



## M16 – Professional Outdoor Dual Lens Camera

### ■ High-Performance Dual Lens Camera For The Use Around the Clock

Automatic switchover from day to night sensor system

### ■ Modular System For Maximum Flexibility

Sensors and lenses can easily be customized with interchangeable sensor modules for self-assembly

### ■ Powerful, Intelligent And Flexible Mx6 System Platform

Simultaneous streaming of up to three video codecs (MxPEG, MJPEG and H.264)

### ■ Intelligent 3D Motion Detection

MxActivitySensor integrated as standard

### ■ Reduced Energy Costs

Power consumption < 7 W, standard PoE

### ■ Virtually Maintenance-Free

Weatherproof, IP66, -30 to 60°C

# Technical Specifications

## MOBOTIX M16 AllroundDual



| Camera Variants                                                                                          | M16 Day                                                                                          | M16 Night                                 | M16 Day & Night                                           |
|----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------|-----------------------------------------------------------|
| Specialties                                                                                              | <b>Modular system:</b> M16 Body Mx-M16A with one or two sensor modules of choice (self-assembly) |                                           | <b>M16 Sets</b> with two factory-assembled sensor modules |
| Lenses, Sensors (Integrated Into Sensor Modules)                                                         | M16 Day                                                                                          | M16 Night                                 | M16 Day & Night                                           |
| Sensor module with Fisheye Lens B016 (180° x 180°), night version optionally with long-pass filter (LPF) | Mx-O-SMA-S-6D016                                                                                 | Mx-O-SMA-S-6N016<br>LPF: Mx-O-SMA-S-6L016 | Self-assembly only                                        |
| Sensor module with Ultra Wide Lens B036 (103° x 77°), night version optionally with LPF                  | Mx-O-SMA-S-6D036                                                                                 | Mx-O-SMA-S-6N036<br>LPF: Mx-O-SMA-S-6L036 | Mx-M16A-6D6N036 or self-assembly                          |
| Sensor module with Super Wide Lens B041 (90° x 67°), night version optionally with LPF                   | Mx-O-SMA-S-6D041                                                                                 | Mx-O-SMA-S-6N041<br>LPF: Mx-O-SMA-S-6L041 | Mx-M16A-6D6N041 or self-assembly                          |
| Sensor module with Wide Lens B061 (60° x 45°), night version optionally with LPF                         | Mx-O-SMA-S-6D061                                                                                 | Mx-O-SMA-S-6N061<br>LPF: Mx-O-SMA-S-6L061 | Mx-M16A-6D6N061 or self-assembly                          |
| Sensor module with Standard Lens B079 (45° x 34°), night version optionally with LPF                     | Mx-O-SMA-S-6D079                                                                                 | Mx-O-SMA-S-6N079<br>LPF: Mx-O-SMA-S-6L079 | Mx-M16A-6D6N079 or self-assembly                          |
| Sensor module with Tele Lens B119 (31° x 23°), night version optionally with LPF                         | Mx-O-SMA-S-6D119                                                                                 | Mx-O-SMA-S-6N119<br>LPF: Mx-O-SMA-S-6L119 | Mx-M16A-6D6N119 or self-assembly                          |
| Sensor module with Distant Tele Lens B237 (15° x 11°), night version optionally with LPF                 | Mx-O-SMA-S-6D237                                                                                 | Mx-O-SMA-S-6N237<br>LPF: Mx-O-SMA-S-6L237 | Mx-M16A-6D6N237 or self-assembly                          |
| Sensor module with Super Tele Lens B500 (8° x 6°), night version optionally with LPF                     | Mx-O-SMA-S-6D500                                                                                 | Mx-O-SMA-S-6N500<br>LPF: Mx-O-SMA-S-6L500 | Self-assembly only                                        |
| Sensor module with CS-Mount (no lens included)                                                           | Mx-O-SMA-S-6DCS                                                                                  | Mx-O-SMA-S-6NCS                           | Self-assembly only                                        |
| Sensor module with CSVario Lens B045-100-CS                                                              | Mx-O-SMA-S-6DCSV                                                                                 | Mx-O-SMA-S-6NCSV                          | Self-assembly only                                        |
| Hardware                                                                                                 | M16 Day                                                                                          | M16 Night                                 | M16 Day & Night                                           |
| Image sensor with individual exposure zones                                                              | Color                                                                                            | Black and White (B/W)                     | Color & B/W                                               |
| Light sensitivity in lux at 1/60 s and 1/1 s                                                             | 0.1/0.005                                                                                        | 0.02/0.001                                | 0.1/0.005 (Color)<br>0.02/0.001 (B/W)                     |
| Image sensor (color or B/W sensor)                                                                       | 1/1.8" CMOS, 6MP (3072 x 2048), Progressive Scan                                                 |                                           |                                                           |
| Microprocessor                                                                                           | i.MX 6 Dual Core incl. GPU (1 GB RAM, 512 MB Flash)                                              |                                           |                                                           |
| H.264 Hardware Codec                                                                                     | Yes, bandwidth limitation available; output image format up to QXGA                              |                                           |                                                           |
| Protection class M16 Body                                                                                | IP66 and IK07                                                                                    |                                           |                                                           |
| Protection class M16 with 6MP sensor modules                                                             | IP66 with all modules; IK04 with B036 to B237; IK07 with B016                                    |                                           |                                                           |
| Intended use                                                                                             | Not for use in hazardous areas (Ex area)                                                         |                                           |                                                           |
| Ambient temperature (range, incl. storage)                                                               | -30 to 60°C/-22 to 140°F                                                                         |                                           |                                                           |
| Internal DVR, ex works                                                                                   | 4 GB (microSD)                                                                                   |                                           |                                                           |
| Microphone/speaker                                                                                       | Yes/Yes                                                                                          |                                           |                                                           |
| 16bit/16kHz HD wideband audio (Opus codec)                                                               | Yes (live and audio messages)                                                                    |                                           |                                                           |
| Passive infrared sensor (PIR)                                                                            | Yes                                                                                              |                                           |                                                           |
| Temperature sensor                                                                                       | Yes                                                                                              |                                           |                                                           |
| Shock detector (tamper detection)                                                                        | Yes (with future software update)                                                                |                                           |                                                           |
| Power consumption (typical)                                                                              | < 7 watts                                                                                        |                                           |                                                           |
| PoE Class (IEEE 802.3af)                                                                                 | Class 2 or 3 (variable), factory setting: class 3                                                |                                           |                                                           |
| Interfaces Ethernet 100BaseT/MxBus/USB                                                                   | Yes (MxRJ45)/No/Yes                                                                              |                                           |                                                           |
| Interface RS232                                                                                          | With accessory (MX-232-IO-Box)                                                                   |                                           |                                                           |
| Mounting options                                                                                         | Wall, pole or ceiling (wall and ceiling mount included)                                          |                                           |                                                           |
| Dimensions Mx-M16A (height x width x depth)                                                              | 210 x 158 x 207 mm                                                                               |                                           |                                                           |

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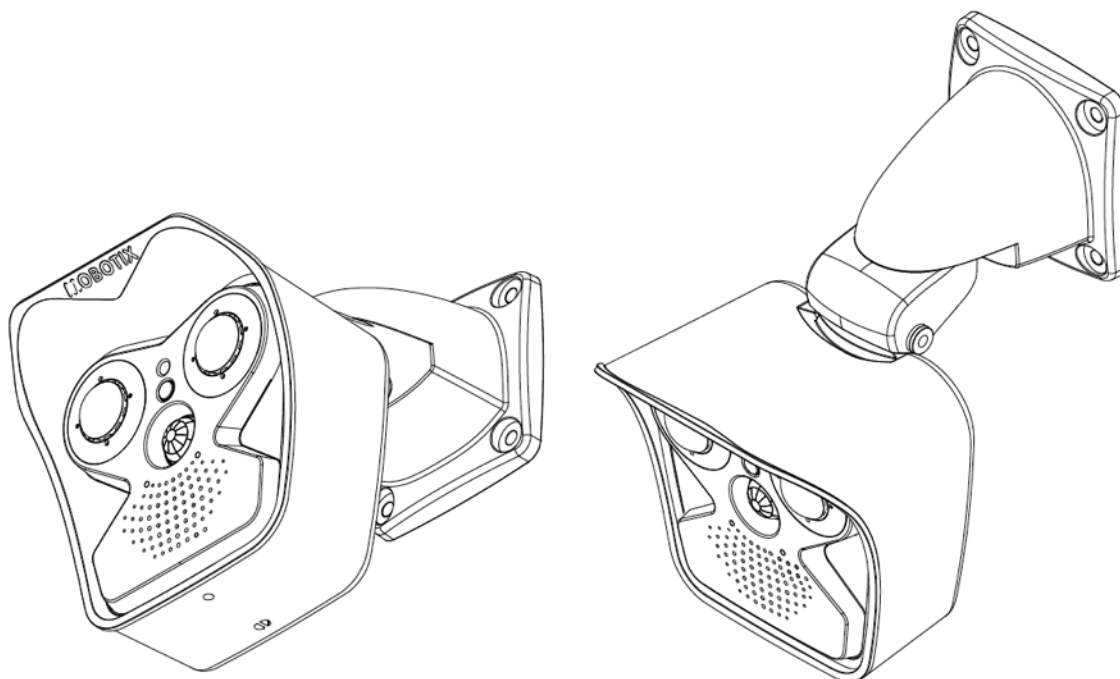
| Hardware                                          | M16 Day                                                                                                                                                                                                        | M16 Night | M16 Day & Night |
|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------|
| Weight Mx-M16A                                    | 1,160 g                                                                                                                                                                                                        |           |                 |
| Housing                                           | PBT-30GF, color: white                                                                                                                                                                                         |           |                 |
| Standard accessory                                | Screws, dowels, screw caps, 2 allen wrenches, module key, VarioFlex wall and ceiling mount with rubber sealing, 0.5 m ethernet patch cable, 1 blind module, Quick Install                                      |           |                 |
| Detailed technical documentation                  | www.mobotix.com > Support > Manuals                                                                                                                                                                            |           |                 |
| Online version of this document                   | www.mobotix.com > Support > Spec Sheets                                                                                                                                                                        |           |                 |
| MTBF                                              | > 80,000 hours                                                                                                                                                                                                 |           |                 |
| Certifications                                    | EN55032:2012<br>EN55022:2010; EN55024:2010; EN50121-4:2015<br>EN61000-6-1:2007; EN 61000-6-2:2005<br>EN61000-6-3:2007+A1:2011<br>EN61000-6-4:2007+A1:2011<br>AS/ NZS CISPR22:2009+A1:2010<br>CFR47 FCC part15B |           |                 |
| Protocols                                         | IPv4, IPv6, HTTP, HTTPS, FTP, SFTP, RTP, RTSP, UDP, SNMP, SMTP, DHCP (client and server), NTP (client and server), SIP (client and server) G.711 (PCMA and PCMU) and G.722                                     |           |                 |
| Image Formats, Frame Rates, Image Storage         | M16 Day                                                                                                                                                                                                        | M16 Night | M16 Day & Night |
| Available video codecs                            | MxPEG/MJPEG/H.264                                                                                                                                                                                              |           |                 |
| Image formats                                     | Freely configurable format 4:3, 8:3, 16:9 or customized format (Image Cropping), such as 2592x1944 (5MP), 2048x1536 (QXGA), 1920x1080 (Full-HD), 1280x960 (MEGA)                                               |           |                 |
| Multistreaming                                    | Yes                                                                                                                                                                                                            |           |                 |
| Multicast stream via RTSP                         | Yes                                                                                                                                                                                                            |           |                 |
| Max. image format (dual image from both sensors)  | 2x 6MP (6144 x 2048)                                                                                                                                                                                           |           |                 |
| Max. frame rate (fps, only single core used)      | <b>MxPEG:</b> 42@HD(1280x720), 34@Full-HD, 24@QXGA, 15@5MP, 12@6MP, 6@2x 6MP<br><b>MJPEG:</b> 26@HD(1280x720), 13@Full-HD, 9@QXGA, 5@5MP, 4@6MP, 2@2x 6MP<br><b>H.264:</b> 25@Full-HD, 20@QXGA                 |           |                 |
| Number of images with 4 GB microSD (internal DVR) | CIF: 250,000, VGA: 125,000, HD: 40,000, QXGA: 20,000, 6MP: 10,000                                                                                                                                              |           |                 |
| General Functions                                 | M16 Day                                                                                                                                                                                                        | M16 Night | M16 Day & Night |
| Digital zoom and pan                              | Yes                                                                                                                                                                                                            |           |                 |
| ONVIF compatibility                               | Yes, complete ONVIF Profile S supported by future software update                                                                                                                                              |           |                 |
| Genetec protocol integration                      | Yes                                                                                                                                                                                                            |           |                 |
| Programmable exposure zones                       | Yes                                                                                                                                                                                                            |           |                 |
| Snapshot recording (pre/post-alarm images)        | Yes                                                                                                                                                                                                            |           |                 |
| Continuous recording with audio                   | Yes                                                                                                                                                                                                            |           |                 |
| Event recording with audio                        | Yes                                                                                                                                                                                                            |           |                 |
| Time controlled flexible event logic              | Yes                                                                                                                                                                                                            |           |                 |
| Weekly schedules for recordings and actions       | Yes                                                                                                                                                                                                            |           |                 |
| Event video and image transfer via FTP and email  | Yes                                                                                                                                                                                                            |           |                 |
| Playback and QuadView via web browser             | Yes                                                                                                                                                                                                            |           |                 |
| Bidirectional audio in browser                    | Yes                                                                                                                                                                                                            |           |                 |
| Animated logos on the image                       | Yes                                                                                                                                                                                                            |           |                 |
| Master/Slave functionality                        | Yes                                                                                                                                                                                                            |           |                 |
| Privacy zone scheduling                           | Yes                                                                                                                                                                                                            |           |                 |

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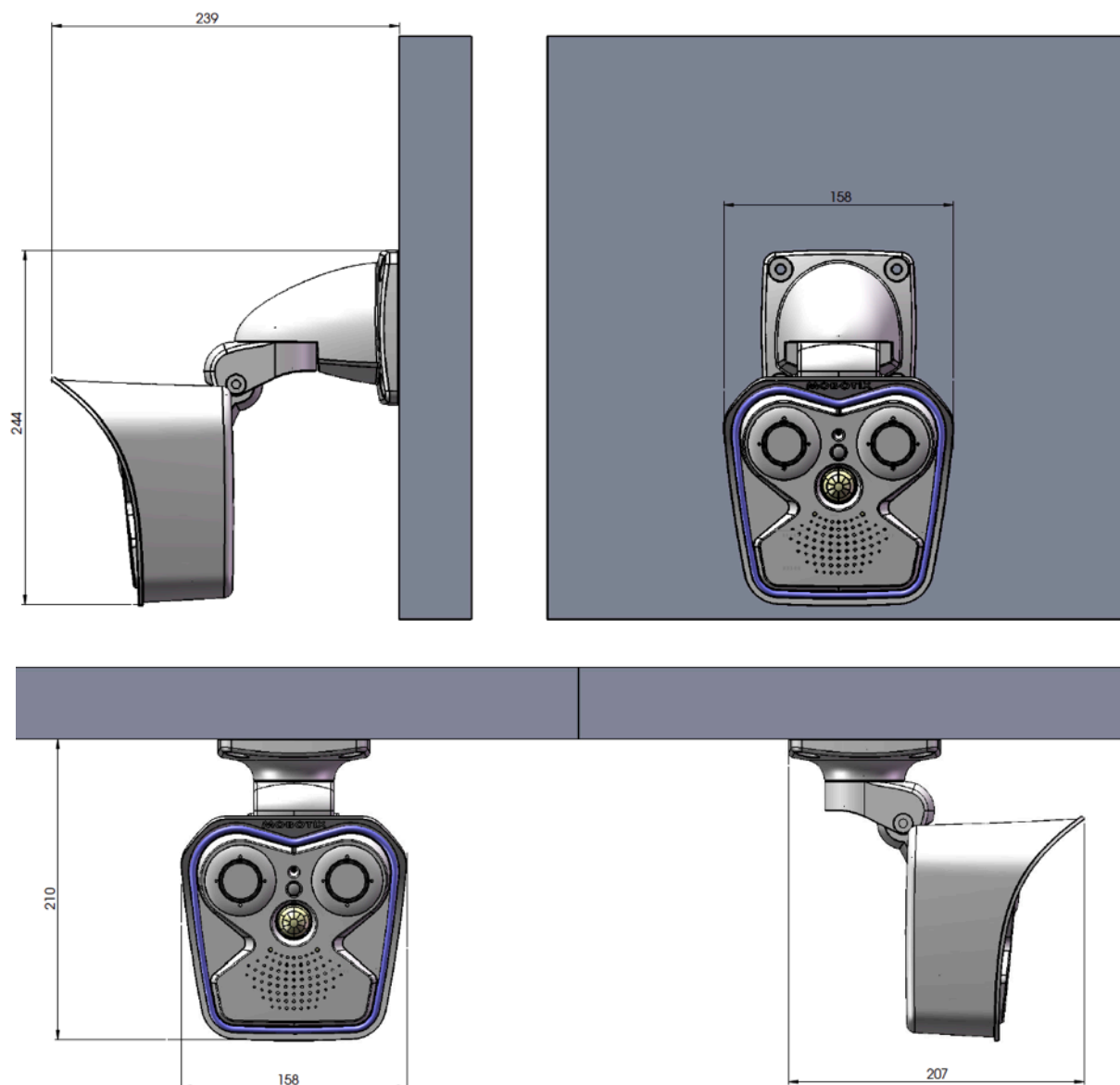


| General Functions                                       | M16 Day                                                                                                                                                                                                                      | M16 Night | M16 Day & Night |
|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------|
| Customized voice messages                               |                                                                                                                                                                                                                              | Yes       |                 |
| VoIP telephony (audio/video, alert)                     |                                                                                                                                                                                                                              | Yes       |                 |
| Remote alarm notification (network message)             |                                                                                                                                                                                                                              | Yes       |                 |
| Programming interface (HTTP-API)                        |                                                                                                                                                                                                                              | Yes       |                 |
| DVR/Storage Management                                  | Inside camera via microSD card, externally via USB device and NAS, different streams for live image and recording, MxFFS with archive function, pre-alarm and post-alarm images, monitoring recording with failure reporting |           |                 |
| Camera and data security                                | User and group management, SSL connections, IP-based access control, IEEE802.1x, intrusion detection, digital image signature                                                                                                |           |                 |
| MxMessageSystem:<br>Sending and receiving of MxMessages |                                                                                                                                                                                                                              | Yes       |                 |
| Video Analysis                                          | M16 Day                                                                                                                                                                                                                      | M16 Night | M16 Day & Night |
| Video motion detector                                   |                                                                                                                                                                                                                              | Yes       |                 |
| MxActivitySensor                                        |                                                                                                                                                                                                                              | Yes       |                 |
| Video Management Software                               | M16 Day                                                                                                                                                                                                                      | M16 Night | M16 Day & Night |
| MxManagementCenter                                      |                                                                                                                                                                                                                              | Yes       |                 |
| Mobile MOBOTIX App                                      |                                                                                                                                                                                                                              | Yes       |                 |



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Dimensions in mm

