EDGE TECH by ControlByWeb



EDGETECH INDUSTRIAL LOGIC CONTROLLERS

EdgeTech by ControlByWeb is designed for robust capability and streamlined usability. Featuring two controllers with high compatibility in mind, the EDGE1 and EDGE controllers offer flexible I/O and key communication protocols for maximum compatibility.

Build custom dashboards with drag-n-drop widgets for process monitoring, data visualization, reporting, and more. Program using Javascript for fully custom logic and functionality. EDGE1 and EDGE are incredibly flexible and capable IoT logic controllers for any commercial or industrial data acquisition, control, and automation, including PID loops.

The advanced browser-based UI eliminates the need for software licenses or installs. Instead, users program the device directly using their favorite web browser. EdgeTech bridges the gap between IoT edge control and PLC might, built on an open platform with extensive interoperability.

ASHRAE BACnet OPC UA MQTT Modbus

CONTROLLERS

- EDGE1- Controller and Universal I/O
- EDGE - Controller from the EDGE1 without relays and universal I/O



EXPANDABLE I/O

- E8U2R - 8 universal I/O and 2 relays
- EPOE - 4 PoE input and output
- E16R - 16 form A relays
- E16DI - 16 digital inputs
- E4R - 4 form C relays

Preliminary Data Sheet

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CBW ControlByWeb®

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EDGE1 AND EDGE TECHNICAL SPECIFICATIONS

Universal I/Os (EDGE1 only)

Count: 8
Digital Input Mode:
- Input Voltage Range: 9-48V
- Wet contact up to 48V
- Dry contact w/ internal pullups
- Frequency counting to 5KHz using 32-bit counters
- Supervised

Digital Output Mode:
- Source or Sink up to 1.5A @ 5V or VIN to 48V
- PWM compatible

Analog Input Mode:
- 16-bit ADC
- Voltage: -2.5-2.5V, 0-2.5V, 0-10V
- Current: 0-25mA, 100Ω R_{SENSE}
- RTD 2-wire measurement
- Resistance measurement 0-200KΩ
- Millivolt AC frequency counting, maximum 20KHz input frequency (available input, 1 only)

Analog Output Mode:
- 13-bit DAC
- 0-10V
- 0-25mA

Temperature Sensors:
- Max Count: 16 per UI/O, dependent on total cable length
- Type: Dallas Semiconductor DS18B20
- Temp Range: -67°F to 257°F (-55°C to 125°C)
- Accuracy: ±0.5C (-10°C to 85°C)

Preliminary Data Sheet

Relays (EDGE1 only)

Count: 2
Type: Form C
Max Current: 12A @ 125VAC, 12A @ 28VDC

Power

Range:
- 9-48VDC
- 9-60VDC with restrictions

PoE+:
- 11-48VDC
- 30W Type 2, Class 4
- IEEE 802.3af/at/bt

Serial Connections

Input: RS-485 or RS-232

Processor & Storage

Processor: Dual core, 240 MHz, 16 MB Flash, 16 MB RAM
Software:
- Real-Time OS based on Free RTOS
- Embedded JavaScript API

Storage:
- Internal Nonvolatile Flash
- SD Card Slot
- USB-A Drive

Safety

Electromagnetic Compliance:
- IEC CISPR 22
- CISPR 24
- EU EN55024
- EU EN55022
- FCC 47CFR15 (Class B)

Product Safety Compliance:
- IEC 61010-1

Networking

Ethernet: RJ45, Dual 10/100 Base-T Ports
Single Pair Ethernet: 802.3cg 10Base-T1L 10 Mbps
IP Config: IPV4 or IPV6, Static or DHCP
WiFi: 2.4 GHz (802.11b/g/n)
Bluetooth: BLE 5
Cellular Options: Cat1 or Cat4
LoRaWAN: Sensor & Mesh Communication

Expansion

Side Port: CAN 2.0B
Compatibility: Expansion modules (32 max)
Front Port: Ribbon cable, 10-conductor, polarized, 2×5-position, 0.100″ pitch
Compatibility: ControlByWeb Expansion Modules

Physical

Operating Temperature: -40°F to 150°F (-40°C to 65.5°C)
Size:
- EDGE1: W 2.25 in (57mm) x H 6.15 in (156mm) x D 3.50 in (86mm)
- EDGE: W 1.45 in (37mm) x H 6.15 in (156mm) x D 3.50 in (86mm)

Weight:
- EDGE1: 16.5 oz (468 g)
- EDGE: 10 oz (270 g)

Enclosure Material: Lexan 940 Polycarbonate Plastic
Enclosure Flame Rating: UL94 V0

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