The explosion-proof Full HD camera MAXIMUS MMX is perfect for efficient video surveillance and control of processes in hazardous environments where the atmosphere is potentially explosive due to the presence of inflammable gases or dust, typical of the Oil&Gas, marine or industrial and foodstuff sectors.

The Full HD, 1080p camera, with 3x or 10x motorised zoom lens, offers multiple video streams (H.264/AVC, MJPEG, JPEG, MPEG4) and provides exceptional image quality, picking out every detail in a scene, even in the harshest environmental conditions.

An absolute advantage offered by this camera is its extremely easy and safe installation. The camera can be supplied with multi-polar cabling. The camera can also be powered in PoE+, thereby allowing further simplification of installation operations. The camera is supplied with supports for wall, ceiling and railing installation and with a sunshield.

The housing is entirely manufactured in stainless steel AISI316L offering complete resistance to corrosion. Thanks to its compactness (only 116mm) and contained weight (only 6.5 kg (14.3lb)), it can be installed in narrow locations typical of industrial surroundings.

The IP66/IP67/IP68/IP69 level guarantees complete protection against bad weather and water immersion.

Another important feature of the camera is the extended certification temperature range of -40°C to 70°C.

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

The MAXIMUS MMX product with 10x Full HD camera is Lloyd's Register Type Approval System Test Specification Number 1 certified and therefore can be used in Marine and Offshore applications for environmental categories ENV1, ENV2, ENV3 and ENV5.

**Certifications**

- ATEX
- IECEx
- EAC
- UL Listed
- EX
- API

**Main Features**

- Certifications for use in Zones 1 and 2, IIB T6 or T5 Group (Gas) and in Zones 21 and 22, IIIIC T85°C or T100°C Group (Dust)
- Certification temperature: from -40°C (-40°F) up to +70°C (158°F)
- Marine Certification: Lloyd's Register Marine Type Approval
- AISI 316L stainless steel construction
- Supports for ceiling, wall and parapet installation supplied
- Camera Full HD 1080p, 3x or 10x Day/Night
- Video compression H.264/AVC, MJPEG, JPEG and MPEG4
- Up to 3 simultaneous video streams
- Optional 4m (13ft) or 10m (33ft) preinstalled armoured multipolar cable with cable gland
- Power supply: 24Vdc, 24Vac, PoE+
- IP66/IP67/IP68/IP69
**TECHNICAL DATA**

**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 with gasket Ex d 1/2"NPT (with pre-installed cable only)

**HOUSING'S WINDOW**
- Material: Thermally tempered glass
- Usable diameter: 73.5mm (2.9in)

**ELECTRICAL**
- **Supply voltage/Current consumption**
  - 24Vac, 1.32A, 50/60Hz
  - 24Vdc, 0.9A
  - PoE+ (IEEE 802-at)
- **Power consumption**
  - 21W (24Vac, 1.32A, 50/60Hz)
  - 20W (24Vdc, 0.9A)
  - 21W (PoE+)
- **Armored cable**
  - External diameter: 18.6mm (0.73in) ±0.2mm (0.008in)
  - Diameter under armature: 13.8mm (0.54in)
  - Colour: black RAL 9005
- **Armored cable composition**
  - 3x1mm² (17AWG)
  - 4x2x0.22mm² (24AWG) (cat. 5E F/STP)

**NETWORK**
- **Ethernet connection**: 100 Base-TX
- **Connector**: RJ45
- **Communication protocol**: ONVIF, Profile S and Profile Q
- **Device configuration**: TCP/IPv4, UDP/IPv4, HTTP, NTP, DHCP, WS-DISCOVERY, IGMP (Multicast)
- **Web Server**
- **Firmware and configuration upgrade via web pages and ONVIF protocol.**

**VIDEO**
- **Video encoder**
  - Streaming: RTSP, RTCP, RTP/IPv4, HTTP
  - Video compression: H.264/AVC, MJPEG, JPEG, MPEG4
  - 3 independent video streams Full HD
  - Image resolution: from 320x180 up to 1920x1080 in 6 steps
  - Selectable frame rate from 1 to 60 images per second (fps) (camera 10x)
  - Selectable frame rate from 1 to 30 images per second (fps) (camera 3x)

**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)
  - **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 (1920x1080 pixels)
Signal system: 1080p/60fps max
Image Device: 1/2.8 type Exmor™ CMOS sensor
Effective pixels: 2.38 Megapixel
Minimum Illumination, colour (ICR-OFF):
- 1.4 lx, 1/30s, 50% (Normal mode)
- 0.35 lx, 1/30s, 50% (High sensitivity mode)
- 0.19 lx, 1/30s, 50% (Normal mode)
- 0.05 lx, 1/30s, 50% (High sensitivity mode)
Minimum Illumination, B/W (ICR-ON):
- 0.12 lx, 1/30s, 50% (Normal mode)
- 0.03 lx, 1/30s, 50% (High sensitivity mode)
- 0.002 lx, 1/30s, 30% (High sensitivity mode)
Lens:
- From f = 3.8 mm (wide) up to 38 mm (tele)
- From f=1.8 up to f=3.4
Zoom: 10x (120x, with digital zoom)
Horizontal Viewing Angle: From 67° (wide) up to 7.6° (tele)
Minimum object distance: From 10 mm (0.4 in) (wide) up to 800 mm (31.4 in) (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: 50 dB
Gain limit: up to 43.5 dB
De-fog: Yes (On/Off)
Backlight Compensation
ENVIRONMENT
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
IECEx (IEC 60079-0: 2011 Ed.6, IEC 60079-1: 2014-06 Ed.7, IEC 60079-31: 2013 Ed.2)
EAC EX (TR CU 012/2011)
UL listed for USA (UL 60079-0 Ed.6, UL 60079-1 Ed.7, UL 60079-31 Ed.2)
UL listed for Canada (C22.2 NO. 60079-0:15, C22.2 NO. 60079-1:16, C22.2 NO. 60079-31:15)
Lloyd’s Register Marine Type Approval (only for models with Day/Night camera 10X zoom, Full HD)
- Test Specification Number 1:2015 (ENV1, ENV2, ENV3, ENV5)
TYPE 6P, TYPE 4X (UL50E)
IP protection degree (EN/IEC60529):
- IP66
- IP67
- IP68
- IP69

ACCESSORIES
OCTEX1/2C Cable gland in nickel-plated brass EX 1/2” NPT, unarmoured cable IECEx-ATEX-EAC Ex
OCTEXA1/2C Cable gland in nickel-plated brass EX 1/2” NPT armoured cable IECEx-ATEX-EAC Ex
OCTEXS1/2C Cable gland in nickel-plated brass EX 1/2” NPT, unarmoured cable IECEx-ATEX-EAC Ex
For further details about cable glands part numbers, please refer to the relevant table.

BRACKETS AND ADAPTORS
MMXCWCOL Pole and corner adaptor module in stainless steel AISI 316L

PACKAGE
<table>
<thead>
<tr>
<th>Model Number</th>
<th>Weight</th>
<th>Dimensions (WxHxL)</th>
<th>Master carton</th>
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<tbody>
<tr>
<td>MMX2CZA2</td>
<td>8 kg</td>
<td>32.5x19x23 cm (12.8x7.5x9 in)</td>
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<tr>
<td>MMX2CZA2A</td>
<td>11 kg</td>
<td>64x20 x8.69 cm (25.2x8.2x3.2 in)</td>
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</tr>
<tr>
<td>MMX2CZB2A</td>
<td>14 kg</td>
<td>64x20 x8.69 cm (25.2x8.2x3.2 in)</td>
<td>-</td>
</tr>
</tbody>
</table>

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