Industrial 1–2 Port CAN Device Server

Model: FCT-1300-N1 / FCT-1300-N2

1–2 channels CAN · 1 channel 100 Mbps Ethernet
6 kV surge protection · 3 kV optical isolation per channel



Product Overview

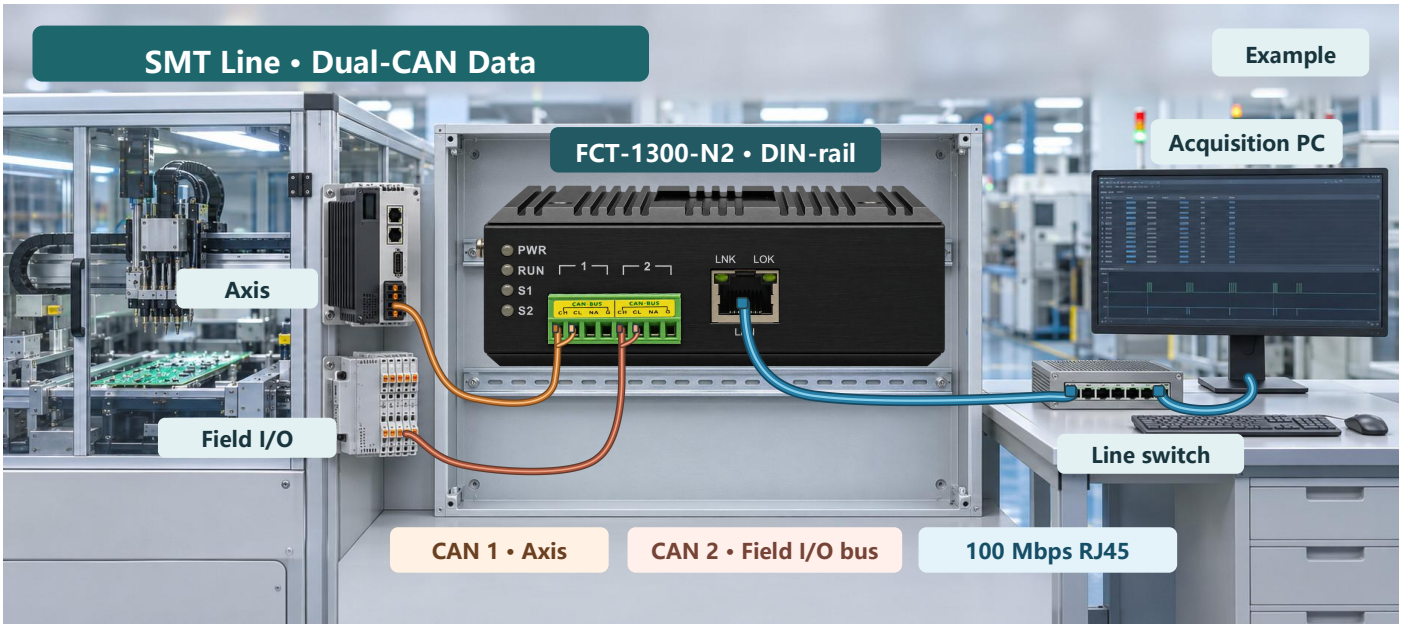
- Connect field CAN devices to Fast Ethernet for centralized host acquisition and management. Choose 1 or 2 CAN ports by model.
- CAN modes: transparent conversion, transparent transmission with metadata, and relay. Select framing to suit the application.
- Fanless IP40 enclosure, 35 mm DIN-rail or wall mounting; low-voltage terminals or built-in wide-input power supply.

Key Features

- **Protection** — Each CAN channel has 6 kV surge protection, 3 kV optical isolation, and independent shielded wire and ground, reducing interference coupling.
- **Baud rates** — Supports automatic scanning and customization of CAN baud rate, and can connect to buses of different speeds.
- **Multi-session** — Up to 4 TCP or UDP sessions per CAN line, supports standard Socket access.
- **Remote admin** — Web/SNMP; remote upgrade.

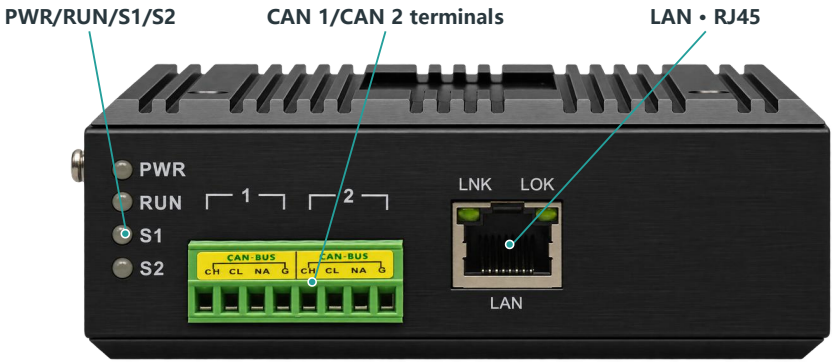
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Typical Application



Axis control and field I/O each use one N2 CAN channel. On each channel, Terminal 1 is CAN-H and Terminal 2 is CAN-L. The server transparently forwards messages. The industrial computer connects to its IP and service port via TCP Socket and parses according to the field protocol. N1 can be selected for a single bus.

Interfaces and Installation



Dual-channel front appearance. CAN signals include CANH, CANL, and GND; wiring follows the corresponding markings on each channel.



Low-voltage terminal plate · PWR1/PWR2 dual DC inputs

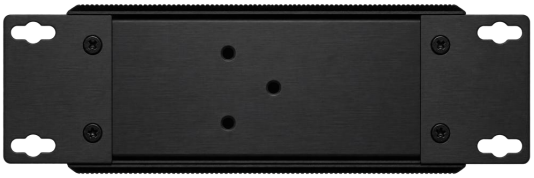


Built-in wide-input power version · 3-pin cloverleaf inlet

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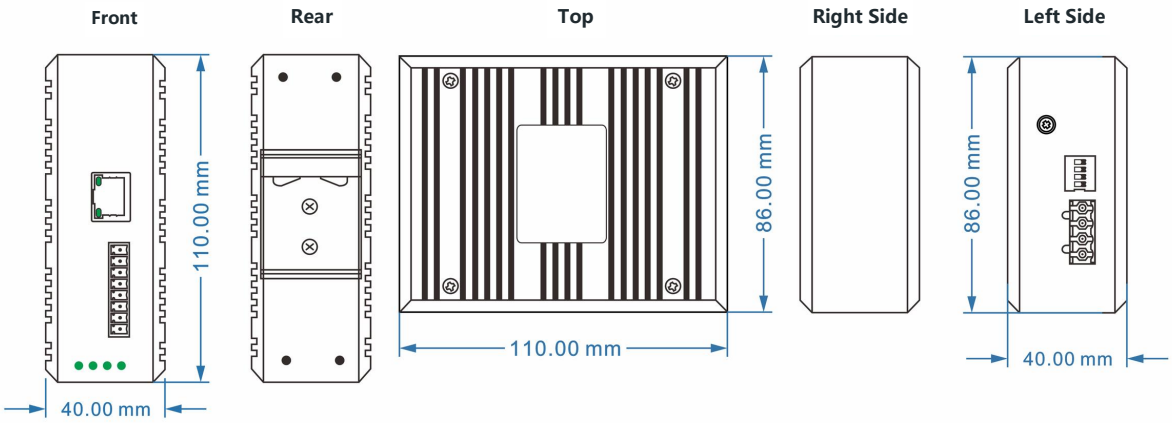


Central back rail clip · 35 mm DIN rail



Wall-mounted mounting bar · four mounting holes at both ends

Dimensions and Mounting



Physical dimensions: 110 × 86 × 40.0 mm (length × width × height); weight: 0.495 kg/unit. The diagram shows a low-voltage terminal version.

Hardware and CAN Communication

Item	Specification
Processor	ARM Cortex-M4, 240 MHz。
Ethernet interface	1 × RJ45, 10/100BASE-T(X) auto-negotiation, supports full/half-duplex and Auto MDI/MDIX. The MAC address table can learn 4096 addresses.
CAN Interface	N1 is 1 channel, N2 is 2 channels. 3.81 mm industrial terminal block, signals include CANH, CANL, GND.
Protocol and Frame Format	Supports CAN 1.0 and CAN 2.0, as well as CAN 2.0A standard frames and CAN 2.0B extended frames. Complies with ISO/DIS 11898.
Baud Rate	0–1 Mbps, supports line-rate non-blocking communication, automatic baud rate scanning matching, and customization.
Message Processing	Maximum transmission: 8000 frames/s, maximum reception: 14000 frames/s. The timestamp accuracy for CAN terminal reception messages can reach 1 μs.
CAN Transmission Mode	Surge protection; transparent conversion, transparent information transmission, relay mode. Supports CAN data framing configuration.
Mechanical and Environmental	IP40 anodized aluminum alloy casing, fanless cooling. Operating/storage temperature: −40–+85 °C, operating humidity: 0%–95% RH, no condensation.
Reliability	MTBF > 100,000 hours; all models pass 100% burn-in test.

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Network & Management

Item	Specification
Network mode	Supports Modbus TCP, TCP Server, TCP Client, UDP Server, UDP Client.
Session and Access	Up to 4 TCP or UDP sessions per CAN channel. TCP supports up to 4 connections for up to 4 users to monitor or manage. Supports standard TCP/IP Socket.
Network Protocol	TCP, UDP, ARP, ICMP, HTTP, DNS, DHCP, SNMP. Supports communication through gateways and across routes.
Configuration and Maintenance	Supports Web and Windows tool configuration, quick configuration, access control, CAN status and parameter monitoring, SNMP network management, as well as local and remote firmware upgrade.

Lightning protection and isolation

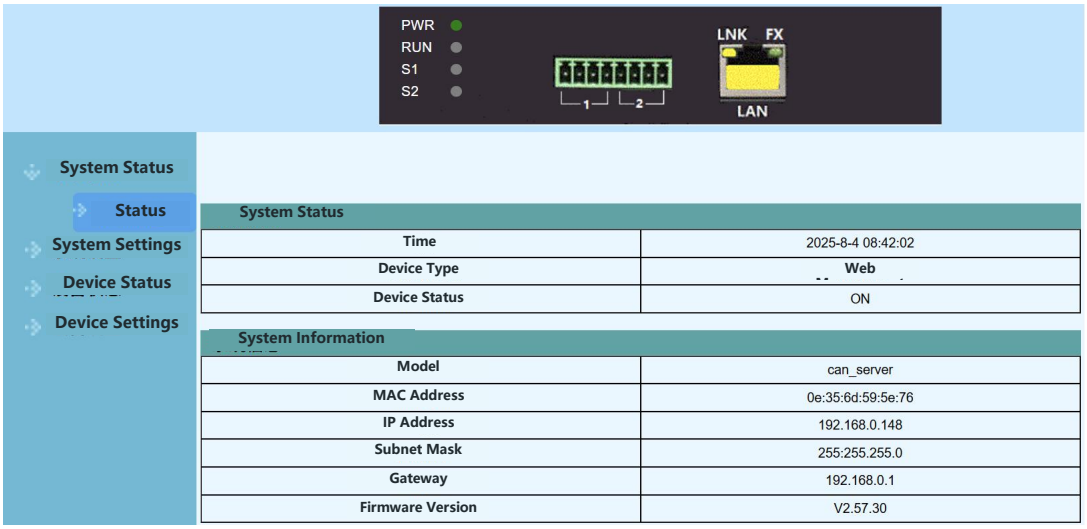
Item	Specifications or technical requirements	Description
CAN surge protection	6 kV per channel	Reduce risks of interface damage due to lightning induction and transient surges.
CAN optical isolation	3 kV per channel	High-speed optocoupler for isolated communication signals.
CAN isolated power supply	3 kV DC-DC isolation voltage per channel	Provides isolated power for CAN channels.
Shielding wire ground	Each channel has an independent shielded ground interface	Reduce the interference coupling introduced by common ground.
Power supply and EMC	Power supply surge protection; industrial Class 4 EMC.	Reduces the risk of damage due to induced high voltage and surge impacts.

Power Supply Selection

Item	Low-voltage terminal plate	Wide-voltage built-in power supply version
Input range	Dual-channel redundant DC 9–70 V.	AC 85–265 V or DC 110–300 V.
Power supply interface	4-pin 5.08 mm plug-in terminals, PWR1/PWR2.	3-pin cloverleaf power inlet.
Isolation and Protection	Internal isolation of the power supply, with overload and reverse connection protection. Automatic polarity detection, no need to distinguish positive or negative poles for wiring.	Supports overload protection.
Total Power Consumption	< 5 W。	< 5 W。

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Web management interface



The web interface allows you to check system status and configure network and CAN parameters.

Ordering Information

Model Segmentation: FCT / 1300 / N1 or N2

NO	Name	Definition
01	FCT	Prefix of product model for Feichang.
02	1300	Product series code.
03	N	CAN bus interface.
04	1/2	Indicates the number of CAN lines: 1 for single line, 2 for dual line.

Full Ordering Code

Model	CAN bus	Ethernet
FCT-1300-N1	1-channel	1-channel 10/100BASE-T(X) RJ45.
FCT-1300-N2	2-channel	1-channel 10/100BASE-T(X) RJ45.

Specify complete model, power supply version, and installation method when ordering.

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