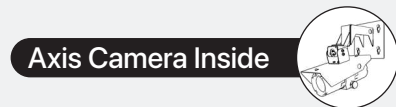


# Spectrum F101-Q1715-BD

Explosion-Proof Fixed Camera

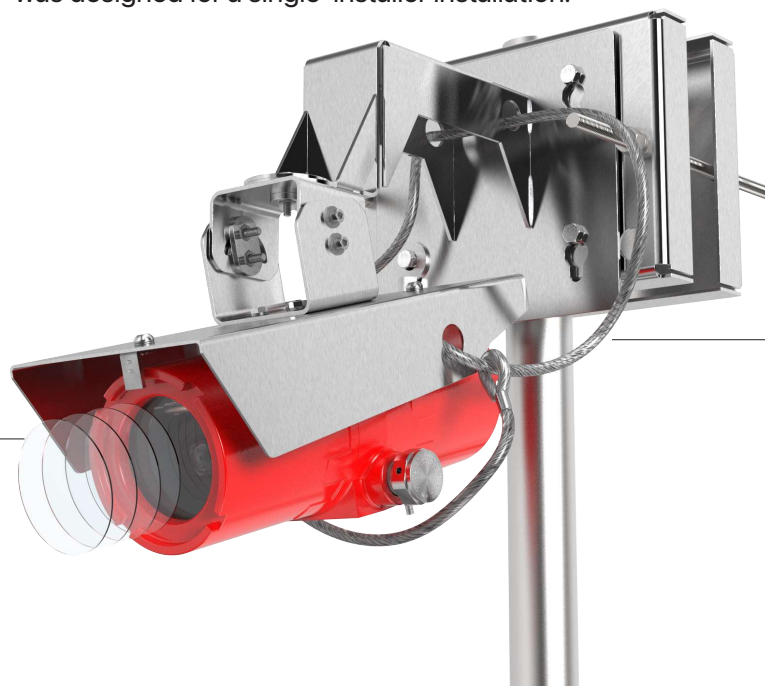
## Key Features

- 1080p at 60fs with 21x zoom
- Support for analytics deep learning
- Granular object classification
- Front Glass Protective Film (F1XX-TO) included
- Reliable Securing Kit included
- Made in USA
- NDAA-Compliant
- cFMus, Class I/II/III, Division 1, Zone 1/21, IECEx, ATEX, INMETRO and UKCA approved
- Operating Temperature:
  - Zone System: -50°C to +50°C
  - (USA) Class/Division System: -40°C to +50°C
- F1XX-TO & SF-RSK Included



## Description

Spectrum F101-Q1715-BD explosion-proof network camera delivers HDTV 1080p at 60fps and 21x optical zoom for all the details. Enclosed in a red aluminum explosion-proof housing, it's certified (cFMus, ATEX, IECEx, UKCA approved and INMETRO) for use in potentially combustible environments. With a deep learning processing unit, it's possible to take advantage of intelligent tailor-made applications based on deep learning on the edge. The camera also comes with Axis Object Analytics for highly nuanced object classification and reliable detection with less false positives. Additionally, it provides analytics metadata based on deep learning on the edge. Furthermore, it features built-in cybersecurity features to prevent unauthorized access and safeguard your system. Lightweight in design, this camera was designed for a single-installer installation.



### F1XX-TO

Front Glass Protective Film  
4-Layer peel off design

**SF-RSK**  
Reliable Securing Kit

# Specifications

## Spectrum F101-Q1715-BD

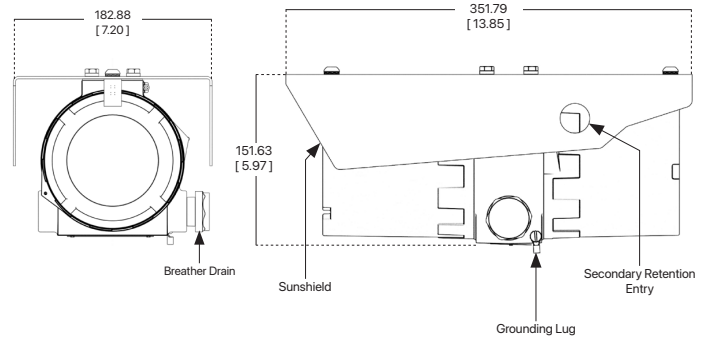
Camera	
Image sensor	1/2.8" progressive scan RGB CMOS
Lens	Varifocal, 4-84.6 mm, F1.6-F4.5 Horizontal field of view: 76°-3.6° Vertical field of view: 42°-2.2° Autofocus, P-Iris control
Day and night	Automatically removable infrared-cut filter
Minimum illumination	1080p 25/30 fps with Forensic WDR and Lightfinder 2.0: Color: 0.1 lux at 50 IRE F1.5 B/W: 0.02 lux at 50 IRE F1.5 1080p 50/60 fps with Forensic WDR and Lightfinder 2.0: Color: 0.2 lux at 50 IRE F1.5 B/W: 0.04 lux at 50 IRE F1.5
Shutter speed	1/66500sto2s
Pan/Tilt/Zoom	Zoom: 21x optical 100 preset positions, control queue, adjustable zoom speed Uploadable PTZ driver
Sensor	Axis Q1715
System on chip (SoC)	
Model	ARTPEC-7
Memory	2048 MB RAM, 1024 MB Flash
Compute capabilities	Deep learning processing unit (DLPU)
Video	
Video compression	H.264 (MPEG-4 Part 10/AVC) Baseline, Main and High Profiles H.265 (MPEG-H Part 2/HEVC) Main Profile Motion JPEG
Resolution	1920x1080 HDTV 1080p to 160x90
Frame rate	Up to 60/50 fps (60/50 Hz) in all resolutions HDMI and HD-SDI are limited to 30 fps in 1080p
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
Image settings	Saturation, contrast, brightness, sharpness, Forensic WDR: up to 120 dB depending on scene, white balance, day/night threshold, tone mapping, local contrast, EIS, exposure mode, exposure zones, defogging, compression, rotation: auto, 0°, 90°, 180°, 270° including Corridor Format, dynamic text and image overlays, polygon privacy mask, mirroring of images Scene profiles: forensic, vivid, traffic overview
Audio	
Audio encoding	SDI: AES3 24 bit, 48 kHz HDMI: LPCM 24 bit, 48 kHz Network: AAC-LC 8/16/32/44.1/48 kHz, G.711 PCM 8 kHz, G.726 ADPCM 8 kHz, Opus 8/16/48 kHz, LPCM 48 kHz
Audio input/output	External microphone input or line input, ring power, network speaker pairing
Network	
Security	Password protection, IP address filtering, HTTPSa encryption, IEEE 802.1x (EAP-TLS)a network access control, digest authentication, user access log, centralized certificate management, brute force delay protection, signed firmware, secure boot, Axis Edge Vault, Axis device ID, secure keystore (CC EAL4 certified), TPM (FIPS 140-2 certified)
Supported protocols	IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTPSa, HTTP/2, TLSa, QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP®, SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, RTSP, RTP, SRTP, TCP, UDP, IGMPv1/v2/v3, RTCP, DHCPv4/v6, SOCKS, SSH, SIP, LLDP, CDP, MQTT v3.1.1, Syslog, 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 M, ONVIF® Profile S, and ONVIF® Profile T, specification at onvif.org Support for Session Initiation Protocol (SIP) for integration with Voice over IP (VoIP) systems, peer to peer or integrated with SIP/PBX.
Event conditions	Audio: audio clip playing, audio detection Device status: above operating temperature, above or below operating temperature, below operating temperature, IP address removed, network lost, new IP address, ring power overcurrent protection, storage failure, system ready, within operating temperature, shock detection Digital audio: digital signal contains Axis metadata, digital signal has invalid sample rate, digital signal missing, digital signal OK Edge storage: recording ongoing, storage disruption I/O: digital input, manual trigger, virtual input MQTT subscribe PTZ: PTZ malfunctioning, PTZ movement, PTZ preset position reached, PTZ ready Scheduled and recurring: scheduled event Video: average bitrate degradation, day-night mode, live stream open, tampering
Event actions	Record video: SD card and network share MQTT publish 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, zoom preset, day/night mode , make call
Data streaming	Event data
Built-in installation aids	Leveling guide, pixel counter, license plate capture assistant
Analytics	
Axis Object Analytics	Object classes: humans, vehicles (types: cars, buses, trucks, bikes) Trigger conditions: line crossing, object in area Up to 10 scenarios Metadata visualized with color-coded bounding boxes Polygon include/exclude areas Perspective configuration ONVIF Motion Alarm event
Applications	Included AXIS Object Analytics AXIS Video Motion Detection Supported AXIS Audio Spectrum Visualizer Support for AXIS Camera Application Platform enabling installation of third-party applications, see axis.com/acap

# Specifications

General	
Casing	Aluminum
Weight	6.4 kg (14 lb)
Dimensions	13.85 x 7.20 x 6.01 in (352 x 183 x 153 mm)
Power	57 VDC, 13.5W; 12-24 VAC/VDC, 20W
Storage Conditions	-40°C to 65°C Humidity 5-95% RH (non-condensing)
Operating Conditions	Zone system: -50°C to +60°C (USA) Class/Division system: -40°C to +60°C Humidity 10-100% RH (condensing)
Warranty	5-year limited warranty, see <a href="http://spectrumcamera.com/warranty">spectrumcamera.com/warranty</a>

Approvals	<p><b>Hazardous Area</b> FM3600, FM3615, ANSI/ISA/EN/IEC/CAN/CSA-C22.2 60079-0, ANSI/UL/EN/IEC/CAN/CSA-C22.2 60079-1, ANSI/UL/IEC/CAN/CSA-C22.2 60079-31</p> <p><b>EMC</b> EN 55032 Class A, EN 50121-4, IEC 62236-4, 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</p> <p><b>Safety</b> IEC/EN/UL 60950-22, IEC/EN/UL 62368-1, IS 13252</p> <p><b>Environment</b> IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6, IEC 60068-2-14, IEC 60068-2-27, IEC 60068-2-78, IEC/EN 60529 IP66/IP67, IEC/EN 62262 IK10, NEMA 250 Type 4X, NEMA TS 2 (2.2.7-2.2.9)</p> <p><b>Network</b> NIST SP500-267</p>
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Explosion-proof Certifications	<p><b>USA:</b> Class I Division 1 Groups BCD T6 Ta= -40°C to +50°C, Type 4X, IP66 Class II/III Division 1 Groups EFG Ta= -40°C to +50°C, Type 4X, IP66 Certificate: FM18US0262X</p> <p><b>Canada:</b> Class I Division 1 Groups BCD T6 Ta= -50°C to +50°C, Type 4X, IP66 Class II/III Division 1 Groups EFG Ta= -50°C to +50, Type 4X, IP66 Class I, Zone 1, AEx/Ex db IIB+H2 T5 Gb Ta = -50°C to +50, Type 4X, IP66 Zone 21, AEx/Ex tb IIIC T85°C Db Ta = -50°C to +50°C, Type 4X, IP66 Certificate: FM18CA0126X</p> <p><b>ATEX:</b> II 2 G Ex db IIB+H2 T5 Gb Ta = -50°C to +50°C, IP66 II 2 D Ex tb IIIC T85°C Db Ta = -50°C to +50°C, IP66 Certificate: FM18ATEX0073X</p> <p><b>IECEx:</b> Ex db IIB+H2 T5 Gb Ta = -50°C to +50°C, IP66 Ex tb IIIC T85°C Db Ta = -50°C to +50°C, IP66 Certificate: IECEx FMG 18.0029X</p>
Video Management Software	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>
Languages (Camera)	English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Portuguese, Polish, Traditional Chinese



## Approvals

**SPECTRUM CAMERA SOLUTIONS**  
SPECIALIZING IN EXPLOSION PROOF TECHNOLOGY  
8935 ALMEDA GENOA RD. HOUSTON, TEXAS 77075 USA  
SERIAL: [REDACTED]

**FM US APPROVED** MADE IN USA  
CERT NO. FM18US0262X & FM18CA0126X  
MODEL: F1XX-(CCCC)-BD  
INPUT: 57VDC, X.X W;  
HEATER: 12-24VDC/VAC, XX W

**UK CA** 1725

US: Class I Division 1 Groups BCD T6 Ta= -40°C to +60°C, Type 4X, IP66  
Class II/III Division 1 Groups EFG T6 Ta= -40°C to +60°C, Type 4X, IP66  
Canada: Class I Division 1 Groups BCD T6 Ta= -50°C to +60°C, Type 4X, IP66  
Class II/III Division 1 Groups EFG T6 Ta= -50°C to +60°C, Type 4X, IP66  
Class I, Zone 1, AEx/Ex db IIB+H2 T5 Gb Ta = -50°C to +60°C, Type 4X, IP66  
Zone 21, AEx/Ex tb IIIC T85°C Db Ta = -50°C to +60°C, Type 4X, IP66  
II 2 G Ex db IIB+H2 T5 Gb Ta = -50°C to +60°C, IP66  
II 2 D Ex tb IIIC T85°C Db Ta = -50°C to +60°C, IP66  
CERT NO. FM18ATEX0073X, IECEx FMG 18.0029X, & FM22UKEX0016X

CODE	CONFIGURATION
TS	WITH BREATHER DRAIN
TE	WITHOUT BREATHER DRAIN

WARNING: DO NOT OPEN WHEN ENERGIZED OR WHEN AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT. Install seal within 18 inches. For Zones, install seal at entry. WARNING - POTENTIAL ELECTROSTATIC CHARGING HAZARD - SEE INSTRUCTION. USE 80°C OR HIGHER RATED CONDUCTORS.  
AVERTISSEMENT: NE PAS OUVRIR LORSQU'ENNERGIE OU QUAND UNE ATMOSPHERE EXPLOSIVE PEUT ETRE PRESENTE. Les joints de fermeture sont obligatoires dans une distance de 18 pouces. Pour les zones, installez un sceau à l'entrée. AVERTISSEMENT - RISQUE DE CHARGE ELECTROSTATIQUE POTENTIEL - VOIR LES INSTRUCTIONS. UTILISEZ DES CONDUCTEURS COTÉS DE 80 °C OU PLUS.

**SPECTRUM CAMERA SOLUTIONS**  
SPECIALIZING IN EXPLOSION PROOF TECHNOLOGY  
8935 ALMEDA GENOA RD. HOUSTON, TEXAS 77075 USA  
NO. DE SÉRIE: [REDACTED]

FABRICADO NO EUA  
CERT NO. NCC 20.0084 X  
MODELO: F101-Q1715-BD  
ALIMENTAÇÃO: 57VDC, 13.5W;  
12-24 VAC/VDC, 20W

**Segurança**  
**INMETRO** OCP 0034  
NCC 20.0084 X

NCC 20.0084 X  
Ex db IIB+H2 T5 Gb Ta = -50°C to +50°C, IP66  
Ex tb IIIC T85°C Db Ta = -50°C to +50°C, IP66

ATENÇÃO: NÃO ABRA ENQUANTO ENERGIZADO OU QUANDO ATMOSFERA EXPLOSIVA PUDE ESTAR PRESENTE. INSTALAR O ANEL DE VEDAÇÃO DA ENTRADA. ATENÇÃO - RISCO POTENCIAL DE CARGAS ELETROSTÁTICAS - VER INSTRUÇÕES. USAR CONDUTORES ADEQUADOS PARA TEMPERATURAS ATÉ 80°C. ATENÇÃO - NÃO ABRIR QUANDO ENERGIZADO. ATENÇÃO - RISCO POTENCIAL DE CARGA ELETROSTÁTICA - VER INSTRUÇÕES