www.optergy.com
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44E (DC-159)

Optergy
Edge



44E Expansion Module

Installation Guide

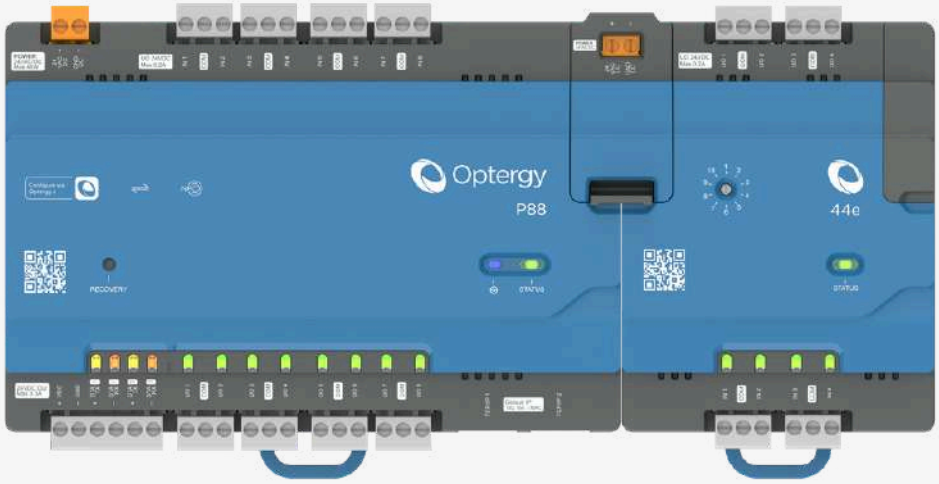
The 44E expansion module extends the P88 with additional I/O over a high-speed CAN bus. Improved electrical protection and robust, modern hardware ensure reliable performance across the largest plant and AHU applications—the perfect companion to Optergy's most powerful programmable controller.

44E Installation

The 44E is an expansion module used to expand the IO count of a P88 controller to a maximum of 10 modules or 96 IO (48 Inputs and 48 Outputs)

Use the single MAC switch located on the front panel to select unit 1-10, each 44E must be a unique MAC for the same P88 device.

Expansion Clip

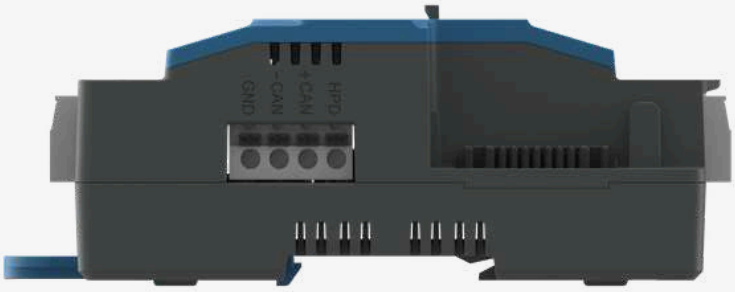


P88 Controller ***44e (Expansion IO Module)***

There are two methods of connecting the 44E expansion module.

Option 1 - using the included Expansion Clip which connects power and comms through an inline bus to the next module.

Option2 - using the side mounted terminals

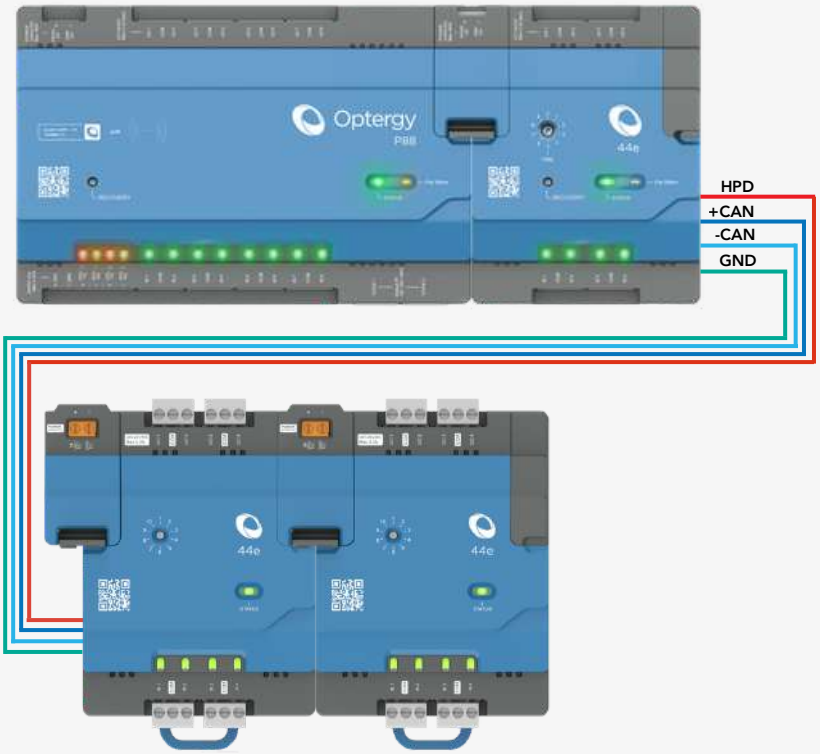


44E Installation

Typical installation onto the same Din Rail mount includes powering the P88 and then ultilizing the adpater plugs to seamlessly connect each unit.

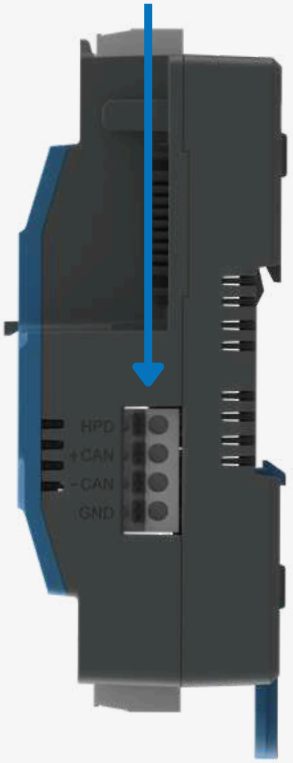


Non-adapter style wiring installation is also supported using the separate power and comms wiring location on the side of the unit.



Cabling requirements

- Use shielded twisted-pair cable with a nominal characteristic impedance of 120 Ω
- AWG 24-20 (0.25-0.5mm) recommended.



Wiring Diagrams & Product Label

Wiring

All terminals are labeled on the cover.

Power

44E Power is powered the orange terminal on the adapter plug either directly or through an inline bus from the P88 or another 44E device.

- 24 VAC ½ wave (grounded secondary)
- 12-24VDC Power Supply



Universal Input's / Output's

Universal Inputs

The 44E has 4 Universal inputs that are capable of being switched between Dry Contact, Raw Resistance, Pulse Count, 3K, 10K Type 2, 0-10V and 4-20mA types of inputs.



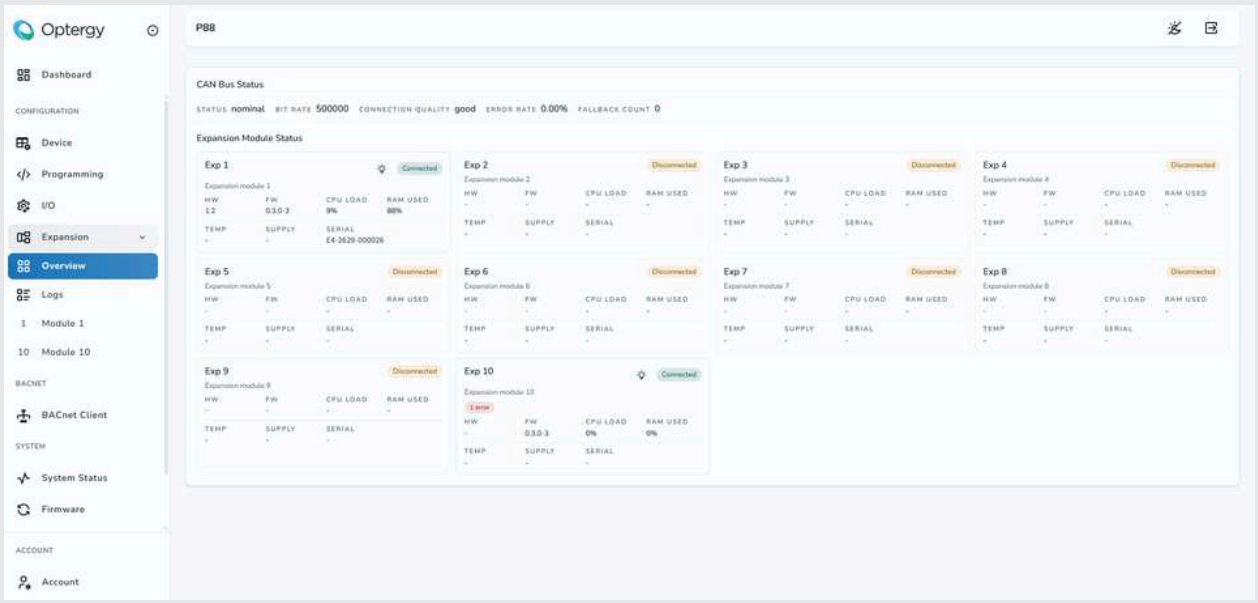
Universal Outputs

The 44E has 4 Universal outputs rather than separated Analog and Binary Outputs, they are capable of being switched between 24VDC Triac's, 0-10VDC variable outputs and 4-20mA variable outputs.

P88 Web User Interface

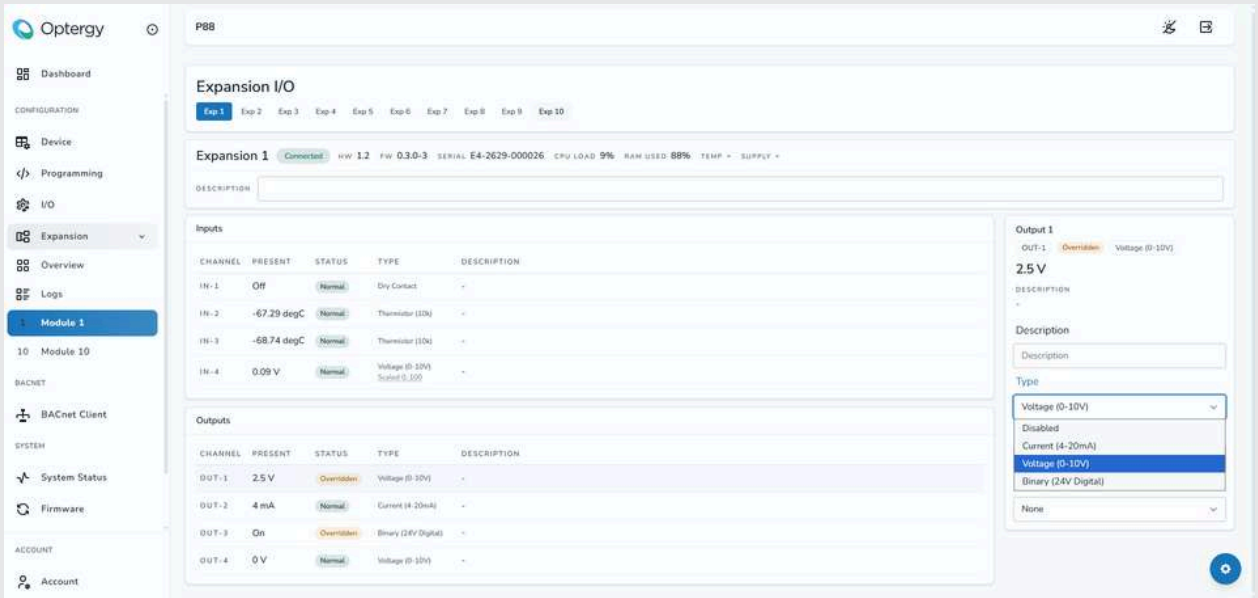
Expansion Menu

The Expansion menu provides an overview of which expansion modules are connected, as well as their health, version and serial number, clicking on any expansion takes you to the specific page for that module

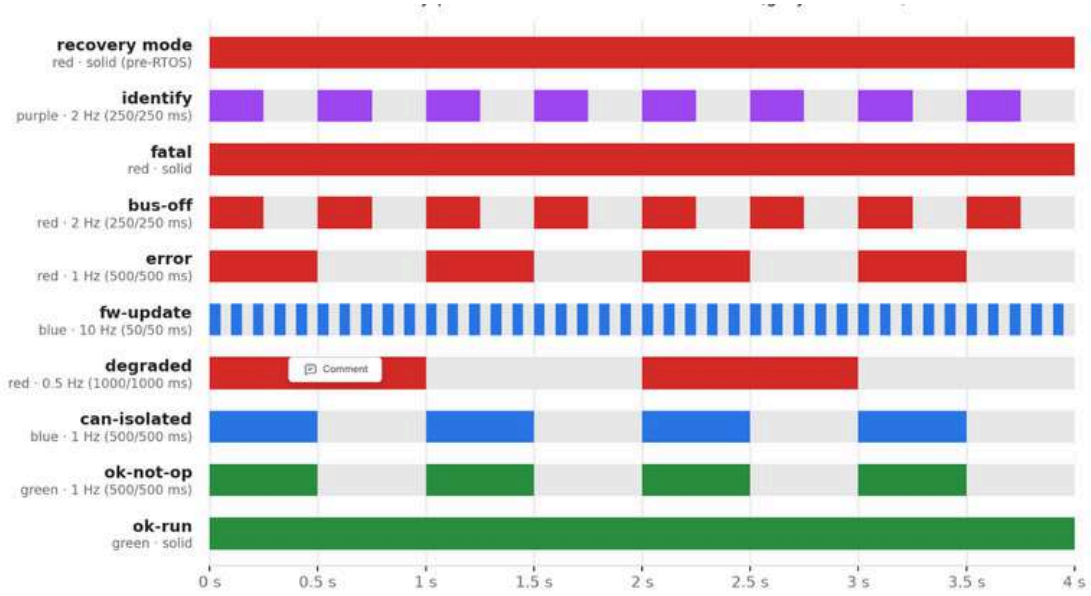


Module 1-10

Individual Module pages appear depending on the number of modules connected, there status and the ability to configure the different IO configuration is available here or through your DDC Program



Status LED


recovery mode
red · solid (pre-RTOS)
identify
purple · 2 Hz (250/250 ms)
fatal
red · solid
bus-off
red · 2 Hz (250/250 ms)
error
red · 1 Hz (500/500 ms)
fw-update
blue · 10 Hz (50/50 ms)
degraded
red · 0.5 Hz (1000/1000 ms)
Comment
can-isolated
blue · 1 Hz (500/500 ms)
ok-not-op
green · 1 Hz (500/500 ms)
ok-run
green · solid
0 s
0.5 s
1 s
1.5 s
2 s
2.5 s
3 s
3.5 s
4 s


UO 24VDC
Max 0.2A
UO 1
COM
UO 2
UO 3
COM
UO 4
44e
STATUS
IN 1
COM
IN 2
IN 3
COM
IN 4