



## MAXIMUS MVXHD Explosion-proof HD camera

### Protection mode:

Type of protection:	EX II 2 G Ex d IIC T6 Gb EX II 2 D Ex tb IIIC T85°C Db
Class of temperature:	T6
Protection degree:	IP66
Zones :	1-2-21-22



### Description:

The Full HD explosion protected MAXIMUS MVXHD 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 Full HD, 1080p, 60fps, MVXHD camera with 10x or 30x motorized zoom lens for easier setup, offers multiple video streams (H.264/AVC or MJPEG) and provides exceptional image quality, picking out every detail in a scene, even in the harshest environmental conditions.

One striking advantage offered by the MVXHD cameras is their extremely easy and secure “plug and play” installation, with multipolar wiring. These cameras arrive ready to use, avoiding the complex electrical connections that are typical of this type 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 -60°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 metres of water for 2 hours. Moreover the IP69 rating allows the device to be cleaned with high pressure water jets.

These cameras come with wipers and an explosion-proof washer kit is also available, allowing for flawless, maintenance-free cleaning of the front glass.

The MAXIMUS MVX range of cameras meets every installation need, providing maximum of performance and excellent value for money.

### Features :

In electropolished and silicon micro shot peened AISI 316L stainless steel

Certifications for use in Zones 1 and 2, IIC T5 and T6 Group (Gas) and in Zones 21 and 22, IIIC T100°C and T85°C Group (Dust)

Camera Full HD 1080p, 10x or 30x, 60 frames per second (fps)

Video compression H.264/AVC and MJPEG

Day/night (Auto ICR: automatic removal of IR filter)

Autofocus

Up to 4 simultaneous video streams

1 alarm input and 1 relay output

4m (13ft) / 10m (33ft) preinstalled armored multipolar cable with cable gland or, alternatively, with 4m (13ft) /

10m (33ft) cable tail

Integrated wiper

Power supply: 12-24Vdc/24Vac



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### Technicals datas :

#### General

AISI 316L stainless steel construction  
Electropolished and silicon micro shot peened external surfaces  
Silicone O-ring seals  
Plug and play  
Cable gland with gasket Ex d 3/4"NPT and preinstalled multipolar armored cable, 4m/10m (13ft/33ft)

#### Mechanical

Sunshield  
Integrated wiper  
Unit weight: 8kg (18lb)

#### Housing window

Material: Thermally tempered glass

#### Electrical

Power supply/Current consumption  
• 24Vac, 2.2A, 50/60Hz  
• 24Vdc, 2.2A  
• 12Vdc, 3.5A  
I/O alarm card  
• Alarm inputs: 1  
• Relay outputs: 1 (1A, 30Vac/60Vdc max)  
Heater (Ton 15°C ± 3°C), Toff 22°C ± 3°C)

#### Video

Compression: H.264/AVC, MJPEG  
2 independent video streams Full HD or 4 independent video streams depending on the configuration  
Image resolution: from FullHD to 352x240 in 18 steps  
Selectable frame rate from 1 to 60 images per second (fps)  
Web Server  
Certified ONVIF, Profile S

#### Camera

##### Day/Night Full HD 10x

Image Device: 1/2.8 type Exmor™ CMOS sensor  
Effective Pixels: approx. 2.38 Megapixels  
Minimum Illumination, color (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: f=3.8 mm (wide) ~ 38 mm (tele), from F1.8 to F3.4  
Zoom: 10x (120x with digital zoom)  
Horizontal Viewing Angle: 67° (wide end), 7.6° (tele end)

Minimum object distance: 10mm (wide) ~ 800mm (tele)  
Electronic Shutter: 1/1 to 1/10000 s, 22 steps  
White balance: Auto, ATW, Indoor, Outdoor, Outdoor Auto, Sodium vapor lamp (Fix, Auto, Outdoor Auto), One-push, Manual  
Gain: Auto, Manual, Gain Limit (from 3dB up to 43dB, steps: 3dB)  
Wide Dynamic Range: On/Off/Visibility enhancer, Light level, Brightness compensation selection, Compensation level  
Focus System: Auto (Sensitivity: Normal, Low), One-push AF, Manual, Focus compensation with ICR On, Interval AF, Zoom trigger AF  
Picture Effects: E-flip, Black & White, Mirror image, Color enhancement, Negative art  
Exposure Control: Auto, EV Compensation, Manual, Priority (Shutter priority, Iris priority), Brightness, Slow AE  
S/N Ratio: more than 50dB  
Wide-D (wide dynamic range): 130dB  
De-fog: On/Off

##### Day/Night Full HD 30x

Image Device: 1/2.8 type Exmor™ CMOS sensor  
Effective Pixels: approx. 2.38 Megapixels  
Minimum Illumination, color (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):  
• 0.05lx, 1/30s, 50% (Normal mode)  
• 0.013lx, 1/30s, 50% (High sensitivity mode)  
• 0.002lx, 1/3s, 30% (High sensitivity mode)  
Lens: f=4.3 mm (wide) ~ 129.0 mm (tele), from F1.6 to F4.7  
Zoom: 30x (360x with digital zoom)  
Horizontal Viewing Angle: from 63.7° (wide end) up to 2.3° (tele end)  
Minimum object distance: from 10mm (wide) up to 1200mm (tele)  
Electronic Shutter: 1/1 to 1/10000 s, 22 steps  
White balance: Auto, ATW, Indoor, Outdoor, Outdoor Auto, Sodium vapor lamp (Fix, Auto, Outdoor Auto), One-push, Manual  
Gain: Auto, Manual, Gain Limit (from 3dB up to 43dB, steps: 3dB)  
Wide Dynamic Range: On/Off/Visibility enhancer, Light level, Brightness compensation selection, Compensation level  
Focus System: Auto (Sensitivity: Normal, Low), One-push AF, Manual, Focus compensation with ICR On, Interval AF, Zoom trigger AF  
Picture Effects: E-flip, Black & White, Mirror image, Color enhancement, Negative art  
Exposure Control: Auto, EV Compensation, Manual, Priority (Shutter priority, Iris priority), Brightness, Slow AE, S/N Ratio: more than 50dB  
Wide-D (wide dynamic range): 130dB, De-fog: On/Off



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### Network

Ethernet connection: IEEE 802.3 100Base-Tx

### Network protocols

Protocol: ONVIF, Profile S

Device configuration: TCP /IPv4-IPv6, UDP/IPv4-IPv6, HTTP, NTP, DHCP, WS-DISCO VERY, QoS, IGMP (Multicast)

Streaming: RT SP, RTCP, RTP

### Environment

Indoor/Outdoor

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 tail)

Environment temperature: T6: from -60°C (-76°F) up to +55°C (131°F) (versions with armoured cable) or from -50°C (-58°F) up to +55°C (131°F) (versions with cable tail)

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

### Certifications

ATEX (EN 60079-0: 2014, EN 60079-1: 2015, EN 60079-31: 2014):

EX II 2 G Ex d IIC T5 Gb

EX II 2 D Ex tb IIIC T100°C Db IP66/IP68

-60°C ≤ Ta ≤ +65°C (versions with armoured cable)

EX II 2 G Ex d IIC T5 Gb

EX II 2 D Ex tb IIIC T100°C Db IP66/IP68

-50°C ≤ Ta ≤ +65°C (versions with cable tail)

EX II 2 G Ex d IIC T6 Gb

EX II 2 D Ex tb IIIC T85°C Db IP66/IP68

-60°C ≤ Ta ≤ +55°C (versions with armoured cable)

EX II 2 G Ex d IIC T6 Gb

EX II 2 D Ex tb IIIC T85°C Db IP66/IP68

-50°C ≤ Ta ≤ +55°C (versions with cable tail)

IECEX (IEC 60079-0: 2011 Ed.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 avec cable blinde)

Ex d IIC T5 Gb

Ex tb IIIC T100°C Db IP66/IP68

-50°C ≤ Ta ≤ +65°C (versions with cable tail)

Ex d IIC T6 Gb

Ex tb IIIC T85°C Db IP66/IP68

-60°C ≤ Ta ≤ +55°C (versions with armoured cable)

Ex d IIC T6 Gb

Ex tb IIIC T85°C Db IP66/IP68

-50°C ≤ Ta ≤ +55°C (versions with cable tail)

IP66/IP68 (2 hous, 5m, EN/IEC60529)

INMETRO (ABNT NBR IEC 60079-0:2008 + Errata 1:2011, ABNT NBR IEC 60079-1:2009 + Errata 1:2011, ABNT NBR IEC 60079-31:2011):

Ex d IIC T5 Gb

Ex tb IIIC T100°C Db IP66/IP68

-60°C ≤ Tamb ≤ +65°C (versions with armoured cable)

Ex d IIC T5 Gb

Ex tb IIIC T100°C Db IP66/IP68

-50°C ≤ Tamb ≤ +65°C (versions with cable tail)

Ex d IIC T6 Gb

Ex tb IIIC T85°C Db IP66/IP68

-60°C ≤ Tamb ≤ +55°C (versions with armoured cable)

Ex d IIC T6 Gb

Ex tb IIIC T85°C Db IP66/IP68

-50°C ≤ Tamb ≤ +55°C (versions cable tail)

EAC EX et ETL (en cours)

TYPE 6P, TYPE 4X (UL50E)

IP69 (EN/IEC60529), seulement caisson

### Accessories

WASEX2T4AT, Tank 10l with integrated manual pump controlled by ATEX certified solenoid valve, delivery head up to 20m (66ft) max, IN 24Vac/Vdc

WASEX2T4GOR, Tank 10l with integrated manual pump controlled by EAC EX certified solenoid valve, delivery head up to 20m (66ft) max, IN 24Vac/Vdc

WASEX2T4IN, Tank 10l with integrated manual pump controlled by INMETRO certified solenoid valve, delivery head up to 20m (66ft) max, IN 24Vac/Vdc

OCTE XP3/4C Conduit cable gland nickel-plated brass 3/4" NPT IECEX-ATEX-EAC EX

### Brackets and adaptors

NXWBS1, AISI 316L stainless steel wall bracket with joint

MHXFWCA, AISI316L stainless steel ball joint

NXFWBT, AISI 316L stainless steel parapet mounting bracket

NXCOL, AISI 316L stainless steel pole adapter module

NXCW, AISI 316L stainless steel corner adapter module



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MAXIMUS MVXHD - CONFIGURATION OPTIONS							
	Voltage	Camera		Connections	Video Output	Models	
<b>MVXHD</b>	<b>2</b> 12-24Vdc/ 24Vac	<b>G0</b> Day/Night camera 10X zoom, FullHD	<b>W</b> With wiper	<b>A</b> Cable gland with gasket Ex d 3/4" NPT and 4m (13ft) armored cable	<b>Z</b> IP H.264/AVC control, Protocol ONVIF Profile S	<b>00</b> T5 -60°C/+65°C	<b>A</b>
		<b>F0</b> Day/Night camera 30X zoom, FullHD		<b>B</b> Cable gland with gasket Ex d 3/4" NPT and 10m (33ft) armored cable		<b>01</b> T5 -50°C/+65°C <sup>1</sup>	
				<b>F</b> 4m (13ft) cable tail		<b>02</b> T6 -60°C/+55°C	
				<b>G</b> 10m (33ft) cable tail		<b>03</b> T6 -50°C/+55°C <sup>1</sup>	

<sup>1</sup> The versions with cable tail have a temperature range of -50°C/+65°C or -50°C/+55°C depending on the temperature class of the product.

### Drawing :

