

## AXIS I7020 Network Intercom

Sleek indoor intercom for clean environments

This indoor intercom delivers excellent audio quality with echo cancellation and noise reduction. Extensively tested for chemical detergents, it can withstand daily wipe-downs with strong cleaning fluids. Additionally, this device meets the requirements of ISO 14644-1 to ensure air cleanliness. It's easy to install and fits into 2-gang installation boxes. It's also easy to integrate with Axis and third-party VMSs. Furthermore, Axis Edge Vault, a hardware-based cybersecurity platform, safeguards the device and protects sensitive information from unauthorized access.

- > **Superior echo cancellation, and noise reduction**
- > **ISO 14644-1 Class 3-9 Certified**
- > **Compatible with 2-gang installation boxes**
- > **Open platform for easy integration**
- > **Built-in cybersecurity with Axis Edge Vault**



# SIP

# AXIS I7020 Network Intercom

## System on chip (SoC)

**Model**  
CV25

**Memory**  
2 GB RAM, 1 GB Flash

## Audio

**Features**  
Echo cancellation, noise reduction, wind reduction, beamforming

**Streaming**  
Two-way (full duplex)

**Input**  
2x built-in microphones (can be disabled), line input

**Output**  
Built-in speaker – max 85 dBSPL (at 1 m / 39 in)  
Line output

**Encoding**  
LPCM 16 kHz, AAC 8/16 kHz, G.711 A-law, G.711  $\mu$ -law, G.722, G.726 ADPCM 8 kHz, Opus 8/16/48 kHz  
Configurable bitrate

## Lock control

**Lock integration**  
Integration with AXIS A9801 Security Relay: 350 mA at 12 V DC  
Integration with OSDP reader  
Integrated entry list with up to 50 credentials

## Network

**Network protocols**  
IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTPS<sup>1</sup>, HTTP/2, TLS<sup>1</sup>, QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP®, SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, PTP, NTS, RTSP, RTP, SRTP/RTSPS, TCP, UDP, IGMPv1/v2/v3, RTCP, ICMP, DHCPv4/v6, ARP, SSH, LLDP, CDP, MQTT v3.1.1, Secure syslog (RFC 3164/5424, UDP/TCP/TLS), Link-Local address (ZeroConf), IEEE 802.1X (EAP-TLS), IEEE 802.1AR

## System integration

**Application Programming Interface**  
Open API for software integration, including VAPIX®, metadata and AXIS Camera Application Platform (ACAP); specifications at [axis.com/developer-community](https://axis.com/developer-community).  
One-click cloud connection

**VoIP**  
Support for Session Initiation Protocol (SIP) for integration with Voice over IP (VoIP) systems, peer to peer or integrated with SIP/PBX  
Supported SIP features: secondary SIP server, IPv6, SRTP, SIPS, SIP TLS, DTMF (RFC 733 and RFC 833), NAT (ICE, STUN, TURN)  
RFC 3261: INVITE, CANCEL, BYE, REGISTER, OPTIONS, INFO  
Supported codecs: PCMU, PCMA, Opus, L16/16000, L16/8000, speex/8000, speex/16000, G.726-32, G.722

**Video management systems**  
Compatible with AXIS Camera Station Edge, AXIS Camera Station Pro, AXIS Camera Station 5, and video management software from Axis' partners available at [axis.com/vms](https://axis.com/vms).

**Edge-to-edge**  
Camera pairing

**Event conditions**  
Application  
Audio: audio detection, audio clip playing  
Call: state, state change  
Device status: above/below/within operating temperature, casing open, IP address blocked/removed, live stream active, new IP address, network lost, system ready, shock detected, RFID tag detected  
Digital audio input status  
Edge storage: recording ongoing, storage disruption, storage health issues detected  
I/O: digital input/output, manual trigger, relay or digital output, virtual input  
MQTT: subscribe  
Scheduled and recurring: schedule

1. This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. ([openssl.org](https://openssl.org)), and cryptographic software written by Eric Young ([ey@cryptsoft.com](mailto:ey@cryptsoft.com)).

## Event actions

Audio clips: play, stop  
Calls: answer call, end call, make call  
I/O: toggle I/O once, toggle I/O while the rule is active  
LEDs: flash status LED, flash status LED while the rule is active  
MQTT: publish  
Notification: HTTP, HTTPS, TCP and email  
Recordings: SD card and network share  
Security: erase configuration  
SNMP traps: send, send while the rule is active

## Functional monitoring

Auto Speaker Test (verification via built-in microphone)

## Analytics

### Applications

#### Included

Active tampering alarm, audio detection  
Support for AXIS Camera Application Platform enabling installation of third-party applications, see [axis.com/acap](https://axis.com/acap)

## Approvals

### Product markings

CSA, UL/cUL, CE, KC, VCCI, RCM

### Supply chain

TAA compliant

### EMC

CISPR 35, CISPR 32 Class A, EN 55035,  
EN 55032 Class A, 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

### Safety

CAN/CSA C22.2 No. 62368-1 ed. 3,  
IEC/EN/UL 62368-1 ed. 3

### Environment

IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6,  
IEC 60068-2-14, IEC 60068-2-27, IEC/EN 60529 IP65,  
ISO 14644-14 grade 3-9

### Cybersecurity

ETSI EN 303 645, BSI IT Security Label

## Cybersecurity

### Edge security

**Software:** Signed OS, brute force delay protection, digest authentication and OAuth 2.0 RFC 6749 Client Credential Flow/OpenID Authorization Code Flow for centralized ADFS account management, password protection

**Hardware:** Axis Edge Vault cybersecurity platform Secure element (CC EAL 6+), system-on-chip security (TEE), Axis device ID, secure keystore, secure boot, encrypted filesystem (AES-XTS-Plain64 256bit)

### Network security

IEEE 802.1X (EAP-TLS, PEAP-MSCHAPv2)<sup>2</sup>,  
IEEE 802.1AE (MACsec PSK/EAP-TLS), IEEE 802.1AR,  
HTTPS/HSTS<sup>2</sup>, TLS v1.2/v1.3<sup>2</sup>, Network Time Security (NTS), X.509 Certificate PKI, host-based firewall

### 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](https://axis.com/support/cybersecurity/resources)

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

## General

### Casing

IP65- and NEMA 4X-rated  
Stainless steel and zinc casing  
Color: grey NCS S 1002-B

### Mounting

Recessed mounting using US 2-Gang-, 4 inch square installation boxes or AXIS TI8202 Recessed Mount  
Wall mounting using AXIS TI8602 Wall Mount  
Wall mounting with conduit pipe using AXIS TI8602 Wall Mount and AXIS TI8603 Conduit Adapter

### Power

Power over Ethernet (PoE) IEEE 802.3at Type 2 Class 4  
Typical 3 W, max 25.5 W  
Power out: 4.8 W  
Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 1 Class 3  
Typical 3 W, max 12.7 W  
Power out: disabled with PoE Class 3  
Relay rating: 30 V, 0.7 A

2. This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. ([openssl.org](https://openssl.org)), and cryptographic software written by Eric Young ([ey@cryptsoft.com](mailto:ey@cryptsoft.com)).

## Connectors

Network: Shielded RJ45 10BASE-T/100BASE-TX/1000BASE-T PoE  
I/O: Terminal block for two configurable supervised inputs / digital outputs (12 V DC output, max load 50 mA)<sup>3</sup>, and 1 relay  
Audio: 4-pin terminal block for audio input and output  
Serial communication: RS485, half duplex/2-wire<sup>3</sup>

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## Storage

Support for microSD/microSDHC/microSDXC card  
Support for SD card encryption (AES-XTS-Plain64 256bit)  
Recording to network-attached storage (NAS)  
For SD card and NAS recommendations see [axis.com](https://axis.com)

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## Operating conditions

Temperature: 0 °C to 45 °C (32 °F to 113 °F)  
Humidity: 10–85% RH (condensing)

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## Storage conditions

Temperature: -40 °C to 65 °C (-40 °F to 149 °F)  
Humidity: 5–95% RH (non-condensing)

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## Dimensions

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

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## Weight

800 g (1.8 lb)

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## Box content

Intercom, installation guide, RESISTORX® L-key, terminal block connector, owner authentication key

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## Optional accessories

AXIS TI8202 Recessed Mount  
AXIS TI8602 Wall Mount  
AXIS TI8603 Conduit Adapter  
AXIS TI8906 Glass Replacement Kit  
AXIS TI8907 Face Plate Replacement  
AXIS A9801 Security Relay  
AXIS TI8904 Induction Loop  
For more accessories, go to [axis.com/products/axis-i7020#accessories](https://axis.com/products/axis-i7020#accessories)

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## System tools

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

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## Languages

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

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## Warranty

5-year warranty, see [axis.com/warranty](https://axis.com/warranty)

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## Part numbers

Available at [axis.com/products/axis-i7020#part-numbers](https://axis.com/products/axis-i7020#part-numbers)

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## Sustainability

### Substance control

PVC free, BFR/CFR free in accordance with JEDEC/ECA Standard JS709  
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](https://echa.europa.eu)

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### Materials

Renewable carbon-based plastic content: 42% (recycled: 34%, bio-based: 8%)  
Screened for conflict minerals in accordance with OECD guidelines  
To read more about sustainability at Axis, go to [axis.com/about-axis/sustainability](https://axis.com/about-axis/sustainability)

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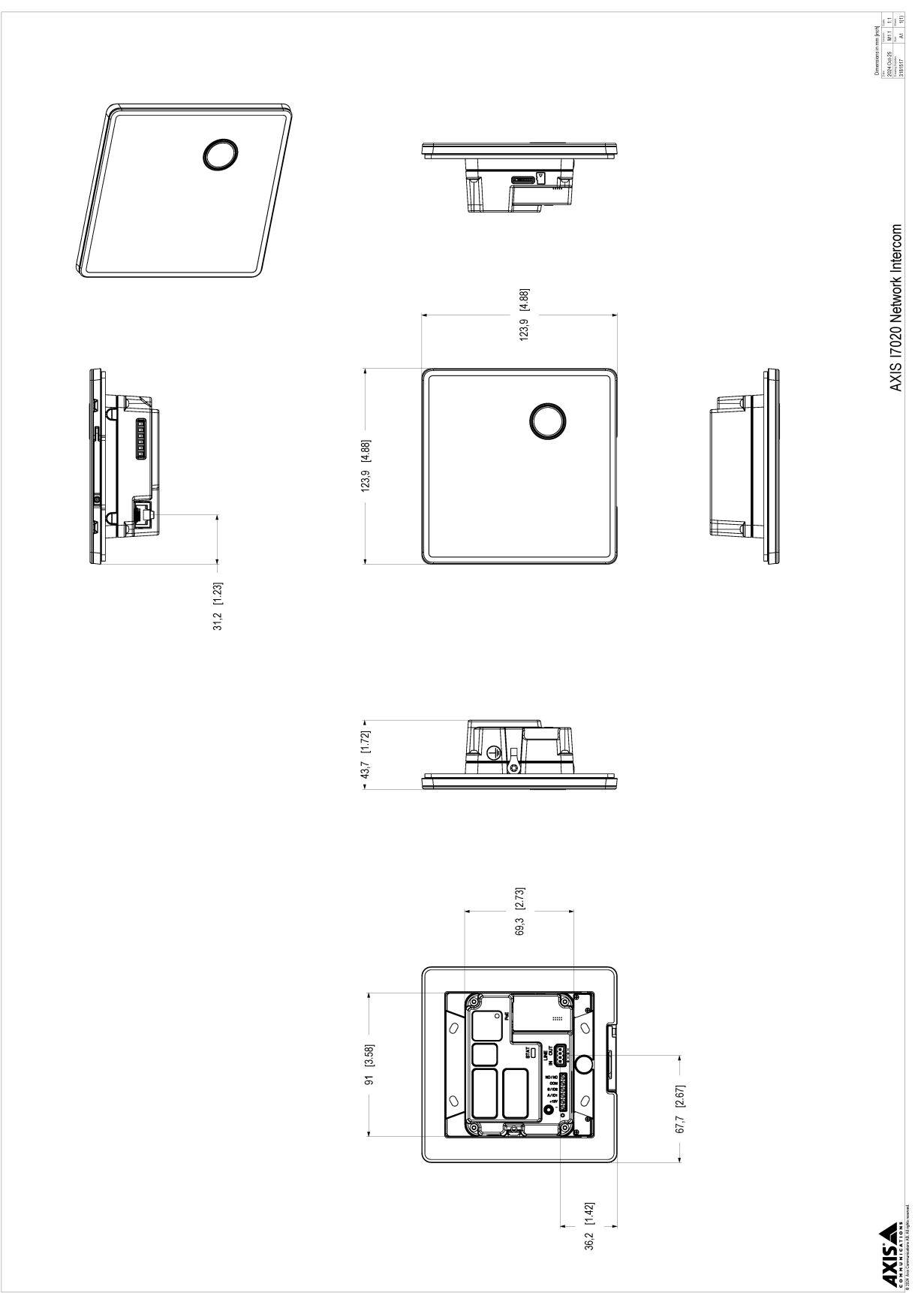
### Environmental responsibility

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

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3. One connector for I/O or RS485 usage

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](https://axis.com/solutions/edge-vault).

### Entry list

Entry list enables simple and convenient credential-based management, limited to 50 credentials.