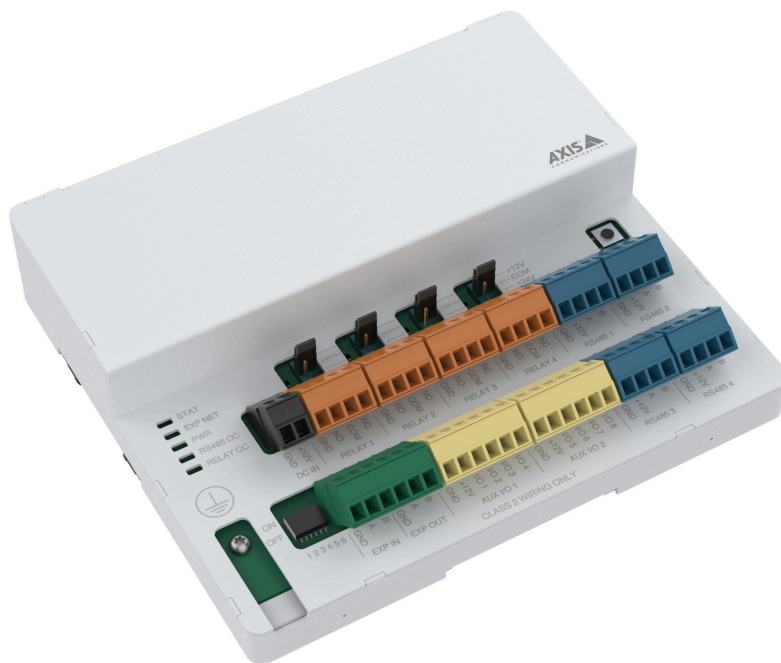


# AXIS A9910 I/O Relay Expansion Module

## Expand I/Os with increased flexibility

Enjoy even more I/O functionality with AXIS A9910 I/O Relay Expansion Module. Featuring multi-drop technology, it's possible to connect up to 16 of these expansion modules to one AXIS A9210 device. 128 I/Os and 64 relays using just one PoE cable—no need for an extra network cable drop. This ensures a cost-effective installation and saves you time and effort. Plus, Modbus sensor ports let you integrate environmental sensors such as temperature and humidity sensors.

- > 8 I/O ports with supervised inputs
- > 4 form C relay, wet or dry
- > 4 Modbus sensor ports
- > Supports up to 128 I/Os and 64 relays with one IP connection



# AXIS A9910 I/O Relay Expansion Module

## I/O interface

**Configurable I/Os** I/O: 8x I/O, configurable inputs or outputs  
**Digital input:** 0 to max 30 V DC, possible to supervise between 0–12 V (4 states)<sup>a</sup>  
 Programmable end-of-line resistors, 1 K, 2.2 K, 4.7 K and 10 K, 1%, ¼ watt standard  
**Digital output:** Open drain, 0 to max 30 V DC, max 100 mA  
**Power out I/O:** 2x 12 V DC output, combined total max 100 mA

**Relays** 4x form C relay, NO/NC, max 4 A, 30 V DC  
**Power out relay:** 12/24 V DC, jumper configurable, max 49.6 W  
 With DC in: combined total max 4 A at 12 V DC, combined total max 2 A at 24 V DC, max 49.6 W

**RS485** 4x port, half duplex, Modbus<sup>f</sup>  
**Power out RS485:** 4x 12 V DC output, combined total max 2 A

## Expansion interface

Expansion IN and Expansion Out interface, multi-drop, qualified up to 16 expansion modules<sup>b</sup>

## Power

Power in: 12–24 V DC, max 90 W

## Cable requirements

Wire size for connectors: CSA: AWG 28–16, CUL/UL: AWG 30–14  
 DC power: AWG 18–16, qualified for up to 3 m (10 ft)  
 Relay: AWG 18–16, qualified for up to 200 m (656 ft)  
 I/Os as inputs: AWG 24, qualified for up to 200 m (656 ft)  
 RS485 data: 1 twisted pair with shield connected to the protected ground, 120 ohm impedance, qualified for up to 1000 m (3281 ft)  
 RS485 powered by device: AWG 20–16, qualified for up to 200 m (656 ft)<sup>c</sup>

## System integration

**Video management systems** Compatible with AXIS Camera Station, video management software from Axis' Application Development Partners available at [axis.com/vms](http://axis.com/vms)

**Tamper detection** Tilting, vibration

## Approvals

**Product markings** CE, RCM, UKCA, UL/cUL, VCCI, WEEE

**Supply chain** TAA compliant

**EMC** CISPR 35, CISPR 32 Class A, EN 55032 Class A, EN 55035, EN 50130-4<sup>d</sup>, EN 61000-6-1, EN 61000-6-2  
 Australia/New Zealand: RCM AS/NZS CISPR 32 Class A  
 Canada: ICES-3(A)/NMB-3(A)  
 Japan: VCCI Class A  
 Korea: KS C 9835, KS C 9832 Class A  
 USA: FCC Part 15 Subpart B Class A

**Safety** CAN/CSA C22.2 No. 62368-1 ed. 3/IEC/EN/UL 62368-1 ed. 3, RCM AS/NZS 62368.1:2022, UL 2043, UL 294

**Environment** IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6, IEC 60068-2-14, IEC 60068-2-27, IEC 60068-2-78

## Cybersecurity

**Edge security** Software: Signed firmware  
 Hardware: Secure element (CC EAL 6+), secure keystore, secure boot

**Communication** AES-128

**Documentation** Axis Vulnerability Management Policy  
 Axis Security Development Model  
 To download documents, go to [axis.com/support/cybersecurity/resources](http://axis.com/support/cybersecurity/resources)

To read more about Axis cybersecurity support, go to [axis.com/cybersecurity](http://axis.com/cybersecurity)

## General

**Casing** Steel  
 Color: white NCS S 1002-B

**Mounting** Wall mount  
 DIN rail mount

**Connectors** I/O: Terminal blocks for DC power, inputs/outputs, relay. Detachable and color coded connectors for ease of installation. Wire size for connectors: CSA: AWG 28–16, CUL/UL: AWG 30–14

**Operating conditions** Temperature: –40 °C to 55 °C (–40 °F to 131 °F)  
 Conditional maximum temperature<sup>e</sup>: 70 °C (158 °F)  
 Humidity: 10–85% RH (non-condensing)

**Storage conditions** Temperature: –40 °C to 70 °C (–40 °F to 158 °F)  
 Humidity: 5–95% RH (non-condensing)

**Dimensions** For the overall product dimensions, see the dimension drawing in this datasheet.

**Weight** 585 g (1.3 lb)

**Box content** Expansion module, installation guide, connector kit (mounted), grounding kit

**Optional accessories** AXIS TA1901 DIN Rail Clip  
 AXIS TA1902 Access Control Connector Kit<sup>f</sup>  
 AXIS T98A15-VE Surveillance Cabinet<sup>f</sup>  
 AXIS TQ1808-VE Surveillance Cabinet<sup>f</sup>  
 AXIS TA9001 Wall Mount Bracket  
 AXIS TA9901 Cable Strain Relief  
 AXIS T8008 PS12<sup>f</sup>  
 AXIS T8008 PS24<sup>f</sup>  
 For more accessories, go to [axis.com/products/axis-a9910](http://axis.com/products/axis-a9910)

**System tools** AXIS Site Designer, AXIS Device Manager, product selector, accessory selector  
 Available at [axis.com](http://axis.com)

**Languages** English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Portuguese, Polish, Traditional Chinese, Dutch, Czech, Swedish, Finnish, Turkish, Thai, Vietnamese

**Warranty** 5-year warranty, see [axis.com/warranty](http://axis.com/warranty)

**Part numbers** Available at [axis.com/products/axis-a9910#part-numbers](http://axis.com/products/axis-a9910#part-numbers)

## Sustainability

**Substance control** PVC free  
 RoHS in accordance with EU RoHS Directive 2011/65/EU and EN 63000:2018  
 REACH in accordance with (EC) No 1907/2006. For SCIP UUID, see [echa.europa.eu](http://echa.europa.eu)

**Materials** Screened for conflict minerals in accordance with OECD guidelines  
 To read more about sustainability at Axis, go to [axis.com/about-axis/sustainability](http://axis.com/about-axis/sustainability)

**Environmental responsibility** [axis.com/environmental-responsibility](http://axis.com/environmental-responsibility)  
 Axis Communications is a signatory of the UN Global Compact, read more at [unglobalcompact.org](http://unglobalcompact.org)

a. For more information, go to [help.axis.com/axis-a9910](http://help.axis.com/axis-a9910)

b. For more information, see the installation guide.

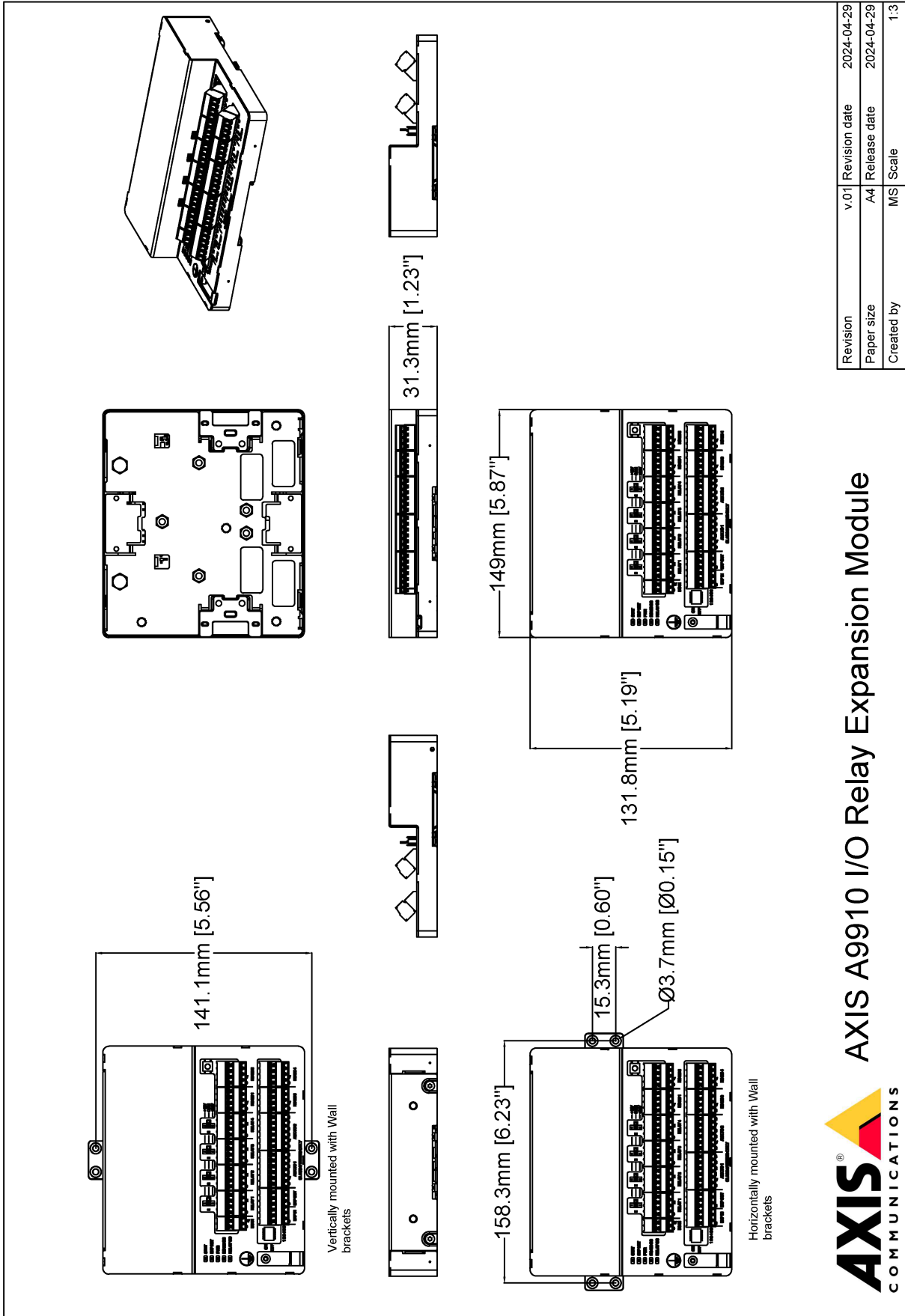
c. Depending on the peripheral device's voltage and current input range.

d. Except for pin +12V on connector AUX I/O 1 and AUX I/O 2

e. The lock(s) should be externally powered. Onboard RS485 power with max 2 A at 12 V DC.

f. Not intended for UL 294

# Dimension drawing



## AXIS A9910 I/O Relay Expansion Module



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