

EXIPCAM1500 EX-PROOF FULL HD COMPACT CAMERA

FEATURES

- Certifications for use in Zones 1 and 2, IIB T6 or T5 Group (Gas) and in Zones 21 and 22, IIIC T85°C or T100°C Group (Dust)
- Certification temperature: from -40°C (-40°F) up to +70°C (158°F)
- AISI 316L stainless steel construction
- Camera Full HD 1080p, 3x or 10x Day/ Night
- Power supply: 24Vdc, 24Vac, PoE+

KEY BENEFITS

- · Durable, low maintenance housing
- Certified for environments with combustible dust and gases
- High quality, high definition video
- Precise zoom control
- Inter-operable with ONVIF certified systems

The EXIPCAM1500 explosion-proof camera delivers high performance video monitoring for refineries, gas pipelines, offshore platforms, industrial processes and other industries where potentially explosive atmospheres may exist.

High quality imaging is made possible by the HD, 1080p, 60fps camera with 3x or 10x optical zoom. The video is transported over an IP based Ethernet network, using H.264/AVC and MJPEG compression and ONVIF Profile S compatibility.





TECHNICAL SPECIFICATIONS

EXIPCAM1500 SPECIFICATIONS

MECHANICAL

AISI 316L stainless steel construction

External shot peened and electro-polished surfaces

Sunshield

Supports for wall, ceiling or parapet installation

Unit weight:

- 6.5kg (14.3lb) (housing only + mounting bracket)
- 8.5kg (18.7lb) (housing with 4m (13ft) multi-polar cable shield)

CABLE GLANDS

Cable entry: 1 hole, 1/2" NPT

Cable gland Ex d 1/2"NPT (with pre-installed cable only)

ELECTRICAL

Supply voltage/Current consumption

- 24Vac, 1.32A, 50/60Hz
- 24Vdc, 0.9A
- PoE+ (IEEE 802-at)

Supply voltage/Current consumption

- 21W (24Vac, 1.32A, 50/60Hz)
- 20W (24Vdc, 0.9A)
- 21W (PoE+)

Armoured cable

- External diameter: 18.6mm (0.73in)±0.2mm (0.008in)
- Diameter under armature: 13.8mm (0.54in)
- Colour: black RAL 9005

Armoured cable composition:

- 3x1mm2 (17AWG)
- 4x2x0.22mm2 (24AWG) (cat. 5E F/STP)

NETWORK

Ethernet connection: 100 Base-TX

Connector: RJ45

VIDEO

Video encoder

- Communication protocol: ONVIF, Profile S and Profile Q
- Device configuration: TCP/IPv4-IPv6, UDP/IPv4-IPv6, HTTP, HTTPS, NTP, DHCP, WSDISCOVERY, DSCP, IGMP (Multicast), SOAP, DNS
- Streaming: RTSP, RTCP, RTP/IPv4, HTTP, Multicast
- Video compression: H.264/AVC, MJPEG, JPEG, MPEG4
- · 3 independent video streams Full HD
- Image resolution: from 320x180pixel up to 1920x1080pixel in 6 steps
- Selectable frame rate from 1 to 60 images per second (fps)
- Web Server
- Motion Detection

CAMERAS

Day/Night Full HD 3x

Resolution: Full HD 1080p (1920x1080pixel)

Signal system: max 1080p/30fps

Image Device: 1/2.8 type Exmor™ CMOS sensor

Effective pixels: 3.27Megapixel

Minimum Illumination, colour (ICR-OFF):

- 1lx, 1/30s, F1.2,50% (Normal mode)
- 0.25lx, 1/30s, F1.2, 50% (High sensitivity mode)

Minimum Illumination, B/W (ICR-ON):

- 0.1lx, 1/30s, F1.2, 50% (Normal mode)
- 0.03lx, 1/30s, F1.2, 50% (High sensitivity mode)

CAMERAS (CON'TD)

Lens:

- From f= 3.0mm (wide) up to 9.0mm (tele)
- From F1.2 up to F2.1

Zoom: 3x (36x with digital zoom)

Horizontal Viewing Angle: From 90° (wide) up to 32° (tele)

Minimum object distance: 300mm (11.8in) (wide to tele)

Shutter speed: From 1/1s up to 1/10000s, 22 steps

White balance: Auto, ATW, Indoor, Outdoor, Outdoor Auto, Sodium vapor lamp (Fix, Auto), Manual

Wide Dynamic Range: On/Off

Exposure Control: Auto, Manual, Priority (Shutter priority, Iris priority), Brightness

S/N Ratio: 50dB

Gain limit: up to 28dB

Backlight Compensation

Day/Night Full HD 10x

Resolution: Full HD 1080p (1920x1080pixel)

Signal system: 1080p/60fps max

Image Device: 1/2.8 type Exmor™ CMOS sensor

Effective pixels: 2.38Megapixel

Minimum Illumination, colour (ICR-OFF):

- 1.4lx, 1/30s, 50% (Normal mode)
- 0.35lx, 1/30s, 50% (High sensitivity mode)
- 0.19lx, 1/3s, 50% (Normal mode)
- 0.05lx, 1/3s, 50% (High sensitivity mode)

Minimum Illumination, B/W (ICR-ON):

- 0.12lx, 1/30s, 50% (Normal mode)
- 0.03lx, 1/30s, 50% (High sensitivity mode)
- 0.002lx, 1/3s, 30% (High sensitivity mode)

Lens:

- From f= 3.8mm (wide) up to 38mm (tele)
- From F1.8 up to F3.4

Zoom: 10x (120x, with digital zoom)

Horizontal Viewing Angle: From 67 $^{\circ}$ (wide) up to 7.6 $^{\circ}$ (tele)

Minimum object distance: From 10mm (0.4in) (wide) up to 800mm (31.4in) (tele)

Shutter speed: From 1/1s up to 1/10000s, 22 steps

White balance: Auto, ATW, Indoor, Outdoor, Outdoor Auto, Sodium vapor lamp (Fix, Auto,Outdoor Auto), Manual

Wide Dynamic Range: On/Off/Visibility enhancer, Light level, Brightness Compensation selection, Compensation level

Exposure Control: Auto, EV Compensation, Manual, Priority (Shutter priority, Iris priority), Brightness, Slow AE

S/N Ratio: 50dB

Gain limit: up to 43.5dB

De-fog: Yes (On/Off)

Backlight Compensation

TECHNICAL SPECIFICATIONS (CONT'D)

SPECIFICATIONS

For installation indoors and outdoors

Operating temperature: from -40 °C (-40 °F) up to +65 °C (149 °F)

Certification temperature: from -40 °C (-40 °F) up to +65 °C (149 °F) (T6/T85°C) or +70°C (158°F) (T5/T100°C)

Relative humidity: from 10% up to 95% (no condensation)

CERTIFICATIONS

Electrical safety (CE): EN60950-1, IEC60950-1, EN62368-1, IEC62368-1

Electromagnetic compatibility (CE): EN601000-6-4, EN61000-3-2, EN61000-3-3, EN50130-4, EN55032 (Class A)

RoHS (CE): EN50581

Outdoor installation (CE): EN60950-22, ICE60950-22

IP protection degree (EN/IEC60529): IP66, IP67, IP68 (2 hours, 5m (16ft)), IP69

Vibration test: EN50130-5, EN60068-2-6

UL certification (UL60950-1, CAN/CSA C22.2 No. 60950-1-07): cULus Listed

Electromagnetic compatibility (North America): FCC part 15 (Class A), ICES-003 (Class A)

Level of protection Type (UL50E): 4X, 6P

CERTIFICATIONS - EXPLOSION-PROOF APPLICATIONS

ATEX (EN 60079-0+A11, EN 60079-1, EN 60079-31)

IECEx (IEC 60079-0, IEC 60079-1, IEC 60079-31)

EAC EX (TR CU 012/2011)

UL listed for USA (UL 60079-0, UL 60079-1, UL 60079-31)

UL listed for Canada (CAN/CSA-C22.2 NO. 60079-0, CAN/CSA-C22.2 NO. 60079-1, CAN/CSA-C22.2 NO. 60079-31)

For further details on certifications and markings, consult the relevant table.

CERTIFICATIONS - MARINE APPLICATIONS

Lloyd's Register Marine Type Approval certification (only for models with Day/Night camera 10X zoom, FullHD):

• Test Specification Number 1 (ENV1, ENV2, ENV3, ENV5)

Electromagnetic compatibility: EN60945

Salty fog resistance: EN60068-2-52

Tested at 70° for 16 hours in compliance with EN60068-2-2

SELECTION DIAGRAM FOR CABLE GLANDS AND ACCESSORIES 1/2" NPT							
Туре	Certification	Operating temperature	Cable	Model Number	Diameter of the external cable	Under armor cable diameter	
Barrier cable gland	IECEX/ATEX/EAC Ex	-60°C (-76°F) / +135°C (275°F)	Unarmoured cable	OCTEXB1/2P	12.5 - 14.0mm (0.5-0.55in)	-	
			Armoured cable	OCTEXBA1/2P	15.5 - 21.1mm (0.61-0.83in)	-	
Cable gland with gasket	IECEX/ATEX/EAC Ex	-60°C/+100°C (-76°F/+212°F)	Unarmoured cable	OCTEX1/2C	3.2 - 8.0mm (0.12-0.31in)	-	
			Unarmoured cable	OCTEXS1/2C	6.5 - 11.9mm (0.26 - 0.47in)	-	
			Armoured cable	OCTEXA1/2C	12.5 - 20.5mm (0.49 - 0.8in)	10 - 14.3mm (0.4 - 0.56in)	
Plug EX 1/2"NPT	IECEX/ATEX/EAC Ex	-100°C (-148°F) / +400°C (752°F)	-	OEXPLUG1/2P	-	-	

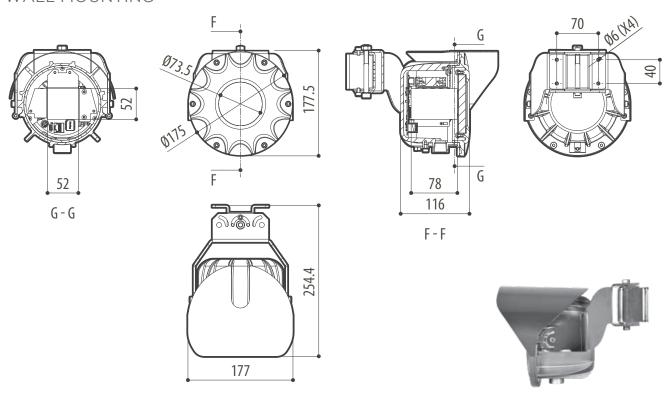
EXIPCAM1500 - CERTIFICATIONS AND MARKINGS (WITH CABLE)					
Certification	Marking	Ambient temperature			
ATEX	Ex II 2 G Ex db IIB T6T5 Gb Ex II 2 D Ex tb IIIC T85°CT100°C Db	-40°C ≤ Ta ≤ +65°C or +70°C			
IECEX	Ex db IIB T6T5 Gb Ex tb IIIC T85°CT100°C Db	-40°C ≤ Ta ≤ +65°C or +70°C			
EAC Ex	Ex II 2G Ex db IIB T6T5 Gb Ex II 2D Ex tb IIIC T85°CT100°C Db	-40°C ≤ Ta ≤ +65°C or +70°C			

EXIPCAM1500 - CERTIFICATIONS AND MARKINGS (WITHOUT CABLE)					
Certification	Marking	Ambient temperature			
ATEX	Ex II 2 G Ex db IIB T6T5 Gb Ex II 2 D Ex tb IIIC T85°CT100°C Db	-40°C ≤ Ta ≤ +65°C or +70°C			
IECEX	Ex db IIB T6T5 Gb Ex tb IIIC T85°CT100°C Db	-40°C ≤ Ta ≤ +65°C or +70°C			
EAC Ex	Ex II 2G Ex db IIB T6T5 Gb Ex II 2D Ex tb IIIC T85°CT100°C Db	-40°C ≤ Ta ≤ +65°C or +70°C			
Hazardous Location America	Class I, Zone 1, AEx db IIB T6T5 Zone 21, AEx tb IIIC T85°CT100°C Class I, Div 2 Group C, D Class II, Div 2, Group F and G	-40°C ≤ Ta ≤ +65°C or +70°C			
Hazardous Location Canada	Ex db IIB T6T5 Gb Ex tb IIIC T85°CT100°C Db Class I, Div 2 Group C, D Class II, Div 2, Group F and G	-40°C ≤ Ta ≤ +65°C or +70°C			

EXIPCAM1500 - CONFIGURATION OPTIONS									
	Voltage		Camera		Connections		Video Output		
EXIPCAM1500	2	24Vdc/ 24Vac, PoE+	С	Day/Night camera 3X zoom, FullHD	0	Without cable, without cable gland	Z	IP H.264/AVC control, Protocol ONVIF, Profile S and Profile Q	A
			G	Day/Night camera 10X zoom, FullHD	A	Cable gland Ex d 1/2" NPT and 4m (13ft) armored cable			
					В	Cable gland Ex d 1/2" NPT and 10m (33ft) armored cable			

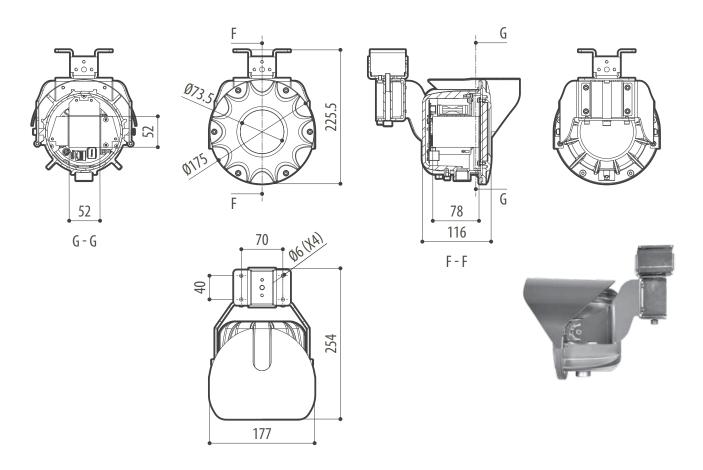
DIMENSIONS Unit in millimeters

WALL MOUNTING



DIMENSIONS (CONT'D) Unit in millimeters

PARAPET OR CEILING MOUNTING





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