F101-A XF P1377 Explosion-Protected Camera
Excellent image quality for hazardous areas

Certified (NEC, ATEX, IECEx) for use in potentially combustible environments, the lightweight camera offers high quality, high resolution images of objects and people. Featuring Axis Lightfinder and Axis Forensic WDR, it delivers true colors and great details in challenging light or near darkness. It includes electronic image stabilization for stable images despite vibration. And, intelligent i-CS lens technology facilitates fast and easy installation with remote zoom. Enhanced security features such as signed firmware and secure boot ensure the integrity and authenticity of the firmware. Furthermore, Axis Zipstream with support for H.264/H.265 significantly lowers bandwidth and storage requirements.

> **30 fps in 5 MP or up to 180 fps in HDTV 720p**

> **Lightfinder and Forensic WDR**

> **Zipstream supporting H.264 and H.265**

> **Signed firmware and secure boot**

> **NEC, ATEX and IECEx**

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Camera

Image sensor	1/2.7" progressive scan RGB CMOS
Lens	Varifocal 3.9–10 mm, F1.5 **4:3 aspect ratio:** Horizontal field of view: 75°–31° Vertical field of view: 55°–23° **16:9 aspect ratio:** Horizontal field of view: 75°–31° Vertical field of view: 41°–17° Remote zoom, remote focus
Day and night	Automatically removable infrared-cut filter
Minimum illumination	5 MP 25/30 fps with Forensic WDR and Lightfinder: **Color:** 0.15 lux, at 50 IRE F1.5 **B/W:** 0.03 lux, at 50 IRE F1.5
Shutter speed	WDR: 1/33500 s to 1/5 s No WDR: 1/5000 s to 1/5 s

System on chip (SoC)

Model	ARTPEC-7
Memory	1 GB RAM, 512 MB Flash

Video

Video compression	H.264 (MPEG-4 Part 10/AVC) Baseline, Main and High Profiles H.265 (MPEG-H Part 2/HEVC) Motion JPEG
Resolution	2592x1944 (5 MP) to 160x90 2688x1512 (4 MP) to 160x90 1280x720 (HDTV 720p) to 160x90
Frame rate	Capture mode 5 MP: 25/30 fps (50/60 Hz) Capture mode 4 MP: 25/30 fps (50/60 Hz) Capture mode HDTV 720p: 180 fps
Video streaming	Multiple, individually configurable streams in H.264, H.265 and Motion JPEG Axis Zipstream technology in H.264 and H.265 Controllable frame rate and bandwidth VBR/ABR/MBR H.264/H.265 Video streaming indicator
Multi-view streaming	Up to 8 individually cropped out view areas
Image settings	Saturation, contrast, brightness, sharpness, Forensic WDR: Up to 120 dB depending on scene, white balance, day/night threshold, exposure mode, exposure zones, local contrast, tone mapping, compression, rotation: auto, 0°, 90°, 180°, 270° including Corridor Format, mirroring of images, dynamic text and image overlay, privacy masks, defogging, electronic image stabilization, barrel distortion correction, scene profiles: forensic, vivid, traffic overview
Pan/Tilt/Zoom	Digital PTZ Uploadable PTZ driver (Pelco D pre-installed)

Audio

Audio streaming	Two-way, full duplex
Audio encoding	AAC LC 8/16/32/48 kHz, G.711 PCM 8 kHz, G.726 ADPCM 8 kHz, Opus 8/16/48 kHz, LPCM 48 kHz Configurable bit rate
Audio input/output	External microphone input, line input, digital input with ring power, line output, built-in microphone (can be disabled)

Network

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

System integration

Application Programming Interface	Open API for software integration, including VAPIX® and AXIS Camera Application Platform, specifications at *axis.com* One-Click Cloud Connection ONVIF® Profile G, ONVIF® Profile S, and ONVIF® Profile T, specification at *onvif.org*

Onscreen controls	Electronic image stabilization Day/night shift Defogging Wide dynamic range
Event conditions	Analytics, shock detection, edge storage events, supervised external input, audio level, time scheduled, MQTT subscribe
Event actions	Record video: SD card and network share Upload of images or video clips: FTP, SFTP, HTTP, HTTPS, network share and email Pre- and post-alarm video or image buffering for recording or upload Notification: email, HTTP, HTTPS, TCP and SNMP trap PTZ: PTZ preset, start/stop guard tour Overlay text, external output activation, play audio clip, WDR mode, day/night mode MQTT publish
Data streaming	Event data
Built-in installation aids	Focus assistant, pixel counter, remote back focus, autorotation

Analytics

Applications	**Included** AXIS Motion Guard, AXIS Fence Guard, AXIS Loitering Guard AXIS Video Motion Detection, active tampering alarm, gatekeeper **Supported** AXIS Live Privacy Shield, AXIS Perimeter Defender Support for AXIS Camera Application Platform enabling installation of third-party applications, see *axis.com/acap*

Cybersecurity

Edge security	**Software:** Signed firmware, brute force delay protection, digest authentication and OAuth 2.0 RFC6749 OpenID Authorization Code Flow for centralized ADFS account management, password protection, AES-XTS-Plain64 256bit SD card encryption **Hardware:** Secure boot
Network security	IEEE 802.1X (EAP-TLS, PEAP-MSCHAPv2), HTTPS/HSTS, TLS v1.2/v1.3, 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) 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	IP66-rated, powdercoated aluminum chassis Casing manufactured and certified by Spectrum Camera Solutions, LLC
Power	**Camera:** Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 1 Class 3, max 10.7 W, typical 5.4 W **Heater:** 12-24 V DC, max 25 W 12-24 V DC is required for operating at temperatures below 0 °C (32 °F).
Connectors	2 x 3/4" NPT cable entries RJ45 10BASE-T/100BASE-TX PoE 2-pin terminal block connector for heater I/O: 4-pin 2.5 mm terminal block for two configurable inputs/outputs (12 V DC output, max. load 50 mA) 3.5 mm mic/line in, 3.5 mm line out
Storage	Pre-installed AXIS Surveillance microSDXC Card 128 GB Support for SD card encryption (AES-XTS-Plain64 256bit) Recording to network-attached storage (NAS) For SD card and NAS recommendations see *axis.com*
Operating conditions	–50 °C to 60°C (-58 °F to 140 °F) US Class/Division system: -40 °C to 60°C (-40 °F to 140 °F) Humidity 10-100% RH (condensing)
Storage conditions	–40 °C to 65 °C (-40 °F to 149 °F) Humidity 5-95% RH (non-condensing)

Approvals	**EMC** EN 55035, EN 61000-6-1, EN 61000-6-2, EN 55032 Class A, FCC Part 15 Subpart B Class A, ICES-3(A)/NMB-3(A), VCCI Class A, RCM AS/NZS CISPR 32 Class A **Safety** EN 62368-1 **Environment** ANSI/NEMA 250 4X, ANSI/IEC/EN 60529 IP66, GOST 14254 IP66 **Network** NIST SP500–267 **Explosion** FM Class 3600:2018, FM Class 3615:2018, FM Class 3616:2011, ANSI/ISA/EN/ABNT NBR/IEC/CAN-CSAC22.2 60079-0, ANSI/ISA/EN/ABNT NBR/IEC/CAN-CSAC22.2 60079-1, ANSI/ISA/EN/ABNT NBR/IEC/CAN-CSAC22.2 60079-31, TP TC 012, GOST 31610.0, GOST IEC 60079-1, GOST IEC 60079-31
Certifications	**USA:** Class I Division 1 Groups BCD T5 Ta= -40°C to 55°C, Type 4X, IP66 Class II/III Division 1 Groups EFG Ta= -40°C to 55°C, Type 4X, IP66 **Certificate:** FM18US0262X **Canada:** Class I Division 1 Groups BCD T5 Ta= -50°C to 55°C, Type 4X, IP66 Class II/III Division 1 Groups EFG Ta= -50°C to 55°C, Type 4X, IP66 Class I, Zone 1, AEx/Ex db IIB+H2 T5 Gb Ta = -50°C to 55°C, Type 4X, IP66 Zone 21, AEx/Ex tb IIIC T85°C Db Ta = -50°C to 55°C, Type 4X, IP66 **Certificate:** FM18CA0126X **ATEX:** II 2 G Ex db IIB+H2 T5 Gb Ta = -50°C to 55°C, IP66 II 2 D Ex tb IIIC T85°C Db Ta = -50°C to 55°C, IP66 **Certificate:** FM18ATEX0073X **IECEx:** Ex db IIB+H2 T5 Gb Ta = -50°C to 55°C, IP66 Ex tb IIIC T85°C Db Ta = -50°C to 55°C, IP66 **Certificate:** IECEx FMG 18.0029X **INMETRO:**

	Ex db IIB+H2 T5 Gb Ex tb IIIC T85°C Db IP66 Ta = -50°C to 55°C **Certificate:** NCC 20.0084 X
Dimensions	13.85 x 7.20 x 5.97 in (352 x 183 x 152 mm)
Weight	14 lb (6.2 kg)
Included accessories	Installation Guide, Windows® decoder 1-user license, AXIS Surveillance microSDXC Card 128 GB, 3/4" NPT to M20x1.5 thread adapter
Optional accessories	EXTB-3 Junction Box ExCam, Non-armored cables ExCam, 10, 25, 95 m (33, 82, 312 ft), Armored cables ExCam, 10, 25, 95 m (33, 82, 312 ft), Ex Connection Rail 4-port PoE PS 24, Ex Connection Rail 8-port PoE PS 24 For more accessories, see *axis.com*
Video management software	AXIS Companion, AXIS Camera Station, video management software from Axis Application Development Partners available at *axis.com/vms*
Languages	English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Portuguese, Traditional Chinese, Dutch, Czech, Swedish, Finnish, Turkish, Thai, Vietnamese, Polish
Warranty	5-year warranty, see *axis.com/warranty*
Sustainability	
Substance control	PVC free Free of hazardous brominated and chlorinated flame retardants (BFR/CFR 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*
Environmental responsibility	*axis.com/environmental-responsibility* Axis Communications is a signatory of the UN Global Compact, read more at *unglobalcompact.org*

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