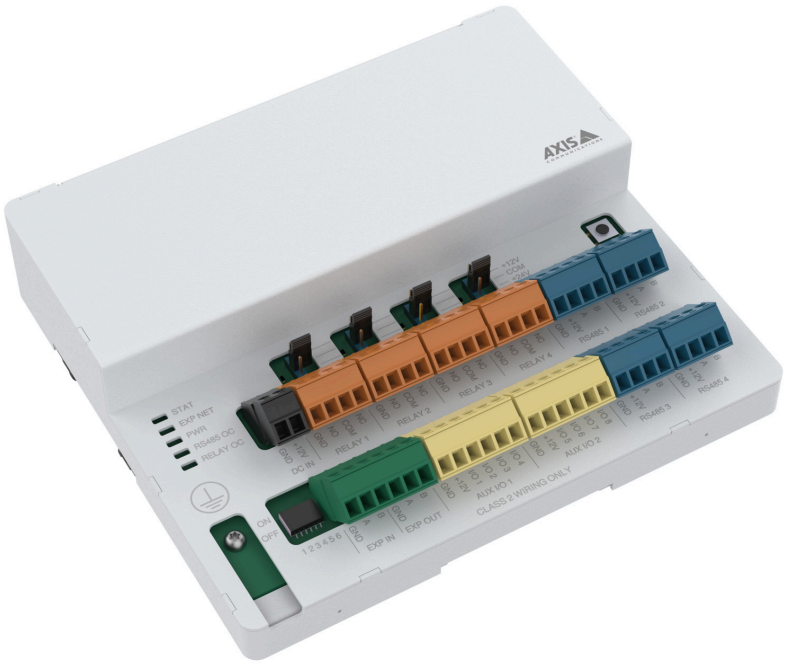
AXIS A9910 I/O Relay Expansion Module

Expand I/Os with increased flexibilty

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



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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)[1]
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[6]
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[2]

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)[3]

System integration

Video management systems
Compatible with AXIS Camera Station, video management software from Axis' Application Development Partners available at *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[4], 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

1. *For more information, go to help.axis.com/axis-a9910*
2. *For more information, see the installation guide.*
3. *Depending on the peripheral device's voltage and current input range.*
4. *Except for pin +12V on connector AUX I/O 1 and AUX I/O 2*

Documentation
Axis Vulnerability Management Policy
Axis Security Development Model
To download documents, go to *axis.com/support/cybersecurity/resources*
To read more about Axis cybersecurity support, go to *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[5]: 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[6]
AXIS T98A15-VE Surveillance Cabinet[6]
AXIS TQ1808-VE Surveillance Cabinet[6]
AXIS TA9001 Wall Mount Bracket
AXIS TA9901 Cable Strain Relief
For more accessories, go to *axis.com/products/axis-a9910*

System tools
AXIS Site Designer, AXIS Device Manager, product selector, accessory selector
Available at *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*

Part numbers
Available at *axis.com/products/axis-a9910#part-numbers*

Sustainability

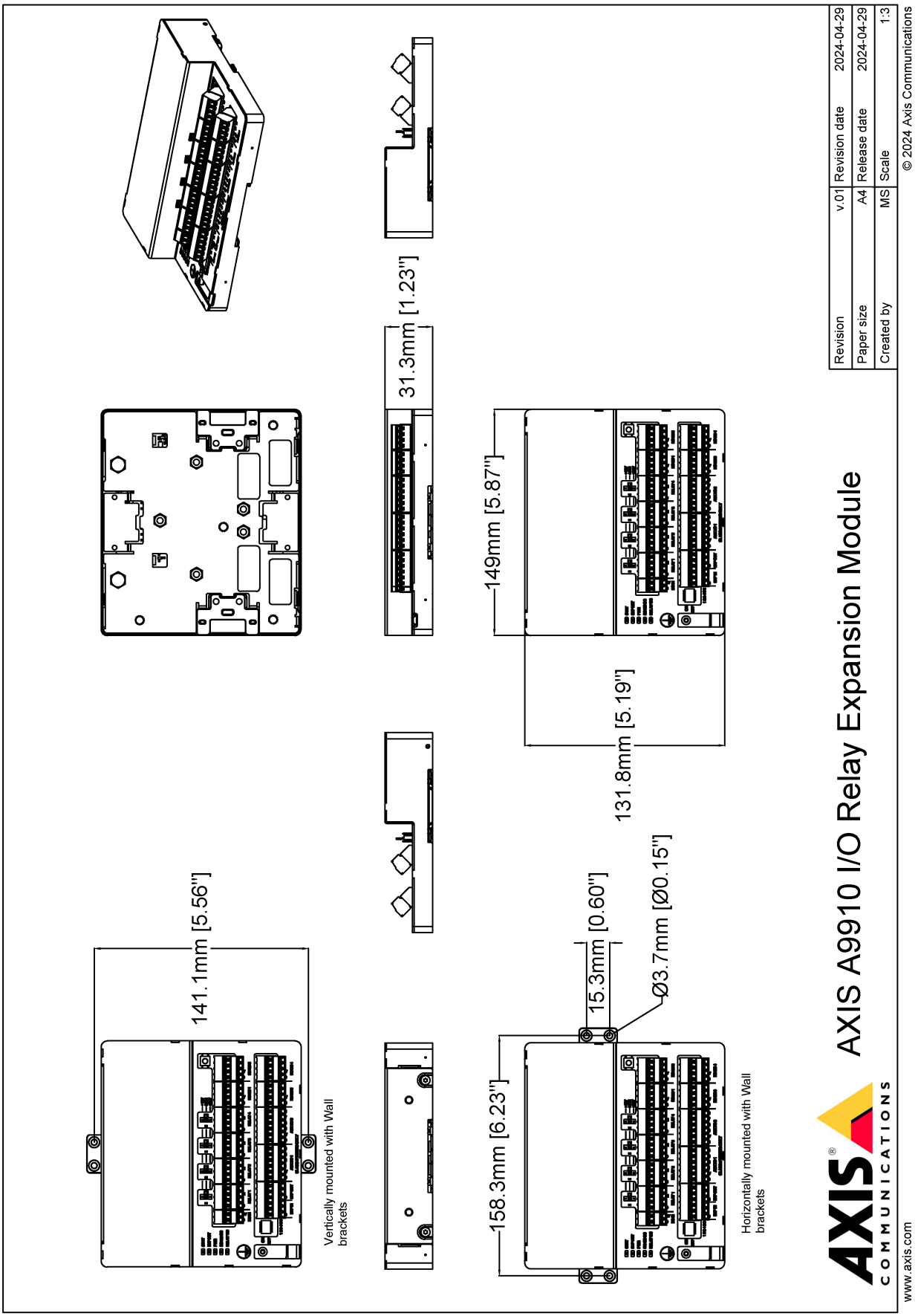
Substance control
PVC free
RoHS in accordance with EU RoHS Directive 2011/65/EU/ and EN 63000:2018
REACH in accordance with (EC) No 1907/2006. For SCIP UUID, see *echa.europa.eu*

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

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

5. *The lock(s) should be externally powered. Onboard RS485 power with max 2 A at 12 V DC.*
6. *Not intended for UL 294*

Dimension drawing



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