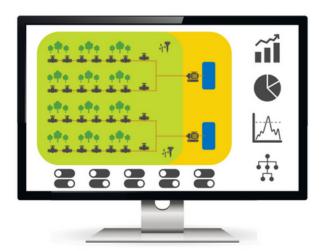IIoT

EZEIO SYSTEM

The applications for the Ezeio hardware and cloud software are endless. Ezeio has the potential to connect your new or existing sensors deployed and turn it in to a system, all controlled by a centralised online hub.

OneTemp pty ltd
measure | control | record

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
- PLC (edge processing)
- System Functionality

The broad features of ezeio and its'multi-disciplinary 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 over thousands of sensors and industrial equipment.

Every aspect of the system was designed to be scalable and able to be remotely managed through a centralised hub. Even offline, ezeio mkII hardware units are managed automatically. They will be updated with the latest configuration when they are online 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

Structure your system classifications by location, type of equipment, business unit or map your own commercial eco system.

02

MANAGE ACCESS & PERMISSIONS FOR EACH USER

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

03

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.

04

CONFIGURE YOUR SYSTEM

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

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)
  - 0-10VDC (2.5mV resolution, >65kΩ input impedance)
  - 0-30mA (12.5uA resolution, 200Ω
  - internal shunt)
  - 0-1MΩ resistance (<2% accuracy in the range 2k – 700kΩ)
  - Thermistor (100kΩ/10kΩ/2Ω 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

Modbus/RTU Master port (RS485)
- Up to 32 devices
- 1200 to 115200 bps

Modbus/TCP server & client (TP 10/100 Ethernet)
- Configurable port numbers (standard 502)

CANbus
- Supports J1939
- Optionally used for I/O expansion

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 start-up/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

SDI-12 port
- Supports v1.4
- Optional support for serial NMEA 0183 (GPS)

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

Schedules & Calendar
- 10-year calendar
- 30 daily schedules

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
- Verizon OD
- CE
- RoHS 3