



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



BeyondHumanVision

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- 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	- 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 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	Conductor cross section	
	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

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Input	Contact Closure (no galvanic isolation necessary) or up to 30 Vrms AC / V50 DC Switching thresholds: ■ Input > 1.6V leads to a detected HIGH ■ Input < 0.9V leads to a detected LOW (after a high) max. length for cables: 50m
Output	Q71-A Requires pull-up resistor and external power supply (10mA / max 30 Vrms AC / max. 50V DC) Q71-B Dry contact, form A (max 30 Vrms / max, 50V DC/ 60 W/ 2A DC)
Microphone/Speaker	Integrated Microphone: ■ Sensitivity: -35 dB +/-4 dB (0 dB = 1 V/pa, 1 kHz) Integrated Loudspeaker: ■ 0.9 W at 8 Ohm Line in / Line out
Integrated illumination	850 nm IR and White Light. up to 25 m ²
Tampering Detection	Integrated Shock Sensor
Max. power consumption	■ Max. 25 W/521 mA at 48 VDC ■ Max. 25 W/1042 mA at 24 VDC
Average power consumption	13.2 W
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	■ Ethernet 1000BaseT (RJ45 according to EIA/TIA-568B) ■ USB-C/USB2.0; High-Speed ($V_{out} = 5.1\text{ V}$, $I_{out} = 0.9\text{ A}$, $P_{out} = 4.5\text{ W}$)
Status LED	multicolor (red, blue, green)
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	2 terminal blocks 1 mounting cable with sealing, 0.5 m/~2 in 2 silicone sealings for patch cable 1 Ethernet patch cable RJ45, 50 cm/19.7 in 1 Allen wrench 2.5 mm 1 Q71 lens wrench blue 4 dowels 8 mm 4 stainless steel pan head-screws 4.5x60 mm 4 stainless steel washers Ø5.3 mm 1 Torx wrench TX 20 4 sealing plugs, white 2 IO-plugs 1 Important Safety Information 1 Camera Connection Flyer
Detailed technical documentation	www.mobotix.com > Services > 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, MQTT, 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
WDR	Up to 120 dB
Software features	■ 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 ■ 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	■ 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
Firmware Tampering Detection	Digital Signature

Video Analysis

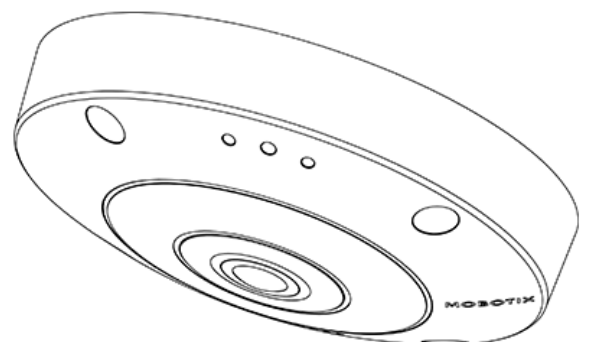
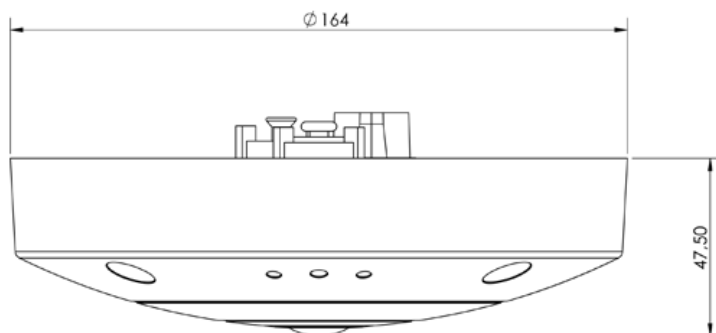
Feature	Properties
Video motion detection	Yes
MxActivitySensor	Version 1.0, 2.1, 3.0
MxAnalytics	Yes
MOBOTIX App support	Yes

Video Management Software

Feature	Properties
MOBOTIX HUB	Yes www.mobotix.com > Services > Download Center > Software Downloads
MxManagementCenter	Yes (latest version recommended) www.mobotix.com > Services > Download Center > Software Downloads
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! Drilling template: www.mobotix.com > Services > Download Center > Marketing & Documentation > [Drilling Templates](#).





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