 mohm class<br>1.018 V output impedance: <=1 kohm class<br>Battery operation 732B: 70 to 72 hours typical at 23 degC fully charged<br>External battery option: extends to more than 130 hours class<br>Temperature coefficient 15-35 degC: less than 0.04 ppm class<br>Noise 10 V 0.01-10 Hz: less than 0.06 ppm RMS class<br>Retrace after short power-off: <=0.1 ppm for 10 minute off class<br>Operating temperature: 15 degC to 35 degC<br>Non-operating temperature: -51 degC to 71 degC with battery pack off |                                                    |
| Specifications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                    |

| PARAMETER           | VALUE                                                 |
|---------------------|-------------------------------------------------------|
| Relative humidity   | less than 95% to 30 degC; less than 75% to 35 degC    |
| Altitude operating  | less than 3049 m / 10,000 ft                          |
| Size 734A enclosure | 17.8 cmHx 43.2 cmWx 50.3 cmDwith handles              |
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Notes  
Specs from Fluke 734A/732B DC reference standard datasheet. Confirm characterization certificates, battery state, and which cells are included.

### Available from Aumictech

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

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

#### Aumictech

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NIST-traceable calibration · SAM registered ·  
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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.