

The Fluke logo consists of the word "FLUKE" in a bold, black, sans-serif font, followed by a registered trademark symbol (®). The logo is set against a yellow rectangular background.**Calibration**

Published on *Fluke Calibration: US* (<https://us.flukecal.com>)

[Home](#) > [Products](#) > [Obsolete Products](#) > [732B Direct Voltage Standard](#) > 732B Direct Voltage Standard

732B Direct Voltage Standard

This product is discontinued.

Please see the [732C Voltage Reference Standard](#).

Highlights

The 732B is a direct voltage standard with 10V and 1.018V outputs. Fluke's [734A](#) is a direct voltage reference standard that consists of four 732Bs that are mechanically and electrically isolated, housed in a rack-mountable enclosure.

Description

Each standard is small, light and rugged, ideal for shipment. The long 72-hour battery life allows the 732B to be shipped over long distances under power. An optional external battery and charger extends battery life still further, to more than 130 hours.

The 732B can stand up to a lot of abuse. The inputs can be shorted indefinitely and are protected up to 1100V dc, 25 mA, without damaging the cell or affecting its output.

Confidence

The 732B is based on the proven technology of the 732A, the first standards lab quality electronic reference to gain acceptance as a replacement for saturated standard cells. Originally designed for internal transfers of the Fluke Calibration corporate volt to the production floor, thousands are now in service world-wide in a variety of applications -- from maintaining an institutional reference to transferring values from national labs or privately-operated 10V Josephson Arrays.

Stability

Stability for each output is ± 2 ppm per year (10V) and ± 0.8 ppm per month (1.018V). Each 732B can drive up to 12 mA of current to simplify use with instrumentation - like the 5700A - with low output impedance.

Support for artifact calibration

Combined with the 742A-1 and 742A-10k Resistance Standards, a single 732B makes a tough and compact artifact calibration support package for instruments like the 5700A/5720A Calibrators from Fluke Calibration or the 3458A Multimeter from Hewlett-Packard.

Traceability

732Bs can be ordered with or without calibration certificates. The standard 732B comes without any formal traceability or any calibration certificate. Optionally a calibrated 732B can be ordered and requires both shipping in a "power on" condition (there are limits for the overall shipping transportation time). The model 732B/H is a 732B which ships with a Report of Calibration showing the deviation from nominal and the uncertainty at the

time of the calibration. The 732B/C is similar to the 732B/H, but it adds a drift rate characterization report. This is a 12 month projection into the future from the time of calibration of the changes in the calibrated output value.

Specifications








Output	
10V	30 Day Specification: ± 0.3 ppm 1 Year Specification: ± 2.0 ppm
1.018V	30 Day Specification: ± 0.8 ppm 1 Year Specification: n/a
General Specifications	
Temperature	15°C to 35°C, operating; -51°C to 71°C, non-operating (with internal battery pack switched off)
Relative Humidity	<95% to 30°C, <75% to 35°C, non-condensing
Altitude	<3049m (10,000 ft) operating, <12,195m (40,000 ft) non-operating
Vibration	Per MIL-T-28800; Type III, Class 5, Style E
Safety	Designed to IEC 348, 2nd edition; 1978 and ANSI/ISA-S82; and UL1244, 2nd edition 1980, CSA C22.2 No 231, and IEC 1010
Calibration Documentation	Reports of Calibration are optional
Size	<p style="text-align: center;">-----</p> <p>732B DC Standard: 13.4 cm H x 9.8 cm W x 40.6 cm D (5.28 in H x 3.86 in W x 15.98 in D)</p> <p style="text-align: center;">-----</p> <p>732B-7001 External Battery and Charger: 13.4 cm H x 9.8 cm W x 40.6 cm D (5.28 in H x 3.86 in W x 15.98 in D)</p>
Weight	<p style="text-align: center;">-----</p> <p>732B DC Standard: 5.91 kg (13 lbs.)</p> <p style="text-align: center;">-----</p> <p>732B-7001 External Battery and Charger: 5.45 kg (12 lbs.)</p>

Power, battery life	<p>732B DC Standard: 100V, 120V, 220V, 240V ac \pm 10%; 50 Hz to 60 Hz; 66W max. Internal 12V lead acid, gelled electrolyte battery operates for 70 hours at 23°C when fully charged. Trickle-charged continually when external ac power is applied.</p> <p>-----</p> <p>732B-7001 External Battery and Charger: 100V, 120V, 220V, 240V ac \pm 10%; 50 Hz to 60 Hz; 66W max. Internal 12V lead acid, gelled electrolyte battery operates for 70 hours at 23°C when fully charged. Trickle-charged continually when external ac power is applied.</p>
----------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Models and Accessories

Model Name	Description
732B	DC Standard, without calibration certificate, shipped under a power-off condition
732B/H	Standard. With calibration certificate included, shipped under power
732B/C	Standard with drift characterization and calibration certificate included, shipped under power

Knowledge_and_information

Product Manuals
 732B-7001 Instruction Sheet (207.15 KB)
 732B/734A Instruction Manual (1.39 MB)
 732B/734A Instruction Manual Supplement (374.25 KB)
 732B/734A Operators Information (935.27 KB)
 734A Statement of Memory Volatility (16.81 KB)
 732B-100I and 732B-000I Instruction Sheet (8.43 KB)
Application Notes
 Artifact Calibration: Theory and Application (3.18 MB)

Application Notes

 [Fractional PPM Traceability Using Your Fluke 734A/732B \(2.14 MB\)](#)

 [How Cables and Connectors Impact Measurement Uncertainty \(866.44 KB\)](#)

Data Sheets

 [734A DC Reference Standard Data Sheet \(773.42 KB\)](#)


 [734A 直流基準電圧発生器データシート \(879.32 KB\)](#)

Papers / Articles

 [A Study of and Recommendations for Applying the False Acceptance Risk Specification of Z540.3 \(97.48 KB\)](#)

 [Calibrating Precision Multimeters Using a Characterized Multifunction Calibrator \(268.09 KB\)](#)

 [使用多功能校准器特性修正技术校准高精度数字多用表 \(1.4 MB\)](#)

 [Having Confidence in Specifications \(61 KB\)](#)

 [Maintaining 10 VDC at 0.3 PPM or Better in Your Laboratory \(48.76 KB\)](#)

 [How to Maintain Your Confidence \(268.33 KB\)](#)

 [Predictability of Solid State Zener References \(78.57 KB\)](#)

Product Images



©1995-2019 Fluke Corporation

Source URL: <https://us.flukecal.com/products/obsolete-products/732b-direct-voltage-standard>

Links:

[1] <https://us.flukecal.com/products/electrical-calibration/electrical-standards/732c-and-734c-dc-voltage-reference-standards>

[2] [https://us.flukecal.com/lightboxform/webform_client_form_114689?](https://us.flukecal.com/lightboxform/webform_client_form_114689?product=732B%20Direct%20Voltage%20Standard&family=6a1a6eee-5eb6-e511-b1e8-a4badb1ddeb8)

[product=732B%20Direct%20Voltage%20Standard&family=6a1a6eee-5eb6-e511-b1e8-a4badb1ddeb8](https://us.flukecal.com/lightboxform/webform_client_form_114689?product=732B%20Direct%20Voltage%20Standard&family=6a1a6eee-5eb6-e511-b1e8-a4badb1ddeb8)

[3] [https://us.flukecal.com/print/products/obsolete-products/732b-direct-voltage-standard?](https://us.flukecal.com/print/products/obsolete-products/732b-direct-voltage-standard?quicktabs_product_details=4#quicktabs-product_details)

[quicktabs_product_details=4#quicktabs-product_details](https://us.flukecal.com/print/products/obsolete-products/732b-direct-voltage-standard?quicktabs_product_details=4#quicktabs-product_details)