

MAXIMUS MVX **Ex-proof** Camera Series.

Versatile, Compact and Plug & Play.

IP66/68/69 WIPER

DAY & NIGHT/THERMAL

HD 60fps

ZOOM 10X

COMPACT -60°+65°C



MAXIMUS MVX Series

The new, versatile MAXIMUS MVX range 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 new MVX range was designed to meet the strictest international standards and has been certified by ATEX, IECEx, INMETRO, EAC Ex and ETL for Zones 1 and 2 IIC T5 Group (Gas) and for Zones 21 and 22 IIIC T100°C Group (Dust).

The MVX range includes Full HD, analogue and thermal camera models in order to meet every type of installation requirement, offering maximum performance paired with best possible balance between quality and price. The MVX cameras offer an extremely easy and secure "plug and play" installation and pre-fitted with multipolar wiring, 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.

The extended installation temperature from -60°C to +65°C, the IP66/IP68/IP69 ratings, the integrated wiper and the optional certified washer kit allow these cameras to operate in harsh environments with zero maintenance.

Videotec has extensive experience in the development of surveillance devices used in hazardous environments and industrial settings



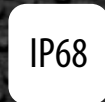
EXPLOSION-PROOF



THERMAL



PROTECTION



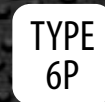
PROTECTION



PROTECTION



TYPE 4X



TYPE 6P



WIPER





ATEX



INMETRO



Intertek



MAXIMUS MVX Series

Applications



PIPELINES



OIL AND GAS PLATFORM



TERMINALS



OIL AND GAS TANKERS



INDUSTRY PLANTS



DRILLING RIGS



MVX HD

This explosion-proof Full HD camera offers an exceptional image quality and is able to identify all details of a scene even in the most difficult conditions, for an immediate situational awareness.

The MVXHD integrates a Full HD camera 1080p, 60fps, with a 10x motorized zoom and offers multiple video streams, H.264/AVC or MJPEG, up to a total of 20Mbits, according to the system configuration. It is supplied with integrated wiper and multipolar cable, to simplify the installation operations.



MVX

The ex-proof “plug and play” MVX cameras ensure superior image quality, even with low lighting, in any critical environment, potentially explosive for gas or flammable dust.

The Day/Night camera has a 10x motorized zoom and a 1/3” sensor and is pre-fitted with multipolar cable, to avoid the complex harnesses typical of this type of device. It is supplied with integrated wiper and a washer kit is available as an accessory.



MVX Thermal

The MVXT ex-proof thermal cameras are perfect for effective video surveillance in the complex scenario of potentially explosive areas, and is able to detect a person or an object in the long distances or total darkness, heavy smoke, rain or dust.

These cameras are equipped with an advanced uncooled microbolometer sensor with resolution 336x256 or 640x512 and image frequency 8.3Hz or 25Hz. The control of the functions can be analog or IP with the most common Video Management Systems (Onvif-S).

MAXIMUS MVX HD technical data



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 3/4" NPT and preinstalled multipolar armored cable, 4m (13ft)

MECHANICAL

- Sunshield
- Integrated wiper
- Unit weight: 8kg

HOUSING'S WINDOW

- Material: Tempered glass
- Dimensions:
 - Dimensions: 51x41mm
 - Thick: 12mm

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, 15Vac/30Vdc max)

Heater (Ton 15°C±3°C (59°F ±5°F), Toff 22°C±3°C (77°F±5°F))

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 IRE (Normal mode)
 - 0.35lx, 1/30s, 50 IRE (High sensitivity mode)
- Minimum Illumination, B/W (ICR-ON):
 - 0.12lx 1/30s 50 IRE (Normal mode)
 - 0.03lx 1/30s 50 IRE (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 with ICR On, Interval AF, Zoom trigger

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

Connection Ethernet port LAN 10/100T

NETWORK PROTOCOLS

- Protocol: ONVIF, Profile S
- Device configuration: TCP/IPv4, UDP/IPv4, HTTP, NTP, DHCP, WS-DISCOVERY, QoS
- Streaming: RTSP, RTCP, RTP

I/O INTERFACE

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

ENVIRONMENT

Indoor/Outdoor

Installation temperature
from -60°C (-76°F) up to +65°C (149°F)

CERTIFICATIONS

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

⊕ II 2 G Ex d IICT5 Gb

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

-60°C ≤ Ta ≤ +65°C

IECEx (IEC 60079-0: 2011 Ed.6, IEC 60079-1: 2014-06 Ed.7, IEC 60079-31: 2013 Ed.2):

Ex d IICT5 Gb

Ex tb IIIC T100°C Db IP66/IP68

-60°C ≤ Ta ≤ +65°C

IP66/IP68 (2 hours, 5m (16ft), EN/IEC60529)

EAC EX, INMETRO, ETL pending



MAXIMUS MVX technical data



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 3/4" NPT and preinstalled multipolar armored cable, 4m (13ft)

MECHANICAL

Sunshield

Integrated wiper

Unit weight: 8kg

HOUSING'S WINDOW

Material: Tempered glass

Dimensions:

- Dimensions: 51x41mm
- Thick: 12mm

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, 15Vac/30Vdc max)

Heater (Ton 15°C±3°C (59°F ±5°F), Toff 22°C±3°C (77°F±5°F))

I/O INTERFACE

Cable length: 200m (656ft) max

Version with integrated wiper

- Remote wiper activation: 1 input, dry contact NO

CAMERA

Day/Night 10x High sensitivity

White balance: Auto, ATW, Indoor, Outdoor

Day/Night (Auto ICR)

Image Sensor: 1/3" Super HAD CCD II

Number of effective Pixels: ~ 440 000 pixel (PAL); ~ 380 000 pixel (NTSC)

Lens: f=4.3 mm (wide) ~ 129.0 mm (tele), from F1.6 to F4.7

Minimum Illumination, color (ICR-OFF):

- 0.25Lux / 1/50s, 0.015 Lux / 1/3s, (PAL)
- 0.25lux / 1/60s, 0.015 Lux / 1/4s (NTSC)

Horizontal Viewing Angle: 63.7° (wide end), 2.3° (tele end)

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

- 0.0004 Lux / 1/3s (PAL)
- 0.0004 Lux / 1/4s (NTSC)

"Shutter Time" automatic increase to improve the night surveillance

S/N ratio: Greater than 50dB

AE control: Automatic, Shutter priority, Diaphragm priority, Brightness priority and Manual

Back light compensation: On/Off

Resolution of masking blocks: 160x120 HxV

Focusing system: Auto (Sensitivity: Normal, Low), Manual

"Smart" lens control: Automatic Lens Reset

Optical zoom 10x, f=5.1 (wide) to 51mm (tele) / F1.8 to F2.1

Digital Zoom 12x (120x with optical zoom)

Angle of view (A): 52 degrees (wide) to 5.4 degrees (tele)

Minimum object distance: 150mm (5.9in) (wide) to 800mm (31.5in) (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
- VIDEOTEC MACRO: 9600baud, 38400baud

ENVIRONMENT

Indoor/Outdoor

Installation temperature
from -60°C (-76°F) up to +65°C (149°F)

CERTIFICATIONS

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

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
- IP66/IP68 (2 hours, 5m (16ft), EN/IEC60529)

EAC EX, INMETRO, ETL pending



MAXIMUS MVX Thermal **technical data**



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 3/4" NPT and preinstalled multipolar armored cable, 4m (13ft)

MECHANICAL

Sunshield

Unit weight: 8kg

HOUSING'S WINDOW

Material: Germanium

External scratch-resistant treatment: Hard Carbon Coating (DLC)

Internal antireflection treatment

Spectral range: from 7.5 μ m up to 14 μ m

Medium transmittance (from 11.5 μ m up to 14 μ m): 90%

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, 15Vac/30Vdcmax)

Heater (Ton 15°C \pm 3°C (59°F \pm 5°F), Toff 22°C \pm 3°C (77°F \pm 5°F))

I/O INTERFACE

Cable length: 200m (656ft) max

COMMUNICATIONS

Configuration through OSD

Serial interface

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

IP based control mode:

- Compression H.264/AVC and JPEG
- 2 independent video streams
- Web Server
- Compatible with ONVIF protocol, Profile S

PROTOCOLS

Serial communication protocol

- PANASONIC: 9600baud, 19200baud
- PELCO D: 2400baud, 9600baud
- VIDEOTEC MACRO: 9600baud, 38400baud

NETWORK

Ethernet connection: IEEE 802.3 100Base-Tx

NETWORK PROTOCOLS

Protocol: ONVIF, Profile S

Device configuration: TCP/IPv4, UDP/IPv4, HTTP, NTP, DHCP, WS-DISCOVERY, QoS

Streaming: RTSP, RTCP, RTP

ENVIRONMENT

Indoor/Outdoor

Installation temperature
from -60°C (-76°F) up to +65°C (149°F)

CERTIFICATIONS

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

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
IP66/IP68 (2 hours, 5m (16ft), EN/IEC60529)

EAC EX, INMETRO, ETL pending



THERMAL CAMERAS AVAILABLE (RESOLUTION 336X256)

	Lens 35mm		Lens 19mm		Lens 9mm	
	PAL	NTSC	PAL	NTSC	PAL	NTSC
Image sensor	Uncooled VOx microbolometer		Uncooled VOx microbolometer		Uncooled VOx microbolometer	
Resolution	336x256	336x240	336x256	336x240	336x256	336x240
Pixel dimensions	17µm		17µm		17µm	
Spectral response - long wave infrared (LWIR)	from 7.5µm to 13.5µm		from 7.5µm to 13.5µm		from 7.5µm to 13.5µm	
Internal shutter (only for sensor compensation)	Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.	
Digital Detail Enhancement (DDE)	p		p		p	
Digital Zoom	2x, 4x		2x, 4x		2x, 4x	
Image updating frequency	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps
Image updating high frequency	25fps	30fps	25fps	30fps	25fps	30fps
Scene range (High Gain)	-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)	
Scene range (Low Gain)	-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)	
Horizontal field of view	9,3°		17°		35°	
Vertical field of view	7,1°		13°		27°	
F-number	F/1.2		F/1.25		F/1.25	
Thermal sensitivity (NEΔT)	< 50mK to f/1.0		< 50mK to f/1.0		< 50mK to f/1.0	
Person (detection / recognition / identification)	1140m / 280m / 142m (3740ft / 919ft / 466ft)		570m / 144m / 72m (1870 / 472 / 236ft)		250m / 63m / 31m (820ft / 207ft / 102ft)	
Auto (detection / recognition / identification)	3000m / 800m / 200m (9843ft / 2625ft / 656ft)		1550m / 400m / 200m (5085ft / 1312ft / 656ft)		720m / 175m / 88m	

THERMAL CAMERAS AVAILABLE (RESOLUTION 640X512)

	Lens 35mm		Lens 19mm		Lens 9mm	
	PAL	NTSC	PAL	NTSC	PAL	NTSC
Image sensor	Uncooled VOx microbolometer		Uncooled VOx microbolometer		Uncooled VOx microbolometer	
Resolution	640x512	640x480	640x512	640x480	640x512	640x480
Pixel dimensions	17µm		17µm		17µm	
Spectral response - long wave infrared (LWIR)	from 7.5µm to 13.5µm		from 7.5µm to 13.5µm		from 7.5µm to 13.5µm	
Internal shutter (only for sensor compensation)	Video stop < 1sec.		Video stop < 1sec.		Video stop < 1sec.	
Digital Detail Enhancement (DDE)	p		p		p	
Digital Zoom	2x, 4x		2x, 4x		2x, 4x	
Image updating frequency	8.3fps	7.5fps	8.3fps	7.5fps	8.3fps	7.5fps
Image updating high frequency	25fps	30fps	25fps	30fps	25fps	30fps
Scene range (High Gain)	-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)		-40°C ÷ +160°C (-40°F ÷ +320°F)	
Scene range (Low Gain)	-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)		-40°C ÷ +550°C (-40°F ÷ +1022°F)	
Horizontal field of view	18°		32°		69°	
Vertical field of view	14°		26°		56°	
F-number	F/1.2		F/1.25		F/1.4	
Thermal sensitivity (NEΔT)	< 50mK to f/1.0		< 50mK to f/1.0		< 50mK to f/1.0	
Person (detection / recognition / identification)	1140m / 280m / 142m (3740ft / 919ft / 466ft)		570m / 144m / 72m (1870 / 472 / 236ft)		250m / 63m / 31m (820ft / 207ft / 102ft)	
Auto (detection / recognition / identification)	3000m / 800m / 200m (9843ft / 2625ft / 656ft)		1550m / 400m / 200m (5085ft / 1312ft / 656ft)		720m / 175m / 88m (2362 / 574 / 289ft)	

WASEX

WASHER PUMP WITH PRESSURIZED TANK IN AISI 316L STAINLESS STEEL AND INTEGRATED **EXPLOSION-PROOF** SOLENOID VALVE



WASEX of Videotec is a high performance wash system with integrated explosion proof solenoid valve for applications in potentially explosive areas. The stainless steel AISI 316L enclosure provides excellent corrosion resistance even in the harshest and most corrosive environments. The WASEX pressurized tank with pump is designed for use with MAXIMUS fixed cameras and PTZ cameras of Videotec or with third-party products. The pump is controlled by an explosion-proof solenoid valve which provides liquid passage and by the MAXIMUS telemetry or by a manual electric contact. The tank, with a capacity of 10 liters of liquid, can be pressurized with an integrated hand pump or through the specific valve for compressed air.

GENERAL

Enclosure made of stainless steel AISI 316L

Water tank capacity: 10l (2.6gal)

Antistatic plastic

MECHANICAL

Pressure: 4bar max

Delivery head: 20m (66ft)

Dimensions (WxHxL): 429x697x255mm (16.9x27.4x10in)

ELECTRICAL

Power supply: 24Vac/dc, 50/60Hz

Consumption: 5W

ENVIRONMENT

Indoor/Outdoor

Operating temperature of solenoid valve: From -40°C (-40°F) up to +60°C (140°F)

Operating temperature of device: depending on the solidification temperature of the used liquid

CERTIFICATIONS

EAC EX:
Ex d IIC T4

Solenoid valve:

ATEX (EN 60079-0: 2009, EN 60079-1: 2007, EN 60079-31: 2009)

Ex 2 II GD Ex d IIC T4 Gb

Ex tb IIIC T130°C Db IP66

Tamb -40/+60°C (-40°F / +140°F)

INMETRO

Ex d IIC T4 Gb IP66

Tamb -40/+60°C (-40°F / +140°F)





VIDEO SECURITY PRODUCTS

www.videotec.com

HEADQUARTERS ITALY

VIDEOTEC S.p.A.

Via Friuli, 6 - I-36015 Schio (VI) Italy

Tel. +39 0445 697411 - Fax +39 0445 697414

Email: info@videotec.com

FRANCE

VIDEOTEC FRANCE S.à.r.l.

Immeuble Le Montreal - 19 bis A. du Québec - ZA de Courtaboeuf

91140 Villebon sur Yvette, France

Tel. +33 2 32094900 - Fax +33 2 32094901

Email: info.fr@videotec.com

AMERICAS

VIDEOTEC SECURITY, Inc.

Gateway Industrial Park - 35, Gateway Drive - Suite 100

Plattsburgh, NY 12901 - U.S.A.

Tel. +1 518 825 0020 - Fax +1 518 825 0022

Email: info.usa@videotec.com - www.videotec.us

ASIA PACIFIC

VIDEOTEC (HK) Ltd

Flat 8, 19/F., On Dak Industrial Building, No. 2-6 Wah Sing Street,

Kwai Chung, New Territories, Hong Kong

Tel. +852 2333 0601 - Fax +852 2311 0026

Email: info.hk@videotec.com



Made in Italy, since 1986