

Zentro Expand

Installation Guide

Part number ZN-EXPAND-001 · Document number ZT-IG-EXPAND-001-EN

SAFETY

WARNING

Disconnect the supply before any wiring work. Working on a live circuit risks personal injury and irreversible damage to the unit.

CAUTION

A line terminator fitted at more than two points will load the line and degrade communication.

NOTE

Add external protection to every inductive load — an RC circuit, a varistor or a diode.

MECHANICAL INSTALLATION

Mounting	35 mm DIN rail, holder included
Mounting orientation	Horizontal
Operating temperature	0 ... +55 °C
Humidity	10 – 95 %, non-condensing
Ingress protection	IP 20

Installation sequence

1. Ensure the supply is disconnected before any work.
2. Set the Modbus address and communication parameters on the DIP switches.
3. Clip the module onto a 35 mm DIN rail in the horizontal position.
4. Connect the digital inputs to the DI terminals and to the DIGND terminal shared by each group.
5. Connect the relay outputs to the RO terminals and to the COM terminals.
6. Add external protection to every inductive load — an RC circuit, a varistor, a diode or a thermistor.
7. Connect the RS-485 line to the A and B terminals, and fit a line terminator at the ends of the line only.
8. Connect the 24 V DC supply, conductor cross-section up to 2.5 mm².

Removal from the DIN rail

Disconnect the supply and every field cable, release the DIN rail clip with a flat screwdriver, pull the bottom of the unit outwards and lift it off the rail.

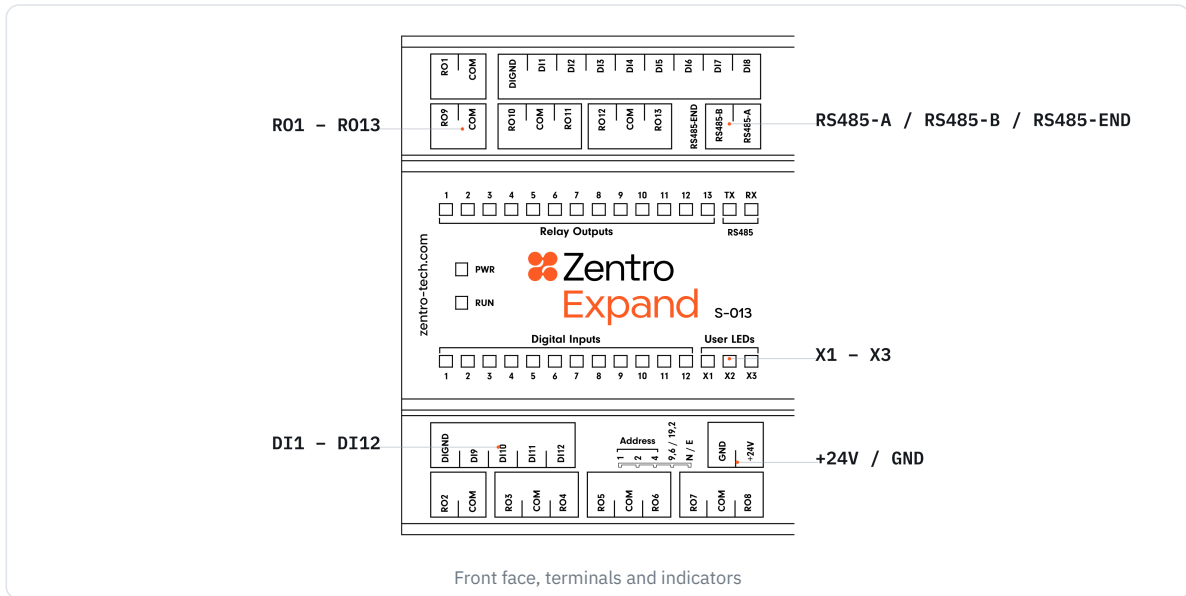
CONNECTING THE SUPPLY

Supply voltage	24 V DC (SELV)
Maximum power consumption	11 W
Reverse polarity protection	Yes
Conductor cross-section	Up to 2.5 mm ²

CONNECTING THE RS-485 LINE

RS-485 channels	1
RS-485 galvanic isolation	Yes
Biasing resistors	None
Line terminator	Built-in, attachable, 120 Ω
Modbus defaults	Address 15 · 19 200 bps · 8 bits · no parity · 5 ms debounce · MasterWatchdog off, 5 s timeout
Hardware configuration	DIP switches

TERMINALS AND CONNECTORS



DI1 – DI12	SINK-type digital inputs – common DIGND
R01 – R013	Relay outputs – common COM
RS485-A / RS485-B / RS485-END	Modbus RTU serial line
+24V / GND	Supply
X1 – X3	User indicators