

Choosing the right Fluke EVSE testing tool

Fluke offers a complete range of EVSE test solutions—from AC charging station verification to full DC fast charger analysis. Whether you manage public charging networks, fleet infrastructure, or provide O&M services, there's a Fluke tool designed for your workflow.



Choose the FEV100 if...

You install or commission AC charging stations and need to confirm basic wiring, safety, and functionality.

Your work focuses on installation verification and periodic inspection, not in-depth diagnostics.

You already use other Fluke tools (like a multifunction tester or scope) and want an EV simulator adapter that integrates easily with your existing setup.

You want a lightweight, affordable entry point into EVSE testing that's easy to use and carry to every job.

You want a simple tool that simulates an EV without needing a car onsite.



Choose the FEV150 if...

You routinely maintain, diagnose, or troubleshoot AC charging stations for fleets, workplaces, or public networks.

You need automated test sequences, pass/fail indicators, and waveform analysis to identify issues quickly and consistently.

You want to document test results and generate professional reports using TruTest™ software for compliance and record-keeping.

You prefer an all-in-one diagnostic tool that minimizes setup time and reduces the need for multiple instruments.



Choose the FEV500 if...

You test or maintain DC fast charging stations (Level 3 / CCS) and need to validate safety and performance in one device.

You want a tool that can simulate a DC load (2–3 kW) and verify CCS communication

You need guided workflows, one-button Autotest, and PASS/FAIL results to standardize testing and reduce technician error.

You require automated documentation and reporting through TruTest™ to simplify compliance across multiple charging sites.

You want to reduce test time and risk by not opening the station—safer, faster, and fully automated.

Electrical Specifications

Feature	FEV100	FEV150	Accuracy
Charging Type	AC	AC	DC Fast / CCS (Level 3)
Role	EV test adapter / simulator	Full EVSE analyzer for AC	DC fast charger analyzer / validation
Testing Focus	Installation and commissioning	Advanced AC charging diagnostics	Full Fast DC EVSE validation
Primary Function	Simulate EV (CP states), cable simulation (PP), PE pre-test, error states (CP, PE)	Same EV simulation + auto test plans, pass/fail indication, in-device diagnostics, waveform analysis	Simulate DC load, digital communication (CCS/ISO 15118 / DIN 70121), safety & performance tests
Communication Protocols	Type 1 & Type 2	Type 2 (CP/PP/PLC)	CCS (ISO 15118, DIN 70121)
Load Simulation	No load	No load	2-3 kW simulated DC load
Requires other test tools?	Yes: pairs with installation tester or multimeter / scope to measure safety & wiring tests	No: supports more diagnostics onboard	No: self-sufficient with full DC test suite and guided workflows
Data Logging & Reporting	Manual	Stores measurement results & interfaces with TruTest™ software	Full reporting, guided workflows, Autotest, TruTest™ integration
Connector Support	Type 1 / Type 2 via adapters	Type 1 & Type 2 compatibility	CCS connector (for DC)
Portability / Form Factor	Lightweight, handheld adapter	Handheld analyzer	Rugged form factor for field DC environments, portable case with wheels
Standards Compliance	IEC/EN 61851-1, IEC/HD 60364-7-722 (for AC)	IEC/EN 61851-1, IEC/HD 60364-7-722 (AC)	Supports DC interoperability standards (ISO 15118, DIN 70121) and safety/performance testing
Best For	Electricians, installers, and field verification teams performing AC charger commissioning.	Service technicians, O&M contractors, and fleet maintenance teams handling regular AC charger maintenance.	Commercial network operators, fleet engineers, and 3rd-party O&M providers who maintain DC fast charging infrastructure.

Benefits

Model	Benefits	Limitations
FEV100	<ul style="list-style-type: none"> Highly compact and portable Simulates EV behavior for AC stations Supports PE pre-test, error simulation, cable simulation Lower cost entry into EVSE testing 	<ul style="list-style-type: none"> Requires external tools (multimeter, scope, install tester) for full safety or wiring tests Limited diagnostics or data logging capabilities No pass/fail automation or report generation For AC-only environments
FEV150	<ul style="list-style-type: none"> All-in-one analyzer and diagnostics for AC EVSE Test plans and pass/fail feedback reduce manual error Waveform analysis of CP, proximity pilot error tests Stores results, integrates via Bluetooth with multifunction testers TruTest™ integration for reporting 	<ul style="list-style-type: none"> Slightly heavier and more complex than FEV100 For very deep diagnostics or advanced scenarios, might need external tools For AC-only environments
FEV500	<ul style="list-style-type: none"> Covers the full DC fast charger domain (safety and performance) Simulates DC load, CCS protocol communication Guided workflows, Autotest, full report / certificate generation with TruTest™ software Designed for field robustness and charging network scale 	<ul style="list-style-type: none"> Higher acquisition cost Heavier / more complex hardware For DC-only environments

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