EN: This Datasheet/Document is presented by the manufacturer.

Please visit our website for pricing and availability at www.hestore.hu.

TECHNICAL DATA

Fluke 1630-2 FC Earth Ground Clamp

Stakeless earth ground loop and ac leakage current clamp for fast, safe indoor/outdoor earth ground resistance and ac leakage current tests.

Test the grounding components of equipment in hard-to-reach spaces, including areas that are indoors or fully paved and do not permit driving auxiliary test stakes. Stay on line—identify ground loop resistance without the need to disconnect then reconnect the earth electrode from the system.

The Fluke 1630-2 FC Stakeless Earth Ground Clamp is the kind of high-quality, rugged tool you expect from Fluke. Heavy-duty clamp jaw stays in alignment and in calibration even in every day, on-the-job industrial environments.

Stakeless measurement

The 1630-2 FC clamp measures earth ground loop resistances for multi-grounded systems using the dual-clamp jaw. This test technique eliminates the dangerous and time-consuming activity of disconnecting parallel grounds, as well as the process of finding suitable locations for auxiliary test stakes. You can also perform ground tests in places that were previously difficult: inside buildings, on power pylons or anywhere you don't have access to soil to place auxiliary test stakes.

With this test method, a two-process measurement is made around the earth ground wire or bus bar using the specially-designed jaw of the 1630-2 FC clamp. Auxiliary test stakes are not used at all. A known voltage is induced by the source in the clamp, and the current is measured by the sensor in the clamp. The tester automatically determines the earth loop resistance for this section of the earthing system.

AC LEAKAGE CURRENT MEASUREMENT

Identify ac leakage currents without disconnecting the earth ground stake from the grounding system–ideal for system troubleshooting.

RUGGED

Heavy-duty clamp jaw stays in alignment and in calibration even in every day, on-the-job industrial environments.

LOGGING MEASUREMENTS

The earth ground clamp saves time by automatically recording data at pre-set intervals and saves up to 32,760 measurements in memory at the set logging interval. Saves time by recording and storing measured values.

ALARM THRESHOLD

User-defined high/low alarm limits, for rapid measurement evaluation.

BAND-PASS FILTER

Selectable band-pass filter function removes unwanted noise from the ac leakage current measurement.

FLUKE CONNECT® WIRELESS SYSTEM

The 1630-2 FC supports the Fluke Connect® Wireless System (may not be available in all regions). Fluke Connect® wirelessly connects the clamp with an app on your smartphone or tablet. The app shows the ground resistance measurements on your smartphone or tablet display. You can save these measurements, GPS location from your phone and images to Fluke Connect Cloud storage and share with your team.

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Specifications

Electrical specifications		
Maximum voltage to earth ground		1000 V
Battery type		4 x 1.5 V AA alkaline IEC/EN LR6
Battery life		More than 15 hours*
Frequency range		40 Hz to 1 kHz
Ingress protection		IEC/EN 60529: IP30 with jaw closed
LCD	Digital reading	9999 counts
	Refresh rate	4/s
Temperature	Operating	–10 °C to +50 °C (14 °F to +122 °F)
	Storage	–20 °C to +60 °C (–4 °F to +140 °F)
Operating humidity		Non condensing (<10 °C) (< 50 °F)
		≤90 % RH (at 10 °C to 30 °C [50 °F to 86 °F])
		≤75 % RH (at 30 °C to 40 °C [86 °F to 104 °F])
		≤45 % RH (at 40 °C to 50 °C [104 °F to 122 °F]) (Non condensing)
Altitude	Operating	2000 m (6561 ft.)
	Storage	12,000 m (39370 ft.)
Reference temperature		23 °C ±5 °C (73 °F ±9 °F)
Temperature coefficient		0.15 % X (specified accuracy)/ °C (<18 °C or >28 °C ([<64.4 °F or >82.4 °F])
Overload indication		OL

Display Reading Specification with Loop Resistance Standard	Input (Ω)	Minimum	Maximum
	0.474	0.417	0.531
	0.5	0.443	0.558
	10	9.55	10.45
	100	96	104.0

Data logging capacity		Minimum of 32,760 measurements
Data logging interval		1 second to 59 minutes and 59 seconds
Safety	General	IEC/EN 61010-1: Pollution Degree 2 IEC/EN 61557-1
	Measurement	IEC/EN 61010-2-032: CAT IV 600 V / CAT III 1000 V
Current clamp for leakage current measurements		IEC/EN 61557-13: Class 2, ≤30 A/m
Resistance to Earth		IEC/EN 61557-5
Effectiveness of the protective measures		IEC/EN 61557-16: cutoff frequency 20 kHz (-3 dB)
Electromagnetic compatibility (EMC)	International	IEC/EN 61326-1: Portable Electromagnetic Environment CISPR 11: Group 1, Class B, IEC/EN 61326-2-2
	Korea (KCC)	Class A equipment (Industrial Broadcast & Communications Equipment)
	USA (FCC)	47 CFR 15 subpart B. This product is considered an exempt device per clause 15.103.

* In Ground Resistance measurement mode, with backlight turned off, and RF mode turned off

Wireless radio	
Frequency range	2412 MHz to 2462 MHz
Output power	<10 mW
Radio frequency certification	FCC ID:T68-FBLE IC:6627A-FBLE

General specifications	
Conductor size	40 mm (1.57 in) approximately
Dimensions (L x W x H)	283 mm x 105 mm x 48 mm (11.1 in x 4.1 in x 1.9 in)
Weight	880g (31 oz)
Warranty	One year

Earth ground loop resistance	
Range	**Accuracy [1] (± % of reading + Ω)**
0.025 Ω to 0.249 Ω	1.5% + 0.02 Ω
0.250 Ω to 0.999 Ω	1.5% + 0.05 Ω
1.000 Ω to 9.999 Ω	1.5% + 0.10 Ω
10.00 Ω to 49.99 Ω	1.5% + 0.30 Ω
50.00 Ω to 99.99 Ω	1.5% + 0.50 Ω
100.0 Ω to 199.9 Ω	3.0% + 1.0 Ω
200.0 Ω to 399.9 Ω	5.0% + 5.0 Ω
400 Ω to 599 Ω	10.0% + 10 Ω
600 Ω to 1500 Ω	20.00%
[1] Loop resistance with no inductance, conductor centered and perpendicular to jaw.	

Earth ground leakage current mA		
Autorange 50/60 Hz, True rms, crest factor CF ≤3		
Range	**Resolution**	**Accuracy [1]**
0.200 mA to 3.999 mA	1 µA	±2.0 % rdg ±0.05 mA
4.00 mA to 39.99 mA	10 µA	±2.0 % rdg ±0.03 mA
40.0 mA to 399.9 mA	100 µA	±2.0 % rdg ±0.3 mA
0.400 A to 3.999 A	1 mA	±2.0 % rdg ±0.003 A
4.00 A to 39.99 A	10 mA	±2.0 % rdg ±0.030 A
[1] Applies to signal frequency * 40 Hz to 1 kHz with filter set to OFF * 40 Hz to 70 Hz with filter se to ON		

Ordering information

FLUKE-1630-2 FC Earth Ground Loop and Leakage Clamp

Included

Earth Ground clamp, hard case, loop resistance standard, 4 AA batteries, safety information guide and quick reference guide

FLUKE CONNECT®

Preventive maintenance simplified. Rework eliminated.

Save time and improve the reliability of your maintenance data by wirelessly syncing measurements using the Fluke Connect system.

- Eliminate data-entry errors by saving measurements directly from the tool and associating them with the work order, report or asset record.
- Maximize uptime and make confident maintenance decisions with data you can trust and trace.
- Access baseline, historical and current measurements by asset.
- Move away from clipboards, notebooks and multiple spreadsheets with a wireless one-step measurement transfer.
- Share your measurement data using ShareLive™ video calls and emails.
- The 1630-2 FC is part of a growing system of connected test tools and equipment maintenance software. Visit the website to learn more about the Fluke Connect system.

Find out more at **flukeconnect.com**

Download on the App Store

ANDROID APP ON Google play

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Smart phone wireless service and data plan not included with purchase. Within your provider's wireless service area and subject to your plan's pricing and other terms. Fluke Connect is not available in all countries. Some Fluke Connect features require a subscription subject to payment terms and may not be available in all countries.

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