

EX-PROOF HD CAMERA SERIES WITH INTEGRATED EX E CHAMBER



EC-940-AFZ-Full HD IP - Standard

The IP Full HD explosion protected EC-940S-AFZ-Series is perfect for effective video surveillance and process control in harsh settings where the presence of gases or flammable dust can create a potentially explosive environment, a reality often found in the oil and gas industries or marine and industrial sectors. Our innovative explosion-protected camera design – Ex d enclosures with extra Ex e connection chambers – offers many advantages in the plant.

The Ex d enclosure allows the integration of the latest camera technology at any time, thus ensuring that state-of-the-art functions and features are always available in the hazardous area.

Our latest FULL HD IP camera provides the following functions: WDR, defog, 32x optical zoom, and ONVIF Profile S protocol,

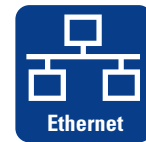
and is available either as 230 VAC or 24 VDC version (wide range). The unique Ex e connection chamber allows easy and cost-effective installation of the camera in the hazardous area. Any additional junction boxes are no longer required.

ATEX and IECEx certified, this camera model is designed to operate in ambient temperatures between -55 °C and +60 °C (-67 °F and +140 °F) (24 VDC version).

This series also includes a PoE++ version with extender exclusively powered over Ethernet cable, and a fiber optic (Ex op is) version designed for transmission distances of up to 5 km (3.1 mi).



Ex e chamber



MAIN FEATURES

- ▶ Integrated Ex e connection chamber for easy installation directly in the hazardous area
- ▶ State-of-the-art camera technology: Full HD IP, WDR, Defog, 32x optical zoom
- ▶ Easy maintenance modular design
- ▶ Available as 230 VAC or 24 V/DC version
- ▶ Electropolished 1.4404 stainless steel enclosure ensures high level of corrosion resistance

CERTIFICATES



HARSH ENVIRONMENT

Noxious gas	ISA-71.04: 1985-04
EMC	EN 61000-4-3 (VDE 0847 Part 4-7) 2006 + A1:2008 + A2:2010

AMBIENT TEMPERATURE RANGE

230V AC:	from -40°C (-40°F) up to +60°C (140°F)
24V DC:	from -55°C (-67°F) up to +65°C (149°F)

IP SAFETY

IP 66



TECHNICAL DATA

GENERAL

Housing material: 1.4404 / 316L
Electropolished surfaces Exd e enclosure
Silicone O-ring seals

MECHANICAL

Sunshield: included
Unit weight: 14.35kg (31.6lb)

HOUSING WINDOW

Material: Thermally tempered glass

ELECTRICAL

Power supply:
Camera EC-940-AFZ-HDI-05H: 24V DC (18-75V DC)
Camera EC-940-AFZ-HDI-04H: 230V AC (115-230V AC, 47-440 Hz)
Power consumption: 35W
Heater: T-on 5°C (41°F),
T-off 17°C (63°F)

VIDEO

Compression: H.264, MJPEG
Number of streams: Up to 10 profiles
Image resolution: 1920x1080
Frame rate: H.264, 60 fps all resolutions
MJPEG, 320x180 up to 800x600 max. 30 fps
MJPEG, 1024x768 up to 1920x1080 max 15fps

CAMERA

Image device: 1/2.8" CMOS
Effective pixels: 1944x1104 Px
Lens: 4.44mm (wide) ... 142.6mm (tele)
Zoom: 32x optical zoom, 16x digital zoom
Viewing angle: H 62.8° (wide) to 2.23° (tele)
V 36.8° (wide) to 1.26° (tele)
Minimum object distance: 1.5m (4.92ft)
Electronic shutter: 2 ~ 1/12,000sec
White balance: ATW / AWC / Manual / Indoor / Outdoor / Mercury
Gain: Off / Low / Middle / High
Wide dynamic range: On / Off / VE
Focus system: Auto / Manual / Push
Intelligent video analytics: Tampering / Virtual line / Enter / Exit / (Dis-)Appear / Face detection
Exposure Control: Minimum / Maximum / Anti flicker / ATW/AWC / Indoor / Outdoor / Mercury
S/N ratio: 50dB
Wide-D: 120dB
Defog: Off / Auto / Manual
Minimum illumination color: 0.3 Lux (1/30sec, F1.6, 50IRE)
Minimum illumination B/W: 0.03 Lux (1/30sec, F1.6, 50IRE)

NETWORK

Ethernet connection: IEEE 802.3 100Base-Tx
PoE connection: IEEE802.3af class 3 without heating
Terminals in Ex e chamber

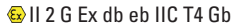

NETWORK PROTOCOLS

Protocol: ONVIF Profile S
Device configuration: TCP/IP, UDP/IP, RTP (UDP), RTP(TCP), HTTP, HTTPS, SSL, DHCP, PPPoE, FTP SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour
Streaming: RTSP, RTCP, NTP
Streaming method: Unicast, Multicast
Max user access: 10 users in Unicast mode
Security: HTTPS (SSL) login authentication, Digest login authentication, IP address filtering, User access log, 802.1x authentication
Edge storage: SD/SDHC/SDXC - motion images recorded in the memory card can be downloaded

ENVIRONMENT

Operating temperature:
Camera 230V AC: -40°C (-40°F) up to +6 °C (140°F)
Camera 24V DC: -55°C (-67°F) up to +65°C (149°F)

CERTIFICATIONS

ATEX:  II 2 G Ex db eb IIC T4 Gb
 II 2 D Ex tb eb IIIC T135°C Db
EN 60079-0:2012 +A11:2013
EN 60079-1:2014
EN 60079-7:2015
EN 60079-31:2014
IECEX: Ex db eb IIC T4 Gb
Ex tb eb IIIC T135°C Db
IEC 60079-0: 2011 (Ed.: 6) +Cor.2: 2013
IEC 60079-1: 2014 (Ed.: 7)
IEC 60079-7: 2015 (Ed.: 5)
IEC 60079-31: 2013 (Ed.: 2)
ATEX, IECEX: T4, -55°C to +80°C

ACCESSORIES

Pole adapter module EC-94x-AFZ	Order No. 257047
Corner adapter module EC-94x-AFZ	Order No. 257048
Parapet mounting bracket EC-94x-AFZ	Order No. 257049
Wall bracket EC-94x-AFZ	Order No. 257043

MODELS

EC-940-AFZ-HDI-05H	Full HD IP Camera	24 VDC	-55°C bis +60°C
EC-940-AFZ-HDI-04H	Full HD-IP Camera	230 VAC	-40°C bis +65°C

Both models can also be operated with PoE (class 3), but without heating (0°C to +65°C)

TECHNICAL DRAWINGS

Sizes in millimeters

