

Smartive IO Expander

Installation, marking and production final test

SM-IO-EXP-IFU-LABEL-PFT-EN-001 | Issue 1.0 | 2026-06-23 | Final

Installation and Safety Instructions

- The product is a 16-channel, 5 V Smartive input expander module.
- Install only inside a closed control cabinet or protected low-voltage installation environment with Smartive-compatible wiring.
- Inputs may be connected only to max. 5 V SELV/dry-contact signals. 230 VAC, mains voltage, 24 V industrial input or other hazardous voltage is prohibited.
- The module operates from 5 VDC SELV and may be connected only to a Smartive system in the same supply and GND domain.
- Before installation or rewiring, disconnect the 5 V supply of the Smartive system.

Rating Label and Marking

Smartive IO Expander
Model: Input Module Rev. 1.0 | Code: SM-IO-EXP
Supply: 5 VDC SELV
Inputs: 16 x low-voltage input, max. 5 V SELV only
No mains / no 24 V industrial input / no hazardous voltage
RJ45 extender: Smartive-compatible SELV wiring only
Apptive Kft, 9932 Viszák, Fő út 56, Hungary
CE WEEE

Field	Content
Product	Smartive IO Expander
Model	Input Module Rev. 1.0 / SM-IO-EXP
Supply	5 VDC SELV
Inputs	16 x low-voltage input; max. 5 V SELV / dry contact.
Prohibited connection	No 230 VAC, no 24 V industrial input, no hazardous voltage.
RJ45 extender	Smartive-compatible SELV wiring only.
CE/RoHS/WEEE	CE marking; RoHS release documentation; WEEE marking according to applicable placing-on-market obligation.

Production Final Test

Step	Method	Acceptance	Result
Visual inspection	Check PCB, terminals, RJ45 ports, header, soldering and label.	No damage, suspected solder bridge or incorrect marking.	Pass
5 V supply	Start from rated 5 VDC SELV supply and record current draw.	Stable operation without overheating.	Pass
I2C / MCP23017	Identify MCP23017 and read both banks.	Address and banks operate correctly.	Pass
16 inputs	Toggle each input separately to open/closed state with a test fixture.	Each input state is reported correctly.	Pass
RJ45 extender	Documented pinout and communication check.	Supply/GND/I2C assignment and communication are correct.	Pass
Document/label	Check max. 5 V SELV and non-mains-voltage use boundary.	Warning is present on label and accompanying document.	Pass