EZEIO SYSTEM

Connecting you and your sensors via the internet to remotely Monitor, Control, Record & Alarm







THE EZEIO MKII SYSTEM





Despite its complexity, the ezeio® system is highly user-friendly throughout all aspects of the system. It is purpose built for the internet and designed with the user in mind.

The 5 in 1 hardware controller combines:

- Input/Output Unit
- Data Logger
- Modem (LTE Cat M1) & Gateway (Satellite option)
- PLC (edge processing)
- System Functionality
- GPS Option

The broad features of ezeio and its'multidisciplinary support for equipment and applications, allows the system to grow with your requirements. It is possible to start very simple with just acquiring sensor data and move into more complex systems over time. The ezeio system is also capable of seamlessly handling a selection of plug & play expander modules and 3rd party sensors & devices available.

Every aspect of the system was designed to be scalable and able to be remotely managed through a centralised hub. Even offline, the ezeio hardware controls and stores data to a large onboard memory which will be updated automatically when signal is achieved again.

The ezeio system requires no additional hard- or software components for the remote monitoring, control and automation of equipment & applications. It combines I/O units, cloud computing, data logging, communication and system features in one system and for all IIoT purposes.

EZEIO SOFTWARE

The ezeio cloud software is a powerful solution to configure & automate hardware deployed to control your sensors from an online platform. The user interface allows you to remotely manage your system including;

- Account & Configuration Management
- Scripting Editor
- Dashboards & Live Status'
- Alarms & Notifications
- Timers & Schedules
- Mapping & Geofencing
- 01

CREATE ANY NUMBERS OF ACCOUNTS & GROUPS

A powerful managerial tool that allows you to structure your system by location, type of equipment or business unit.

02

MANAGE ACCESS & PERMISSIONS FOR EACH USER

Create and manage specific access restrictions from view only access through to specific assignment permissions and full administrator rights.

03

04

CUSTOMISABLE DASHBOARD & WIDGETS

Create predefined widgets to display your data visually varying from simple dials through to graphs and power applications of just your sensors or your entire system.

CONFIGURE YOUR SYSTEM

Control each ezeio system deployed from simple settings to complex scripting, including; system status overview, alarms & notifications, timers, schedules, calendars, device overview and more.



EZEIO HARDWARE SPECIFICATIONS

Hardware models

- LTE-CAT-M1 (5G IoT) + Ethernet
- 2G/3G + Ethernet

Security

- Secure OTA sync & updates
- Fully encrypted, PKI & 128bit encryption

Inputs/outputs

- 8 general purpose inputs (discrete, on pluggable terminal, fully configurable)

 - $\circ~$ 0-30mA (12.5uA resolution, 200 Ω
 - internal shunt)
 - 0-1MΩ resistance (<2% accuracy in the range 2k – 700kΩ)
 - Thermistor $(100k\Omega/10k\Omega/2\Omega types, internal excitation)$
 - Dry switch (on/off, optional internal excitation)
 - Pulse (S0 or KYZ, max. 400Hz, optional internal excitation, monitor pulse rate and/or pulse count/ frequency/interval)
 - Electronic configuration of pull-up / shunt
 - Protected with PTC
 - Internal 0.5% reference
 - 4 general purpose outputs (discrete, on pluggable terminal, fully configurable)
 - Output 1/2 digital (on/off), sourcing max. 200mA each
 - Output 3 PWM output or on/off output (sourcing max. 200mA)
 - Output 4 analogue, 0-10V, 0.1V resolution (sourcing up to 10mA)

Supports plug-in sidecar ezeio I/O expansion

(third-party I/O can be added via the communication ports)

Supports up to 90 individual fields

Schedules & Calendar

- 10-year calendar
- 30 daily schedules

Modbus/TCP server & client (TP 10/100 Ethernet)

• Configurable port numbers (standard 502)

SDI-12 port

- Supports v1.4
- Optional support for serial NMEA 0183 (GPS)

Other hardware features

- SMA antenna connector (cellular)
- o +5V DC regulated output, max. 200mA
- PTC fused DC output, max. 200mA for sensors
- On-board RTC (24h supercap backup)
- 3 dual-color indicator LEDs
- Pushbutton for controlled startup/reset

Power supply

- 12-24V DC
- Standard 5.5/2.1mm plug in barrel connector
- Optionally powered through screw terminal
- 0.8W self-draw (average), 3W peak (short sub-second bursts)
- Hibernation mode, <0.06W (average)

Dimension & weight

- W: 108mm (4.3in), H: 90mm (3.6in) (excl. connectors), D: 33mm (1.3in)
- Allow 50mm (2in) top & bottom for connectors & wiring
- 35mm DIN rail or screw mounted
- Weight: 0.150kg (5.3oz)

On-board log buffer memory (non- volatile)

- Full system log data (>50 days @ 10
- minutes logging & 90 fields)
- Large dynamic log data buffer, i.e.
- 10 fields, >30 days @ 10 seconds
- 50 fields, >30 days @ 1 minute
- >6,000 events/alarms/transactions
- All logs auto-uploaded to eze.io backend

Modbus/RTU Master port (RS485)

- Up to 32 devices
- 1200 to 115200 bps

CANbus

- Supports J1939
- Optionally used for I/O expansion

Capabilities

- Up to 90 monitored fields
- Up to 300 alarms for local events,
- SMS, email, voice calls etc.
- Geo-fence features with GPS support
- Up to 2000 card/PIN codes

Additional features

- Full remote configuration & management
- Live data access
- Automatic data synchronization with eze.io cloud
- Expression engine for field math & alarms
- Remote firmware upgrade
- Standard & custom driver support for industrial devices
- Powerful scripting support

Others

- Operating Temperature
- -20 to 65°C
- Operating Humidity
- 5 to 95% (non-condensing)
- IP40 (use indoors/in electrical enclosure)

Certifications

- FCC Part 15 B 15.017 & 15.109
- AS/NZS CISPR 32 (2015)
- EN 55032 (2012) +AC1
- EN 61000-3-2 (2014)
- EN 61000-3-3 (2013)
- EN 55024 (2019) +A1
- CCI-CISPR 32:2016 Class B
- CE
- RoHS 3

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