Technical Specifications

MOBOTIX c ONE NurseAssist *powered by Kepler Vision Technologies*

MOBOTIX c ONE NurseAssist – One Room. Full Care. NurseAssist.

Why deploy multiple systems when one intelligent sensor can help protect residents, support caregivers and reduce response times around the clock? The MOBOTIX c ONE NurseAssist combines privacy-preserving AI analytics, fall detection, preventive care capabilities, audio communication and emergency lighting in a compact smart sensor. This privacy-preserving system provides the foundation for modern care environments, relieves caregivers from routine tasks and enhances resident safety. Thanks to its discreet design and seamless integration into existing nurse call and management systems, the c ONE NurseAssist can be deployed quickly and easily within established care workflows.

- AI-powered fall detection and care support
- Early warning functions for enhanced resident safety
- GDPR-compliant analytics without storing sensitive image data
- Integrated by design: HD audio, IR illumination and emergency lighting
- Seamless integration into nurse call and management systems
- Reduced caregiver workload and more time for direct patient care

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Table of Contents

Order Information 2

Kepler NurseAssist App - Specifications 2

Hardware 4

Image and Video Properties 6

General Software Features 7

Further Video Analysis 8

Video Management Software 8

Dimensions 8

Order Information

Name	MOBOTIX c ONE NurseAssist *powered by Kepler Vision Technologies*
Order Code:	Mx-ONE-c1A-S-NurseAssist

NOTE!
This order code covers the NurseAssist sensor hardware only. Analytics functionality requires a separate subscription license (Basic, Extended, or Lying Position).

Kepler NurseAssist App - Specifications

General App Information

Product Name	Kepler NurseAssist App
Order Code	Basic Starter: Mx-ONE-APP-KEP-NUA-1S/ -2S/ -3S/ -4S/ -5S Extended: Mx-ONE-APP-KEP-NUA-EXT-1/ -2/ -3/ -4/ -5 Lying Position: Mx-ONE-APP-KEP-NUA-LPO-1/ -2/ -3/ -4/ -5
Supported MOBOTIX Cameras	c ONE NurseAssist
Minimum Camera Firmware	v8.2.x.x
MxManagementCenter compatibility	■ min. MxMC v2.9.x ■ Event Search: Smart Data Interface license included

NurseAssist Software Features According to License Tiers

NurseAssist Basic	■ monitoring of the well-being of patients in private rooms, corridors and common areas of Healthcare facilities. ■ minimization of reaction times due to decentralized state-of-the-art fall detection. ■ prevention of accidents through person down, person in bed and person out of bed event. ■ automatized detection and localization of the bed in the patient's room. ■ GDPR compliant operation through event-controlled obscuring of live and recorded images. ■ Dynamic masking of a person in bed as additional privacy protection measure. ■ Continuous monitoring of sensor functions and analysis processes with the help of the App Heartbeat ■ * IP-based bidirectional communication via integrated microphone and speaker ■ * Noise level analysis enables the detection of loud ambient noise (e.g., loud shouting). ■ Integrated shock detector for detecting physical tampering or vibrations ■ Additional device health monitoring functions, including connectivity and uptime monitoring ■ Configurable system status display via sensor status LED ■ REST API interface enables deep integration and remote control of all sensor functions **NOTE!** *The sensor's audio functions are disabled by default. If required, they can be enabled by an authorized administrator.
NurseAssist Extended	Plug-In license required to extend the NurseAssist status and alarm notifications with the following functions: ■ Person is getting up from bed ■ Person sits on the edge of the bed ■ Person is getting up from a chair ■ Person has entered the bathroom / is in the bathroom ■ Person has left the room ■ Person has entered the room ■ Bed is not recognized / is not present ■ Distinction between person lying and sitting on the floor **NOTE!** The Plug-In license requires MOBOTIX NurseAssist Smart Sensor or licensed Kepler NurseAssist Certified App.

Technical Specifications

NurseAssist Lying Position	License to extend the NurseAssist Basic status and alarm notifications with the following functions: ■ Continuous monitoring of a person's lying position in bed (e.g., back, left side, right side) ■ Monitoring of prolonged stay in the same position ■ Notification if a person has not changed it's lying position for a defined period of time ■ Support for individualized care plans ■ Integration into existing alarm logic and reporting

Scene Requirements

Room size	max. 25m^2 assuming an almost square room (e.g. 5x5 m) by radius of 4 m - long and narrow rooms will not work.
Required installation position (camera)	ceiling-mounted
Recommended installation height (camera)	2.0m - 3.5m
Mounting distance from bed	0.5m - 3.0m
Mounting distance from wall	> 70cm

Hardware

Feature	Properties
Image sensor (DN)	4K (1:1) effective max. resolution 2160x2160
Light sensitivity	Day Mode (Color): 0,1 lx @ 1/60 s; 0,005 lx @ 1 s Night Mode (B/W): 0,02 lx @ 1/60 s; 0,001 lx @ 1 s
Exposure control	Manual and automatic mode 1 s to 1/16,000 s
IP / NEMA protection class	IP40
Intended use	Not intended for use in hazardous areas (Ex areas)
Operating temperature range	-20 to 40 °C/-4 to 104 °F
Min. cold start temperature	-20 °C/-4 °F
Relative Humidity	5 % to 95 %, non-condensing
Internal DVR Storage	Internal microSD card (SDHC/SDXC), 64 GB out-of-the-box, max. 2 TB.

Feature	Properties
Allowed cable dimensions for cables connected to the PCB terminals	*Conductor cross section* ■ *AWG*: 26 – 20 ■ *Rigid*: 0.14 – 0.5 mm² ■ *Flexible*: 0.14 – 0.5 mm² ■ *Flexible with ferrule without plastic sleeve*: 0.25 – 0.34 mm² ■ *Flexible with ferrule with plastic sleeve*: 0.14 – 0.25 mm²
Input	Contact Closure (no galvanic isolation necessary) or up to 30 Vrms AC / 50V DC Switching thresholds ■ Input >1.6 V results in detected HIGH ■ Input <0.9 V results in detected LOW (after a HIGH) Max. length for cables: 50m
Output	1x 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 speaker: ■ 0.9 W at 8 Ohm 1 external speaker optional, max. cable length 3 m/10 ft
Integrated illumination	IR LEDs, 850 nm, up to 25 m²/269 ft² (may be more depending on scene) White light for emergency lighting
Tampering Detection	Integrated Shock Sensor
Max. power consumption	12.95 W
Electrical surge protection	via Overvoltage Protection Box (not part of the scope of delivery)
PoE standard	PoE (802.3af-2003), Class 3
Interfaces	■ Ethernet 1000Base-T (RJ45 according to EIA/TIA-568B) ■ USB-C / USB 2.0 High Speed Power Output 5.1 V / 0.9 A / 4.5 W ■ 12-24 V DC power supply ■ Digital I/O: 1 Input / 1 Output **NOTE!** I/O terminal block Mx-ONE-A-IO-c1 is not included and has to be ordered separately!

Technical Specifications

Feature	Properties
Status LED	Multicolor (7 colors)
Mounting Options	In-ceiling mountable; on-wall via optional accessories
Dimensions (Ø x height)	120 x 54 mm/4.72 × 2.13 in
Weight	360 g
Housing	PBT-30GF
Standard accessories	1 Ethernet patch cable, 50 cm/19.7 in (installed) 1 SD card 64 GB (installed) 1 Important Safety Information 1 Sticker with IP address of camera 1 Camera connection flyer 1 MultiTool module wrench 1 Disassembly tool
Detailed technical documentation	**www.mobotix.com > Services > Download Center > Marketing & Documentation**
MTBF	100,000 hours
Certificates	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), MQTT, 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

Image and Video Properties

Feature	Properties
Available video codecs	H.264, H.265, MxPEG+, MJPEG
Image resolutions	CIF (320x240; 4:3), nHD[2] (360x360; 1:1), nHD (640x360; 16:9), VGA (640x480; 4:3), SVGA (800x600; 4:3), XGA (1024x768; 4:3), HD[2] (720x720; 1:1), HD (1280x720; 16:9), Mega (1280x960; 4:3), least FHD[2] (1080x1080; 1:1), FHD (1920x1080; 16:9), QXGA (2048x1536; 4:3), UHD[2] (2160x2160; 1:1), Custom Size
Multi streaming	H.264, H.265 with triple streaming
Multicast stream via RTSP	Yes
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 ■ MQTT (Message Queuing Telemetry Transport)
ONVIF compatibility	Profile S/G/T
Master/Slave functionality	Yes
Remote alarm notification	Email, MQTT, MxMessageSystem, network message (HTTP/HTTPS), SNMP, SIP
DVR/image storage management	■ On internal microSD card ■ On external USB and NAS devices ■ Different streams for live image and recording
Camera and data security	FIPS 140-3 validated encryption (OpenSSL 3.1.2, NIST CMVP #4985), VPN with FIPS-certified library, HTTPS with custom X.509 certificates (TLS), AES encryption at rest (microSD / NAS), role-based access control, IP-level access control list, audit trail / web server access log, intrusion detection with automatic IP lockout, IEEE 802.1X port-based network access control, digital image signature
Firmware Tampering Detection	Digital Signature

Further Video Analysis

Feature	Properties
Video motion detection	Yes
MxActivitySensor	Version 1.0, 2.1

Video Management Software

Feature	Properties
3rd Party Nurse Call Systems	Extensively integrated; documented integrations available at: **community.mobotix.com > MOBOTIX 7 Certified Apps > Kepler NurseAssist**
MOBOTIX HUB	Yes, compatible with MOBOTIX HUB NurseAssist Dashboard **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

Dimensions

NOTE!

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

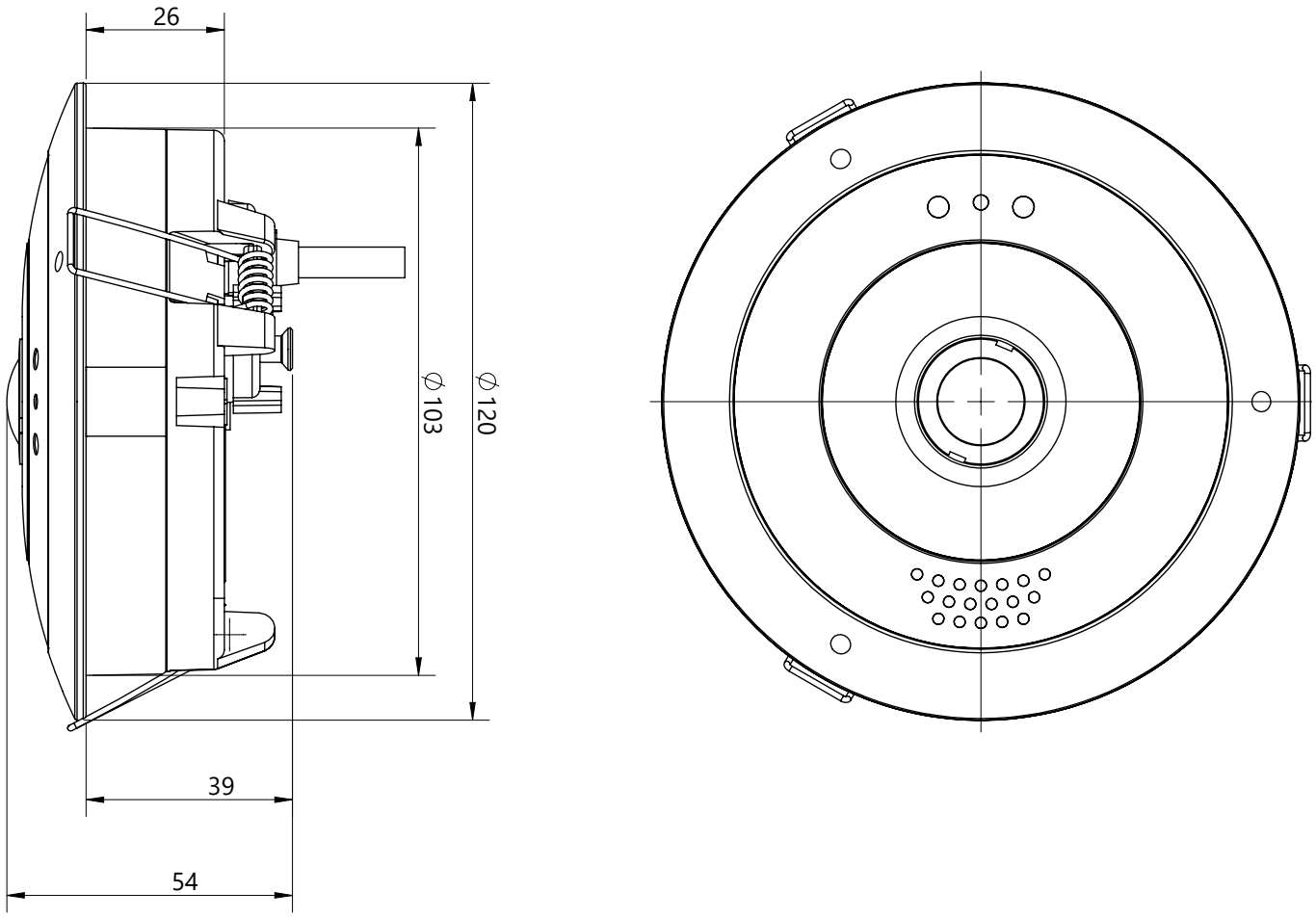

Fig. 1: MOBOTIX c ONE Nurse Assist: All measurements in mm

MOBOTIX

BeyondHumanVision

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