



DAVISOL DVS-WG790 Enterprise Edge Multi-Protocol Gateway

Serving as the operational nerve center for industrial IoT, the DAVISOL DVS-WG790 aggregates real-time field telemetry across wireless star and tree topologies. Powered by embedded edge computing and multi-protocol translation, it connects hundreds of high-frequency sensors directly to your local SCADA, PLC, or cloud infrastructure without overloading network bandwidth.



CONTACT US

<https://www.davisol.ch/>

sales@davisol.ch

+41 77 445 18 34

support@davisol.ch

Rue de la Prulay 47, Meyrin
Geneva, Switzerland

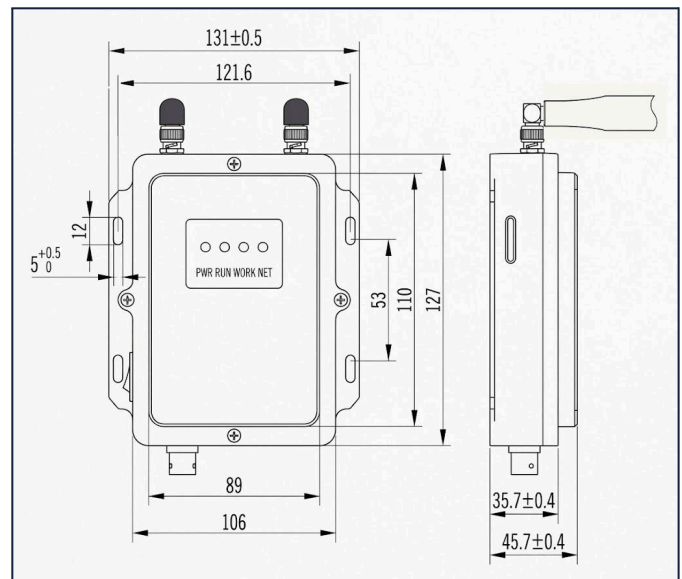


Some Product Applications

- Rotating equipment predictive maintenance
- Motor and pump monitoring
- Infrastructure structural health monitoring
- Bridge and tunnel surveillance
- Elevator and escalator monitoring
- Facility cooling tower tracking
- Data center environment monitoring
- Direct SCADA system integration

Principle and Characteristics

This enterprise gateway unifies data acquisition from up to 200 field sensors, processing complex vibration and thermal metrics (RMS, peak value, kurtosis, envelopes) directly at the edge. Built on an ARM processor with Secure Boot, it translates raw wireless signals into standard protocols including Modbus, MQTT, and OPC-UA. Encased in an IP67 enclosure, it features dynamic failover across 4G/5G LTE, Ethernet, and Wi-Fi, providing real-time local relay alarms and Over-The-Air (OTA) system management.



Technical Specifications

Category	Parameter	Specification
System & Power	Power Supply	DC 12V to 36V
	Power Consumption	5W
	Operating Temperature	-40°C to +85°C
	Operating Humidity	5%RH to 95%RH (Non-condensing)
Networking & Protocols	Network Interfaces	RJ45 Gigabit Ethernet (10/100/1000M), 4G/5G LTE, Wi-Fi
	Network Protocols	TCP/IP, MQTT, Modbus-TCP/RTU, OPC-UA
	IP Configuration	Static IP / DHCP
	Wireless Failover	Automatic 4G LTE cellular failover to Wi-Fi / Ethernet
	Local Alarms & Relays	Real-time local relay alarms & stack-light triggering
Radio Sub-Models	Zigbee (DVS-WG790-Z)	2.4 GHz 16 dBm 250m Line of Sight range
	LoRa (DVS-WG790-L)	410 MHz to 510 MHz 24 dBm Dual-channel processing
	4G LTE (DVS-WG790-G)	Multi-band LTE-FDD/TDD 30 dBm DL 10Mbps / UL 5Mbps
	Wi-Fi (DVS-WG790-W)	Dual-band 2.4 GHz & 5.8 GHz 16 dBm
Mechanical & Housing	Enclosure Rating	IP67 dustproof, waterproof, and solvent-resistant
	Mounting Options	35mm DIN-rail, flat wall flange, or pole-mount bracket
	Long-Range Dimensions	176 mm (W) x 242 mm (H) x 76 mm (D) (262.5 mm H with antennas)

Category	Parameter	Specification
	Compact Dimensions	106 mm (W) x 127 mm (H) x 45.7 mm (D)

A full suite of operational accessories, including high-gain fiberglass antennas (5dBi–12dBi), DIN-rail 24V power supplies, stainless steel pole mounting kits, and inline surge protectors, is available through DAVISOL.

R&D and Customization

At **DAVISOL**, we understand that standard off-the-shelf networking hardware cannot solve every complex industrial topology. Our dedicated R&D software and hardware engineering teams stand ready to deliver bespoke configurations of the DVS-WG790 Gateway tailored to your exact enterprise architecture.

From custom edge-computing algorithms (local machine learning FFT parsing and custom anomaly heuristics) to specialized SCADA protocols, legacy IT bridge development, and explosion-proof hardened enclosures, we engineer solutions to match your strictest mechanical and data security requirements.

DAVISOL — Engineering that delivers.