

# 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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<b>Camera</b>		<b>Application Programming Interface</b>	Open API for software integration, including VAPIX® and AXIS Camera Application Platform, specifications at <a href="https://axis.com">axis.com</a> One-Click Cloud Connection ONVIF® Profile G, ONVIF® Profile S, and ONVIF® Profile T, specification at <a href="https://onvif.org">onvif.org</a>
<b>Image sensor</b>	1/2.7" progressive scan RGB CMOS	<b>Onscreen controls</b>	Electronic image stabilization Day/night shift Defogging Wide dynamic range
<b>Lens</b>	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	<b>Event conditions</b>	Analytics, shock detection, edge storage events, supervised external input, audio level, time scheduled
<b>Day and night</b>	Automatically removable infrared-cut filter	<b>Event actions</b>	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
<b>Minimum illumination</b>	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	<b>Data streaming</b>	Event data
<b>Shutter speed</b>	WDR: 1/33500 s to 1/5 s No WDR: 1/5000 s to 1/5 s	<b>Built-in installation aids</b>	Focus assistant, pixel counter, remote back focus, autorotation
<b>System on chip (SoC)</b>		<b>Analytics</b>	
<b>Model</b>	ARTPEC-7	<b>Applications</b>	<b>Included</b> AXIS Motion Guard, AXIS Fence Guard, AXIS Loitering Guard AXIS Video Motion Detection, active tampering alarm, gatekeeper <b>Supported</b> AXIS Live Privacy Shield, AXIS Perimeter Defender Support for AXIS Camera Application Platform enabling installation of third-party applications, see <a href="https://axis.com/acap">axis.com/acap</a>
<b>Memory</b>	1 GB RAM, 512 MB Flash	<b>General</b>	
<b>Video</b>		<b>Casing</b>	IP66-rated, powdercoated aluminum chassis Casing manufactured and certified by Spectrum Camera Solutions, LLC
<b>Video compression</b>	H.264 (MPEG-4 Part 10/AVC) Baseline, Main and High Profiles H.265 (MPEG-H Part 2/HEVC) Motion JPEG	<b>Sustainability</b>	PVC free Free of hazardous brominated and chlorinated flame retardants (BFR/CFR free)
<b>Resolution</b>	2592x1944 (5 MP) to 160x90 2688x1512 (4 MP) to 160x90 1280x720 (HDTV 720p) to 160x90	<b>Power</b>	<b>Camera:</b> Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 1 Class 3, max 10.7 W, typical 5.4 W <b>Heater:</b> 12–24 V DC, max 25 W 12–24 V DC is required for operating at temperatures below 0 °C (32 °F).
<b>Frame rate</b>	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	<b>Connectors</b>	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
<b>Video streaming</b>	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	<b>Storage</b>	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 <a href="https://axis.com">axis.com</a>
<b>Multi-view streaming</b>	Up to 8 individually cropped out view areas	<b>Operating conditions</b>	-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)
<b>Image settings</b>	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	<b>Storage conditions</b>	-40 °C to 65 °C (-40 °F to 149 °F) Humidity 5–95% RH (non-condensing)
<b>Pan/Tilt/Zoom</b>	Digital PTZ Uploadable PTZ driver (Pelco D pre-installed)	<b>Approvals</b>	
<b>Audio</b>		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 <b>Safety</b> EN 62368-1 <b>Environment</b> ANSI/NEMA 250 4X, ANSI/IEC/EN 60529 IP66, GOST 14254 IP66 <b>Network</b> NIST SP500-267 <b>Explosion</b> FM Class 3600:2018, FM Class 3615:2018, FM Class 3616:2011, ANSI/ISA/EN/ABNT NBR/IEC/CAN-CSAC22.2 60079-0,	
<b>Audio streaming</b>	Two-way, full duplex		
<b>Audio encoding</b>	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		
<b>Audio input/output</b>	External microphone input, line input, digital input with ring power, line output, built-in microphone (can be disabled)		
<b>Network</b>			
<b>Security</b>	Password protection, IP address filtering, HTTPS <sup>a</sup> encryption, IEEE 802.1X (EAP-TLS) <sup>a</sup> network access control, digest authentication, user access log, centralized certificate management, brute force delay protection, signed firmware, secure boot		
<b>Supported protocols</b>	IPv4, IPv6, USGv6, ICMPv4/ICMPv6, HTTP, HTTPS <sup>a</sup> , HTTP/2, SSL/TLS <sup>a</sup> , QoS Layer 3 DiffServ, FTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP™, SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, RTSP, RTP, SRTP, SFTP, TCP, UDP, IGMP, RTCP, ICMP, DHCPv4/v6, ARP, SOCKS, SSH, LLDP, CDP, MQTT v3.1.1, Syslog, Link-Local address (ZeroConf)		
<b>System integration</b>			

<b>Certifications</b>	<p>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</p> <p><b>USA:</b> 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</p> <p><b>Canada:</b> 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</p> <p><b>ATEX:</b> 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</p> <p><b>IECEX:</b> 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</p> <p><b>INMETRO:</b> Ex db IIB+H2 T5 Gb Ex tb IIIC T85°C Db IP66 Ta = -50°C to 55°C Certificate: NCC 20.0084 X</p>
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<b>Dimensions</b>	13.85 x 7.20 x 5.97 in (352 x 183 x 152 mm)
<b>Weight</b>	14 lb (6.2 kg)
<b>Included accessories</b>	Installation Guide, Windows® decoder 1-user license, AXIS Surveillance microSDXC Card 128 GB, 3/4" NPT to M20x1.5 thread adapter
<b>Optional accessories</b>	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 <a href="http://axis.com">axis.com</a>
<b>Video management software</b>	AXIS Companion, AXIS Camera Station, video management software from Axis Application Development Partners available at <a href="http://axis.com/vms">axis.com/vms</a>
<b>Languages</b>	English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Portuguese, Traditional Chinese, Polish
<b>Warranty</b>	5-year warranty, see <a href="http://axis.com/warranty">axis.com/warranty</a>

- a. This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (<http://www.openssl.org/>), and cryptographic software written by Eric Young ([eyay@cryptsoft.com](mailto:eyay@cryptsoft.com)).

Environmental responsibility:

[axis.com/environmental-responsibility](http://axis.com/environmental-responsibility)