

EX-PROOF HD CAMERA SERIES WITH INTEGRATED EX E CHAMBER



EC-940-AFZ-Full HD IP - Fiber Optic

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. The series of our innovative hazardous areas (Ex-) cameras with Ex e connection chamber also includes a fibre optic version. They have been designed to provide maximum EMC shielding, with transmission distances of up to 5 km (3.1 mi). The integrated Ex op is media converter allows connecting/deconnecting of the fibre optic connection in the hazardous

area. These camera types are a cost-effective solution as they do not require any additional Ex e junction boxes. The additional benefit of this new Ex d camera enclosure design is that we can integrate the latest camera technology at any time. Our standard Full HD IP camera model provides the following functions: WDR, defog, 32x optical zoom, ONVIF Profile S protocol, and is available either as 230 VAC or as 24 VDC version (wide range). The EC-940-AFZ-Full HD IP – Fibre Optic is ATEX and IECEx certified, and is designed to operate in ambient temperatures between -25 °C and +55 °C (-13 °F and +131 °F).



Ex e chamber



MAIN FEATURES

- ▶ Long transmission distance of up to 5 km (3.1 mi) Multimode
- ▶ 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 VDC 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

from -25°C (-13°F) up to +55°C (+131°F)

IP SAFETY

IP 66

253456/249031 - DE - 2016/10

TECHNICAL DATA

GENERAL

Housing material: 1.4404 / 316L
 Electropolished surfaces Ex d 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-05I: 24V DC (18 - 75 V DC)
 Camera EC-940-AFZ-HDI-04I: 240 V AC (115 - 230 V AC)
 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 resolution
 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
 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 / One 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

Fiber optic connection: FO connector SC - Ex op is certified Multimode
 Power connection: 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: -25°C (-13°F) up to +55°C (+131°F)

CERTIFICATIONS

ATEX: ☉ II 2 G Ex db eb op is IIC T4 Gb
 ☉ II 2 D Ex tb eb op is 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 op is IIC T4 Gb
 Ex tb eb op is 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 (optional, all in stainless steel)

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-05I	Full HD FO Camera with SC Connector and MM	24 VDC	-25°C up to +55°C -13°F up to +131°F
EC-940-AFZ-HDI-04I	Full HD-IP Camera SC Connector and MM	230 VAC	-25°C up to +55°C -13°F up to +131°F

TECHNICAL DRAWINGS

Sizes in millimeters

