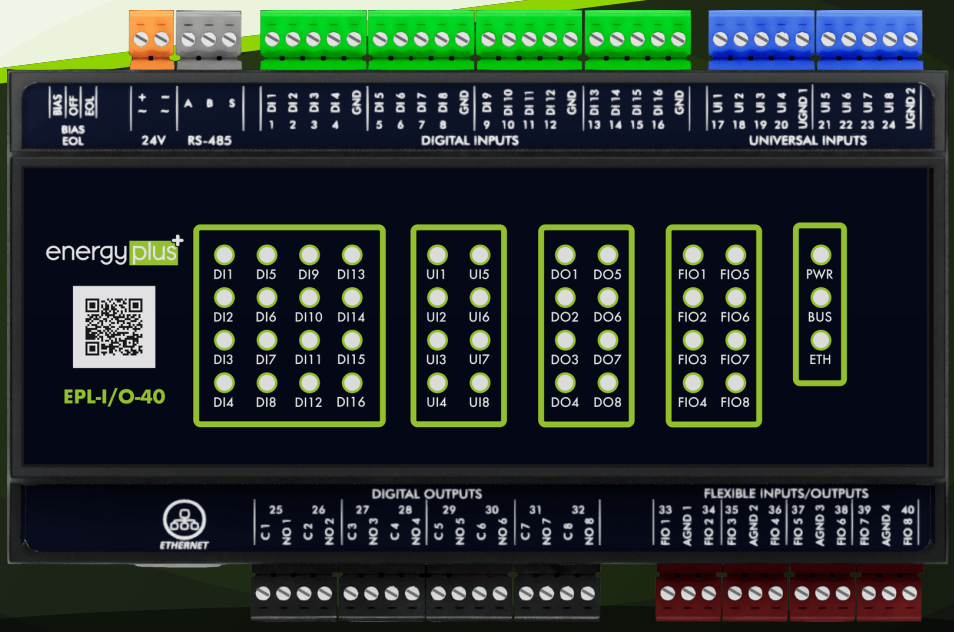
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EPL-I/O-40

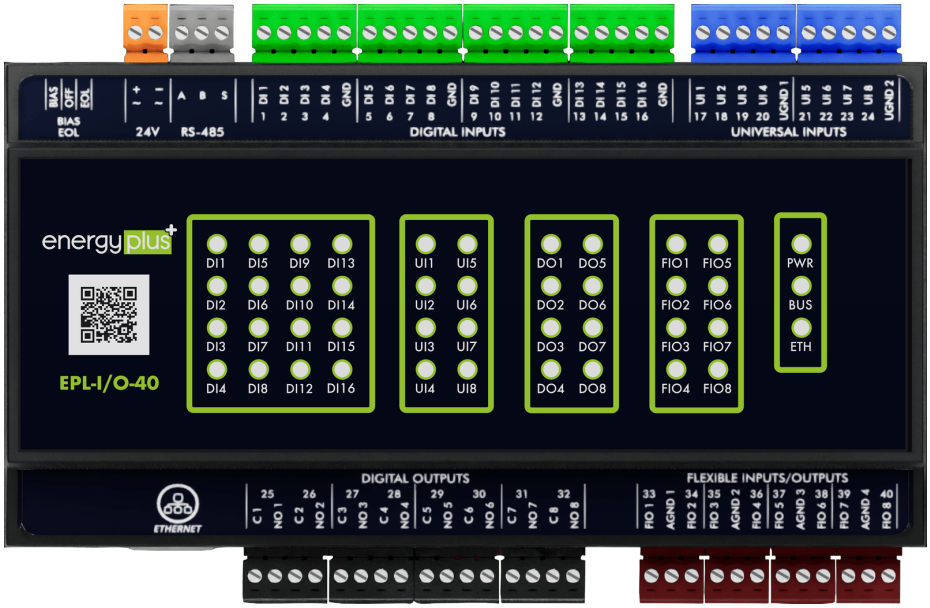
Product Brochure

Ethernet-based 40-point remote I/O and field protocol interface

Firmware V2.0.2 | October 2026



EPL-I/O-40 is a DIN-rail 40-point remote I/O module that carries field signals to the supervisory automation system through an orderly, traceable I/O surface.



Product Description

EPL-I/O-40 is a remote I/O module that carries field signals in the control cabinet to the supervisory automation system over Ethernet and RS-485. Digital inputs, relay outputs, universal inputs and FIO channels are combined in a single housing; channel settings are made in the field through the service interfaces.

The device is used with a fixed Modbus register map and BACnet object structure in projects that require fast integration into BMS and SCADA systems. Gateway and router functions, enabled with an optional license, provide protocol conversion between the field bus and the supervisory system.

I/O Capacity

Channel	Count	Use
DI	16	Dry contact or digital status monitoring; DI1..DI4 can be used for pulse counting.
DO	8	Relay output; drives contactors, alarms, fans, pumps or auxiliary field equipment.
UI	8	Voltage, current, digital contact and temperature sensor applications.
FIO	8	Flexible input/output (UO): configurable as analog output, digital output or digital input.

Communication

Interface	Use
Ethernet	Web interface, Modbus TCP, BACnet/IP and OTA software update.
RS-485	Modbus RTU or BACnet MS/TP field bus.
Modbus	I/O read/write through a fixed register map; TCP ↔ RTU gateway with an optional license.
BACnet	BACnet/IP or BACnet MS/TP object model; IP ↔ MS/TP router with an optional license (both networks simultaneously).
BLE	First commissioning in the field, channel and network settings, quick monitoring.

Commissioning

1. Complete the power supply, Ethernet, RS-485 and I/O connections.
2. Verify device access through web or BLE.
3. Set the channel modes, scaling values and communication-loss defaults.
4. Test the Modbus or BACnet addresses for the selected field protocol.
5. Verify live signals, counter values and output responses from the supervisory system.

Technical Specifications

Specification	Value
Local I/O capacity	16 DI (DI1..DI4 counter inputs), 8 UI, 8 DO relay outputs, 8 FIO (flexible input/output)
UI measurement resolution	22 bit
Communication interfaces	1 × Ethernet RJ45 (10/100 Mbit/s), 1 × RS-485, Bluetooth LE (service and commissioning)
BACnet vendor ID	1600 (registered with ASHRAE)
Supply voltage	24 Vac ±20% or 21..30 Vdc
Nominal power consumption	5 VA
Supply class	Class 2
Protection and temperature class	IP20 enclosure protection, T50 operating class
Operating environment	0..50 °C, 5..95% relative humidity (non-condensing)
Storage environment	-20..70 °C, 5..95% relative humidity (non-condensing)
DO relay output rating	5 A @ 277 Vac or 3 A @ 30 Vdc, resistive load
FIO analog output range	0..10 V or 2..10 V selectable; maximum load current 20 mA per channel
Mounting	DIN rail (EN 60715, 35 mm), cabinet mounting
Enclosure dimensions (width × height × depth)	175 mm × 112 mm × 60 mm

Application Areas

Area	Use
Building automation	AHU, fan coil, pump, boiler, chiller and mechanical cabinet signals.
Retrofit projects	Adding field I/O points to an existing Modbus or BACnet system.
Energy and alarm monitoring	Meter pulse data, alarm contacts, run/stop states.
Field output control	Auxiliary equipment control with relay outputs and analog actuator commands.
Service and maintenance	Easy field maintenance with the web interface, BLE and OTA software update.

Handover Documents

For projects, use the datasheet, user manual, Modbus/BACnet reference appendix, wiring diagrams and mechanical dimension drawings together.

Company Information

Item	Information
Brand	EnergyPlus
Product website	www.energyplusstore.com