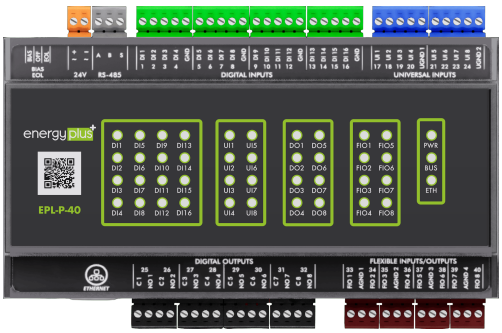
EPL-P-40: Datasheet

DS-EPL-P-40-EN | Rev. 1.0 | October 2026 | Firmware V2.0.3

Sedona-based application controller and field I/O platform

EPL-P-40 is a Sedona-based application controller that runs the control logic on the device. Point-based control, local I/O, field communication, service interfaces and application management are combined in a single housing.



Key Features

- 40 physical points: 16 DI (DI1..DI4 counter), 8 UI, 8 DO relay, 8 FIO
- Sedona control application running on the device
- Modbus TCP/RTU master and slave, BACnet/IP, BACnet MS/TP and MQTT
- BACnet router with an optional license: BACnet/IP and MS/TP simultaneously, with routing between them
- Live programming with EnergyPlus Workbench and EnergyPlus Niagara modules
- Local web interface in six languages, mobile commissioning over BLE
- Hardware real-time clock (RTC), DIN rail mounting

Typical Applications

- AHU, pump, boiler and chiller sequence control
- Energy management, alarm and status monitoring
- Cabinet applications that require schedules and field logic
- Controller stations that communicate with field devices and supervisory systems over Modbus, BACnet or MQTT

I/O Structure

Channel	Count	Point no.	Function
DI	16	1..16	Digital input, direct or reverse; DI1..DI4 can also be used as counter/pulse inputs.
UI	8	17..24	0-10 V, 2-10 V, 0-20 mA, 4-20 mA, digital contact, NTC (seven types), PT1000, NI1000, resistance.
DO	8	25..32	Relay output, direct or reverse.
FIO	8	33..40	Flexible input/output: 0-10 V / 2-10 V analog output, digital output or digital input.

Mode, min, max and offset are set for each channel (0.1 step, -3276.8 .. 3276.7 range). Open circuit, short circuit and out-of-range signals are detected on sensors; the fault appears as FAULT on the related Sedona component.

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

Specification	Value
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

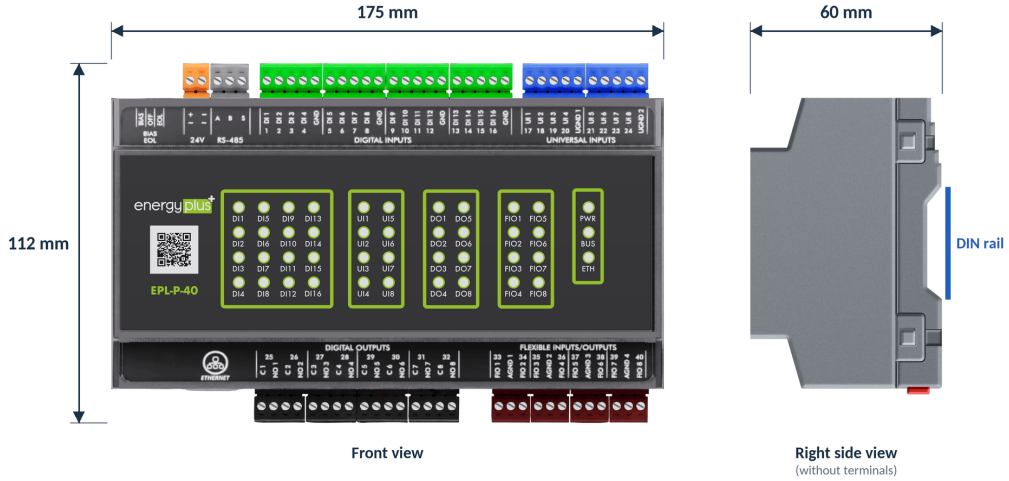
Communication

Field communication is provided by communication kits added to the Sedona application. The controller has no fixed register table or BACnet object list; the address and object structure are defined by the project application.

Function	Default	Description
Modbus TCP master	target port 502	Reads from and writes to Modbus TCP devices on Ethernet.
Modbus RTU master	RS-485, 9600 8N1	Reads from and writes to Modbus RTU devices on the RS-485 line.
Modbus slave	RTU (RS-485) and TCP port 502	Serves application data to the supervisory system over Modbus.
BACnet/IP	UDP 47808	Serves BACnet objects and communicates with remote BACnet devices.
BACnet MS/TP	RS-485, 38400 baud	BACnet MS/TP communication on the RS-485 line.
BACnet router	optional license	BACnet/IP and BACnet MS/TP run simultaneously; the device routes between the two networks.
MQTT	broker port 1883	MQTT broker connection; optional TLS.

Programming and Service

Item	Value
Programming	Live Sedona wiresheet programming over SOX with EnergyPlus Workbench; direct device connection or station driver integration in Niagara N4 with EnergyPlus Niagara modules.
Service interfaces	Web (HTTP, port 80, six languages), BLE, SOX/DASP (UDP 1876)
Application management	Application Manager and Backup/Restore Tool; software update from the web interface
Sedona kits	Platform and I/O (EplP40Platform, EplP40_IO); logic, control, math, schedule and timer blocks; Modbus, BACnet, MQTT and serial communication kits
License	Local I/O, Modbus (TCP/RTU master, Modbus TCP gateway and slave) and BACnet components run with the device license; the BACnet IP ↔ MS/TP router is an optional add-on license feature. Register components, MQTT, serial communication, schedules and logic blocks require no license.



Overall dimensions (W x H x D): 175 x 112 x 60 mm, plugged terminals included. DIN rail, in-cabinet mounting; IP20.

Figure 1. Mechanical dimensions

Ordering Information

Model	Order code	Description
EPL-P-40	EPL-P-40	Sedona-based application controller; 16 DI, 8 UI, 8 DO, 8 FIO; Ethernet, RS-485, BLE; 24 Vac / 21..30 Vdc; DIN rail

Document Package

Datasheet, User Manual, Quick Start Guide, Wiring and Mounting Reference, Workbench Programming and Service Guide, Niagara Driver, Programming and Integration Guide, Product Brochure.

Company Information

Item	Information
Brand	EnergyPlus
Legal name	EnergyPlus Teknoloji İmalat İthalat ve İhracat Sanayi A.Ş.
Product website	www.energyplusstore.com

The information in this document is subject to change without notice. EnergyPlus reserves the right to change technical specifications as part of ongoing product development. Refer to the product user manual for installation, wiring and service details. Document: DS-EPL-P-40-EN, revision 1.0, October 2026.