

HV-D150 High-Voltage Differential Probe

Datasheet

Document ID: ISO-HVD150-DS

Revision: v1.0

Date: 2026-01-29

isosentry.com

Document control

Document ID	ISO-HVD150-DS
Model	HV-D150
Revision	v1.0
Date	2026-01-29
Applies to	All units unless otherwise noted.

Change summary (fill in each release):

- Initial release.

Support: support@isosentry.com

Overview

HV-D150 is a high-voltage differential probe designed for evidence-driven measurements in power electronics.

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

Key specifications

Attenuation	50X / 500X
Bandwidth	150 MHz (-3 dB)
Max differential input (measurement range, Vpeak)	50X: up to $\pm 180\text{ Vpeak}$ (50X, differential input) 500X: up to $\pm 1600\text{ Vpeak}$ (500X, differential input) Measurement-range limit only; not a CAT safety category.
Over-voltage alarm	1800 Vpeak nominal (tolerance: 1750–1850 Vpeak)
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: $8\text{ M}\Omega$ — 3 pF Differential: $16\text{ M}\Omega$ — 1.5 pF

Performance graphs (placeholders)

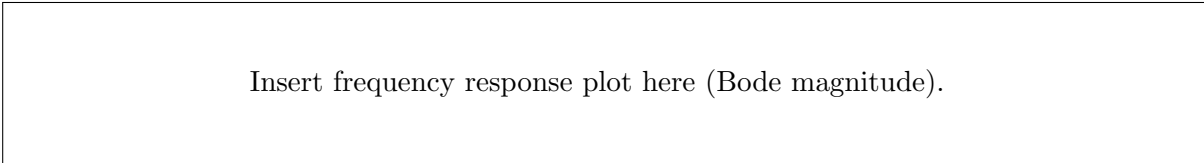


Figure 1: Frequency response (example placeholder).

Insert input impedance vs frequency plot here.

Figure 2: Input impedance vs frequency (example placeholder).

Mechanical & cable

Item	Value
Probe body dimensions (L × W × H)	113.4 mm × 37.8 mm × 25.9 mm
Cable length	145 cm
Probe body weight	162.5 g
Accessory weight basis	All accessory weights are measured per red/black pair (g/pair).

Included items & accessories

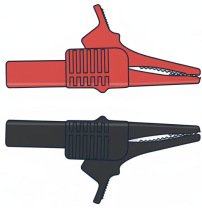
- HV-D150probe body
- BNC output cable
- USB-C power cable
- Interchangeable test clip accessories:
 - IS-CLP-01 Insulated Wide-Jaw Alligator Clip
 - IS-CLP-02 Quick Test Hook Clip
 - IS-CLP-03 Needle Test Probe Tip
 - IS-CLP-04 Insulation-Piercing Hook Clip
 - IS-CLP-05 Safety Hook Clip (4mm)

Test clip accessory dimensions

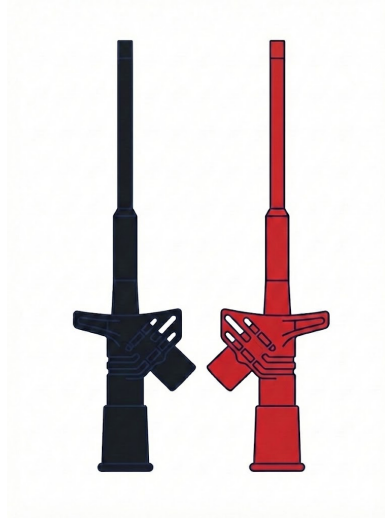
Model (g/pair)	Accessory Rating	Dimensions (mm)	Weight	
IS-CLP-01	Insulated Wide-Jaw Alligator Clip	L84; H36; opening 27; interface 4	16.2	1000 V / 32 A
IS-CLP-02	Quick Test Hook Clip	L153; tip dia 0.5; interface 4	23.0	1000 V / 10 A
IS-CLP-03	Needle Test Probe Tip	Overall 96.8; tip 2; exposed tip 3.5; interface 4	47.2	CAT II 1000 V; CAT IV 600 V; 10 A
IS-CLP-04	Insulation-Piercing Hook Clip	L159; opening 4; interface 4	12.7	CAT II 1000 V; MAX 10 A
IS-CLP-05	Safety Hook Clip (4 mm)	122.5±2; 114.5±1; 43.5±0.5; tip 4±0.5; dia 4±0.1; 6±1	29.8	1000 V CAT III; 600 V CAT IV; 10 A

Accessory ratings are supplier-declared; IsoSentry has not independently verified them.

Accessory wireframe gallery



IS-CLP-01
Insulated Wide-Jaw Alligator
Clip



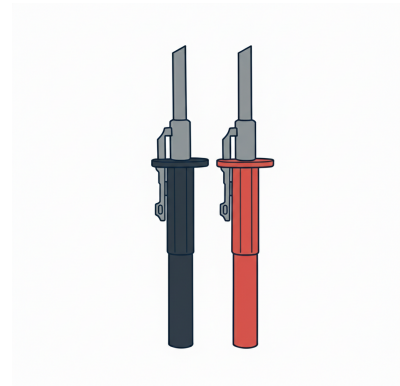
IS-CLP-02
Quick Test Hook Clip



IS-CLP-03
Needle Test Probe Tip



IS-CLP-04
Insulation-Piercing Hook Clip



IS-CLP-05
Safety Hook Clip (4mm)

Figure 3: Accessory line-style wireframes (supplier visual reference).

Support

Questions? Contact support@isosentry.com.