

HV-D150 High-Voltage Differential Probe

Safety Guide

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Document control

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Applies to	All units unless otherwise noted.

Change summary (fill in each release):

- Initial release.

Support: support@isosentry.com

Safety summary

- High voltage can cause injury or death. Follow your lab safety procedures and work with a qualified person when necessary.
- Inspect insulation, leads, and accessories before each use. Do not use damaged cables, connectors, or housings.
- Keep the probe and accessories clean and dry. Do not use in wet environments.
- De-energize the DUT before connecting or disconnecting the probe whenever possible.

Ratings (public-facing)

This section summarizes the limits used across IsoSentry documentation. For detailed definitions and safe procedure, follow lab safety rules and the full manual.

Item	Rating
Attenuation	50X / 500X
Bandwidth	150 MHz (-3 dB)
Max differential input (measurement range, V _{peak})	50X: up to ± 180 V _{peak} (50X, differential input) 500X: up to ± 1600 V _{peak} (500X, differential input) Measurement-range limit only; not a CAT safety category.
Over-voltage alarm	1800 V _{peak} nominal (tolerance: 1750–1850 V _{peak}) Audible/visual alert only; do not treat as a working limit.
CAT (per marking)	CAT II 1000 V / CAT III 600 V (each input to earth; supplier-declared) CAT rating is independent of 50X/500X selection.
Input impedance	Each input to ground: 8 M Ω — 3 pF Differential: 16 M Ω — 1.5 pF

Do / Don't

Do

- Keep input leads as short as practical and minimize loop area.
- Verify the correct range (50X/500X) before energizing the DUT.
- Use accessories with appropriate voltage ratings for your setup.

Don't

- Do not treat the over-voltage alarm as a safe operating limit.
- Do not use damaged insulation, leads, or accessories.
- Do not connect/disconnect under high-energy conditions if you can avoid it.

Connect / disconnect procedure (recommended)

1. Power down the DUT (if possible).
2. Connect probe output to the oscilloscope.
3. Connect probe inputs to the DUT.
4. Energize the DUT and verify the measurement.
5. Power down the DUT before disconnecting (if possible).

Support

Questions? Contact support@isosentry.com.