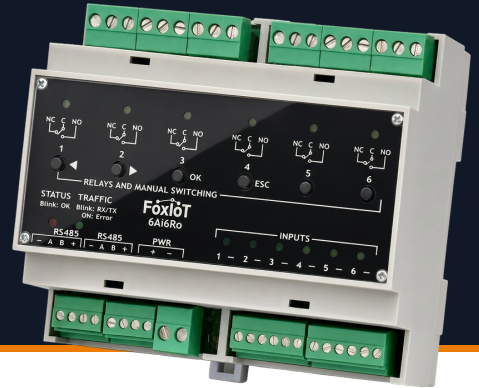


RTU CONTROLLER · MODBUS RTU

6Ai6Ro

6 universal inputs · 6 relays — one Modbus RTU controller for sensing and switching.



SUPPLY

11–30 V DC

FIELD BUS

RS-485 Modbus RTU

TEMP RANGE

–40 ... +55 °C

MOUNTING

DIN-rail 6M

MULTIFUNCTION SENSING

Inputs x6

Digital · 0–10 V · 4–20 mA · NTC

Pick each input's mode in software, not at the terminals. 16-bit, ±0.1%.

POWER SWITCHING

Relays x6

16 A @ 250 V AC · Omron

6× SPDT. Drive heaters, contactors, pumps — 20 M operations.

STANDALONE AUTOMATION

Rules x8

8 rules run offline

A built-in rule engine switches relays on local logic — control stays alive if the master drops.

WHERE IT SITS

FIELD

Sensors · Actuators



RTU CONTROLLER

6Ai6Ro

8 standalone rules · runs offline



FIELD BUS

RS-485 · Modbus RTU



MASTER

Gateway · PLC · SCADA

Built for **HVAC, building automation, and remote sites** — 8 standalone rules keep relays running when the master is offline.

COMPLIANCE CE | RoHS | WEEE

Made in EU · 3-year warranty · in-field firmware updates

Request an evaluation unit

Evaluation units and volume pricing for engineers and integrators across the EU.

hello@foxiot.eu

INPUTS · SENSING

Channels	6 universal inputs
Modes	Digital · 0–10 V · 4–20 mA · NTC 10k (β 3435 / 3977)
Resolution	16-bit · $\pm 0.1\%$ (or ± 3 mV) · >100 Hz
Impedance	>5 M Ω · pull-up 10 k Ω @ 10 V (per input)
Max voltage	30 V DC · debounce 50 ms

- ✓ **Four modes per port.** Reconfigure in software — no rewiring.

MECHANICAL & ENVIRONMENTAL

Dimensions	106 × 90 × 58 mm · 265 g
Mounting	DIN-rail (TH35) · 6M
RS-485	1–247 addr · 300–115200 bps · 8N1/8N2/8E1/8O1 · ± 30 V · ± 16 kV ESD · fail-safe receiver · no built-in termination
Power	11–30 V DC · 0.35 W idle · 3 W max · reverse-protected
Operating temp.	–40 ... +55 °C
Storage temp.	–40 ... +60 °C
Humidity	<90 % non-condensing

ORDERING INFORMATION

ITEM	ORDER CODE	DESCRIPTION
6Ai6Ro	RTU-6AI6R0-R1	6 universal inputs · 6 relays · RS-485 Modbus RTU
DIN-rail PSU	ACC-PSU-24D	24 V DC · 1.5 A (30 W)

FULL MANUAL

foxiot.eu/downloads/FoxIoT-6Ai6Ro-Product-Manual-v1_0.pdf



WIRING INSTRUCTIONS

foxiot.eu/downloads/FoxIoT-6Ai6Ro-Wiring-Instructions-v1_0.pdf



MODBUS REGISTER MAP

foxiot.eu/downloads/FoxIoT-6Ai6Ro-Modbus-RTU-Registers-v1_0.pdf



PRODUCT PAGE

foxiot.eu/products/rtu-controllers/6ai6ro



RELAYS · SWITCHING

Relays	6× SPDT (NC·C·NO) · 16 A @ 250 V AC / 30 V DC
Coil control	Software coil voltage reduction · reduces idle power and heat
Contact life	20 M mechanical · 30k @ 16 A · 200k @ 8 A (cos ϕ 0.4)
Front panel	6 buttons — manual relay switching + on-site configuration
Rule engine	8 standalone rules · thermostat · switch logic · safe fallback

- ✓ **Sense and switch.** Read inputs, run local rules, switch relays — one unit.

