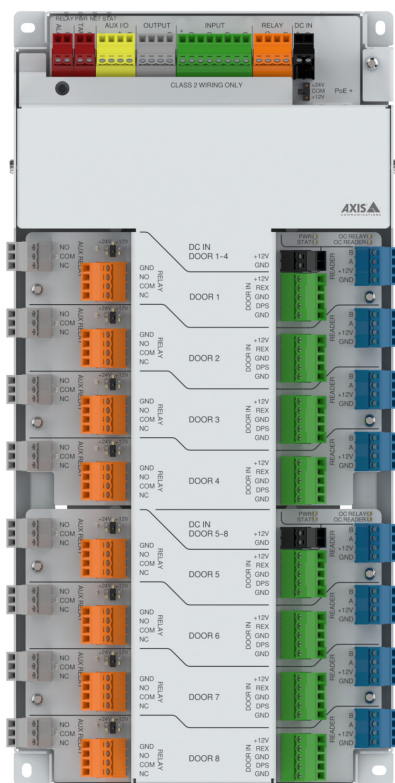


AXIS A1810-B Network Door Controller

Compact, cost-effective controller for up to 8 doors

This multi-door controller offers complete control for up to eight doors including support for up to 16 OSDP readers and 16 locks. Ideal for new and retrofit centralized installations with Axis or third-party cabinets. It offers a smaller footprint design than most door controllers on the market. Built-in lock power management simplifies installation. With support for OSDP readers and an optional accessory for Wiegand readers, this scalable door controller is optimized for both small and large installations. It can be used with AXIS Camera Station Secure Entry or partner solutions to provide an all-in-one video and access control management system.

- > **Centralized control simplifies installation**
- > **Full control for up to eight doors**
- > **Onboard support for 16 OSDP readers and 16 locks**
- > **OSDP Verified for secure reader communication**
- > **Built-in cybersecurity features**



AXIS A1810-B Network Door Controller

Door controller

Readers

Up to 16 OSDP and Wiegand¹ readers (multidrop²) per controller
OSDP Secure Channel supported, OSDP verified

Doors

8 doors, two relays supporting double locks per door
Support for integrating up to 16x ASSA ABLOY Aperio[®] wireless lock²

Credentials

Qualified for up to 250 000 credentials stored locally

Event buffer

Qualified for up to 250 000 events stored locally

Power

Input

Power over Ethernet (PoE) IEEE 802.3at, Type 2 Class 4 or
DC IN: 12 V DC Typical 2 W, max 36 W
DOOR 1–4 (required): 12 V DC, Typical 0.5 W , max 96 W
DOOR 5–8 (required): 12 V DC, Typical 0.5 W³, max 96 W⁴
Typical 3 W

Power supply

Option 1²: Separate power supplies (See the power input section)
Option 2: Single power supply
12 V DC, max 250W⁵

I/O interface

Readers

DOOR 1–4 power out⁶: 4x 12 V DC output, combined total of max 2 A
DOOR 5–8 power out⁶: 4x 12 V DC output, combined total of max 2 A
Data: 8x OSDP/RS485 half duplex, multidrop²

Door input

DOOR 1–4 power out⁶: 4x 12 V DC output, combined total of max 400 mA
DOOR 5–8 power out⁶: 4x 12 V DC output, combined total of max 400 mA
DOOR 1–4 input: 4x REX and 4x door position sensor, digital input 0 to max 30 V DC, possible to supervise between 0–12 V DC (4 states)
DOOR 5–8 input: 4x REX and 4x door position sensor, digital input 0 to max 30 V DC, possible to supervise between 0–12 V DC (4 states)

Relays

RELAY: 1x form C relay, NO/NC
Dry: max 2 A at 30 V DC
Wet: DC output⁶: 12/24 V DC, jumper configurable
With PoE: max 150 mA at 12 V DC, max 50 mA at 24 V DC, max 1.8 W
With PoE+: max 920 mA at 12 V DC, max 420 mA at 24 V DC, max 11.04 W
With DC in: max 1900 mA at 12 V DC, max 1000 mA at 24 V DC, max 24 W
DOOR 1–4 RELAY: 4x form C NO/NC
Dry: max 4 A at 30 V DC
Wet: DC output⁶: 12/24 V DC, jumper configurable, total combined of max 3.8 A at 12 V DC or max 1.5 A at 24 V DC, max 46 W
DOOR 5–8 RELAY: 4x form C NO/NC
Dry: max 4 A at 30 V DC
Wet: DC output⁶: 12/24 V DC, jumper configurable, max 3.8 A at 12 V DC, max 1.5 A at 24 V DC, max 46 W
DOOR 1–4 AUX relay: 4x form C relay, NO/NC
Dry: max 2 A at 30 V DC
DOOR 5–8 AUX relay: 4x form C relay, NO/NC
Dry: max 2 A at 30 V DC

Digital I/O

Input connector

3x digital input, 0–30 V DC, possible to supervise between 0–12 V DC (4 states)
1x 12 V DC output⁶, max 190 mA

Output connector

3x digital output⁶, open drain, 0–30 V DC, max 100 mA

AUX I/O connector

2x configurable inputs or outputs
Input: digital input, 0–30 V DC, possible to supervise (parallel connection) between 0–12 V DC (4 states)
Output⁶: open drain, 0–30 V DC, max 100 mA
1x 12 V DC output⁶, max 250 mA

1. Requires additional accessory AXIS TA1101-B.

2. Not intended for UL 294.

3. The board's power consumption remains in idle mode when no other devices are connected.

4. To fulfil the power budget for door peripherals.

5. Split the power between DC inputs of the door controller with WAGO splitter.

6. All outputs have over current protection circuits with automatic retry.

External

1x external tamper digital input, 0–30 V DC, possible to supervise between 0–12 V DC (4 states)

1x alarm digital input, 0–30 V DC, possible to supervise between 0–12 V DC (4 states)

Supervised input

Configurable input for Tamper, Alarm, I1–I3, REX, DPS, and AUX IO

Programmable end-of-line resistors (serial connection: 1 K, 2.2 K, 4.7 K and 10 K, parallel connection: 4.7 K and 22 K), 1 %, 1/4 watt standard

One supervised input dedicated for cabinet tamper

Cable requirements

Wire size for connectors: CUL/UL: AWG 30–14⁷

DC power: AWG 16–14, qualified for up to 3 m (10 ft)

Relay: AWG 16–14, qualified for up to 200 m (656 ft)

Ethernet and PoE: STP CAT 5e or higher

Reader data (RS485): 1 twisted pair, AWG 26–14, qualified for up to 1000 m (3281 ft)

Reader powered by controller (RS485): AWG 22–14, qualified for up to 200 m (656 ft)⁸

I/Os as inputs: AWG 24–14, qualified for up to 200 m (656 ft)

System on chip (SoC)

Memory

512 MB RAM, 2 GB Flash

Network

Network protocols

IPv4, IPv6, HTTP, HTTPS⁹, TLS⁹, QoS Layer 3 DiffServ, SMTP, mDNS (Bonjour), UPnP[®], SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMPv1/v2/v3, DHCPv4/v6, SOCKS, SSH, MQTT v3.1.1, Syslog

System integration

Application Programming Interface

AXIS Camera Application Platform (ACAP); specifications at axis.com/developer-community. ACAP includes Native SDK.

One-click cloud connection

Tamper detection

Reader tamper

Tilting, vibration

7. Not intended for UL 294.

8. Depending on the reader's voltage and current input range. Evaluated with AXIS A4120-E.

9. This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (openssl.org), and cryptographic software written by Eric Young (ey@cryptosoft.com).

Approvals

Product markings

CE, FCC, ICES, KC, RCM, UL/cUL, VCCI, WEEE

Supply chain

TAA compliant

EMC

CISPR 35, CISPR 32 Class A, EN 55035, EN 55032 Class A, EN 50130-4, EN 61000-6-1, EN 61000-6-2

Australia/New Zealand: RCM AS/NZS CISPR 32 Class A

Canada: ICES(A)/NMB(A)

Japan: VCCI Class A

Korea: KS C 9835, KS C 9832 Class A

USA: FCC Part 15 Subpart B Class A

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

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

Cybersecurity

ETSI EN 303 645

Cybersecurity

Edge security

Software: Signed firmware, brute force delay protection, digest authentication, password protection

Hardware: Axis Edge Vault cybersecurity platform

Secure element (CC EAL 6+), secure keystore, secure boot

Network security

IEEE 802.1X (EAP-TLS)⁹, IEEE 802.1AR, HTTPS/HSTS⁹, TLS v1.2/v1.3⁹, Network Time Security (NTS), X.509

Certificate PKI, IP address filtering

Documentation

AXIS OS Hardening Guide

Axis Vulnerability Management Policy

Axis Security Development Model

AXIS OS Software Bill of Material (SBOM)

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

DIN rail mount, cabinet mount¹⁰

Connectors

Network: Shielded RJ45 10BASE-T/100BASE-TX/1000BASE-T PoE

I/O: Terminal blocks for DC power, inputs/outputs, RS485, relay. Detachable and color coded connectors for ease of installation.

Wire size for connectors: CUL/UL: AWG 30–14

Operating conditions

–40 °C to 55 °C (–40 °F to 131 °F)

Conditional maximum temperature¹¹: 70 °C (158 °F)

UL 294: 0 °C to 55 °C (32 °F to 131 °F)

Humidity 10–85% RH (non-condensing)

Storage conditions

–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

1330 g (2.9 lb)

Box content

door controller, installation guide, connector kit (mounted), grounding kit, splicing connectors

Optional accessories

AXIS TA4711 Access Card

AXIS TA4712 Key Fob

AXIS TA1901 DIN Rail Clip

AXIS TA1101-B Wiegand OSDP Converter

AXIS TA1902 Access Control Connector Kit¹²

AXIS 30 W Midspan (POEA30U-1ATE)

AXIS 30 W Midspan AC/DC¹²

AXIS T8006 PS12¹²

For more accessories, go to axis.com/products/axis-a1810-b

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

Warranty

5-year warranty, see axis.com/warranty

Part numbers

Available at axis.com/products/axis-a1810-b#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

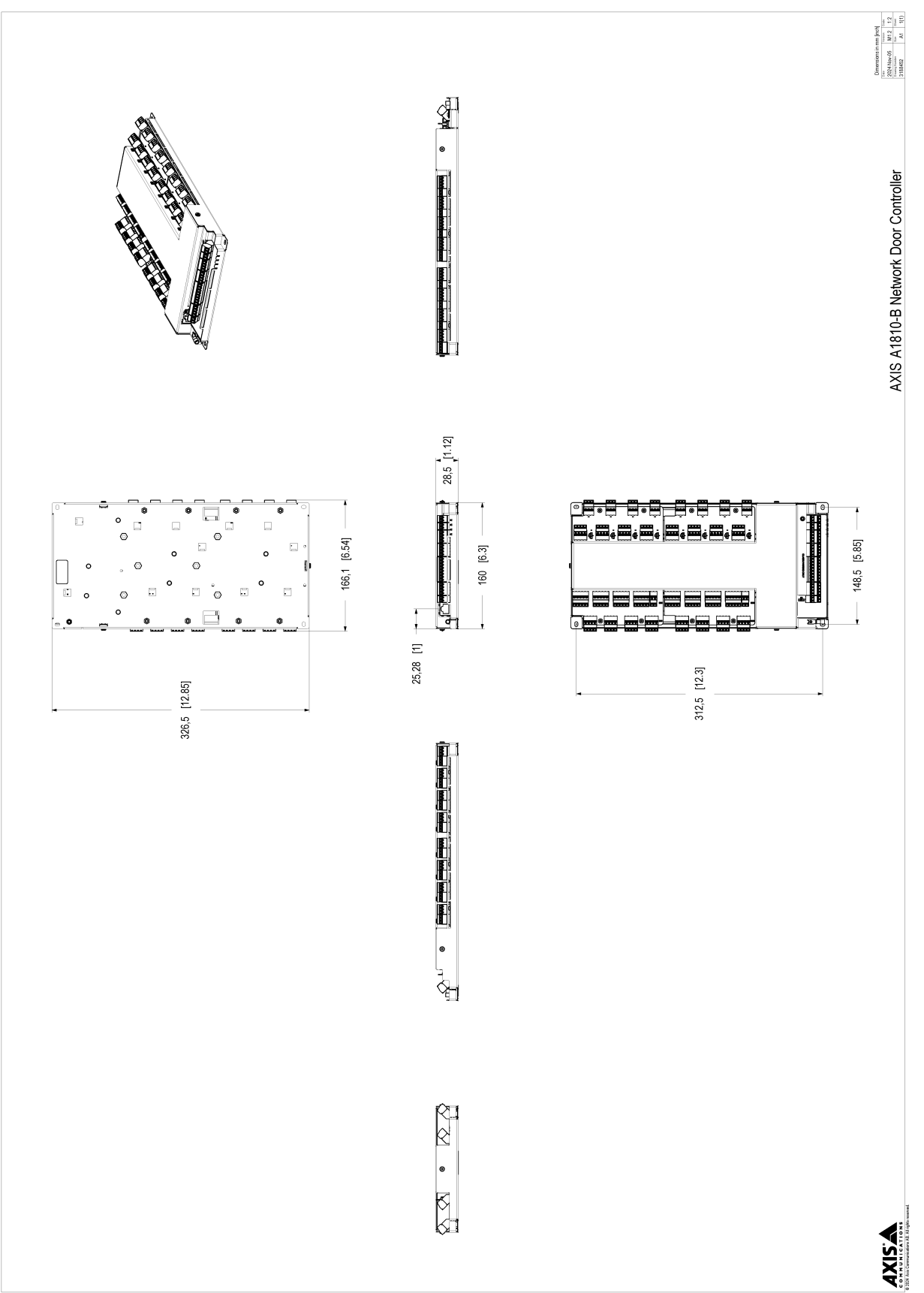
Axis Communications is a signatory of the UN Global Compact, read more at unglobalcompact.org

10. If UL 294 is required, mount the device in a UL-listed enclosure with Tamper Switch.

11. Only DC IN as a power source. The lock(s) should be externally powered. Dry contact only.

12. Not intended for UL 294.

Dimension drawing



Highlighted capabilities

Axis Edge Vault

Axis Edge Vault is the hardware-based cybersecurity platform that safeguards the Axis device. It forms the foundation that all secure operations depend on and offer features to protect the device's identity, safeguard its integrity and protect sensitive information from unauthorized access. For instance, **secure boot** ensures that a device can boot only with **signed OS**, which prevents physical supply chain tampering. With signed OS, the device is also able to validate new device software before accepting to install it. And the **secure keystore** is the critical building-block for protecting cryptographic information used for secure communication (IEEE 802.1X, HTTPS, Axis device ID, access control keys etc.) against malicious extraction in the event of a security breach. The secure keystore and secure connections are provided through a Common Criteria or FIPS 140 certified hardware-based cryptographic computing module.

To read more about Axis Edge Vault, go to axis.com/solutions/edge-vault.

For more information, see axis.com/glossary