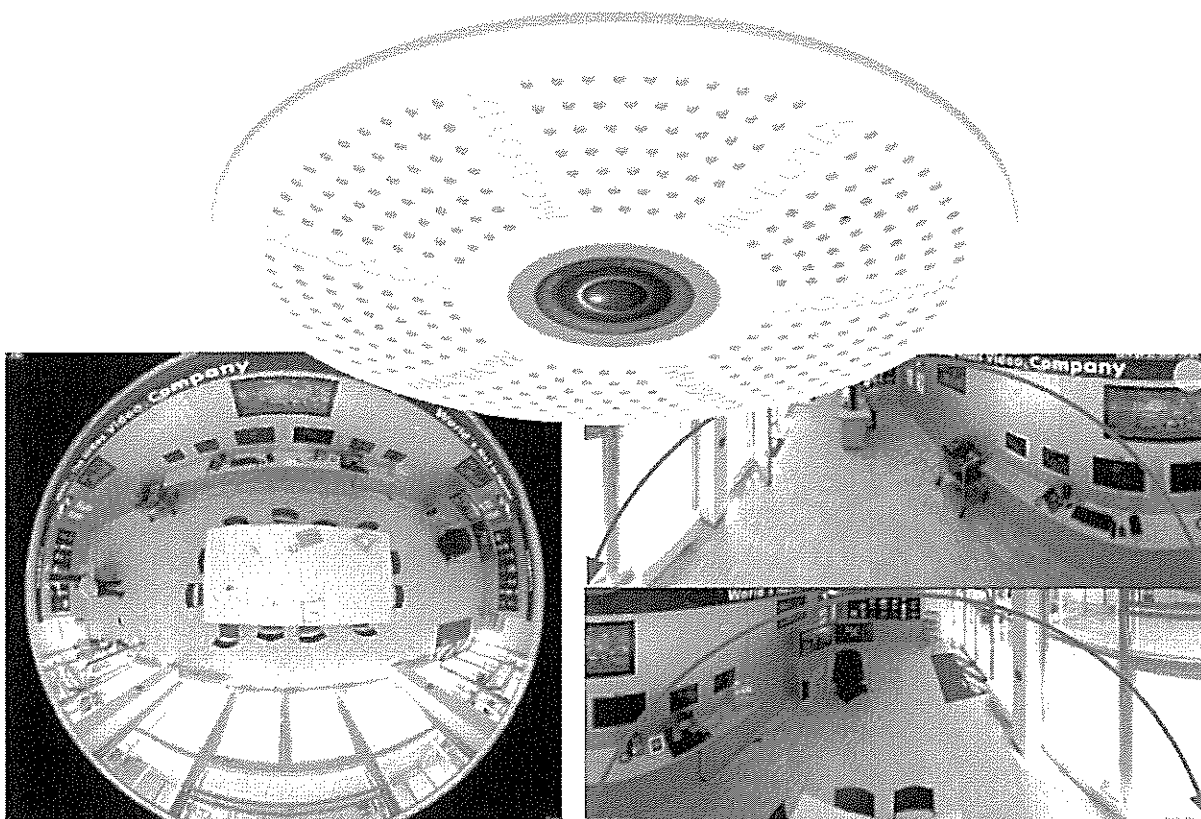




MOBOTIX c25 6MP Indoor Camera



The ceiling-mounted c25 delivers two 180° panorama images of a room.

Indoor Ceiling Camera. Easy To Install.

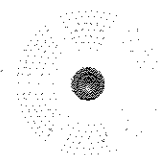
With a diameter of only 12 centimeters and a weight of approximately 200 grams, the c25 is the smallest and lightest hemispheric MOBOTIX video complete system for fast ceiling mounting in protected indoor areas. Features include a light-sensitive 6MP day or night sensor and MxAnalytics. Features all functions like the traditional Q25 outdoor camera.

Technical specifications subject to change without notice. For more information on the c25 and on the entire range of MOBOTIX products, such as prices, manuals, video management software for computers and iOS devices, etc., please go to www.mobotix.com > Products. Or contact us by phone (+49 06302 9816-103) or email (sales@mobotix.com).



c25 – Technical Specifications

Security-Vision-Systems



Original MOBOTIX Hemispheric Technology

Unlike the devices of other manufacturers, hemispheric distortion correction in a MOBOTIX system takes place in the camera and not later on the computer using separate video management software. This drastically reduces the image data and bandwidth that needs to be transferred and saved.



MxAnalytics With Behavioral Detection

Especially interesting for indoor applications like retail, exhibition area, public premises, the c25 provides object counting and automatic Heatmap reporting inside the camera. As a new extension, people behavior can be defined as event trigger, for example duration of stay, moving in the opposite direction, different turns and exceeding speed limits. MxAnalytics does not require any additional infrastructure or extra costs.



Simple Installation In Suspended Ceilings

The c25 can be easily installed using a standard drill bit (105 mm/4 inch in diameter) in suspended ceilings. The c25, which is connected to an Ethernet cable, is simply slotted in from below using raised spring clips and automatically secured in place.

Technical Data			
Lens Options	B016, B036 (L10, L20)	Min. Light Sensitivity	Day Sensor: 0.1 lux at 1/60 sec Night Sensor: 0.02 lux at 1/60 sec
Image Sensors	1/1.8" CMOS (6MP) Day (Color) or Night (B&W)	Sensor Resolution	6MP: 3072×2048 pixels (Color/B&W)
Max. Frame Rate (MxPEG)	MEGA/HD: 30 fps, QXGA: 15 fps, 6MP: 8 fps	Compression	MxPEG, M-JPEG, JPEG, H.264 (SIP video only)
DVR Recording	Internal: microSD Card External: PC/NAS (to 4 TB)	Audio (optional)	VoIP, sound recording using audio package
Operating Conditions	IP20, 0 to +40 °C	Internal Sensors	Temperature, illumination, shock detector
Image Processing	MxActivitySensor, VMD, image correction, backlight, MxAnalytics	Software (free of charge)	MxManagementCenter, MOBOTIX App



c25 – Technical Specifications

Security-Vision-Systems



c25 Indoor Camera With 6MP Moonlight Sensor: Technical Data	
Model versions	Fisheye lens (day/night)* • ultra-wide angle lens (day/night)* * optional with integrated audio package
Operating conditions	Ambient temperature 0°C to 40°C (32°F to 104°F), protection class IP20 (protected from foreign bodies with diameters 12.5 mm or larger, not waterproof)
Intended use	Indoors • For installation in suspended ceilings • Not for use in areas at risk of explosions
Diameter	120 mm (visible), 170 mm (with folded out spring clips)
Depth, weight (without ETH cable)	51 mm, 212 g (incl. lens)
Installation diameter	105 mm
Minimum installation depth	55 mm (owing to spring clips)
Clamping range	1 mm to 26 mm (possible thickness of mounting surface/ceiling panel)
Image sensor	1/1.8" CMOS sensor, 6MP (3072 x 2048), progressive scan
Minimum light sensitivity	Color sensor: 0.1 lux at 1/60 sec; 0.005 lux at 1 sec Black/white sensor: 0.02 lux at 1/60 sec; 0.001 lux at 1 sec
Maximum image size	6MP (3072 x 2048 pixels)
Maximum frame rates MxPEG (fps)	30@HD (1280 x 720), 30@MEGA, 15@QXGA, 10@5MP, 8@6MP
Maximum frame rates MJPEG (fps)	15@HD (1280 x 720), 12@MEGA, 6@QXGA, 4@5MP, 4@6MP
Controls	Two buttons, two status LEDs
Audio	c25 version with audio package (incl. microphone and speaker) or via ExtIO
Image processing	MxLEO, backlight compensation, automatic white balance, image distortion correction, panorama correction
Image formats	Freely configurable format 4:3/8:3/16:9 • User-defined formats (image cropping, e.g., 5MP, QXGA, full HD, MEGA)
Multi-streaming	Yes
PTZ	Digital pan/tilt/zoom, continuous 8x zoom
Intelligent video analysis	MxActivitySensor, video motion analysis, MxAnalytics (Heat maps and counting corridor reports)
DVR	Via integrated microSD card • Externally on USB device • Externally on NAS (max. of 4 TB) • Separate live image feed and full image recording • MxFFS with archiving function • Pre- and post-alarm images • Automatic DVR surveillance including error notification
Alarm/event management	MxActivitySensor • Video motion analysis • Temperature sensor • Shock Detector • Illumination sensor • Further sensors/IO via additional devices • Alarm notification via e-mail, FTP, VoIP
Video telephone	SIP client; intercom is possible via speaker of MX-ExtIO
Security	User/group management, SSL connection, IP address filter, IEEE 802.1x, intrusion detection, digital image signature, tamper detection
Protocols	IPv4, IPv6, HTTP, HTTPS, FTP, RTP, UDP, TCP, SNMP, SMTP, DHCP (client or server), NTP (client or server)

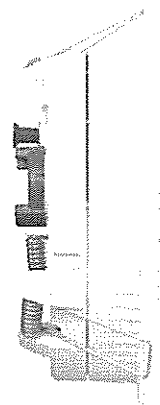
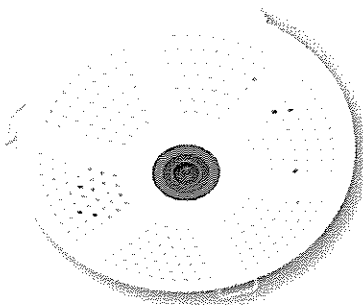
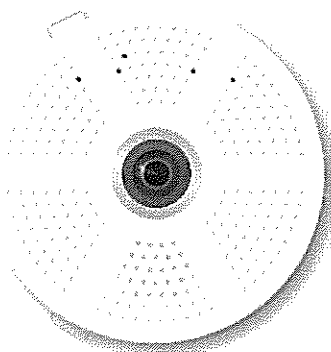


c25 – Technical Specifications

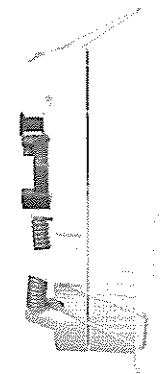
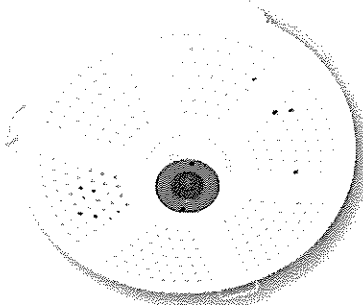
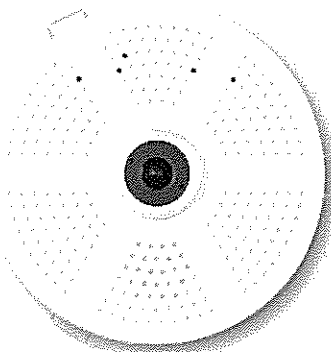
Security-Vision-Systems



c25 Indoor Camera With 6MP Moonlight Sensor: Technical Data	
Interfaces	Ethernet (MxRJ45), MiniUSB • With optional MX-Bus-IO-Module two additional signal outputs
Power supply	PoE (IEEE 802.3af, class 2), typical power consumption of 4 W
Certifications	EMV: EN 55022:2010 • EN 55024:2010 • EN 61000-6-1:2007 • EN 61000-6-2:2005) • EN 61000-6-3:2007+A1:2011 • EN 61000-6-4:2007+A1:2011 Further certifications: AS/ NZS CISPR22:2009+A1:2010 • CFR47 FCC part15B) • EN 55121-4:2006 • IEC 60950-1 / EN 60950-1 (NRTL)
(Integrated) software functions	Digital zoom • Programmable exposure windows • Snapshot recording • Full feature recording (MxFF5 archive, continuous recording, full image recording including sound) • Time and event control • Time tables including holidays • Web functions • Logo generator • Flexible event logic • Master/slave arming • Multiple time-controlled privacy zones • Remote alarm notification • Programming interface/HTTP API
MOBOTIX Video Management Software (VMS) free of charge	MxManagementCenter MxMC, MxControlCenter MxCC, MxEasy, MOBOTIX App
Accessories	- MX-Bus-IO-Module - On-wall mounting set (available soon) - MX-ExtIO (for optional audio)



B016
100° x 100°



B036
103° x 77°



c25 – Technical Specifications

Security-Vision-Systems



Camera Variants	c25 Day	c25 Night
Lenses, Sensors		
Fisheye Lens MX-B016 (Hemispheric, 180° x 180°)	MX-c25-D016	MX-c25-N016
Ultra Wide Lens MX-B036 (103° x 77°)	MX-c25-D036	MX-c25-N036
Super Wide Lens MX-B041 (90° x 67°)	–	–
Wide Lens MX-B061 (60° x 45°)	–	–
Standard Lens MX-B079 (45° x 34°)	–	–
Tele Lens MX-B119 (31° x 23°)	–	–
Distant Tele Lens MX-B237 (15° x 11°)	–	–
Super Tele Lens MX-B500 (8° x 6°)	–	–
CS-Vario Lens MX-B045-100-CS (39°-89° x 29°-65°)	–	–
Camera Module (body), lens can be orderd separately	–	–
Image sensor with individual exposure zones	Color	B/W
Sensor sensitivity in lux at 1/60 s /1 s	0,1/0,005	0,02/0,001
Image sensor resolution (color or B/W sensor)	6MP (3072 x 2048)	6MP (3072 x 2048)
Hardware Functions		
Protection class	IP20	IP20
Temperature range 0 to 40°C/32 to 104°F	•	•
Temporary internal DVR	64 MB	64 MB
Internal DVR, ex works	4 GB (microSD)	4 GB (microSD)
Microphone/speaker	optional (with audio package)	optional (with audio package)
Passive infrared sensor (PIR)	–	–
integrated temperature sensor	•	•
Shock detector	•	•
Power consumption (typical)	4 watts	4 watts
Variable PoE class (factory default: 3)	2 or 3	2 or 3
Image Formats, Frame Rates, Image Storage		
Maximum image format (per sensor)	6MP (3072 x 2048)	6MP (3072 x 2048)
Maximum frame rate (MxPEG, max. resolution)	8 fps (6MP)	8 fps (6MP)
ClF images with 4 GB MicroSD DVR	250,000	250,000
VGA images with 4 GB MicroSD DVR	125,000	125,000
HD images with 4 GB MicroSD DVR	40,000	40,000
QXGA images with 4 GB MicroSD DVR	20,000	20,000

- available ex works
- not available



c25 – Technical Specifications

Security-Vision-Systems



Camera Variants	c25 Day	c25 Night
General Functions		
Digital zoom (continuous) with panning	•	•
Codecs: Motion-JPEG/MxPEG/H.264 for SIP	•/•/•	•/•/•
Programmable exposure zones	•	•
Snapshot recording (pre/post-alarm images)	50	50
Terabyte ring buffer storage (internal/network)	•	•
Continuous recording with sound (0.2 to 30 fps)	•	•
Event recording with sound	•	•
Time and event control/flexible event logic	•/•	•/•
Weekly schedules/holidays	•	•
Web functionality (FTP, email)	•	•
Playback/QuadView and MultiView	•/•	•/•
Bidirectional sound in browser (with audio package)	•	•
Logo generator, animated	•	•
Master/Slave arming	•	•
Privacy zones (time-controlled)	•	•
Customized voice messages (with audio package)	•	•
VoIP telephony (audio/video, alert – (with audio package)	•	•
Remote alarm notification (network message)	•	•
Signal inputs/outputs and MxBus via	MX-Bus-IO-Module	MX-Bus-IO-Module
Programming interface (HTTP API)	•	•
Security Features (HTTPS/SI, IP-based access control, IEEE 802.1X network authentication)	•	•

Video Analysis		
Video Motion	•	•
MxAnalytics	•	•
MxActivitySensor (incl. behavioral detection)	•	•

Video Management Software		
MxManagementCenter/MxControlCenter/MxEasy	•/•/•	•/•/•
MOBOTIX App (iOS)	•	•



c25 – Technical Specifications

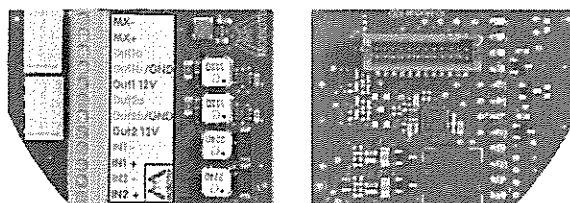
Security-Vision-Systems



MX-Bus-IO-Module For p25/i25/c25

Connecting And Switching Of External Devices Via MOBOTIX Indoor Cameras p25, i25 and c25

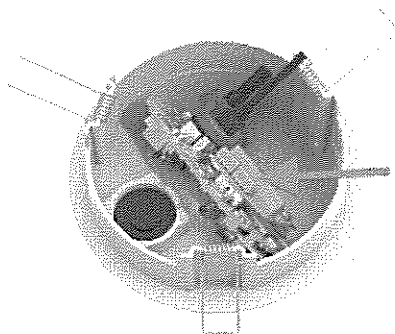
The MX-Bus-IO-Module is a practical, optional extension board for all MOBOTIX Indoor Cameras p25, i25 and c25, which is simply attached to the back of the camera and tightened (for i25 and c25) or mounted on the camera board (only with p25). The module expands every camera to include two extra inputs and two 12V outputs and enables access to the two-wire MxBus. The outputs can be directly connected to a relay and thus higher voltages and loads, e.g., lamps or motors. MxBus is an encoded two-wire cable developed by MOBOTIX for transferring data and current. Using this solution, users can simply and securely power and control various MOBOTIX IO devices over distances of more than 100 m.



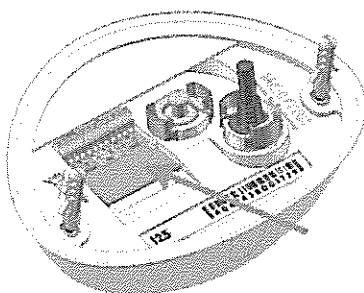
Left: Front of MX-Bus-IO-Module with green terminal connector for connecting external devices: The 12V-powered ports Out1 and Out2 serve, for instance, to connect relays (e.g., Eliako ER12-002-UC).

Right: Back with black camera socket (plug onto back/board of camera).

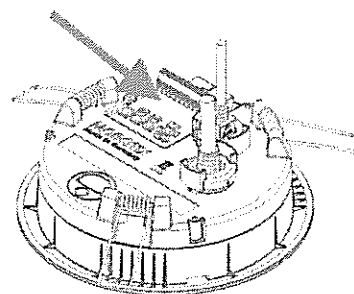
Installation Position Of MX-Bus-IO-Module With Indoor Cameras (Red Arrow):



p25



i25



c25

Terminal Connectors				
MX- MX+ Out1 A Out1 B /GND Out1 12V Out2 A Out2 B/GND Out2 12V IN1 - IN1 + IN2 - IN2 +	MxBus connections	MxBus		
	Output 1 A	Relay pot.-free	-	Out-puts
	Output 1 B/GND		Output 1 12 V self-powered	
	Output 1 12 V	-		
	Output 2 A	Relay pot.-free	-	
	Output 2 B/GND		Output 2 12 V self-powered	
	Output 2 12 V	-		
	Output 1 -	Inputs		
	Output 1 +			
	Output 2 -			
Output 2 +				

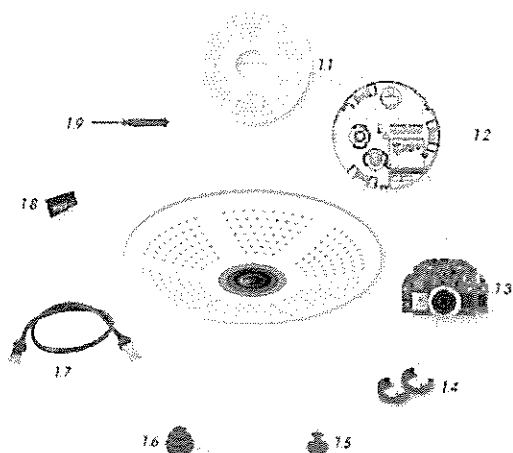


c25 – Technical Specifications

Security-Vision-Systems

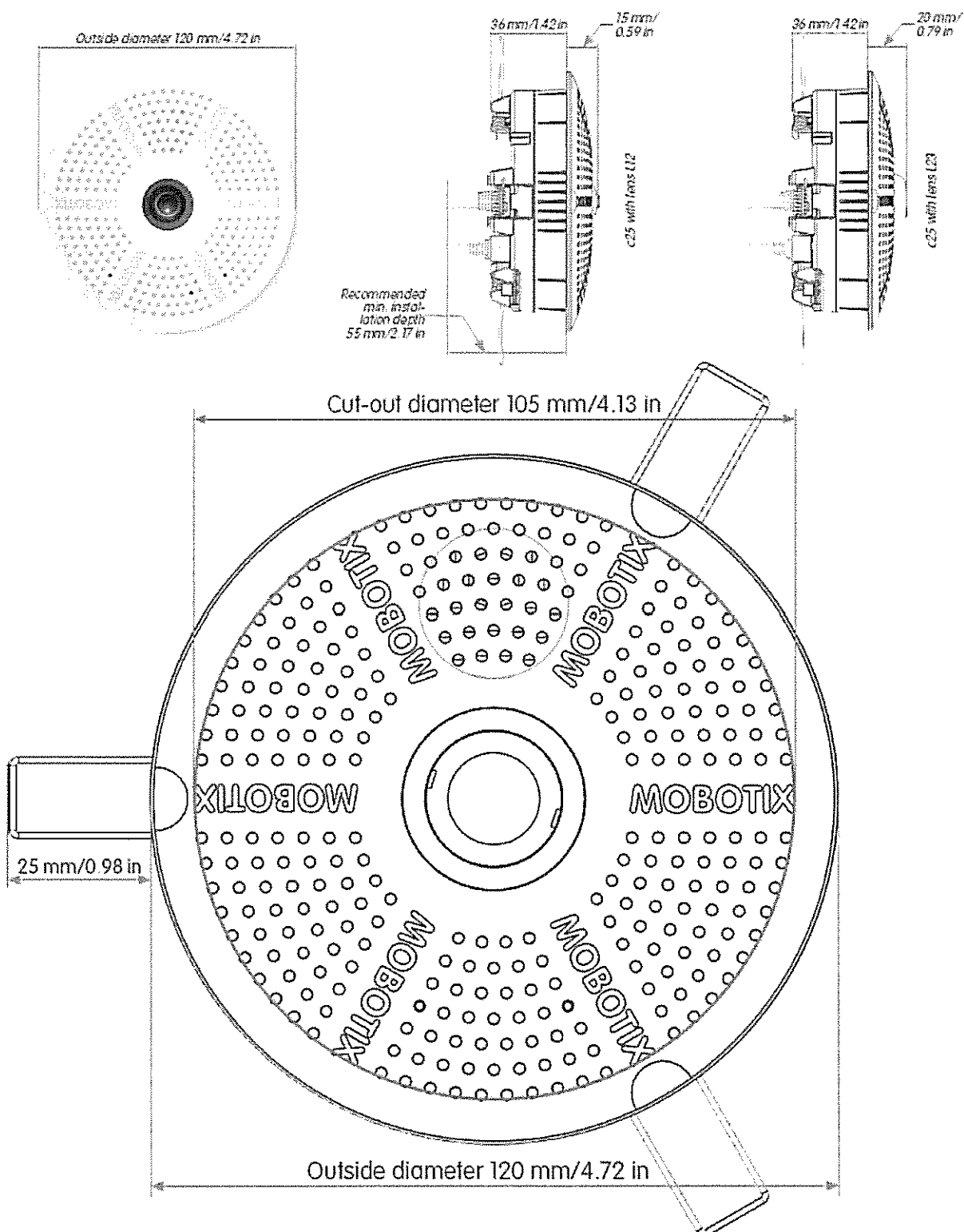


MX-Bus-IO-Module: Technical Data	
Model versions	MX-OPT-IO3-INT
Ambient temperature range	0°C to 40°C (32°F to 104°F)
IP protection class (DIN EN 60529)	None
Intended use	• Not for use in areas at risk of explosions • Only combined with MOBOTIX cameras p25, i25 and c25
Dimensions (L x W x D)	43 x 32 x 18 mm
Weight (without packaging)	10 g
Connectors for MxBus devices	1 (1 x 2 terminals)
Inputs	2 inputs (galvanically isolated; 0 V to 48 V DC)
Outputs	Option 1: 2 outputs (floating); max. capacity per contact: 30 W or 1 A or 48 V AC/DC Option 2: 2 outputs (12 V DC, max. 50 mA per output)
Configuration of inputs/outputs	Via camera software (available in web browser)
Max. power output at 12 V	1.2 W
Terminal specification	AWG26 to AWG21 (wire thicknesses supported at the terminal connectors)
LEDs	No
MxBus emergency operation	No
Power consumption	Typical 1 W
Housing	PBT GF30
Certifications	None, as only used as camera plug-in module
Specific information	• Note the MxBus power supply: Max. one additional module (e.g., GPS-Box), otherwise expand with BPA-Box (available soon) • Camera firmware required: 4.3.4.50 and higher
MTBF	> 80,000 h



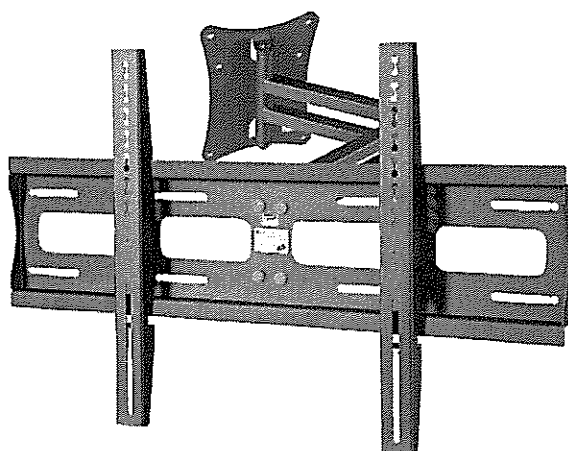
Item	Count	Part Name
1.1	1	Housing (installed)
1.2	1	Back plate with spring clips (installed)
1.3	1	Main board with lens MX-B016 or MX-B036 (installed)
1.4	2	Bayonet catch, blue (installed)
1.5	1	USB plug, blue (installed)
1.6	1	Ethernet plug, blue (installed)
1.7	1	Ethernet patch cable, 50 cm/19.7 in, black
1.8	1	MicroSD card pre-installed (SDHC installed, SDXC supported)
1.9	1	Disassembly tool

(Standard delivery from the technical documentation: www.mobotix.com > Support > Manuals)



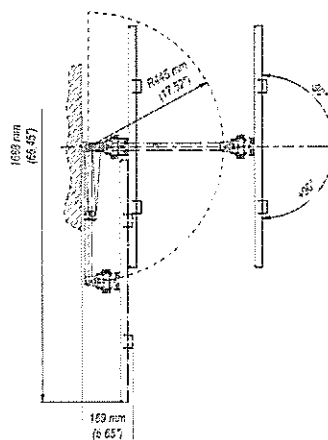
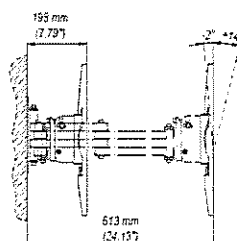
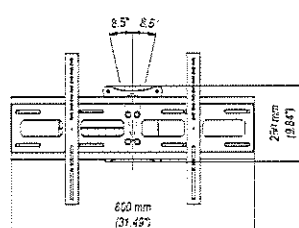
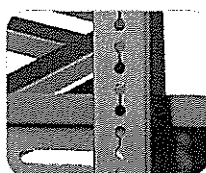
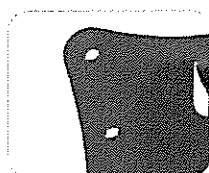
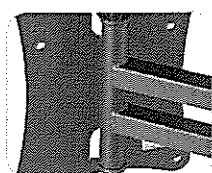
(Excerpt from the technical documentation www.mobotix.com > Support > Manuals)

PWS1 ■ Swing Arm Wall Mount Set 42"-52"



Features

- 1** ADJUSTABLE POSITION
3 axes of rotation
- 2** QUICK INSTALLATION
easy installation of the product
- 3** MAXIMUM WALL DISTANCE
ø13 mm



Trade Information

TYPE	Color	Package	EAN
PWS1c-R			5908252961795
PWS1s-R			5908252961948

Package Dimensions (mm) H x W x D	810x280x950
Height (Kd)	10

Technical Data



100-100 mm
100-100 mm
200×200 mm
100-200 mm
400×200 mm
200×200 mm
600×400 mm



2. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$



Journal of Management Education

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55455



DiskStation DS216

Synology DiskStation DS216 is a feature-rich 2-bay NAS server for workgroups and office environments, specifically designed for users who need to share and protect data effectively, while increasing productivity with comprehensive office applications. Synology DS216 is backed with Synology's 2-year limited warranty.

Highlights

- Dual-core CPU with hardware encryption engine
- Over 112.79 MB/s reading, 111.18 MB/s writing¹
- USB Copy Button for easy data transmission
- Brightness adjustable front LED indicators
- Hot-swappable & tool-less drive trays design
- Running on Synology DiskStation Manager (DSM)

Optimal Price/Performance Ratio

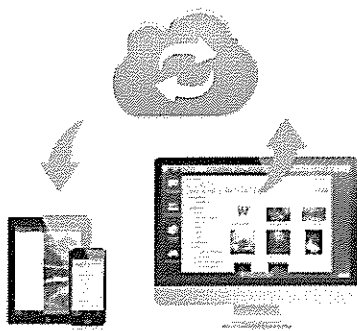
Synology DS216 is a 2-bay NAS that brings you the best cost/value ratio without compromising performance or features. Equipped with a dual-core CPU, Synology DS216 delivers outstanding read/write performance with an average speed over **112.79 MB/s in reading and over 111.18 MB/s in writing** under RAID 1 configuration in a Windows[®] environment.¹

The built-in floating-point unit enhances the overall capability of the main CPU, speeding up thumbnail processing and hence making your photo viewing experience refreshingly smooth. Synology DS216 is equipped with an encryption engine which offloads the encryption calculation task away from the main CPU, helping to improve file transfer speeds of the DiskStation.

Cross Platform File Sharing and Synchronization

Synology DS216 offers comprehensive network protocol support, assuring seamless file sharing across Windows, Mac[®], and Linux[®] platforms. Windows AD and LDAP integration allows Synology DS216 to fit quickly and effortlessly into any existing network environment, with no need to recreate user accounts. Internet file access is simplified by the encrypted FTP server and the web-based file explorer, Synology **File Station**. HTTPS, firewall, and IP auto-block support ensure file sharing over the Internet is protected at a high security level.

Cloud Station suit allows users to synchronize files among multiple devices and platforms, including Windows PC, Mac, Linux, iOS and Android[™] tablets or phones, effortlessly keeping everything up-to-date. **Cloud Sync** keeps your Dropbox, Google[®] Drive, Microsoft OneDrive, Baidu Cloud and Box storage in sync with your personal DiskStation at home.



Cross-platform File Synchronization

Auto-synchronize your files among DiskStation, PC and mobile devices using Synology Cloud Station suit.



Anytime Availability

Access your DiskStation anywhere using Synology mobile apps.

Rich Office Applications

Synology DS216 runs on the award-winning operating system, **Synology DiskStation Manager (DSM)**, which offers comprehensive applications and features designed specifically for growing businesses.

Mail Server turns Synology DS216 into a dedicated mail service provider, while **Mail Station** provides a webmail interface for users to access emails stored on Synology DS216.

VPN Server offers an easy VPN solution that provides a secure way of connecting to a private LAN at a remote location. **RADIUS Server** strengthens network security by overseeing wireless access authentication via RADIUS (Remote Authentication Dial-In User Service) networking protocol.

Reliable Backup Solution

To protect your valuable data, DS216 can become a centralized backup destination for consolidating fragmented and unstructured information across your network through a range of options. Advanced backup privilege management makes network backup tasks safer and more efficient. Complete backup solutions such as **Backup & Restore** minimize the impact of disasters, keeping your valuable data safe and secure.

24/7 Security Solution

Synology **Surveillance Station** offers a centralized interface to manage IP cameras deployed in your office or home, allowing users traveling miles away to safeguard the environment by watching live views, recording events, and taking snapshots with a computer or iOS/Android device. DS216 supports a maximum number of **16 IP cameras (480 FPS at 720P)**, being one of the most reliable security guards for your home and office.

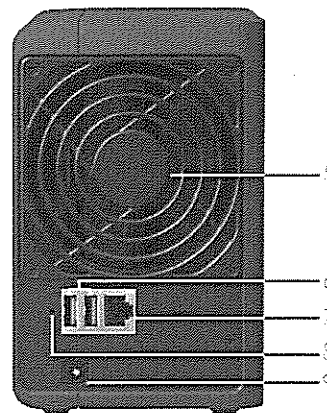
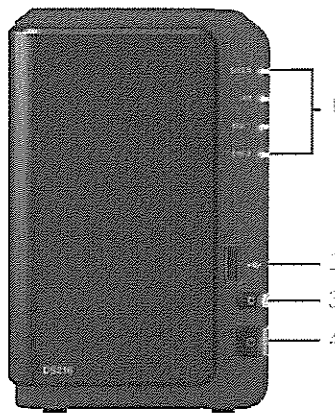
In addition to its intuitive setup and hassle-free interface, Surveillance Station features an optimized live view experience with on-screen operations, smart analytic tools like motion detection, and an alert system that sends instant notification through **DS cam**, SMS, and e-mail.

Energy Efficient with Cool and Quiet Design

Synology DS216 is designed with energy efficiency in mind. Equipped with a 92 x 92 mm fan and a smart airflow design, DS216 runs cool 24/7, while its noise dampening design makes it much quieter compared with PC counterparts. The support of Wake on LAN/WAN, multiple scheduled power on/off can further reduce power consumption and operation cost.

All Synology products are produced with RoHS compliant parts and packed with recyclable packing materials. Synology acknowledges the responsibility as a global citizen to continually work to reduce the environmental impact of every product produced.

Connections & Buttons



- 1 LED indicator
- 2 USB 2.0 port
- 3 Copy button
- 4 Power button
- 5 Fan
- 6 USB 3.0 port
- 7 Gigabit RJ45 LAN port
- 8 RESET button
- 9 Power port

Technical Specifications

Hardware

CPU	ARMv8-A Armada 880 4-core 1.5GHz
Flashing point unit	1x1
Hardware encryption engine	Yes
RAM size	DDR3 512MB
Compatible drive type	2.5/3.5" SATA HDD / 2.5" SSD (hard drives not included)
Maximum internal capacity	16TB (2 x 8TB hard drive). The actual capacity will differ according to volume type.
Maximum single volume size	8TB
Hot-swappable HDD	Yes
External ports	USB 3.0 port x 2, USB 2.0 port x 1
Size (HxWxD)	145mm x 100mm x 222.2mm
Weight	1.5kg
LAN	Gigabit RJ45 x 1
Wireless support	No (wireless dongles not included)
Wake on LAN (WoL)	Yes
Scheduled power on/off	Yes
AC input power voltage	100V to 240V
Power frequency	50Hz to 60Hz, single phase
Operating temperature	5°C to 40°C (41°F to 104°F)
Storage temperature	20°C to 60°C (7°F to 140°F)
Relative humidity	5% to 95% RH

General

Networking protocols	CIFS, AFP, NFS, FTP, WebDAV, CIFS, iSCSI, Telnet, SSH, SFTP, VPN (PPTP, OpenVPN, L2TP)
File systems	Internal: ext4 External: exFAT, ext4, FAT, NTFS, HFS+, HFS+ read-only
Storage management	Max File System Size: 16TB, Max Internal Volume: 256, Max iSCSI Target: 10, Max iSCSI LUNs: 10, Supported RAID Types: Synology Hybrid RAID (SHR), RAID 0, RAID 1, RAID 5, RAID 6, RAID 10
File sharing capability	Maximum user account: 2048, Maximum group: 768, Maximum shared folder: 256, Maximum concurrent CIFS/AFP/FTP File Station connections: 128
Perilege	Windows Access Control List (ACL)
Directory service	Windows AD, Domain integration, LDAP integration
Security	FTP over SSL, Telnet, IPsec Block Firewall, Encrypted Network Backup over iSCSI, HTTPS Connection
Utilities	Synology Web Assistant, Synology Assistant, Cloud Station, Photo Station (Up to 100 photos), Calendar, Integrity Authentication
Supported clients	Windows 10 onwards, Mac OS X 10.7 onwards, Ubuntu 12 onwards
Supported browsers	Chrome*, Firefox*, Internet Explorer* 8 onwards, Safari* 7 onwards, Safari iOS* 7 onwards on iPad, Chrome Android 4.3 onwards on tablet
Language	English, Deutsch, Français, Italiano, Español, Dansk, Norsk, Svenska, Nederlands, Français, Polski, Magyar, Português de Brasil, Português Europeu, Türkçe, Çekçe, 日本語, 한국어, 繁體中文, 简体中文

