



Technical Specifications

MOBOTIX S74

Flexible. Modular. Unique.

Weatherproof and robust, the latest generation of our successful S camera models features increased modularity as well as the latest MOBOTIX 7 system platform with intelligent Plug-In App concept. The result is a system completely unrivaled in terms of performance, functionality and design.

- Platform with the most flexible codec support: H.264, H.265, MxPEG+ and MJPEG
- ONVIF Profile S and T conformity guarantees utmost interoperability
- Increased modularity with flexible usage of a combination of up to three sensor or functional modules
- 2 x 4K UHD resolution
- 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



Camera

Hardware

Image sensor (color or B&W sensor)	up to 4K UHD 3840x2160, 16:9, 1/1,8"
Light sensitivity	<ul style="list-style-type: none">▪ Color sensor (day): 0,1 lx @ 1/60s; 0,005 lx @ 1s▪ BW sensor (night): 0,02 lx @ 1/60s; 0,001 lx @ 1s
Exposure control	Manual and automatic mode 1 s to 1/16,000 s
Video codecs	<ul style="list-style-type: none">▪ H.264, H.265 with Triple Streaming▪ MxPEG+▪ MJPEG
IK protection class	IK10 (housing)
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	Camera , p. 2 required
Microphone/Speaker	Camera , p. 2 required
Passive infra-red sensor (PIR)	Available with functional module, max. 4.5 Watt (see Camera , p. 2)
Infra-red illumination	Three functional modules for wide-angle, standard, and tele lenses
Range of infra-red illumination	Up to 30 m/100 ft (may be more depending on scene)
Max. power consumption	25 W
Electrical surge protection	Camera , p. 2 required
PoE standard	PoE Plus (802.3at-2009)/Class 4 (Network slide in Board required. See Camera , p. 2 or Camera , p. 2)

Interfaces	4 sensor / functional modules USB-C 2 Slots for slide in boards (Network, IOs etc.)
Mounting Options	Wall-mountable
Dimensions (height x width x depth)	36 x 232 x 110 mm
Weight without sensor modules	1.130g
Housing	Aluminum, PBT-30GF
Standard accessories	1 SD card 8 GB (installed) 1 Important Safety Information 1 Sticker with EAN number of camera 1 Sticker with IP address of camera 1 Module wrench (gray) 1 Lens wrench blue 4 Wood screws 4.5 x 60 mm 4 Dowels S8 2 Covers for screw plastic white
Detailed technical documentation	www.mobotix.com > Support > Download Center > Marketing & Documentation
MTBF	80,000 hours
Certificates	EN 55032:2012AC:2013 Class A, EN 55035:2017, EN 50121-4:2016, EN 61000-6-1:2007, EN 61000-6-2:2015, EN 61000-6-3:2007A1:2011+AC:2012, EN 61000-6-4:2007A1:2011, EN50581:2012, EN 62368-1:2014+AC:2015A11:2017+AC:2017, 47 CFR Part 15b Class A, AS/NZS CISPR 32:2015 Class A
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	3 years

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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, QHD 2560x1440, 4K UHD 3840x2160
H.264 multi streaming	Triple Streaming
Multicast stream via RTSP	Yes
Max. image resolution	<ul style="list-style-type: none">One sensor: 4K UHD, 3840x2160 (8MP)Both sensors (dual image): 2x 4K UHD, 7680x2160 (16MP)
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">H.264, H.265 MultistreamingMulticast stream via RTSPDigital pan, tilt, zoom/vPTZ (up to 8x zoom)Genetec protocol integrationCustom exposure zonesSnapshot recording (pre/post-alarm images)Continuous recordingEvent recordingTime-controlled flexible event logicWeekly schedules for recordings and actionsEvent video and image transfer via FTP and emailPlayback and QuadView via web browserAnimated logos on the imageMaster/Slave functionalityPrivacy zone schedulingRemote alarm notification (network message)Programming interface (HTTP-API)MOBOTIX MessageSystem
ONVIF compatibility	Profile 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
Camera and data security	User and group management , SSL connections, IP-based access control, IEEE 802.1X, intrusion detection, digital image signature

Video Analysis

Video motion detection	Yes
MxActivitySensor	Version 1.0, 2.1 and object-based MxAnalytics AI
ONVIF compatibility	Profile S, T
MxAnalytics	Heatmap, people counting & object-based counting
MOBOTIX App support	Yes

Video Management Software

MxManagementCenter	Yes (MxMC 2.2 and higher) www.mobotix.com > Support > Download Center > Software Downloads
MxBell	Yes www.mobotix.com > Support > Download Center > Software Downloads

Sensor Modules

Dimensions of Sensor Modules

Dimensions (height x width)	58 x 42,5 (50 mm)
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Weight of Sensor Modules

Standard Sensor Modules	max. 150g
Functional Modules	max. 150g
Thermal Sensor Module	380g
PTMount Thermal	890g

Features Thermal Image Sensors

Thermal sensitivity	Typ. 50 mK, IR range 7.5 to 13.5 μ m
Temperature measurement range	-40 to 550 $^{\circ}$ C/-40 to 1022 $^{\circ}$ F
Thermal image sensor	Uncooled microbolometer, CIF: 336 x 256 pixels / VGA: 640 x 480
Dimensions	PT mount Thermal 336/640: 98.5mm x 106mm diam, 620g (including PT Mount) Sensor module alone: 73mm (+4.4mm front glass) x 57mm diam (63mm front glass), 310g
Max. image size	Can be scaled up to 3072 x 2048 (6MP), automatically scaled to size of MX sensor module
Max. frame rate	9fps (-FAST version 25/30fps on request)
Pixel pitch	17 μ m
Field of view	336 xx 100: 45 $^{\circ}$ x 35 $^{\circ}$; 2.27mr, focal 7.5mm, f/1.25 336 xx 150: 25 $^{\circ}$ x 19 $^{\circ}$; 1.31mr, focal 13mm, f/1.25 336 xx 280: 17 $^{\circ}$ x 13 $^{\circ}$; 0.90mr, focal 19mm, f/1.25 640 xx 050: 90 $^{\circ}$ x 69 $^{\circ}$; 2.27mr, focal 7.5mm, f/1.4 640 xx 080: 69 $^{\circ}$ x 56 $^{\circ}$; 1.89mr, focal 9mm, f/1.4 640 xx 100: 45 $^{\circ}$ x 37 $^{\circ}$; 1.31mr, focal 13mm, f/1.25 640 xx 150: 32 $^{\circ}$ x 26 $^{\circ}$; 0.90mr, focal 19mm, f/1.25
Operating temperature	-40 $^{\circ}$ to +65 $^{\circ}$ C / 40 $^{\circ}$ to 149 $^{\circ}$ F; 5% to 95% non-condensing
Power consumption	CIF: 1W VGA: 1.2W
IP rating	IP67

IK rating	IK04
Material	PBT-30GF (housing); Germanium (lens)
Software (included)	Video management software MxManagementCenter

Features ECO Thermal Image Sensor

Thermal sensitivity	Typ. 65 mK, IR range 7.8 to 14 μ m
Temperature measurement range	-40 to 330°C / -40 to 626 °F
Field of view	T040: 105 x 75°; 5,23mr, focal 2.2mm, f/1.05 T080: 56 x 42°; 3,00mr, focal 4.0mm, f/1.00
Thermal image sensor	Uncooled microbolometer, CIF: 320 x 240 pixels
Dimensions	58 x 42.5 mm (dia. 50 mm), 65g
Pixel pitch	12 μ m
Max. image size	Can be scaled up to 3072 x 2048 (6MP), automatically scaled to size of MX Sensor module
Max. frame rate	9 fps (when displaying an Mx Sensor module and a thermal sensor module, the overall frame rate of the camera is reduced to 9 fps)
Operating temperature	-40° to +65°C / 40° to 149°F; 5% to 95% non-condensing
Power consumption	600mW
IP rating	IP66
IK rating	IK04
Material	PBT-30GF (housing); Chalcogenide (lens)
Software (included)	Video management software MxManagementCenter

Supported Sensor Modules

Sensor Module	Order Code
Sensor module with standard 45° lens	Mx-O-M7SA-8DN100
	Mx-O-M7SA-8D100
	Mx-O-M7SA-8N100
	Mx-O-M7SA-4DN100
Sensor module with tele lens 30°	Mx-O-M7SA-8DN150
	Mx-O-M7SA-8D150
	Mx-O-M7SA-8N150
	Mx-O-M7SA-4DN150
Sensor module with tele lens 15°	Mx-O-M7SA-8DN280
	Mx-O-M7SA-8D280
	Mx-O-M7SA-8N280
	Mx-O-M7SA-4DN280
Sensor module with wide angle lens 60°	Mx-O-M7SA-8DN080
	Mx-O-M7SA-8D080
	Mx-O-M7SA-8N080
	Mx-O-M7SA-4DN080
Sensor module with super wide angle lens 95°	Mx-O-M7SA-8DN050
	Mx-O-M7SA-8D050
	Mx-O-M7SA-8N050
	Mx-O-M7SA-4DN050
Sensor module with ultra wide angle lens 120° 4K	Mx-O-M7SA-8DN040
	Mx-O-M7SA-8D040
	Mx-O-M7SA-8N040
	Mx-O-M7SA-4DN040
Sensor module with standard 45° lens	Mx-O-M7SA-8DN100
	Mx-O-M7SA-8D100
	Mx-O-M7SA-8N100
	Mx-O-M7SA-4DN100

For a complete list of lenses for MOBOTIX cameras, please see the Lens Table document for MOBOTIX 7 models on www.mobotix.com > [Support](#) > [Download Center](#) > [Marketing & Documentation](#) > [Lens Table](#).

Supported Thermal Sensor Modules

Sensor module	Order code
CIF Thermal 45° x 35°	MX-O-M7SB-336TS100
CIF Thermal 25° x 19°	Mx-O-M7SB-336TS150
CIF Thermal 17° x 13°	Mx-O-M7SB-336TS280
CIF Thermal Radiometry 45° x 35°	Mx-O-M7SB-336RS100
CIF Thermal Radiometry 25° x 19°,	Mx-O-M7SB-336RS150
CIF Thermal Radiometry 17° x 13°	Mx-O-M7SB-336RS280
ECO CIF Thermal 105°x75°	Mx-O-M7SA-320T040
ECO CIF Thermal 56°x42°	Mx-O-M7SA-320T080
VGA Thermal 90° x 69°	Mx-O-M7SB-640TS050
VGA Thermal 69° x 56°	Mx-O-M7SB-640TS080
VGA Thermal 45° x 37°	Mx-O-M7SB-640TS100
VGA Thermal 30° x 26°	Mx-O-M7SB-640TS150
VGA Thermal Radiometry 90° x 69°	Mx-O-M7SB-640RS050
VGA Thermal Radiometry 69° x 56°	Mx-O-M7SB-640RS080
VGA Thermal Radiometry 45° x 37°	Mx-O-M7SB-640RS100
VGA Thermal Radiometry 30° x 26°	Mx-O-M7SB-640RS150

The **Thermal Radiometry** variants automatically alarm when the temperature exceeds or falls below defined limits. This is crucial for the detection of fire or heat sources. Up to 20 different temperature events can be configured simultaneously in so-called TR windows or over the complete sensor image over a temperature range of (missing or bad snippet).

The **Thermal** variants only measure in the center of the image (2x2 pixel spotmeter).

Functional Modules

Supported Functional Modules

Functional Module	Order Code	Remark
Functional MultiSense module	Mx-F-MSA	with PIR sensor, temperature sensor, illumination sensor
Functional IR Light modules	Mx-F-IRA-W	for Super Wide-Angle Lens Sensor Modules 95°
	Mx-F-IRA-S	for Standard & Wide-Angle Lens Sensor Modules 45° and 60°
	Mx-F-IRA-T	for Tele Lens Sensor Modules 15° and 30°
		Power consumption IR Light Modules: 4,2 W at 100% brightness.

Interface Slide in Boards

S74 IO Slide in Board

Order Code	Mx-F-S7A-INT01	
Allowed cable dimensions for cables connected to the PCB terminals	<i>Conductor cross section</i>	
	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
Line In	(0dB) Vrms=1V	
Line Out	Headphones with 20mW @ 16 Ohm or 32 Ohm. Audio inputs as a Line Out function to 10k Ohm impedance of receiver. Audio level while connected to 10k Ohm equals -10dbV	

SPK	0,9W at any 8 Ohm speaker. MOBOTIX Audio module: 0,9W at 8 Ohm
MIC	Passive microphone to connect (for best results). R_Bias for the microphone is 2.2 kOhm (included on the camera). Microphone impedance < 2.2 kOhm, Operating voltage of the microphone is 2V. Sensitivity of the MOBOTIX Audio Module: -35 +-4dB (0dB = 1V/pa, 1kHz)
IN / OUT	<p>INPUT</p> <ul style="list-style-type: none"> ▪ Contact Closure (no galvanic isolation necessary) or up to 50V AC/DC ▪ max. length for cables: 50m <p>OUTPUT</p> <ul style="list-style-type: none"> ▪ requires pull-up resistor and external power supply (10mA / max. 50V DC - no AC) ▪ max. length for cables: depends on loop impedance of the connected cable.

S74 Network Slide in Board with RJ45 socket

Order Code	Mx-F-S7A-RJ45
Power Supply	PoE Plus (802.3at-2009)/Class 4
Network	RJ45 / Ethernet 1000Base-T

S74 Network Slide in Board with LSA terminal

Order Code	Mx-F-S7A-LSA
Power Supply	PoE Plus (802.3at-2009)/Class 4
Network	LSA / Ethernet 1000Base-T

S74 Network Slide in Board with RJ45 and VDC power supply

Order Code	Mx-F-S7A-RJ45-VDC
Power Supply	12-24 V DC only - recommended 2,5-1,5A
Network	RJ45 / Ethernet 1000Base-T

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!

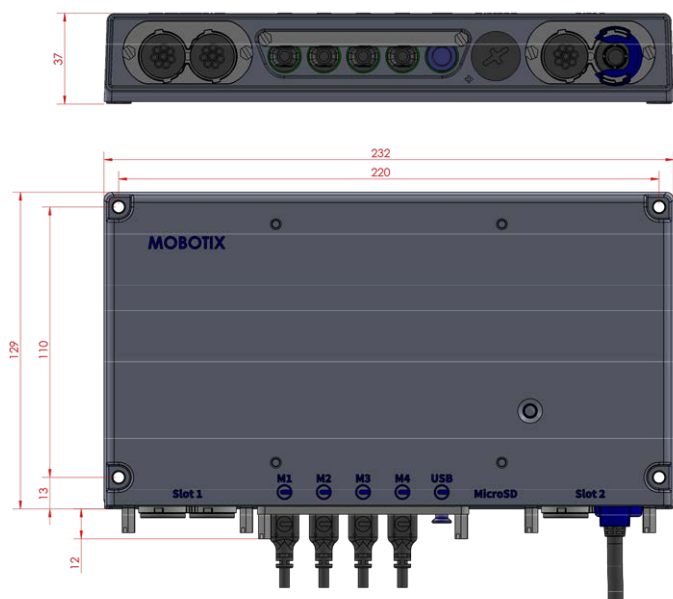


Fig. 1: S74: All measurements in mm

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BeyondHumanVision

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MOBOTIX AG • Kaiserstrasse • D-67722 Langmeil • Tel.: +49 6302 9816-103 • sales@mobotix.com • www.mobotix.com

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