AXIS A1601 Network Door Controller
Advanced access management in midsized and large systems

With door controllers from Axis, you install one smart, independent device by each door to create a scalable access control system. The open platform allows you to mix and match best-of-breed software and hardware, and enables easy integration with other systems such as video surveillance, intrusion detection, and time and attendance. AXIS A1601 Network Door Controller is ideal for advanced access management using a partner software, in mid-sized and large, multi-site installations. It has a powerful processor, expanded storage and memory, relays, and I/O ports. AXIS A1601 is powered by PoE+ and can also power connected equipment.

> **Based on Axis open platforms**
> **ONVIF Profile A and C compliant**
> **UL 293 and UL 294 certified**
> **Supports most reader types**
> **Ease of installation and PoE+ support**

AXIS A1601 Network Door Controller

Door controller

Readers	Up to 2 readers, RS485 (OSDP)/Wiegand. OSDP Secure Channel supported. Integration with ASSA ABLOY Aperio® and Simons Voss SmartIntego wireless lock technologies.
Doors	1–2 wired doors or 1 wired door together with a single wireless lock gateway per controller[a]
Credentials	Unlimited with third-party access management software depending on server capacity. Up to 70 000 credentials stored locally in a fallback scenario where connection to partner software is temporarily lost.
Event history	100 000 first in, first out (FIFO)
Access schedules	Unlimited or third-party software dependent

I/O interface

I/O functionality	**Reader I/O** DC output: 2x 12 V DC output, max 486 mA; 2x2 configurable supervised inputs/outputs (digital input: 0 to max 30 V DC; digital output: 0 to max 30 V DC, open drain max 100 mA) **Reader data** OSDP/RS485 half duplex, Wiegand **Auxiliary** DC output: 1x 12 V DC output, max 200 mA, 4x configurable inputs/outputs (digital input: 0 to max 30 V DC; digital output: 0 to max 30 V DC, open drain max 100 mA) **Door connections** 2x2 supervised inputs for door monitors and REX (digital input: 0 to max 30 V DC) **External** 2x configurable inputs/outputs for auxiliary equipment (digital input: 0 to max 30 V DC; digital output: 0 to max 30 V DC, open drain max 100 mA)

Network

Security	Password protection, IP address filtering, HTTPS[b] encryption, IEEE 802.1X[b] network access control, digest authentication, user access log, centralized certificate management
Supported protocols	IPv4,IPv6, HTTP, HTTPS[b], SSL/TLS[b], QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB, SMTP, Bonjour, UPnP®, SNMP v1/v2c/v3 (MIB-II), DNS, DynDNS, NTP, RTSP, RTP, TCP, UDP, IGMPv1/v2/v3, RTCP, ICMP, DHCP, ARP, SOCKS, SSH

System integration

Application Programming Interface	Open API for software integration, including VAPIX®; specifications at *www.axis.com* ONVIF® Profile C and ONVIF® Profile A, specification at *onvif.org*
Integration-ready	AXIS A91 Network I/O Relay Module Series AXIS A4010–E Reader AXIS A4011–E Reader ASSA Aperio RS485 Communication Hub SimonsVoss SmartIntego TCP/IP GatewayNode

Events

Tamper detection	Removal of unit cover/tamper front Reader tamper Tilting, vibration
Event log	Configurable by time and topic
Event triggers	Tamper detection, power loss, network loss, configuration, door, event logger, hardware, input signal, schedule, system, time, virtual inputs through API
Event actions	Notification: email, HTTP, HTTPS, TCP and SNMP trap External output activation, status LED

General

Casing	Aluminum Color: white NCS S 1002-B For repainting instructions of skin cover or casing and impact on warranty, contact your Axis partner.

Sustainability	PVC free
Memory	512 MB RAM, 1 GB Flash
Power	**Power in:** 10.5–28 V DC, max 36 W, or Power over Ethernet (PoE) IEEE 802.3at Type 2 Class 4. 12 V battery as backup. **Relay:** 2x relay NO/NC, max 2 A DC **Power out lock:** 2x 12/24 V DC, max 24 W **Total power budget for peripheral devices (locks, readers etc.):** 2100 mA at 12 V if powered by DC, 1300 mA at 12 V if powered by PoE Class 4
Connectors	RJ45 10BASE-T/100BASE-TX PoE Terminal blocks: DC power, 14 inputs/outputs, RS485/Wiegand, relay, battery. Detachable and color coded connectors for ease of installation. Wire size for connectors: CSA: AWG 28–16, CUL/UL: AWG 30–14
Cable requirements	**DC power and relay:** 1 twisted pair, AWG 18-16 **Ethernet and PoE:** CAT 5e **Reader data (RS485):** 1 twisted pair with shield, AWG 24, 120 ohm impedance, qualified for up to 200 m (656 ft) **Reader data (Wiegand):** AWG 22, qualified for up to 150 m (500 ft) **Reader powered by controller (RS485/Wiegand)** Data: AWG 28-16, 120 ohm impedance, qualified for up to 30 m (98.4 ft) Power: AWG 18-16, 120 ohm impedance, qualified for up to 30 m (98.4 ft) **I/Os:** AWG 24, qualified for up to 30 m (98.4 ft)
Operating conditions	-40 °C to 55 °C (-40 °F to 131 °F) Humidity 20–85% RH (non-condensing)
Storage conditions	-40 °C to 55 °C (-40 °F to 131 °F)
Approvals	**EMC** EN 55032 Class A, EN 50130–4, EN 61000-3-2, EN 61000-3-3, EN 55024, EN 61000-6-1, EN 61000-6-2, FCC Part 15 Subpart B Class A, ICES-003 Class A, VCCI Class A, RCM AS/NZS CISPR 32 Class A, KC KN32 Class A, KC KN35 **Safety** IEC/EN/UL 62368-1, UL 2043, UL 294, UL 293 **Environment** EN 50581 **Others** CSA C22.2 No. 205-1983
Dimensions	175 x 175 x 60 mm (6 7/8 x 6 7/8 x 2 3/8 in)
Weight	1.2 kg (2.6 lb)
Included accessories	Installation guide, mating connectors (mounted), grounding kit, cable ties
Optional accessories	AXIS Access Card 1K AXIS T8133 Midspan 30 W 1-port AXIS T8128 PoE Splitter 24 V (requires 30 W midspan) AXIS T8129 PoE Extender AXIS T98A15–VE Surveillance Cabinet[c] For more accessories, see *www.axis.com*
Languages	English, German, French, Spanish, Italian, Polish, Dutch
Warranty	5-year warranty, see *axis.com/warranty*

a. *Power consumption dependent; max load for locks, readers and other equipment is 24 W with PoE+ and 30 W with 10.5–28 V DC.*
b. *This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (openssl.org), and cryptographic software written by Eric Young (eay@cryptsoft.com).*
c. *In outdoor installations combining AXIS A1601 and AXIS T98A15–VE, the maximum allowed voltage is 30 V DC.*

Environmental responsibility:

axis.com/environmental-responsibility

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