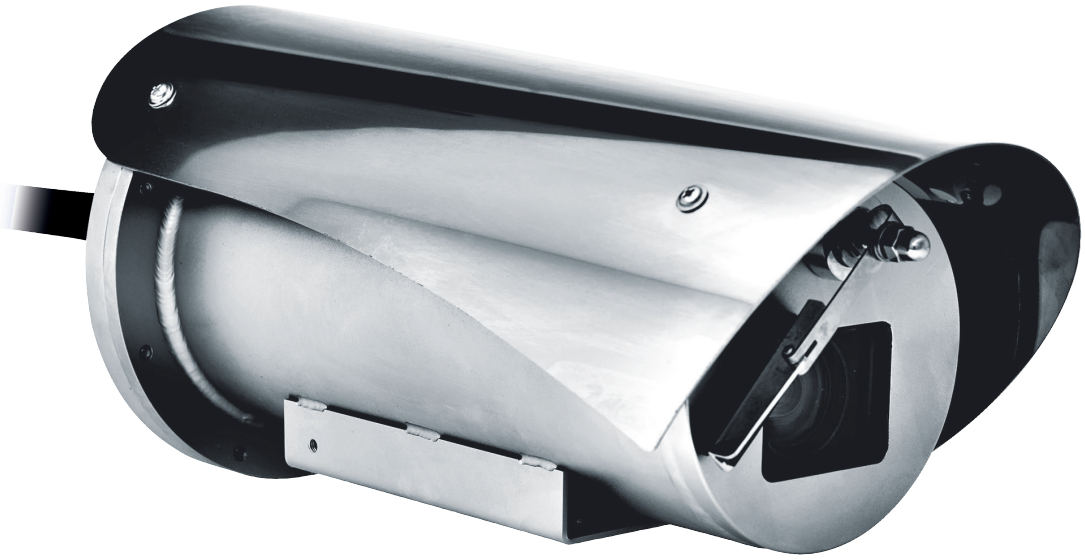
EX-PROOF DAY/NIGHT CAMERA SERIES IN A COMPACT DESIGN

EC-940S-AFZ Analogue Series

The explosion protected EC-940S-AFZ Analogue 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 Day/Night high-resolution camera with sensor 1/4" and motorized zoom 36x for easier setup, ensures superior image quality even with low lighting and difficult environmental conditions. One striking advantage offered by the EC-940S-AFZ cameras is their extremely easy and secure "plug and play" installation with multipolar wiring. This camera comes ready to use, avoiding the complex electrical connections that are typical for this kind of device.
The housing is compact yet functional and is made entirely out of AISI316L stainless steel. Its resistance to corrosion is not only guaranteed, but is also enhanced by way of polishing processes. Another important feature of the camera is the extended temperature range of -50°C to 65°C, along with a sophisticated cold start system, which allows it to operate in harsh environments as standard.
An equally noteworthy point is that the IP66/IP68 ratings guarantee the complete protection against harsh weather and the submersion in up to 5 meters of water for 2 hours. This camera comes with a wiper and an explosion-proof washer kit is also available, allowing for flawless, maintenance-free cleaning of the front glass. The EC-940S-AFZ Analogue Series meets every installation need, providing maximum of performance and excellent value for money.



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MAIN FEATURES

- Electropolished and silicon micro shot peened AISI 316L stainless steel
- Certifications for use in Zones 1 and 2, IIC T5 Group (Gas) and in Zones 21 and 22, IIIC T100°C Group (Dust)
- High resolution: up to 550 TVLines
- Advanced image stabilizer (Stable Zoom Mode)
- Day/Night (Auto ICR: automatic removal of IR filter)
- Autofocus
- 1 alarm input and 1 relay output
- 4m (13ft) preinstalled armored multipolar cable with cable gland (ATEX, IECEx) or alternatively 4m cable set (NEC, CEC)
- Integrated wiper
- Power supply: 12-24V DC/24V AC

CERTIFICATES

IECEx ATEX NEC CEC

AMBIENT TEMPERATURE RANGE

-50°C up to +65°C

IP SAFETY

IP 66, 68 - 69 (Housing only)

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TECHNICAL DATA

GENERAL

AISI 316L stainless steel construction
Electropolished and silicon micro shot peened external surfaces
Silicone O-ring seals
Plug and play
4m (13ft) preinstalled armored multipolar cable with cable gland (ATEX, IECEx) or alternatively 4m cable set (NEC, CEC)

MECHANICAL

Sunshield
Integrated wiper

Unit weight:	8kg (18lb)

HOUSING WINDOW

Thermally tempered glass

ELECTRICAL

Power supply/ Current consumption:	• 24V AC, 2.2A, 50/60Hz • 24V DC, 2.2A • 12V DC, 3.5A
I/O alarm card:	• Alarm inputs: 1 • Relay outputs: 1 (1A, 30V AC/60V DC max)
Heater:	T-on 15°C±3°C (59°F ±5°F), T-off 22°C±3°C (77°F±5°F)

I/O INTERFACE

Cable length:	200m (656ft) max
Remote wiper activation:	1 input, dry contact NO

CAMERA

Day/Night 36x

White balance:	Auto, ATW , Indoor, Outdoor (Fix/Auto), Sodium Vapor Lamp (Fix/Auto)
High horizontal resolution:	Up to 550 TV Lines
Image Sensor:	1/4'' EXView HAD CCD
Number of effective Pixels:	~ 440,000 pixel (PAL); ~ 380,000 pixel (NTSC)
Minimum Illumination, color (ICR-OFF):	• 1.4Lx (1/50s), 0.1Lx (1/3s), PAL • 1.4Lx (1/60s), 0.01Lx (1/4s), NTSC
Minimum Illumination, B/W (ICR-ON):	• 0.01Lx (1/3s), PAL • 0.01Lx (1/4s), NTSC

"Shutter Time" automatic increase to improve the night surveillance

S/N ratio:	More than 50dB
AE control:	Automatic, Shutter priority, Diaphragm priority, Brightness priority and Manual
Back light compensation:	On/Off
Focusing system:	Auto (Sensitivity: Normal, Low), Trigger PTZ, Manual
"Smart" lens control:	Automatic Lens Reset

LENS

Optical zoom:	36x, f=3.4 (wide) to 122.4mm (tele) / F1.6 to F4.5
Digital zoom:	12x (432x with optical zoom)
Angle of view (A):	57.8 degrees (wide) to 1.7 (tele)
Minimum object distance:	320mm (12.6in) (wide) to 1500mm (59.1in) (tele)
Electronic iris speed:	1/1 ÷ 1/10 000s

COMMUNICATIONS

Serial interface:	• RS-485 line, half-duplex • Cable length: 1200m max

PROTOCOLS

Serial communication protocol:	• PANASONIC: 9600baud, 19200baud • PELCO D: 2400baud, 9600baud

ENVIRONMENT

Environment temperature:	T5: from -60°C (-76°F) up to +65°C (149°F) (versions with armoured cable) or from -50°C (-58°F) up to +65°C (149°F) (versions with cable set)
Operating temperature:	cold start from -40°C (-40°F) up to +65°C (149°F) running from -50°C (-58°F) up to +65°C (149°F)

CERTIFICATIONS

ATEX (EN 60079-0: 2014, EN60079-1: 2015, EN60079-31: 2014):	II 2 G Ex d IIC T5 Gb II 2 D Ex tb IIIC T100°C Db IP66/IP68 -60°C ≤ Ta ≤ +65°C (versions with armoured cable)
	II 2 G Ex d IIC T5 Gb II 2 D Ex tb IIIC T100°C Db IP66/IP68 -50°C ≤ Ta ≤ +65°C (versions with cable set)
IECEx (IEC 60079-0: 2011Ed.6, IEC 60079-1: 2014-06 Ed.7, IEC 60079-31: 2013 Ed.2):	Ex d IIC T5 Gb Ex tb IIIC T100°C Db IP66/IP68 -60°C ≤ Ta ≤ +65°C (versions with armoured cable)
	Ex d IIC T5 Gb Ex tb IIIC T100°C Db IP66/IP68 -50°C ≤ Ta ≤ +65°C (versions with cable set)
NEC (T5, T100°C, with cable set, -50°C/ +65°C)	Class I, Zone 1, AEx d IIC T5 Gb Class I Div 2 Group A,B,C,D T5 Zone 21, AEx tb IIIC T100°C Db Class II Div 2 Group E, F and G T100°C
CEC (T5, T100°C, with cable set, -50°C/ +65°C)	Ex d IIC T5 Gb Class I Div 2 Group A,B,C,D T5 Ex tb IIIC T100°C Db Class II Div 2 Group E, F and G T100°C

ACCESSORIES (optional, all in stainless steel)

Pole adapter module EC-x40S	Order No. 251380
Corner adapter module EC-x40S	Order No. 251381
Parapet mounting bracket EC-x40S	Order No. 251386
Wall bracket EC-x40S	Order No. 251387
Ball joint x40S	Order No. 251388
Watertank 10L (ATEX)	Order No. 251366
Watertank 10L(EAC)	Order No. 251367

PACKAGE

Weight:	12.5 kg (28 lb)
Dimensions:	60x30x60 cm (24x12x24 in)

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MODELS

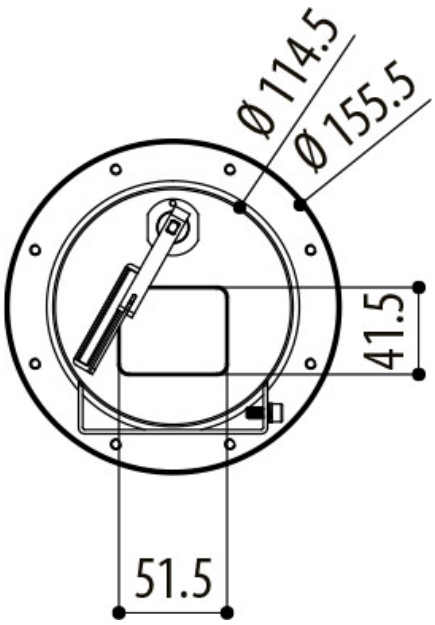
EC-940S-	**AFZ-**	**3PA** - 36x Zoom, PAL	**-W2**	**4** - 4m armoured cable	**-56** - T5 -60°C … +65°C only with armoured cable
		3NA - 36x Zoom, NTSC		**F** - 4m cables for NEC/CEC	**-55** - T5 -50°C … +65°C open cable for NEC/CEC

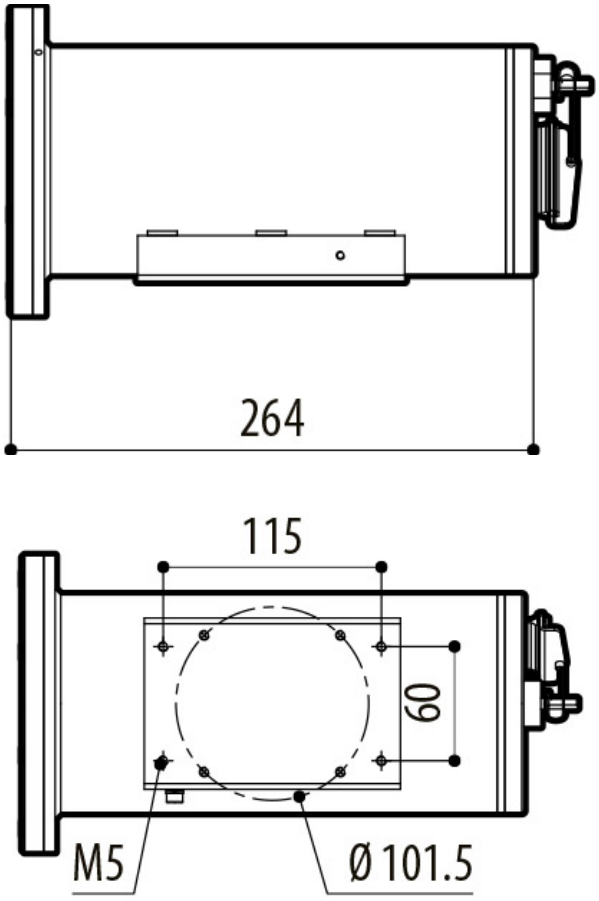
Example: EC-940S-AFZ-3PA-W2F-55 – Camera with cable set for T5 -50°C … +65°C

*T6 versions available

TECHNICAL DRAWINGS

Sizes in millimeters





- without sunroof

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