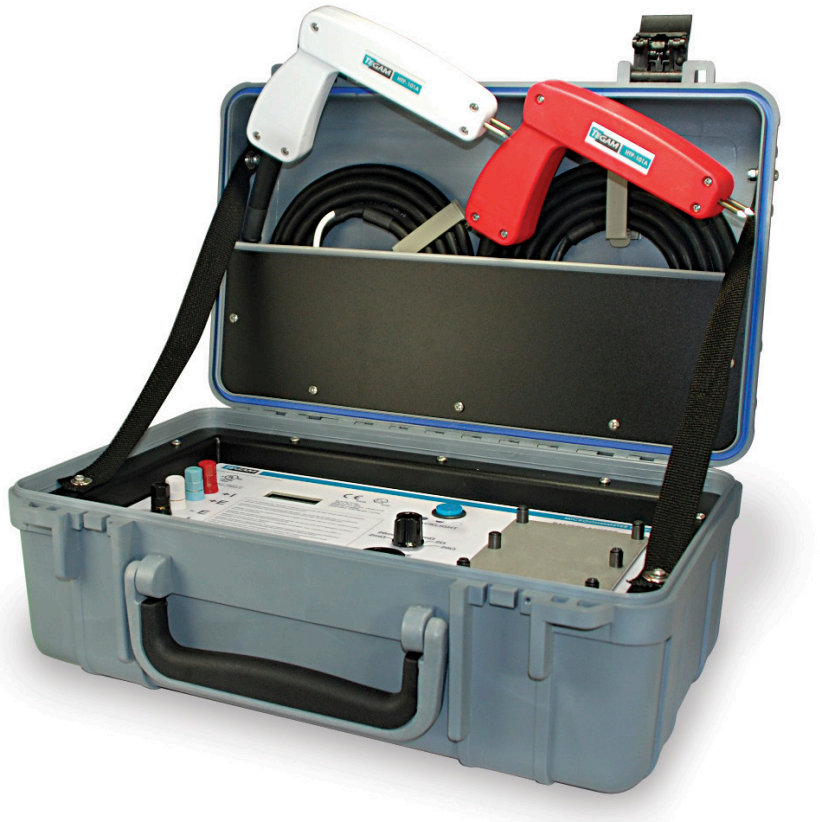
TEGAM

VOLTAGE AND RESISTANCE PRODUCTS

Model R1L-E2A

Ground Bond Meter for Potentially Explosive Work Areas

- Meets the Latest and Widest International Standards
  - ATEX Ex ia IIA T4 Ga
  - C-UL-US Listed Class I Div. 1, Group D
- Safely Measure Ground Bonds in the Presence of:
  - Alcohols
  - Diesel Fuel
  - Gasoline
  - Natural Gas
  - Aviation Fuels
  - Heating Oil
  - Kerosene
  - Propane
- Portable: Long Battery Life (80 Hrs of typical use on a full charge)
- Five Ranges: 2 mΩ to 20 Ω
- Accuracy: 0.1% of reading ± 2 counts
- Wide Operating Temperature Range: -20 ° C to 50 ° C
- Simple Operation
- Back Lit Display
- NSN: 6625-01-527-5543



Intrinsically Safe

Intrinsic safety means the instrument is specifically designed and tested to prevent the release of energy that could ignite flammable liquids or gases in the work area. The Model R1L-E2A is an intrinsically safe, portable microohmmeter/bond tester for measuring low values of resistance (from 100 µΩ to 20 Ω) in these potentially explosive atmospheres.

Applications include:

- Aircraft bond measurements for all phases of aircraft manufacturing and flight line maintenance in the presence of JP4 and aviation gasoline.
- Verifying natural gas pipe grounds and bonds.
- Checking pharmaceutical equipment grounds and storage facilities in the presence of alcohol.
- Inspecting lighting arrestors in petrochemical production and distribution facilities.

Predictable Results

The R1L-E2A combines accurate measurement, simple operation and durable construction to provide consistent, predictable results under a challenging range of conditions. It is designed to accurately measure microohms throughout the widest operating temperature range of any commercially available bond meter.

A rugged and waterproof case contains and protects the R1L-E2A when being transported to and from the work site. The case doubles as a storage area for the probes that are included as standard equipment with every instrument and an integral part of the intrinsic safety system.

Is it Right for You?

The R1L-E2A was selected as the standard bond meter for the F-35 Lightning II Joint Strike Fighter after a competitive test. It goes into service with each squadron of F-35's anywhere in the world under all conditions. The combination of intrinsic safety and durability should qualify it for your bond measurements as well. If your requirements aren't quite that demanding, TEGAM manufactures a complete line of rugged and portable bond meters for your unique measurement challenge. You may see the complete line at **www.tegam.com** or **www.microohmmeters.com**.

Prices and specifications subject to change without notice.
R1L-E2A-909-01 Rev. C

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Specifications

Full Scale	Resolution	Accuracy	Test Current
1.999 mΩ	1 µΩ	0.1% of Reading ± 2 Counts	1.3 A
19.99 mΩ	10 µΩ	0.1% of Reading ± 2 Counts	130 mA
199.9 mΩ	100 µΩ	0.1% of Reading ± 2 Counts	13 mA
1.999 Ω	1 mΩ	0.1% of Reading ± 2 Counts	1.3 mA
19.99 Ω	10 mΩ	0.1% of Reading ± 2 Counts	130 µA

Certifications

CE 0539 Ex II1G

Ex ia IIa T4 Ga
-20C ≤ Ta ≤ +50C
DEMKO 11 ATEX 1048757X
IECEx UL 11.0006X
Control Drawing 13742

Ground Indicator For Use in Hazardous Locations

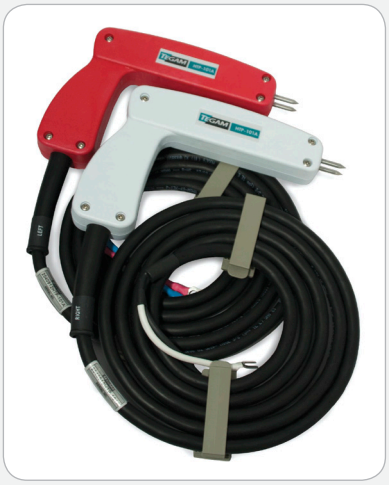
c UL us LISTED 4EV4

Class I Zone 0, Group IIA
Class I Division 1, Group D

Physical

Operating Temperature	-20˚ to + 50˚ C
Storage Temperature	-40˚ to + 71˚ C
Size	17.5"W x 11.5"D x 7.1"H
Weight	18 lbs, including HTP-101A probes
Power	3 Alkaline D Cells Approved for R1L-E2A
Battery Life	Approximately 80 Hours of Use

Included Accessories



HTP-101A Probes

SKP-8 Probes

The R1L-E2A is available with two different styles of probes, dependent upon the application.

The HTP-101A probes are wired with 8 ft of #12 AWG cable and contain two stainless steel spring loaded pins that rotate as they are depressed to punch through corrosion and coatings. The pins are 0.158 in diameter and the pin center to pin center is 0.5 in (1.27 cm). NSN: 6625-01-527-5543 is configured to come with the HTP-101A probes.

The R1L-E2A/SKP-8 comes with a smaller probe for working in more confined spaces. The SKP-8 probes come with an 8 ft cable and terminate in color-coded spade lugs. The spacing between the pins is 0.19 in and the probe handle length is 5.5 in.

Both probes are part of the Intrinsically Safe system. The probes are molded with a conductive additive to prevent the building of dangerous static electricity.