

Zentro Core L-028

Installation Guide

Part number ZN-COREL-001 · Document number ZT-IG-CORE-L028-001-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 (EN 50022) inside a closed distribution enclosure, holder included
Mounting orientation	Vertical
Ventilation clearance	Minimum 80 mm between the unit and the enclosure walls where there is no forced ventilation
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. Fit the DIN rail holder if it is not already installed, metal spring at the top.
3. Clip the controller onto the 35 mm DIN rail in the vertical position, spring side first.
4. Leave at least 80 mm between the controller and the enclosure walls where there is no forced ventilation.
5. Connect an earth conductor to the marked point on the enclosure using a cable lug and an M4 screw, and confirm the DIN rail is earthed.
6. Connect the 24 V DC supply: positive to +24V, negative to GND.
7. Connect the digital inputs of all three sections to the DI terminals and to the shared DIGND terminals.
8. Connect the relay outputs of sections 2 and 3 to the RO and COM terminals.
9. Connect the RS-485 line to the A and B terminals, and fit a line terminator at the two ends of the line only.
10. Connect 1-Wire sensors to the RJ45 connector, up to 15 sensors per channel.
11. Tighten the terminals to no more than 0.4 N·m.

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.

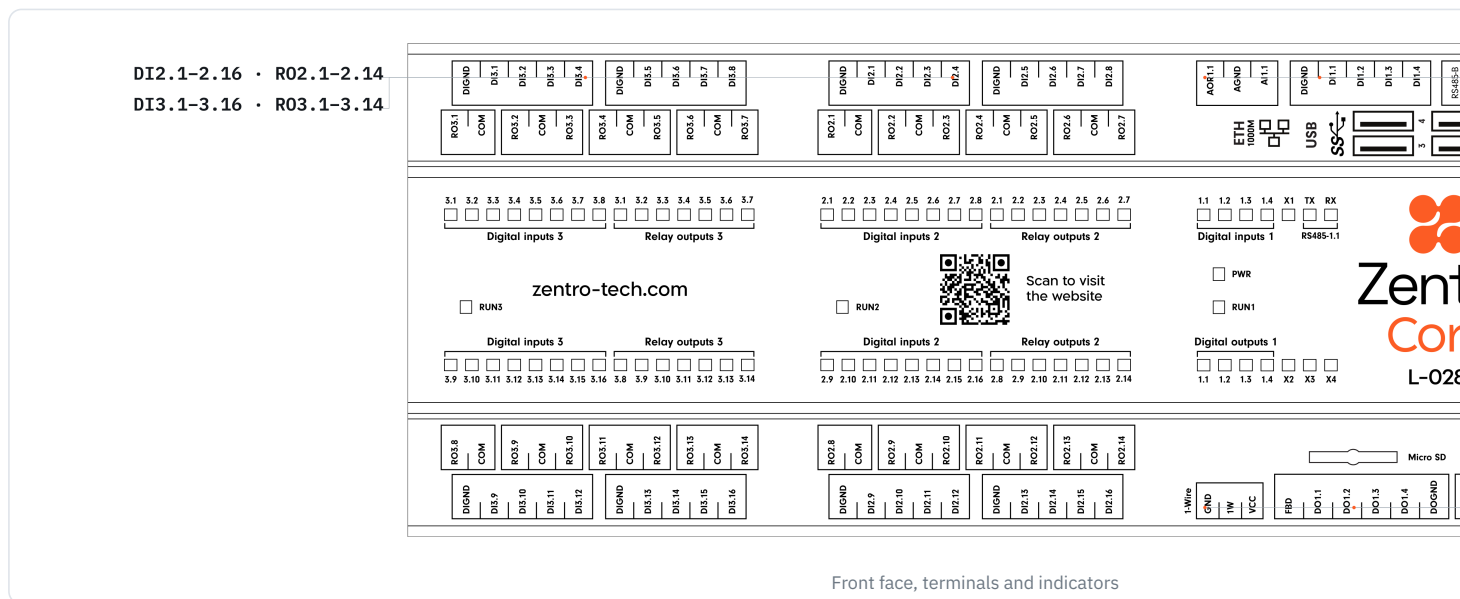
CONNECTING THE SUPPLY

Supply voltage	24 V DC (SELV)
Maximum power consumption	17 W
Reverse polarity protection	Yes
Conductor cross-section	Up to 2.5 mm ²
Tightening torque	Max 0.4 N·m
Earthing	Required · Class I equipment · cable lug and M4 screw · the DIN rail must also be earthed

CONNECTING THE RS-485 LINE

RS-485 channels	1
RS-485 galvanic isolation	Yes
Biasing resistors	560 Ω
1-Wire	One bus · RJ45 connector · Vcc 5 V, up to 50 mA · up to 15 sensors per channel
Ethernet	1 × 1 Gbit

TERMINALS AND CONNECTORS



DI1.1–1.4 · DO1.1–1.4 · AI1.1 · Inputs, outputs and communication — commons DIGND / DOGND / AGND
A01.1 · RS485 · 1-Wire

DI2.1–2.16 · R02.1–2.14 Digital inputs and relays, section 2 — commons DIGND / COM

DI3.1–3.16 · R03.1–3.14 Digital inputs and relays, section 3 — commons DIGND / COM