


**Q24 Hemispheric**

## Highlights

- 3 Megapixel Hemispheric FixDome (IP65)
- Hemispheric Technology: 360° recording
- In-camera distortion correction
- Digital pan/tilt/zoom
- Integrated video motion recognition
- User-definable exposure fields
- In-camera recording to MicroSD
- IP telephony with video stream (H.263)
- Integrated microphone + loudspeaker
- Camera-controlled recording on Windows/Linux/Mac systems
- Power supply via Ethernet cable

## Camera System high-resolution

- Fully digital color CMOS (2048 x 1536 pixels)
- 11 mm hemispheric lens (360° view)
- 22 mm super wide-angle lens (90° x 67° also available)

## Exposure software-controlled

- Minimum and maximum exposure times can be set between 0.125 ms und 1 s - no aperture
- User-definable exposure window for optimum adjustment to the areas of interest
- Backlight compensation, automatic contrast control, night vision enhancement, white balance, sharpness

## Image Format individually customizable

- Color image scalable from 2048 x 1536 to 160 x 120
- In-camera distortion correction
- Factory-preset view modes: Normal, Surround, Panorama, Panorama Focus, Double Panorama (with panorama correction)
- Selectable image formats (e.g., 1000 x 200 for skyline)
- Time-controlled masking of image areas

## Image Memory included

- Internal 64 MB image memory capacities for approx. 300 3MEGA, 600 MEGA, 2,500 VGA, 4,000 CIF images
- MicroSD slot for memory expansion to 32 GB\*
- Event and/or time-controlled recording
- Adjustable number of pre-alarm & post-alarm images

## Q24M Hemispheric: 3.1 Megapixels (2048 x 1536)

The combination of a high-resolution 3 megapixel color sensor, an extremely wide-angle lens and an internal long-term storage (32 GB MicroSD card)\* allow monitoring an entire room (10 m x 10 m) using only one single Q24 and saving the data as a high-resolution video sequence.

Thanks to the camera's integrated distortion correction feature, image data can be corrected for perspective either in real time or in subsequent research allowing it to be displayed in an especially user-friendly way. While the viewer is able to freely navigate through the entire distortion-corrected image (also in surround or panorama view) using the virtual PTZ function to closely analyze specific image areas, the camera will continue to monitor the entire room in the background.

The Q24 contains no mechanical moving parts and can be discreetly integrated into any environment thanks to its elegant design, compact size and wide range of mounting accessories. The Q24's weatherproof housing makes it suitable for outdoor use at temperatures ranging from -30°C to +60°C (-22°F to +140°F).

## Recording camera-controlled

- Decentralized system concept reduces peripheral components and costs when recording
- Camera-controlled recording on Windows/Linux/Mac systems
- Camera manages ring buffer with up to 1 million alarms on the server (no additional software!)
- Adjustable ring buffer size and storage time
- MxPEG: optimized codec for network video
- Event/permanent recording (MxPEG/M-JPEG)
- Event-controlled frame rate from 0.2 to 30 Hz

## Video Management browser-based

- Video streaming/administration via web browser
- Up to 30 cameras as MultiView in web browser
- 4 simultaneous web browser operating modes: HTML/JavaScript with M-JPEG, streaming (Java), ActiveX (MxPEG), PDA-optimized pages
- PDA interface with HTML only (Pocket PC)
- Event search by time, date, event type
- Software installation on PC not necessary
- Optional: Free of charge video management
  - MxControlCenter 2.1 (Windows)
  - MxEasy (Windows/Mac)

## Administration via web interface

- Convenient administration via web browser
- User-definable FTP/e-mail/VoIP profiles
- User/group management
- User-definable access levels
- IP address filter, IEEE 802.1x, intrusion detection
- Secure access via HTTPS/SSL

## Event Logic camera internal

- Event triggered by
  - motion in definable video sensor areas
  - temperature
  - exposure situation
  - IO contacts (via ExtIO expansion module)
  - audio level (via ExtIO expansion module)
  - network message (IP Notify)
  - definable time functions
- Logical linking of events
- Time-dependent event and standby control

## Alarm Signaling included

- Visual/audio alarm notification
- Voice output via internal/external audio
- Custom voice messages can be recorded
- Notification via e-mail/FTP
- VoIP calling with Video SIP (also in browser)
- TCP/IP message on IP port

## High-Quality Audio onboard

- Integrated 4 W loudspeaker with microphone
- IP telephony (SIP), cellular network via gateway
- IP voice announcement with DHCP
- Lip-synchronous audio recording (MxPEG)

## Housing robust & maintenance free

- Fiberglass-reinf. and shock-resistant PBT, white
- Freely combinable with D22/D24 accessories: in-ceiling set, on-wall set, wall mount
- Vandalism housing available in two designs
- Dimensions: (Diameter x Height) 160 mm x 50 mm
- Weight: approx. 450 g

## Power Supply PoE

- Power supply via Ethernet cable
- Power input 4.5 W
- No heater/motors, low UPS costs
- Variable PoE class based on operating mode: Depending on configuration: PoE class 1, 2 or 3

## Characteristics

- CMOS image sensor  
2048x1536 pixels (color)
- Color sensor sensitivity (22 mm/F2.0)  
1 lux (1/60 s)–0.05 lux (1/1 s)
- Frame/data rate (MxPEG, medium quality)
 

30 fps	VGA (640x480)	1.5 Mbps
30 fps	TV PAL (704x576)	2.0 Mbps
30 fps	Mega (1280x960)	2.5 Mbps
20 fps	3MEGA (2048x1536)	3 Mbps
- Audio codec  
64 KBit SIP (IP telephony)
- Temperature, weather protection  
-30°C to +60°C (-22°F to +140°F), IP65

\*4 GB MicroSD card is included in delivery

## HiRes Video Innovations

The German company MOBOTIX AG is known as the leading pioneer in network camera technology and its decentralized concept has made high-resolution video systems cost efficient.

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# Hemispheric Camera Q24

## Technical Data Q24 Hemispheric

<b>Models</b>	Basic, Sec	<b>Virtual PTZ</b>	Digital Pan/Tilt/Zoom, continuous 8x zoom
<b>Lenses</b>	L11 (hemispherical), L22 (90° x 67°)	<b>Alarm/Events</b>	Triggering of events by integrated multiple-window motion detection, temperature sensor, notification over email, FTP, IP-Telephony (VoIP, SIP), visual/acoustic alarm, pre- and post-alarm images
<b>Sensitivity</b>	Color: 1 lux (t=1/60 sec), 0.05 lux (t=1/1 sec)	<b>Audio</b>	Integrated microphone and speaker, lip-synchronous audio, two-way speaker, audio recording
<b>Sensor</b>	1/2" CMOS, progressive scan	<b>Interfaces</b>	Ethernet 10/100, USB
<b>Max. image resolution</b>	Color: 2048 x 1536 (3MEGA)	<b>Video phone</b>	VoIP, SIP, two-way speaker, remote control via DTMF signaling, event notification
<b>Image format</b>	Free image format selection (from 160x120 to 2048x1536) PTZ view, Quad view, panorama broad view image, double panorama view, panorama focus with 3 views	<b>Security</b>	User-/Group management, HTTPS/SSL, IP address filter, IEEE 802.1x, intrusion detection, digital image signature
<b>Max frame rate (M-JPEG) (Live/Recording)</b>	VGA: 22 fps, TV-PAL: 18 fps, Mega: 8 fps, 3MEGA: 4 fps	<b>Certificates</b>	BGV C 9; EMC: DIN EN 61000, DIN EN 50155 (shock, vibration, temperature), FCC part 15B; CE
<b>Video stream (MxPEG) (Live/Recording/Audio)</b>	VGA: 30 fps, TV-PAL: 30 fps, Mega: 30 fps, 3MEGA: 20 fps	<b>Power supply</b>	Power over Ethernet (IEEE 802.3af): PoE class variable depending on operating mode; power consumption; typ. 4.5 W; with PoE switch/MOBOTIX PoE adapter
<b>Image compression</b>	MxPEG, M-JPEG, JPG, H.263 (Video-VoIP-Telephony)	<b>Operating conditions</b>	IP65 (DIN EN 60529), -30° to +60 °C (-22°F to +140°F)
<b>Internal DVR</b>	MicroSD slot (camera-internal video recording up to 32GB)	<b>Dimensions</b>	Ø x H: 16 x 5 cm, Weight: ca. 450 g
<b>External storage</b>	Directly on NAS and PC/Server without additional recording software	<b>Standard delivery</b>	Housing (high-resistance composites - PBT-PC), white, incl. 360° lens, mounting parts, allen wrench, patch cable, manual, software, 4 GB MicroSD
<b>Software (inclusive)</b>	Video management software MxEasy, Control room software MxControlCenter 2.1		
<b>Image processing</b>	Backlight compensation, automatic white balance, image distortion correction (panorama image correction included), video sensor (motion detection)		

Technical information subject to change without notice!

### Q24 Hemispheric

### Available Accessories for the Q24 Hemispheric

<b>Standard Housing</b> MX-Q24M-Sec 	<b>Vandalism Housing</b> MX-Q24M-Sec-Vandal-ESMA 	<b>In-Ceiling-Set</b> MX-OPT-IC 	<b>ExtIO Extension Module</b> MX-ExtIO 
<ul style="list-style-type: none"> <li>• Hemispheric allround view 360°</li> <li>• For wall and ceiling mounting</li> <li>• Robust and maintenance-free, without mechanically moving parts</li> </ul>	<ul style="list-style-type: none"> <li>• Stainless steel vandalism housing incl. lens protection</li> <li>• Matt, polished</li> </ul>	<ul style="list-style-type: none"> <li>• In-Ceiling set incl. mounting parts</li> <li>• Easy mounting from front</li> <li>• 150 mm installation standard</li> <li>• Can be ordered with stainless steel cover</li> </ul>	<ul style="list-style-type: none"> <li>• Microphone/speaker</li> <li>• PIR sensor for motion detection, temperature sensor</li> <li>• 2 signal inputs, 2 signal outputs, 2 illuminated buttons</li> </ul>

Quad view (ceiling-mounted)

Broad view image (wall-mounted)

3 simultaneous views



<p><b>Q24 Basic</b></p>  <p>Ø 160 mm</p>	<ul style="list-style-type: none"> <li>• <b>Hemispheric FixDome (IP54)</b></li> <li>• Optional: 22 mm lens (90° x 67°)</li> <li>• For use indoors or in protected outdoor areas</li> <li>• Complete room monitoring with only one camera</li> <li>• PoE power supply according to IEEE 802.3af</li> <li>• Max. image resolution up to VGA 640 x 480, 16 fps VGA (MxPEG)</li> </ul>
<p><b>Q24 Sec</b></p>  <p>Ø 160 mm</p>	<ul style="list-style-type: none"> <li>• <b>Outdoor Hemispheric FixDome (IP65)</b></li> <li>• Optional: 22 mm lens (90° x 67°)</li> <li>• Integrated loudspeaker and microphone: Specifically suited as intercom system based on VoIP and SIP telephony</li> <li>• Status LEDs on front</li> <li>• PoE power supply according to IEEE 802.3af</li> <li>• Sec: Max. resolution 2048 x 1536, 20 fps 3MEGA (MxPEG)</li> </ul>
<p><b>Q24 Sec + Vandalism Set</b></p>  <p>Ø 160 mm</p>	<ul style="list-style-type: none"> <li>• <b>Vandalism Set for Q22/Q24 Sec Models</b></li> <li>• Composed of <ul style="list-style-type: none"> <li>- stainless steel cover (polished or matt)</li> <li>- safety screws</li> <li>- lens protector (3 mm polycarbonate)</li> </ul> </li> <li>• Designed for use under extremely harsh conditions</li> <li>• Temperature range from -30°C to +60°C (-22°F to +140°F), IP65</li> </ul>
<p><b>Q24 Sec + On-Wall Set</b></p>  <p>Ø 160 x 37 mm</p>	<ul style="list-style-type: none"> <li>• <b>On-Wall Set for Q22/Q24 Sec Camera Models</b></li> <li>• Consists of on-wall mount and mounting accessories</li> <li>• Conforms to U.S. installation standards</li> <li>• Reliably protects the cabling and allows the placement of additional modules in the on-wall mount</li> <li>• Temperature range from -30°C to +60°C (-22°F to +140°F), IP65</li> </ul>
<p><b>Q24 Sec + Outdoor Wall Mount</b></p> 	<ul style="list-style-type: none"> <li>• <b>Outdoor Wall Mount for Q22/Q24 Sec Camera Models</b></li> <li>• Consists of outdoor wall mount and mounting accessories</li> <li>• Covers RJ45 wall outlets</li> <li>• Space for expansion modules (battery, 3G, Wi-Fi, etc.)</li> <li>• Easily mounted to poles using pole mount</li> </ul>
<p><b>Q24 Sec + In-Ceiling Set</b></p> 	<ul style="list-style-type: none"> <li>• <b>In-Ceiling Set for Q22/Q24 Sec Camera Models</b></li> <li>• Discreet installation in ceiling</li> <li>• Easy mounting</li> <li>• Extremely flat design</li> </ul>

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# Hemispheric Camera Q24



Q24 Standard Ø 160 mm



50 mm



Q24 Standard Ø 160 mm  
Q24 Vandalism Ø 160 mm

## Q24M-360° in use: compact, mobile, easy installation, professional image post-processing

### Compact Design

Thanks to its compact design, the Q24-360° is the perfect choice for discreet monitoring of interior rooms. Complete room monitoring with only one camera!



### Mobile Monitoring

Busses or train cars can be monitored with only one camera. If an alarm is triggered, the camera will inform the driver or train conductor and the control center. Efficient and safe!



### Simple Installation

The camera is delivered pre-assembled and is available for immediate use after installation.

After you take the camera out of its packaging and are holding it in your hand, be sure to remove the outer housing ring.



Use the black mounting ring to attach the camera to a wall or ceiling.



After mounting the camera, screw the outer housing ring back onto the camera or onto the mounting ring so that the camera is completely enclosed.



### Professional Image Post-Processing

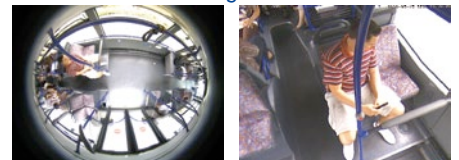
The surveillance images from the Q24 can be postprocessed either in real time or as recorded images. These tasks ([distortion correction](#), [PTZ](#)) are performed by the camera's software or MxControlCenter (free of charge).



### Automatic rotation mode:



### Virtual PTZ in saved image:



Download MxControlCenter free of charge at [www.mobotix.com](http://www.mobotix.com).

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