



# Technical Specifications

## MOBOTIX Q71

### Hemispherical 360° imaging technology at its best

360° camera technology - compact, complete and versatile. The MOBOTIX Q71 sees everything and always. Its 360° optics are everywhere. For the first time, IR and LED white light are combined in one hemispherical camera. So you can even make the night colorful! 12 megapixels and WDR provide brilliant image quality and impressive details. The integrated audio function makes you heard. Embedded in the MOBOTIX 7 platform with its intelligent apps, the comprehensive video system offers you an infinite range of analysis options.

- 4K effective resolution: 8MP 1:1 2880x2880 (original hemispherical image)
- Integrated IR and white light LED spotlight
- Platform with the most flexible codec support: H.264, H.265, MxPEG+ and MJPEG
- ONVIF Profile G, S, T conformity guarantees utmost interoperability
- Wide Dynamic Range (WDR) with up to 120 dB
- Easy Plug quick-mounting system
- Robust in any environment: -40 to 65 °C/-40 to 149 °F, IP66, and IK10 (with optional accessory)



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## Order Information

|             |                 |
|-------------|-----------------|
| Name        | MOBOTIX Q71     |
| Order Code: | Mx-Q71A-12DN016 |

## Hardware

|                     |   |
|---------------------|---|
| Image sensor (DN)   | 12MP (1:1) effective max. resolution 2880x2880  |
| Light sensitivity   | <ul style="list-style-type: none"><li>Color sensor (day): 0,1 lx @ 1/60 s; 0,005 lx @ 1 s</li><li>BW sensor (night): 0,02 lx @ 1/60 s; 0,001 lx @ 1 s</li></ul> |
| Exposure control    | Manual and automatic mode<br>1 s to 1/16,000 s  |
| Video codecs        | <ul style="list-style-type: none"><li>H.264, H.265 with Triple Streaming</li><li>MxPEG+</li><li>MJPEG</li></ul>   |
| IK protection class | IK10 (with optional accessory)  |
| IP protection class | IP66  |

|                                   |  |     |         |       |  |          |  |                       |   |
|-----------------------------------|--|-----|---------|-------|--|----------|--|-----------------------|---|
| Operating temperature range       | -40 to 65 °C/-40 to 149 °F   |     |         |       |  |          |  |                       |   |
| Min. cold start temperature       | -30 °C/-22 °F  |     |         |       |  |          |  |                       |   |
| Relative Humidity                 | 95 % non-condensing  |     |         |       |  |          |  |                       |   |
| Internal DVR, out of the box      | MicroSD card (8 GB), MxPEG+ recording only   |     |         |       |  |          |  |                       |   |
| I/Os                              | <p>INPUT</p> <ul style="list-style-type: none"> <li>■ Contact Closure (no galvanic isolation necessary) or up to 50V AC/DC</li> <li>■ max. length for cables: 50m</li> </ul> <p>OUTPUT</p> <ul style="list-style-type: none"> <li>■ requires pull-up resistor and external power supply (10mA / max. 50V DC - no AC)</li> <li>■ max. length for cables: depends on loop impedance of the connected cable.</li> </ul> <p>Specs for cables connected to the PCB terminals:</p> <p><i>Conductor cross section</i></p> <table> <tr> <td>AWG</td><td>20 - 26</td></tr> <tr> <td>Rigid</td><td>0.14mm<sup>2</sup> - 0.5mm<sup>2</sup></td></tr> <tr> <td>Flexible</td><td>0.14mm<sup>2</sup> - 0.5mm<sup>2</sup></td></tr> <tr> <td>Flexible with ferrule</td><td>0.25mm<sup>2</sup> - 0.34mm<sup>2</sup></td></tr> </table> | AWG | 20 - 26 | Rigid | 0.14mm <sup>2</sup> - 0.5mm <sup>2</sup> | Flexible | 0.14mm <sup>2</sup> - 0.5mm <sup>2</sup> | Flexible with ferrule | 0.25mm <sup>2</sup> - 0.34mm <sup>2</sup> |
| AWG                               | 20 - 26  |     |         |       |  |          |  |                       |   |
| Rigid                             | 0.14mm <sup>2</sup> - 0.5mm <sup>2</sup>   |     |         |       |  |          |  |                       |   |
| Flexible                          | 0.14mm <sup>2</sup> - 0.5mm <sup>2</sup>   |     |         |       |  |          |  |                       |   |
| Flexible with ferrule             | 0.25mm <sup>2</sup> - 0.34mm <sup>2</sup>  |     |         |       |  |          |  |                       |   |
| Microphone/Speaker                | <p>Integrated Microphone:</p> <ul style="list-style-type: none"> <li>■ Sensitivity: -35 dB +/-4 dB (0 dB = 1 V/pa, 1 kHz)</li> </ul> <p>Integrated Loudspeaker:</p> <ul style="list-style-type: none"> <li>■ 0.9 W at 8 Ohm</li> </ul> <p>Line in / Line out</p>   |     |         |       |  |          |  |                       |   |
| Integrated illumination           | IR and White Light up to 15 m  |     |         |       |  |          |  |                       |   |
| Shock detector (tamper detection) | Yes  |     |         |       |  |          |  |                       |   |
| Max. power consumption            | max. 25 W  |     |         |       |  |          |  |                       |   |
| Electrical surge protection       | Available with MX-Overvoltage-Protection-Box (not part of the scope of delivery)   |     |         |       |  |          |  |                       |   |

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|                                  |  |
|----------------------------------|--|
| PoE standard                     | PoE Plus (802.3at-2009)/Class 4 (Class 3 can be enabled via HW switch. <b>Note:</b> IR illumination requires Class 4)  |
| Interfaces                       | <ul style="list-style-type: none"><li>■ Ethernet 1000BaseT (RJ45 according to EIA/TIA-568B)</li><li>■ USB-C/USB2.0; High-Speed (<math>V_{out} = 5.1\text{ V}</math>, <math>I_{out} = 0.9\text{ A}</math>, <math>P_{out} = 4.5\text{ W}</math>)</li></ul>   |
| Mounting Options                 | Wall- or ceiling-mountable   |
| Dimensions<br>(Ø x height)       | 164 x 47,5 mm  |
| Weight                           | Gross weight: 1.050 g  |
| Housing                          | Aluminum, PBT-30GF   |
| Standard accessories             | <ul style="list-style-type: none"><li>2 terminal blocks</li><li>1 mounting cable with sealing, 0.5 m/~2 in</li><li>2 silicone sealings for patch cable</li><li>1 Ethernet patch cable RJ45, 50 cm/19.7 in</li><li>1 Allen wrench 2.5 mm</li><li>1 Q71 lens wrench blue</li><li>4 dowels 8 mm</li><li>4 stainless steel pan head-screws 4.5x60 mm</li><li>4 stainless steel washers Ø5.3 mm</li><li>1 Torx wrench TX 20</li><li>4 sealing plugs, white</li><li>1 Important Safety Information</li><li>1 Camera Connection Flyer</li></ul> |
| Detailed technical documentation | <a href="http://www.mobotix.com">www.mobotix.com</a> > <a href="#">Support</a> > <a href="#">Download Center</a> > <a href="#">Marketing &amp; Documentation</a>   |
| MTBF                             | 80,000 hours   |
| Certificates                     | EN 50121-4:2015, EN 50581:2012, EN 55032:2012+AC:2013, EN 55035:2017, FprEN 61000-6-1:2015, EN 61000-6-2:2015, EN 61000-6-3:2007+A1:2011+AC:2012, EN 61000-6-4:2007+A1:2011, EN 62368-1:2014 + AC: 2015 + A11: 2017 + AC: 2017, IEC 60950-22:2016, AS/NZS CISPR32:2015, 47 CFR Part 15b  |
| Protocols                        | DHCP (client and server), DNS, ICMP, IGMP v3, IPv4, IPv6, HTTP, HTTPS, FTP, FTPS, NFS, NTP (client and server), RTP, RTCP, RTSP, SFTP, SIP (client and server), SMB/CIFS, SNMP, SMTP, SSL/TLS 1.3, UDP, VLAN, VPN, Zeroconf/mDNS   |
| Manufacturer warranty            | 5 years  |

# Image Formats, Frame Rates, Image Storage

|                           |  |
|---------------------------|--|
| Available video codecs    | MxPEG+/MJPEG/H.264/H.265   |
| Image resolutions         | VGA 640x360, XGA 1024x576, HD 1280x720, FullHD 1920x1080, 4MP 2688x1512, 8MP 1:1 2880x2880 |
| H.264 multi streaming     | Triple Streaming   |
| Multicast stream via RTSP | Yes  |
| Max. image resolution     | 8MP 1:1 2880x2880 hemispheric image  |
| Max. frame rate           | MxPEG: 20@4k, H.264: 30@4k, H.265: 30@4k   |

## General Features

|                   |  |
|-------------------|--|
| WDR               | Up to 120 dB   |
| Software features | <ul style="list-style-type: none"> <li>■ H.264, H.265 Multistreaming</li> <li>■ Multicast stream via RTSP</li> <li>■ Digital pan, tilt, zoom/vPTZ (up to 8x zoom)</li> <li>■ Genetec protocol integration</li> <li>■ Custom exposure zones</li> <li>■ Snapshot recording (pre/post-alarm images)</li> <li>■ Continuous recording</li> <li>■ Event recording</li> <li>■ Time-controlled flexible event logic</li> <li>■ Weekly schedules for recordings and actions</li> <li>■ Event video and image transfer via FTP and email</li> <li>■ Playback and QuadView via web browser</li> <li>■ Animated logos on the image</li> <li>■ Master/Slave functionality</li> <li>■ Privacy zone scheduling</li> <li>■ Remote alarm notification (network message)</li> <li>■ Programming interface (HTTP-API)</li> <li>■ MOBOTIX MessageSystem</li> </ul> |

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|                                      |   |
|--------------------------------------|---|
| ONVIF compatibility                  | Profile G, S, T   |
| Master/Slave functionality           | Yes   |
| Remote alarm notification            | email, network message (HTTP/HTTPS), SNMP, MxMessageSystem  |
| DVR/storage management (MxPEG+ only) | Within the camera via microSD card, on external USB and NAS devices, different streams for live image and recording, MxFFS with buffered archive, pre- and post-alarm images, storage monitoring with error reporting |

Video Analysis

|                        |  |
|------------------------|--|
| Video motion detection | Yes  |
| MxActivitySensor       | Version 1.0, 2.1 and object-based MxAnalytics AI |
| MxAnalytics            | Heatmap, people counting & object-based counting |
| MOBOTIX App support    | Yes  |

Video Management Software

| Feature            | Properties   |
|--------------------|--|
| MOBOTIX HUB        | Yes<br><a href="#">www.mobotix.com &gt; Support &gt; Download Center &gt; Software Downloads</a>                       |
| MxManagementCenter | Yes (MxMC 2.2 and higher)<br><a href="#">www.mobotix.com &gt; Support &gt; Download Center &gt; Software Downloads</a> |
| MOBOTIX LIVE App   | Yes<br>Available in Android and iOS App Stores.  |

## Dimensions

**NOTE!** Download the drilling template from the section or on the MOBOTIX website: [www.mobotix.com](http://www.mobotix.com) > Support > Download Center > Marketing & Documentation > Drilling Templates.

**CAUTION!** Always print or copy the drilling template at 100% of the original size!

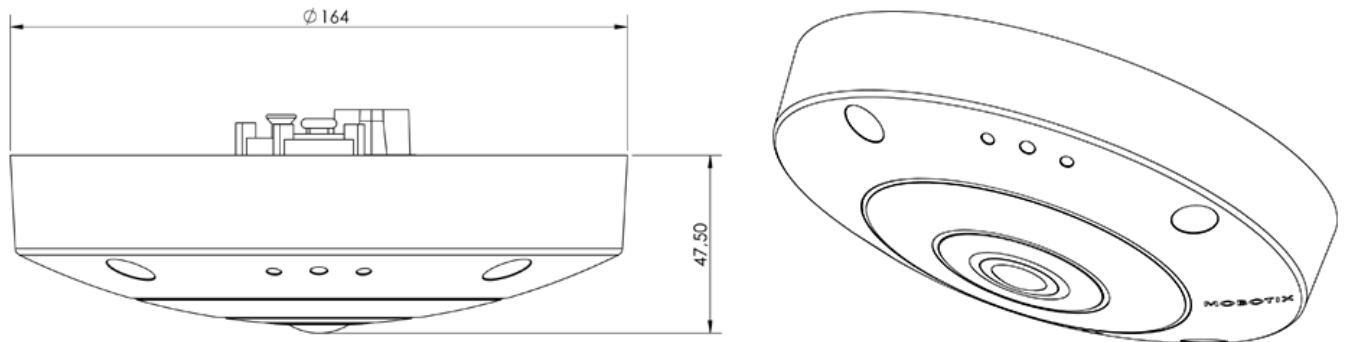


Fig. 1: MOBOTIX Q71: All measurements in mm



[EN\\_09/22](#)

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