

MAXIMUS MVXHD

HIGH-SPEC EX-PROOF HD CAMERA IN A COMPACT DESIGN



MAIN FEATURES

Certifications for use in Zones 1 and 2, IIC T5 and T6 Group (Gas) and in Zones 21 and 22, IICT 100°C and T85°C Group (Dust)

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

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 set

Integrated wiper

Power supply: 12-24Vdc/24Vac

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 these 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.



MVXHD



MVXHD + NXWBS1



WASEX - STAINLESS STEEL WASHER PUMP WITH EX-PROOF SOLENOID VALVE FOR MAXIMUS RANGE (REF. ACCESSORIES IN TECHNICAL DATA)

TECHNICAL DATA**GENERAL**

ANSI 316L stainless steel construction
 Electropolished and silicon micro shot peened external surfaces
 Silicone O-ring seals
 Cable entry: 1 hole, 3/4", NPT
 Cable gland with gasket Ex d 3/4"NPT and 4m/10m (13ft/33ft) preinstalled multipolar armored cable or with 4m/10m (13ft/33ft) cable set

MECHANICAL

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

HOUSING WINDOWS

Material: Thermally tempered glass

ELECTRICAL

Supply voltage/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 (59°F±5°F), Toff 22°C±3°C (72°F±5°F))

Armoured cable:

- external diameter = 18.0 ± 0.5mm
- Colour blue RAL5015

Composition armoured cable:

- 1 x 3G1.5mm²
- 1 x 7 x 0.34mm²
- 4 x 2 x 0.22mm² (Cat. 5E)

Composition cable set:

- 1 x 3G2.5mm², rated external diameter = 8.7mm
- 1 x 7 x 0.34mm², rated external diameter = 6.4mm
- 4 x 2 x 0.21mm², (Cat. 5E), rated external diameter = 6.7mm

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

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

- 0.05lx, 1/30s, 50 IRE (Normal mode)
- 0.013lx, 1/30s, 50 IRE (High sensitivity mode)
- 0.002lx, 1/3s, 30 IRE (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

NETWORK

Cable length: 100m (328ft) max

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-DISCOVERY, QoS, IGMP (Multicast)

Streaming: RTSP, RTCP, RTP

ENVIRONMENT
Indoor/Outdoor
Operating temperature: from -40°C (-40°F) up to +65°C (149°F)
Relative Humidity 10-95% (no condensation)
CERTIFICATIONS
ATEX (EN 60079-0: 2014, EN 60079-1: 2015, EN 60079-31: 2014):
<ul style="list-style-type: none"> ⊕ 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) ⊕ II 2 G Ex d IIC T6 Gb ⊕ II 2 D Ex tb IIIC T85°C Db IP66/IP68 -60°C ≤ Ta ≤ +55°C (versions with armoured cable) ⊕ II 2 G Ex d IIC T6 Gb ⊕ II 2 D Ex tb IIIC T85°C Db IP66/IP68 -50°C ≤ Ta ≤ +55°C (versions with cable set)
IECEx (IEC 60079-0: 2011 Ed.6, IEC 60079-1: 2014-06 Ed.7, IEC 60079-31: 2013 Ed.2):
<ul style="list-style-type: none"> 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) 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 set) IP66/IP68 (2 hours, 5m (16ft), 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):
<ul style="list-style-type: none"> 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 set) 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 with cable set)
EAC Ex:
<ul style="list-style-type: none"> Ex II 2G Ex d IIC T5 Gb -60°C/+65°C Ex II 2D Ex tb IIIC T100°C Db -60°C/+65°C, IP66/IP68 (versions with armoured cable) Ex II 2G Ex d IIC T5 Gb -50°C/+65°C Ex II 2D Ex t IIIC T85°C Db -50°C/+65°C, IP66/IP68 (versions with cable set) Ex II 2G Ex d IIC T6 Gb -60°C/+55°C Ex II 2D Ex tb IIIC T85°C Db -60°C/+55°C, IP66/IP68 (versions with armoured cable) Ex II 2G Ex d IIC T6 Gb -50°C/+55°C Ex II 2D Ex t IIIC T100°C Db -50°C/+55°C, IP66/IP68 (versions with cable set)
ETL pending
TYPE 6P, TYPE 4X (UL50E)
IP69 (EN/IEC60529), housing only

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
OCTEXP3/4C	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
MHXWFWCA	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

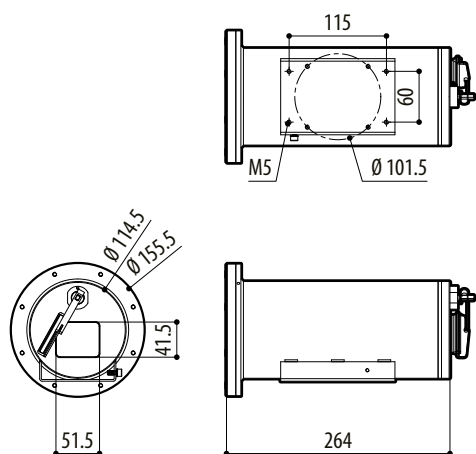
PACKAGE			
Model Number	Weight	Dimensions (WxHxL)	Master carton
MXVHD2FOWAZ00A	12.5kg (28lb)	60x30x60cm (24x12x24in)	-

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

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

TECHNICAL DRAWINGS

Sizes in millimeters.



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