# CJ-8DI8DO

## 8×DI + 8×DO + 1×RS485 CAT-1 Remote I/O Module




- 8×DI channels with both dry and wet contact wiring, including PNP/NPN in wet mode
- 8×relay DO channels, rated 10A at 277 V AC or 10A at 30 V DC
- 1×RS485 interface, enabling device local
- software-based control
- 4G CAT-1 connectivity, enabling remote control via cloud
- Adopt Modbus RTU protocol data processing. Support Modbus TCP/RTU protocol adaptation
- Support selectable master and slave working modes, default slave
- Hardware watchdog ensures 24/7 stable operation
- DC12~36V wide input voltage, high-performance EMC protection
- -20℃ ~ +70℃ working temperature range

## Product Description

CJ-8DI8DO is an industrial network I/O controller featuring 8 digital inputs and 8 relay digital outputs, designed with remote control as its core function. It integrates 1×RS485 serial interface and LTE 4G CAT-1 cellular connectivity, enabling reliable remote monitoring and control over wide areas. The device ensures seamless integration into industrial automation systems, supporting local control, cellular network communication, and cloud-based management with real-time operation and simple configuration.

This industrial remote I/O controller supports both Modbus RTU and Modbus TCP, as well as selectable RTU slave and master modes. CJ-8DI8DO also incorporates a TCP Client function that allows connection to remote servers for active data exchange. Configuration is simplified through a built-in web server.

The device features a hardware watchdog, comprehensive power protection, and multi-status LED indicators for clear operational visibility. It supports remote maintenance via FTP upgrades and RS485 upgrades. With robust EMC protection, a wide 12~36 V DC power input range, and industrial-grade operating temperature tolerance, CJ-8DI8DO is ideal for harsh environment applications including monitoring systems, self-service terminals, smart hotel automation, intelligent lighting, environmental control, access control, and distributed I/O expansion.

## Product Features

- Support 8×relay output, contact rating: AC 277V 10A, DC 30V 10A
- Support 8×channel input with default dry-contact type
- Support user-defined conditional control to trigger I/O changes based on custom rules
- Allow configuring I/O hold behavior after power-on or reboot, either keeping the previous output state or resetting to OFF
- Provide 1×RS485 port, surge protection up to 1 kV
- LTE 4G CAT-1 cellular connectivity for remote control
- Adopt Modbus RTU protocol data processing. Support Modbus TCP/RTU protocol adaptation
- Support Modbus function codes 01, 02, 03, 04, 05, 06, 0F, 10
- Automatically identify Modbus RTU or Modbus TCP from the network side and reply in the same format
- Support Modbus RTU data processing and Modbus TCP/RTU protocol adaptation
- Provide two working modes: Master and Slave, and slave mode by default, allowing the device to respond only to commands addressed to it. Allow simultaneous control from network and RS485 host in slave mode. Cascade multiple Modbus RTU devices via RS485 for remote monitoring and control in Master mode
- Enable remote control via cloud platform (PC or mobile app) and local switch operation
- Support socket connection to remote server and TCP Client mode
- Provide a built-in Web Server for local configuration
- Support FTP remote firmware upgrade
- Support firmware upgrade via RS485
- Integrate hardware watchdog for stable long-term operation
- Provide industrial-grade protection: terminal wiring, surge protection, EFT against pulse interference, ESD up to ±15 kV air / ±8 kV contact
- Provide multiple LED indicators for device operating status
- DC 12~36V input voltage range, power over-current, over-voltage, and reverse-connection protection
- Work in -20℃ ~ +70℃

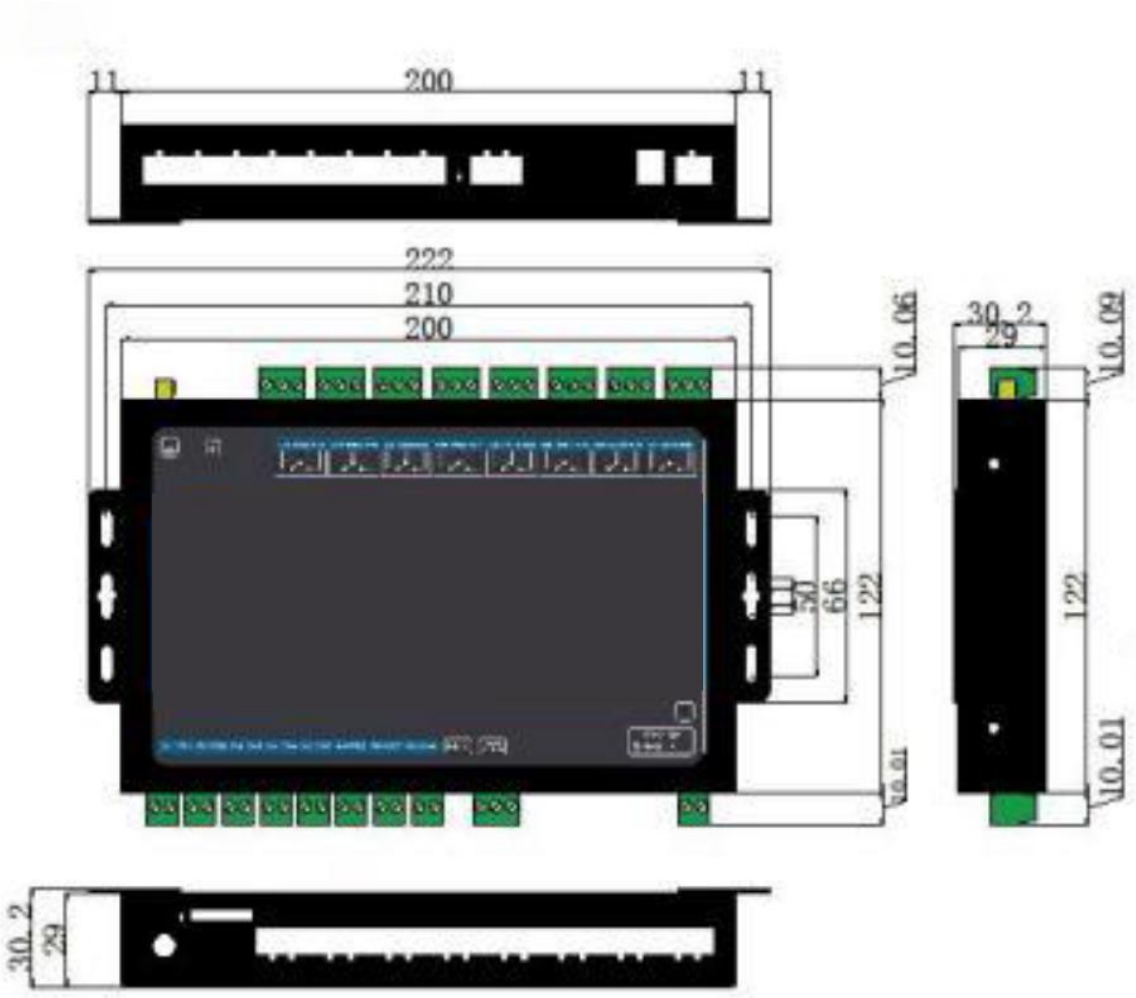
## Technical Specifications

| Item | Parameter Description | |
|---|---|---|
| Wireless Parameters | Wireless Network | LTE Cat-1 |
| Technical Specifications | TD-LTE | 3GPP Release 13 CAT1<br>Downlink up to 7.5 Mbps, Uplink up to 1 Mbps |
| | FDD-LTE | 3GPP Release 13 CAT1<br>Downlink up to 10 Mbps, Uplink up to 5 Mbps |
| | GSM | GPRS Class 12<br>Downlink up to 384 kbps, Uplink up to 128 kbps |
| Standard Frequency Bands | TD-LTE | Band 38/39/40/41 |
| | FDD-LTE | Band 1/3/5/8 |
| | GSM | Band 3/8 |
| Transmit Power | TD-LTE Band 38/39/40/41 | +23 dBm (Power class 3) |
| | FDD-LTE Band 1/3/5/8 | +23 dBm (Power class 3) |
| | GSM Band 8 | +33 dBm (Power class 4) |
| Hardware Parameters | Data Interface | RS485: 300~230400bps |
| | DI Input | Support both dry and wet contact wiring |
| | DO Output | AC 277V 10A |
| | DO Output | DC 30V 10A |
| | Operating Voltage | 12~36V |
| | Operating Current | 318mA (average) / 400mA (max) @12V |
| | Operating Temperature | -20℃~70℃ |

| | | |
|---|---|---|
| | Storage Temperature | -40℃~85℃ |
| | Operating Humidity | 5%~95% (non-condensing) |
| | Storage Humidity | 1%~95% (non-condensing) |
| | Size | 200×142.7×29 mm |
| Software Parameters | Operating Mode | Master mode, slave mode |
| | Setup Command | Modbus RTU |
| | Network Protocol | Modbus TCP, Modbus RTU |
| | Customer Application Software | Support configuration software |
| Software Features | Domain Name Resolution DNS | Support |
| | Data Transfer Method | Support TCP client |
| EMC Level | ESD | IEC61000-4-2, Level 4 |
| | Surge | IEC61000-4-5, Level 3 |
| | Burst Pulse | IEC61000-4-4, Level 3 |

## Dimensions

Unit: mm



## Ordering Information

| Standard Model | DI | DO | RS485 | Cellular | Input Voltage |
|---|---|---|---|---|---|
| CJ-8DI8DO | 8 | 8 | 1 | 4G | DC 12~36V |

## Contact Us

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