



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: 12MP (1:1) effective max. resolution 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, NEMA 4X and IK10 for the housing except the lens



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Order Information

Name	MOBOTIX Q71
Order Code:	Mx-Q71(A/B)-12DN016

Hardware

Image sensor (DN)	12MP (1:1) effective max. resolution 2880x2880
Light sensitivity	<ul style="list-style-type: none">▪ Color sensor (day): 0,1 lx @ 1/60 s; 0,005 lx @ 1 s▪ BW sensor (night): 0,02 lx @ 1/60 s; 0,001 lx @ 1 s
Exposure control	Manual and automatic mode 1 s to 1/16,000 s
IK protection class	IK10 for the housing except the lens
IP / NEMA protection class	IP66 / NEMA 4X (except the lens)
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 Storage	Internal microSD card (SDHC/SDXC), 8 GB out of the box, max. 1 TB.								
Allowed cable dimensions for cables connected to the PCB terminals	<p><i>Conductor cross section</i></p> <table border="0"> <tr> <td>AWG</td> <td>20 - 26</td> </tr> <tr> <td>Rigid</td> <td>0.14mm² - 0.5mm²</td> </tr> <tr> <td>Flexible</td> <td>0.14mm² - 0.5mm²</td> </tr> <tr> <td>Flexible with ferrule</td> <td>0.25mm² - 0.34mm²</td> </tr> </table>	AWG	20 - 26	Rigid	0.14mm ² - 0.5mm ²	Flexible	0.14mm ² - 0.5mm ²	Flexible with ferrule	0.25mm ² - 0.34mm ²
AWG	20 - 26								
Rigid	0.14mm ² - 0.5mm ²								
Flexible	0.14mm ² - 0.5mm ²								
Flexible with ferrule	0.25mm ² - 0.34mm ²								
Input	<p>Contact Closure (no galvanic isolation necessary) or up to 30 Vrms AC / V50 DC</p> <p>Switching thresholds:</p> <ul style="list-style-type: none"> ▪ Input > 1.6V leads to a detected HIGH ▪ Input < 0.9V leads to a detected LOW (after a high) <p>max. length for cables: 50m</p>								
Output	<p>Q71-A</p> <p>requires pull-up resistor and external power supply (10mA / max. 50V DC - no AC)</p> <p>Output may be loaded with max. 50mA</p> <p>max. length for cables: depends on loop impedance of the connected cable.</p> <p>Q71-B</p> <p>Dry contact, form A (AC/DC, up to 50V / 60 W/ 2A)</p>								
Microphone/Speaker	<p>Integrated Microphone:</p> <ul style="list-style-type: none"> ▪ Sensitivity: -35 dB +/-4 dB (0 dB = 1 V/pa, 1 kHz) <p>Integrated Loudspeaker:</p> <ul style="list-style-type: none"> ▪ 0.9 W at 8 Ohm <p>Line in / Line out</p>								
Integrated illumination	850 nm IR and White Light. up to 15 m								
Shock detector (tamper detection)	Yes								
Max. power consumption	max. 25 W								
Average power consumption	13.2 W								

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Electrical surge protection	Available with MX-Overvoltage-Protection-Box (not part of the scope of delivery)
PoE standard	PoE Plus (802.3at-2009)/Class 4 (Class 3 can be enabled via HW switch. Note: IR illumination requires Class 4)
Interfaces	<ul style="list-style-type: none">▪ Ethernet 1000BaseT (RJ45 according to EIA/TIA-568B)▪ USB-C/USB2.0; High-Speed ($V_{out} = 5.1\text{ V}$, $I_{out} = 0.9\text{ A}$, $P_{out} = 4.5\text{ W}$)
Mounting Options	Wall- or ceiling-mountable
Dimensions (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">2 terminal blocks1 mounting cable with sealing, 0.5 m/~2 in2 silicone sealings for patch cable1 Ethernet patch cable RJ45, 50 cm/19.7 in1 Allen wrench 2.5 mm1 Q71 lens wrench blue4 dowels 8 mm4 stainless steel pan head-screws 4.5x60 mm4 stainless steel washers Ø5.3 mm1 Torx wrench TX 204 sealing plugs, white2 IO-plugs1 Important Safety Information1 Camera Connection Flyer
Detailed technical documentation	www.mobotix.com > Support > Download Center > Marketing & Documentation
MTBF	80,000 hours
Certificates	EN 50121-4, EN 55032, EN 55035, EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 62368-1, EN 63000, AS/NZS CISPR32, 47 CFR Part 15b, NRTL
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, TCP, UDP, VLAN, VPN, Zero-conf/mDNS

Manufacturer warranty 5 years

Image and Video Properties

Available video codecs

- H.264, H.265
- MxPEG+
- MJPEG

Image resolutions VGA 640x360, XGA 1024x576, HD 1280x720, FullHD 1920x1080, 4MP 2688x1512, 8MP 1:1 2880x2880

Multi streaming H.264, H.265 with triple streaming

Multicast stream via RTSP Yes

Max. image resolution 12MP (1:1) effective max. resolution 2880x2880 hemispheric image

Max. frame rate (fps) MxPEG: 20@4k, H.264: 30@4k, H.265: 30@4k

General Software Features

Feature	Properties
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WDR	Up to 120 dB
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Software features	<ul style="list-style-type: none"> ▪ H.264, H.265 Multistreaming ▪ Multicast stream via RTSP ▪ Digital pan, tilt, zoom/vPTZ (up to 8x zoom) ▪ Genetec protocol integration ▪ Programmable exposure zones ▪ Snapshot recording (pre/post-alarm images) ▪ Continuous recording
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Technical Specifications

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Feature	Properties
	<ul style="list-style-type: none">▪ Event recording▪ Time-controlled flexible event logic▪ Weekly schedules for recordings and actions▪ Event video and image transfer via FTP and email▪ Playback and QuadView via web browser▪ Animated logos on the image▪ Master/Slave functionality▪ Privacy zone scheduling▪ Remote alarm notification (network message)▪ Programming interface (HTTP-API)▪ MxMessageSystem
ONVIF compatibility	Profile G, S, T, (M with later firmware release)
Master/Slave functionality	Yes
Remote alarm notification	Email, network message (HTTP/HTTPS), SNMP, MxMessageSystem, MQTT
DVR/image storage management	<ul style="list-style-type: none">▪ On internal microSD card▪ On external USB and NAS devices▪ Different streams for live image and recording▪ MxPEG+ only▪ MxFFS with buffered archive, pre- and post-alarm images, storage monitoring with error reporting
Camera and data security	User and group management, SSL connections, IP-based access control, IEEE 802.1X, intrusion detection, digital image signature
Digitally signed firmware	Yes (to prevent firmware file tampering)

Video Analysis

Feature	Properties
Video motion detection	Yes
MxActivitySensor	Version 1.0, 2.1, 3.0
MxAnalytics	Yes with a later FW release
MOBOTIX App support	Yes with a later FW release

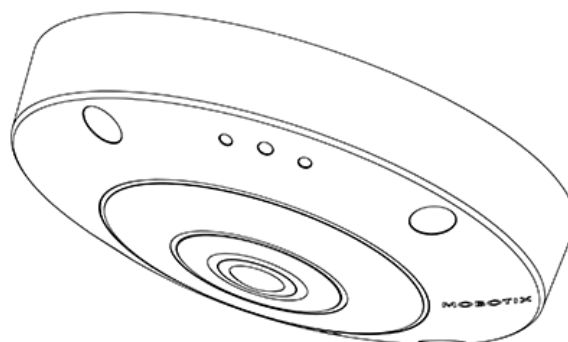
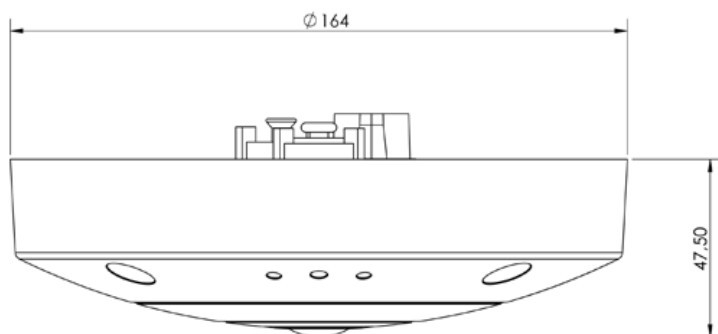
Video Management Software

Feature	Properties
MOBOTIX HUB	Yes www.mobotix.com > Support > Download Center > Software Downloads
MxManagementCenter	Yes (latest version recommended) www.mobotix.com > Support > Download Center > Software Downloads
MOBOTIX Cloud	Streaming & Events supported
MOBOTIX LIVE App	Yes (available in Google Play Store (Android) and Apple App Store (iOS)).
3rd Party VMS Software	See ONVIF Profile S, T and G specification

Dimensions

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

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



MOBOTIX

BeyondHumanVision

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