Morgen Tech

CONTROL-POWER MONITOR FOR DC FAST CHARGERS

Was it the control power? Rule it in or out.

RailSentinel-24 is a small DIN-rail module for DC fast-charger cabinets. It records what the DC control supply (12 V or 24 V) does, so you see what it did before a charger went down.

12 V or 24 V	35 mm	Monitoring only	Modbus TCP · MQTT
DC control supply	DIN rail, beside the supply	never switches the charger's power	into your own system

● In development. Pilot units from Q2 2027 under a test agreement. No CE marking yet; not commercially available.

THE JOB

From "Out of order" to "Available".

01 Charger down
Your charger is down. Nobody saw why.

02 Why
When it's the control supply, you need the dip itself: its curve, its time, and a record that survives the reboot. RS-24 records it.

03 Fix
If it was the supply: check the power supply and its wiring, and bring a spare. If it wasn't: go straight to the charger.

04 Back online
Know what to bring. Back online sooner.

36 % of outages need more than one visit **48 %** of downtime days come from those repeat visits

Source: ChargerHelp data via Kelley Blue Book, Sept. 2026 · US networks

WHAT IT DOES

Alerts when the supply dips
In your own system (Modbus, MQTT), or on the technician's phone over the site Wi-Fi.

Shows if the supply was the cause
Dips on the 12 V or 24 V DC control supply, timestamped and kept on the module.

Shows where it repeats
Supply voltage trended per site and fleet. For 12 V and 24 V supplies.

Monitoring only: it never switches the charger's power. An isolation barrier, designed for reinforced insulation, separates the sensing side from the network side. Its one output contact is wired in only if you choose. Not a certified safety component.

WHO IT'S FOR

CPO FLEET
See which chargers' control supply keeps dipping, site by site.

SERVICE COMPANY
Know what the control supply did before you drive out.

CHARGER OEM
Records of the control supply from field units, to settle "no fault found" returns.

HOW A DIAGNOSIS WORKS

RS-24 stays in until the fault comes back. Then you know: was it the control supply or not, and what to bring. In the maker-led offer, the charger maker's service technician or its authorised partner fits it; after CE marking, on a normal service visit. The charger's wiring and software stay as they are. After the deployment, the maker's engineers get every event and waveform, and give the operator the answer. Operators: fitting needs your charger maker's OK, and we help you ask for it. Until CE marking, pilots run free of charge on test chargers or in test bays, under a test agreement.

VARIANTS · SAME BOARD, PICK THE ENCLOSURE

RS-24-S · SLIM
Slim
Narrow DIN module. Wi-Fi. Fit and forget.

RS-24-S · COUPLER
Standard
DIN coupler with expansion slots.

RS-24-M
OEM module
Bare PCB for factory integration.

UPCOMING: Control Pilot (CP) signal monitoring · Modbus RTU (RS-485) · Ethernet · Clamp module for control-supply current · Two controllers that watch each other · NFC tap-to-read at the cabinet · Cellular field variant.

Was it the power? Rule it in or out.
Pilot units on loan under a test agreement, no lock-in. Send your fleet size and the chargers that keep failing.

Request a pilot
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