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Data Sheet

August 13, 2026

FLUKE

Fluke U1500S High Voltage Differential Probe

Fluke U1500S High Voltage Differential Probe The Fluke U1500S is a portable high-voltage differential probe / DC voltage sensor for safely measuring up to 1500 V DC and 1000 V AC RMS. It presents a scaled BNC output at 4 mV/V so a connected instrument can display readings in real engineering units after scaling. Battery-powered operation and banana-to-BNC accessory cabling support DC bus and high-voltage measurement workloads. The Fluke U1500S is a portable high-voltage differential probe / DC voltage sensor for safely measuring up to 1500 V DC and 1000 V AC RMS. It presents a scaled BNC output at 4 mV/V so a connected instrument can display readings in real engineering units after scaling. Battery-powered operation and banana-to-BNC accessory cabling support DC bus and high-voltage measurement workloads.



MODEL

Fluke U1500S

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

U1500S

LISTING

<https://aumictechlabs.com/products/u1500s-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Fluke U1500S High Voltage Differential Probe measures differential voltages up to 1500 V DC and 1000 V AC RMS with 0.1% accuracy. This differential probe delivers a 4 mV/V output scaled for direct connection to oscilloscopes and data acquisition instruments, eliminating the need for external scaling calculations. Built to IEC 61010-1 and IEC 61010-2-030 safety standards, it operates safely at CAT III 1000 V and CAT IV 600 V ratings. Technical Specifications Measurement Range: 1500 V DC and 1000 V AC RMS continuous Accuracy: 0.1% of reading + 0.1% of range

Bandwidth: 100 kHz maximum Input Impedance: 2 M Ω and 10 M Ω Input Capacitance: <10 pF Scale Factor: 4 mV/V Common Mode Rejection Ratio: 60 dB at 50 Hz Temperature Coefficient: 0.05% / °C (outside 18 °C to 28 °C range) Over-range Protection: 10% over range Input Terminals: 4 mm banana jacks Output Terminal: BNC female with 1.6 m BNC to 4 mm banana plug cable Dimensions: 138 mm × 75 mm × 45 mm Weight: 295 g (battery included) Ingress Protection: IP40 (terminals mated) Battery: 4 × AA alkaline cells (IEC LR6), 168 hours typical life Operating Temperature: -10 °C to 50 °C Operating Humidity: ≤90% RH (10 °C to 30 °C), ≤75% RH (30 °C to 40 °C), ≤45% RH (40 °C to 50 °C) Operating Altitude: 2000 mKey Features High-voltage differential measurement capability with galvanic isolation Low-noise 60 dB CMRR reduces common-mode interference Linear 4 mV/V output enables direct instrument scaling Battery-powered operation with visual status indicators (green working, red low battery) Compact design fits tight test points on automotive and power electronics assembliesTypical Applications Power electronics circuit characterization and troubleshooting Automotive system diagnostics (battery bus monitoring, motor control) Industrial control and variable frequency drive measurements DC bus bar voltage acquisition in renewable energy systemsCompatibility & Integration Standard BNC output connects directly to oscilloscopes, multimeters, and data loggers. Output voltage scales within the connected instrument to display real-unit readings without manual conversion.

Features & description

From manufacturer datasheet

Features

- Single-range 1500 V DC / 1000 V AC RMS capability • 0.1% of reading + 0.1% of range accuracy class
- 4 mV/V scale factor for instrument scaling • 4 mm banana inputs and BNC female output • Includes 1.6 m BNC-to-banana accessory lead • Working/low-battery LED indicators

Applications

- Safe connection to DC bus bars up to 1.5 kV • High-voltage differential measurements into DMM/scope voltage inputs • CAT III / CAT IV industrial power measurement environments • Portable HV sensing where ascaled low-level output is required

U1500S Characteristics / Specifications

PARAMETER	VALUE
Model	U1500S
Manufacturer	Fluke
Instrument Type	High Voltage Differential Probe
Alias	U1500S; U1500s; Fluke U1500S
Maximum AC voltage	1000 V AC RMS continuous
Maximum DC voltage	1500 V DC
Measurement range	1000 V AC RMS; 1500 V DC
Accuracy	0.1% of reading + 0.1% of range
Bandwidth	100 kHz maximum
Input impedance	10 Mohm / less than 10 pF
Scale factor	4 mV/V
Common mode rejection	60 dB at 50 Hz
Temperature coefficient	0.05%/degC below 18 degC or above 28 degC
Input terminals	4 mm banana jacks
Output terminal	BNC female
Accessory cable	BNC to banana male-male 1.6 m
Battery type	4 AA IEC LR6
Battery life	168 hours typical
Ingress protection	IEC 60529 IP40 terminals mated
Safety measurement	IEC 61010-2-030 CAT III 1000 V; CAT IV 600 V; DC 1500 V
Safety general	IEC 61010-1 Pollution Degree 2
Operating temperature	-10 to 50 degC
Storage temperature	-30 to 60 degC
Operating humidity	non-condensing below 10 degC; 90% RH 10-30 degC; derated above
Operating altitude	2000 m

PARAMETER	VALUE
Storage altitude	12000 m
Dimensions	138 × 75 × 45 mm
Weight	295 g including batteries
EMC	IEC 61326-1 portable class Notes Specs from Fluke U1500S product page and instruction sheet. Prefer instruction-sheet input impedance 10 Mohm over any conflicting reseller summary.
Humidity	non-condensing below 10 degC; 90% RH 10-30 degC; derated above

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	30 to 60 degC
Operating temperature	10 to 50 degC
Operating Temperature	10 to 50 degC
Humidity	non-condensing below 10 degC; 90% RH 10-30 degC; derated above
Operating humidity	non-condensing below 10 degC; 90% RH 10-30 degC; derated above
Operating altitude	2000 m
Storage altitude	12000 m
Dimensions	138 × 75 × 45 mm
Weight	295 g including batteries
EMC	IEC 61326-1 portable class Notes Specs from Fluke U1500S product page and instruction sheet. Prefer instruction-sheet input impedance 10 Mohm over any conflicting reseller summary.

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
Model	U1500S
Manufacturer	Fluke
Instrument Type	High Voltage Differential Probe
Alias	U1500S; U1500s; Fluke U1500S
Maximum AC voltage	1000 V AC RMS continuous
Maximum DC voltage	1500 V DC
Measurement range	1000 V AC RMS; 1500 V DC
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Bandwidth	100 kHz maximum
Input impedance	10 Mohm / less than 10 pF
Scale factor	4 mV/V
Common mode rejection	60 dB at 50 Hz
Temperature coefficient	0.05%/degC below 18 degC or above 28 degC
Over-range protection: 10% over range	
Specifications	
PARAMETER	VALUE
Input terminals	4 mm banana jacks
Output terminal	BNC female
Accessory cable	BNC to banana male-male 1.6 m
Battery type	4 AA IEC LR6
Battery life	168 hours typical
Ingress protection	IEC 60529 IP40 terminals mated
Safety measurement	IEC 61010-2-030 CAT III 1000 V; CAT IV 600 V; DC 1500 V
Safety general	IEC 61010-1 Pollution Degree 2
Operating temperature	-10 to 50 degC

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Storage temperature	-30 to 60 degC
Operating humidity	non-condensing below 10 degC; 90% RH 10-30 degC; derated above
Operating altitude	2000 m
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Dimensions	138 x 75 x 45 mm
Weight	295 g including batteries
EMC	IEC 61326-1 portable class

Notes

Specs from Fluke U1500S product page and instruction sheet. Prefer instruction-sheet input impedance 10 Mohm over any conflicting reseller summary.

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.