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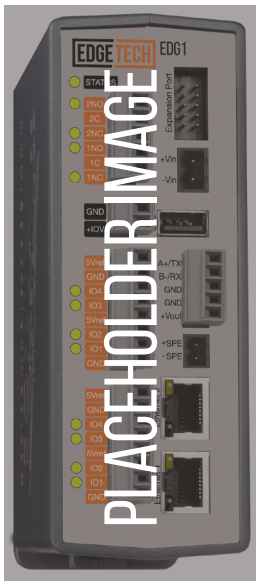


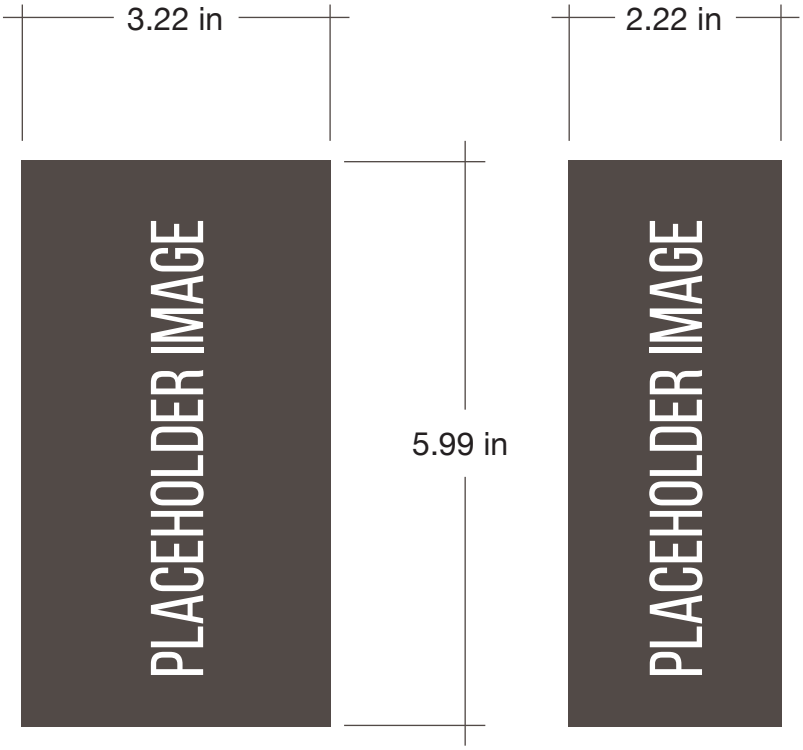

# EDG1 INDUSTRIAL LOGIC CONTROLLER

The EDG1 industrial controller by EdgeTech operates at the intersection of robust capability and streamlined browser-based usability. With high compatibility in mind, the EDG1 has flexible onboard I/Os 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. The EDG1 by EdgeTech is an incredibly flexible, capable IoT logic controller for any commercial or industrial data acquisition, control, and automation, including PID loops.

The advanced browser-based UI means there is no software to license or install. Instead, users program the device directly using their favorite web browser. The EDG1 bridges the gap between IoT edge control and PLC might, built on an open platform with extensive interoperability.

MQTT Modbus API BACnet IP EtherNet/IP PROFINET




## QUICK SPECS

- 8 Universal I/Os
- 2 SDPT Relays
- Modbus RS-485/232 Input
- Expansion Ports
- USB-A Drive for External Log Storage
- Single Pair Ethernet
- Dual Ethernet Jacks
- 0-48V and/or POE Type 2 Class 4
- Flexible Networking

  Ethernet, WiFI, Cellular
- Wireless Sensor/Device Monitoring

  BLE 5, LoRaWAN

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# TECHNICAL SPECIFICATIONS

## Universal I/Os

**Count**: 8
**Digital Input Mode**:
- Input Voltage Range: 0-48V
- 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 1A @ 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 (1 input) 0-20KHz input frequency

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

**1-Wire Mode**:
- Max Count: 16 per UI/O, denpendant on total cable length, network configuration
- Type: Dallas Semiconductor DS18B20
- Temp Range: -67°F to 257°F (-55°C to 125°C)
- Accuracy: ±0.5C (-10°C to 85°C)

## Relays

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

## Power

**Range**:
- 10-48VDC
- 10-60VDC with restrictions

**POE**:
- 11-48VDC
- 30W IEEE802.3bt
- Type 2, Class 4

## Serial Connections

**Input**: RS-485/232, Modbus/ BACNet/Profinet

## Processor & Storage

**Processor**: Dual core, 240 MHz, 32 MB Flash, 16 MB RAM
**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**: RJ54, Dual 10/100 Base-T Ports
**Single Pair Ethernet**: IEEE Std 802.3 -2022, 10 BASE-T1S
**IP Config**: IPV4 or IPV6, Static or DHCP
**WiFi**: 2.4 GHz (802.11b/g/n)
**Bluetooth**: BLE 5
**Cellular**: LTE-CatM, Cat1, or Cat4
**LoRaWAN**: Sensor & Mesh Communication

## Expansion

**Side Port**: CAN 2.0B
**Compatibility**: EDGX expansion modules
**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**:
- 2.22in (55mm) wide
- 3.22in (82mm) tall
- 5.9in (150mm) deep (not including connector)

**Weight**: ? oz (? g)
**Enclosure Material**: Lexan 940 Polycarbonate Plastic
**Enclosure Flame Rating**: UL94 V0