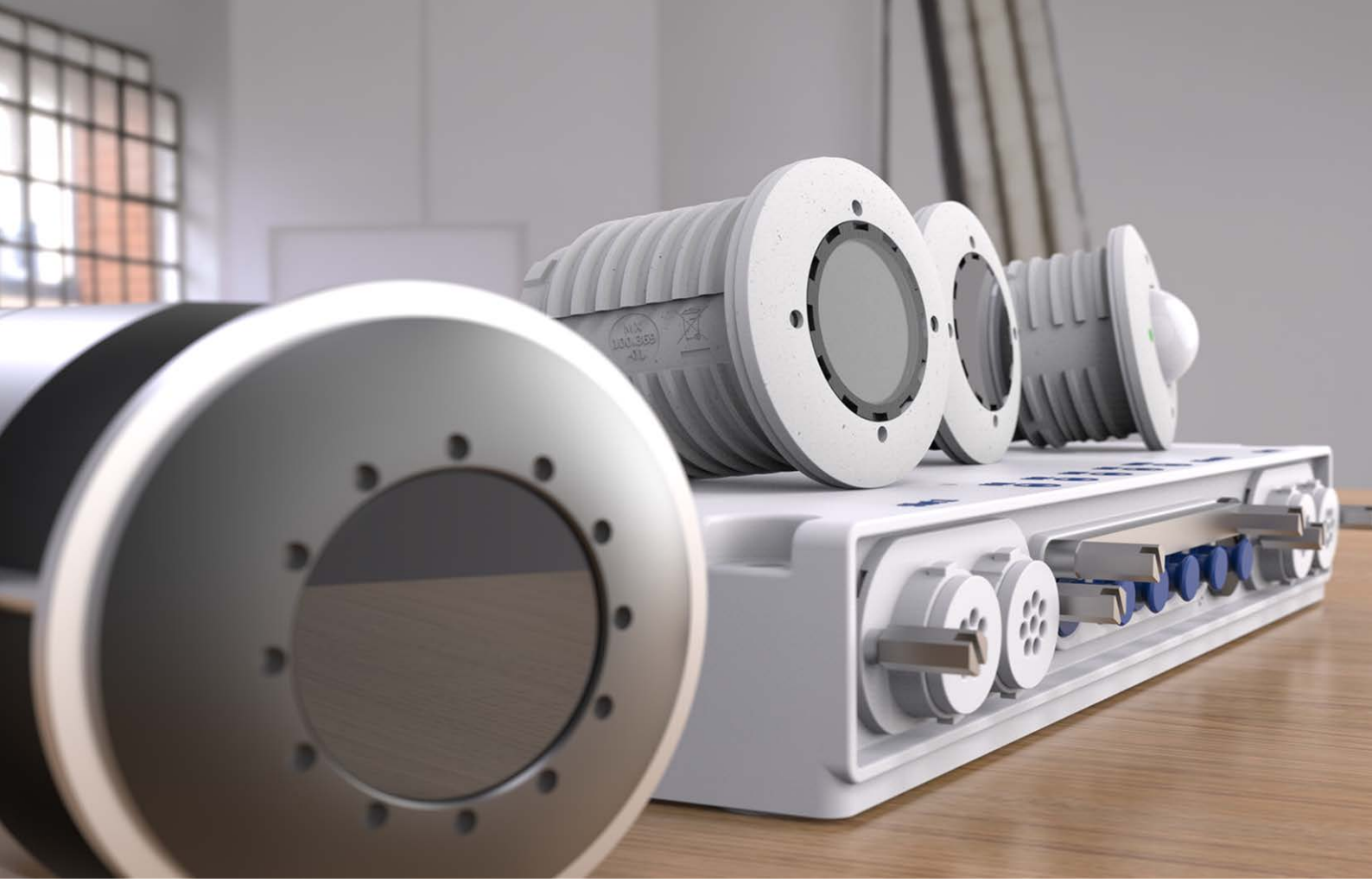


Technical Specifications

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 G, S, T conformity guarantees utmost interoperability.
- Increased modularity with flexible usage of a combination of up to four modules including two image sensors plus 2 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, NEMA 4X and IK10.

HEVCAdvance™ NDAA Compliant

BeyondHumanVision

MOBOTIX

Document ID: Mx_TS_Mx-S74(A/B)_V2.76_EN
V2.76, 11/3/2026, Order Code: Mx-S74(A/B)

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Order Information

Name	MOBOTIX S74
Order Code:	Mx-S74(A/B)

Hardware

Feature	Properties
Image sensor (color or B&W sensor)	Up to 4K UHD 3840x2160, 16:9, 1/1,8“
Light sensitivity	■ 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
IK protection class	IK10 (housing)
IP / NEMA protection class	IP66 / NEMA 4X
Operating temperature range	-40 to 65 °C/-40 to 149 °F
Min. cold start temperature	-30 °C/-22 °F
Relative Humidity	5 % to 95 %, non-condensing
Internal DVR Storage	Internal microSD card (SDHC/SDXC), 8 GB out-of-the-box, max. 2 TB.
I/Os	S74 IO Slide in Board, p. 13 required
Microphone/Speaker	S74 IO Slide in Board, p. 13 required
Passive infra-red sensor (PIR)	Available with functional module, max. 4.5 Watt (see Functional Modules, p. 12)
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	■ Max. 25 W/521 mA at 48 VDC ■ Max. 25 W/1042 mA at 24 VDC
Electrical surge protection	S74 Network Slide-in Board with LSA terminal, p. 13 or S74 Network Slide-in Board with RJ45 and VDC power supply - A , p. 14 required
PoE standard	PoE Plus (802.3at-2009)/Class 4 (Network Slide-in Board required. See Interface Slide-in Boards, p. 13)
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

Feature	Properties
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 ■ 1 Lens wrench ■ 4 Wood screws 4.5 x 60 mm ■ 4 Dowels S8 ■ 2 Covers for screw plastic white
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, Zeroconf/mDNS
Manufacturer warranty	5 years

Power Consumption

System	Modules	Average Power Consumption	Max. Power Consumption
S74 - Body	Body only	■ 8.1 W/169 mA at 48 VDC ■ 8.1 W/337 mA at 24 VDC	
S74 - Audio, no Video	Audio	■ 8.1 W/169 mA at 48 VDC ■ 8.1 W/337 mA at 24 VDC	
S74 - 4K, 12MP, IR, WL, Audio	Audio: PCB + Module M1: 4K Day/Night DN050 M2: IR 850nm wide-angle M3: 12MP Day/Night DN016	■ 19.5 W/406 mA at 48 VDC ■ 19.5 W/813 mA at 24 VDC	
S74 - 4K, Thermal, IR, WL, Audio	Audio: PCB + Module M1: 4K Day/Night DN050 M2: IR 850nm wide-angle M3: Thermal Image Sensor 640R080 M4: White Light 5700K wide-angle	■ 20.9 W/435 mA at 48 VDC ■ 20.9 W/871 mA at 24 VDC	■ Max. 25 W/521 mA at 48 VDC ■ Max. 25 W/1042 mA at 24 VDC
S74 - Thermal, Multisense, WL, Audio	Audio: PCB + Module M1: 4K Day/Night DN050 M2: Multisense M3: Thermal Image Sensor 640R080 M4: White Light 5700K wide-angle	■ 16.5 W/344 mA at 48 VDC ■ 16.5 W/688 mA at 24 VDC	

Image and Video Properties

Feature	Properties
Available video codecs	■ H.264, H.265 ■ MxPEG+ ■ MJPEG
Image resolutions	CIF 320x240, VGA 640x360, XGA 1024x576, HD 1280x720, FHD 1920x1080, QHD 2560x1440, 4K UHD 3840x2160
Multi streaming	H.264, H.265 with triple streaming

Feature	Properties
Multicast stream via RTSP	Yes
Max. image resolution H.264	■ 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 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

Feature	Properties
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 and object-based MxAnalytics AI
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/G/T specification

Sensor Modules

Dimensions of Sensor Modules

Height x Width	58 x 42,5 (50 mm)	
Weight	Standard Sensor Modules	max. 150g
	Functional Modules	max. 150g
	Thermal Sensor Module B-Models	max. 380g
	Thermal Sensor Module C-Models	max. 220g
	PTMount Thermal	890g

Supported Image 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
	Mx-O-M7SA-8L150
Sensor module with tele lens 15°	Mx-O-M7SA-8DN280*
	Mx-O-M7SA-8D280
	Mx-O-M7SA-8N280*
	Mx-O-M7SA-4DN280
	Mx-O-M7SA-8L280
Sensor module with tele lens 8°	Mx-O-M7SA-8D500
	Mx-O-M7SA-8N500
	Mx-O-M7SA-8L500

Sensor Module	Order Code
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
	Mx-O-M7SA-8L040
Sensor module with hemispheric lens 180° 12MP	Mx-O-M7SA-12DN016*
*also available in black.	

NOTE!
Please consider any lens-related restrictions. For example, license plate recognition is not possible with a hemispheric lens.

For a complete list of lenses for MOBOTIX cameras, please see the Lens Table document for MOBOTIX 7 models on **www.mobotix.com > Services > 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
CIF Thermal Radiometry 9.3° x 7.1°	Mx-O-M7SB-336RS500 (BTO)
ECO CIF Thermal 105°x75°	Mx-O-M7SA-320T040

Sensor Module	Order Code
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 32° 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 32° x 26°	Mx-O-M7SB-640RS150
VGA Thermal Radiometry 18° x 14°	Mx-O-M7SB-640RS280 (BTO)

The **Thermal Radiometry (TR)** variants can automatically trigger alarms if 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 TR windows or covering the full sensor image over a temperature range of High Sensitivity: –40 to 170 °C/–40 to 320 °F; Low Sensitivity: -40 to 550 °C/–40 to 1022 °F.

The **Thermal (non-TR)** variants only measure in the center of the image (Thermal spot, 2x2 pixel).

Features Thermal Image Sensors – B Models

Feature	Properties
Thermal sensitivity	Typ. 50 mK
Thermal image sensor	Uncooled microbolometer, CIF: 336 x 256 px / VGA: 640 x 480 px
IR range	7.5 to 13.5 µm
Temperature measurement range (adjustable)	■ High Sensitivity: -40 to 170°C/–40 to 320°F ■ Low Sensitivity: –40 to 550°C/–40 to 1022°F Default: Automatic (switches between High and Low depending on highest temperatures in FoV)
Dimensions	336/640 px: 48.5x48 mm/48.5x70 mm; 170 g without front plate / 265 g with front plate
Dimensions	■ PT Mount Thermal 336/640 px: 98.5 mm x 106 mm diam; 620 g (including PT Mount) ■ Sensor module alone: 73 mm (+4.4 mm front glass) x 57 mm diam (63 mm front glass); 310 g
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 (fast version 25/30 fps on request)
Pixel pitch	17 µm

Feature	Properties	
Field of view	*Sensor Module*	*FoV*
	336R/T100	45° x 35°; 2.27 mrad; focal length 7.5 mm, f/1.25
	336R/T150	25° x 19°; 1.31 mrad; focal length 13 mm, f/1.25
	640R/T050	90° x 69°; 2.27 mrad; focal length 7.5 mm, f/1.4
	640R/T100	45° x 37°; 1.31 mrad; focal length 13 mm, f/1.25
	640R/T150	32° x 26°; 0.90 mrad; focal length 19 mm, f/1.25
Operating temperature range	-40 to 65 °C/-40 to 149 °F	
Relative Humidity	5 % to 95 %, non-condensing	
Power consumption	max. 1.2 W	
MTBF	80,000 hours	
IP rating	IP67	
IK rating	IK04	
Material	PBT-30GF (housing); Germanium (lens)	

Features Thermal Image Sensors – C Models

Feature	Properties	
Thermal sensitivity	Typ. 30 mK	
IR range	7.5 to 13.5µm	
Temperature measurement range (adjustable)	■ High Sensitivity: –40 to 150°C/–40 to 302°F ■ Low Sensitivity: –40 to 350°C/–40 to 662°F Default: Automatic (switches between High and Low depending on highest temperatures in FoV)	
Dimensions	■ PT Mount Thermal 336/640 px: 98.5 x 106 mm diam., 620 g (including PT Mount) ■ Sensor module alone: 73 mm (+4.4 mm front glass) x 57 mm diam. (63 mm front glass), 310 g	
Max. image size	Can be scaled up to 3072 x 2048 (6MP), automatically scaled to size of MX sensor module	
Max. frame rate	30 fps	
Pixel pitch	12 µm	
Field of view	*Sensor Module*	*FoV (H x V)*
	320R100	50° x 40°; focal length 9.2 mm; f/1.0
	320T280	12° x 9.6°; focal length 18 mm; f/1.0
	640R050	95° x 76°; focal length 4.9 mm; f/1.1
	640R100	50° x 40°; focal length 9.2 mm; f/1.0
	640T280	18° x 14.4°; focal length 24.9 mm; f/1.0
Operating temperature range	-40 to 65 °C/-40 to 149 °F	
Relative Humidity	5 % to 95 %, non-condensing	

Feature	Properties
Power consumption	1.5 W
MTBF	80,000 hours
IP rating	IP67
IK rating	IK04
Material	PBT-30GF (housing); Germanium (lens)

Features Thermal Image Sensors - ECO Models

Feature	Properties
Thermal sensitivity	Typ. 65 mK, IR range 7.8 to 14 µm
Temperature measurement range	-40 to 330°C/ –40 to 626 °F
Field of view	■ T040: 105 x 75°; 5.23mrad, focal length 2.2mm, f/1.05 ■ T080: 56 x 42°; 3.00mrad, focal length 4.0mm, f/1.00 ■ T150: 24 x 18°; 1.32mrad, focal length 9.1mm, f/1.00
Thermal image sensor	Uncooled microbolometer, CIF 320x240
Dimensions	58 x 42.5 mm (dia. 50 mm), 65g
Pixel pitch	12µm
Max. image size	Can be scaled up to 3072 x 2048 (6MP) (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 range	-40 to 65 °C/-40 to 149 °F
Relative Humidity	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

Functional Modules

Functional Module	Order Code	Remark
Audio module	Mx-F-S7A-INT01	Via S74 IO Slide in Board
MultiSense module	Mx-F-MSA	With PIR sensor, temperature sensor, illumination sensor

Functional Module	Order Code	Remark
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.
White Light Modules	Mx-F-WLA-W	For Super Wide-Angle Lens Sensor Modules 95°
	Mx-F-WLA-S	For Standard & Wide-Angle Lens Sensor Modules 45° and 60°
	Mx-F-WLA-T	For Tele Lens Sensor Modules 15° and 30°
		Power consumption White Light Modules: 3.2 W at 100% brightness.

Interface Slide-in Boards

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
Overvoltage Protection	max. 4 kV on the PoE network cabling

S74 IO Slide in Board

Order Code	Mx-F-S7A-INT01

Terminal	Remark
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
Line In	Standard Line In: (0dB) Vrms=1V
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)
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
Input	**S74-A** requires pull-up resistor and external power supply (10mA / max 30 Vrms AC / max. 50V DC) Output may be loaded with max. 50mA max. length for cables: depends on loop impedance of the connected cable. **S74-B** Dry contact, form A (max 30 Vrms AC / max, 50V DC/ 60 W/ 2A DC)
Output	requires pull-up resistor and external power supply (10mA / max 30 Vrms AC / max. 50V DC) Output may be loaded with max. 50mA max. length for cables: depends on loop impedance of the connected cable.

S74 Network Slide-in Board with RJ45 and VDC power supply - A

Order Code	Mx-F-S7A-RJ45-VDC
Power Supply	12-24 V DC only - recommended 2.5-1.5A
Network	RJ45 / Ethernet 1000Base-T

Allowed cable dimensions for cables connected to the PCB terminals

AWG	26 - 20
Rigid	0.14mm^2 - 0.5mm^2

Allowed cable dimensions for cables connected to the PCB terminals	
Flexible	0.14mm^2 - 0.5mm^2
Flexible with ferrule	0.25mm^2 - 0.34mm^2

S74 Network Slide-in Board with RJ45 and VDC power supply - B

Order Code	Mx-F-S7B-RJ45-VDC
Power Supply	12-24 V DC only - recommended 2.5-1.5A
Network	RJ45 / Ethernet 1000Base-T

Allowed cable dimensions for cables connected to the PCB terminals	
AWG	26 - 14
Rigid	0.14mm^2 - 2.5mm^2
Flexible	0.14mm^2 - 1.5mm^2
Flexible with ferrule	0.25mm^2 - 1.5mm^2

Dimensions

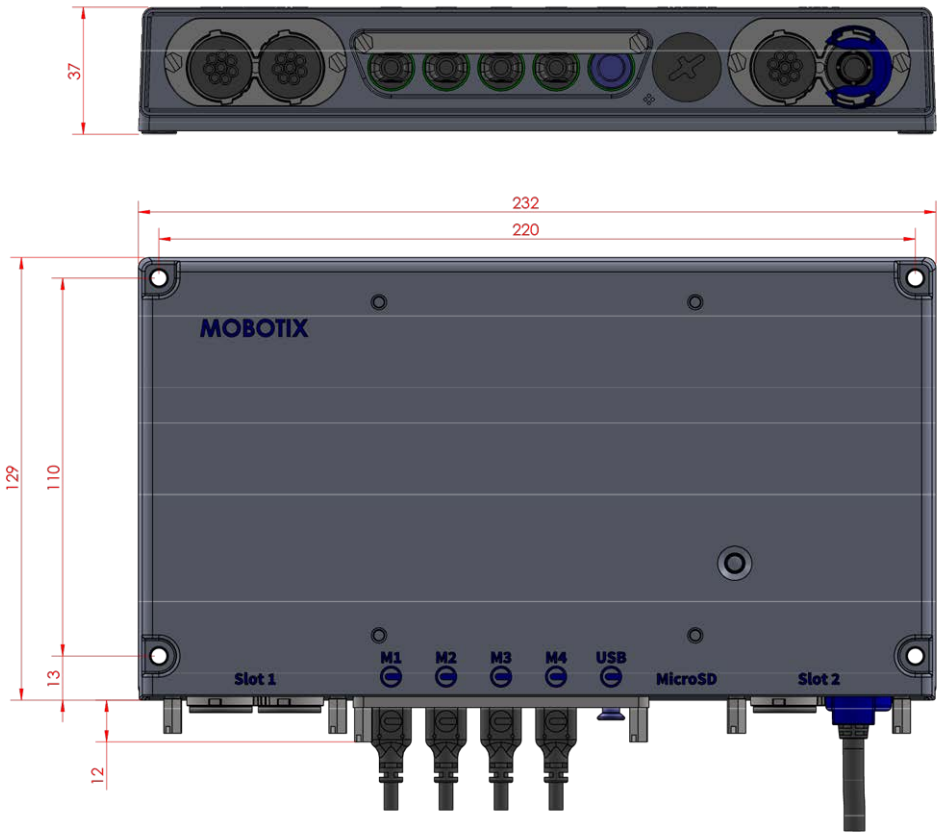


Fig. 1: MOBOTIX S74: All measurements in mm

NOTE!

Drilling template: **www.mobotix.com > Services > Download Center > Marketing & Documentation > Drilling Templates**.

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