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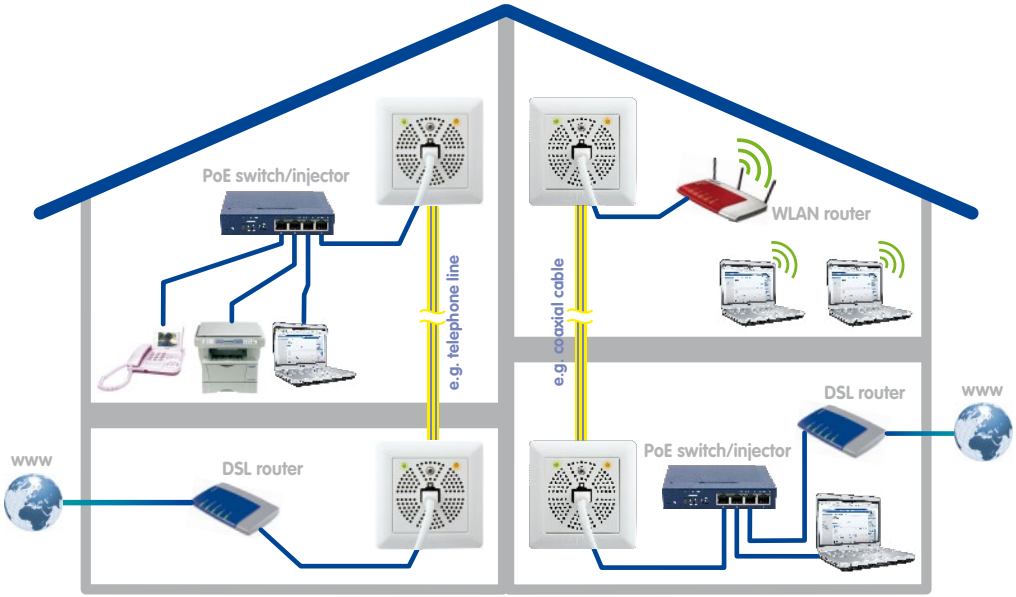
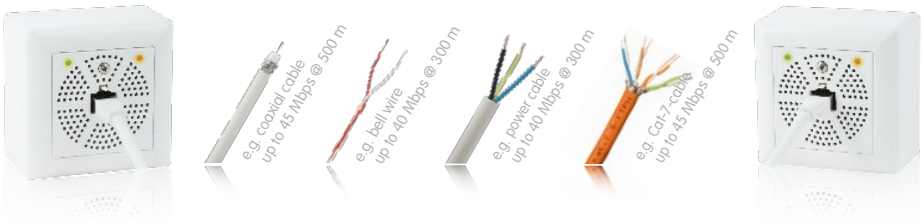
Mx2wire+ Media Converter

The HiRes Video Company MOBOTIX

Ethernet with PoE. Via Two-Wire Cable.



Mx2wire+ turns an existing two-wire cable into a modern multimedia cable – simply, quickly and cost-effectively



06/2013

www.mobotix.com

HiRes Video Innovations

The German company MOBOTIX AG is known as the leading pioneer in network camera technology and its decentralized concept has made high-resolution video systems cost-efficient.

MOBOTIX AG • D-67722 Langmeil • Tel: +49 6302 9816-103 • Fax: +49 6302 9816-190 • sales@mobotix.com

MOBOTIX Mx2wire+

MX2WIRE+ TURNS AN EXISTING TWO-WIRE CABLE INTO A MODERN MULTIMEDIA CABLE – SIMPLY, QUICKLY AND COST-EFFECTIVELY!

MADE IN GERMANY

THE MOBOTIX MEDIA CONVERTER – POSSIBILITIES AND LIMITATIONS

- **Mx2wire+** transfers both data and power according to the PoE standard!
- **Mx2wire+** uses an efficient encryption method (128-bit AES), unlike a standard network cable!
- **Mx2wire+** does not require a separate power connection!
- **Mx2wire+** uses existing telephone, power or antenna cables and therefore eliminates the enormous amount of time and effort normally required for cabling!
- **Mx2wire+** is a quality product designed and manufactured entirely in Germany!

Fulfills EMC regulations

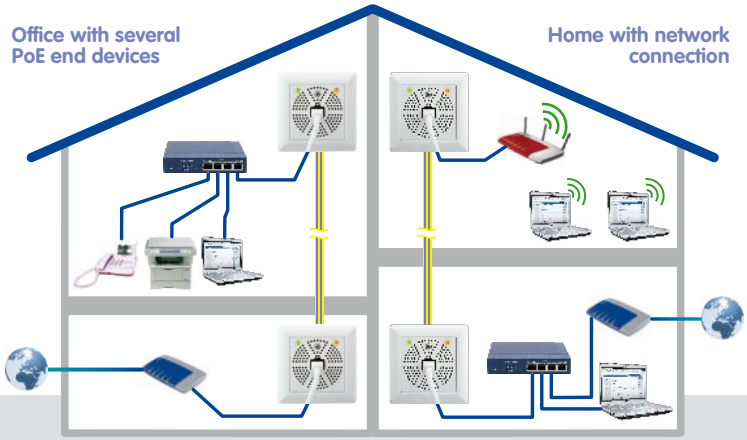
Mx2wire+ complies with the relevant EMC regulations for information technology devices (EMC: electromagnetic compatibility).

ENJOY THE UNIQUE ADVANTAGES OFFERED BY MX2WIRE+

In many houses television, telephone and other distribution networks based on two-wire cables are already installed, but no longer used. For example, a previously cable-bound telephone system may have been replaced by a wireless one. Existing, unused cables can now be quickly connected to Mx2wire+ and transformed into network connections throughout an entire building. An old analog camera can also be instantly exchanged for a digital, high-resolution MOBOTIX network camera without the need for any recabling and with all the associated benefits.

New Possibilities, More Convenience:

- Ethernet and PoE data transfer using a two-wire cable
- Simple connection of 10/100 Mbps Ethernet end devices (e.g., IP camera, IP telephone)
- Power supply for Mx2wire+ and end device via PoE/PoE+ or 48–57 V DC, 600 mA
- Connected end devices are supplied with up to 13 watts via PoE (PoE class 3)
- Maximum data transfer range of 500 m and data rate of up to 50 Mbps (depending on distance)
- No need for expensive and time-consuming installation of network cables
- Perfect for wireless communication is not possible (due to distance to sender, thickness of walls, etc.)
- Network extension, including PoE, by connecting a Cat7 cable of up to 500 m in length as a two-wire cable
- Simple installation in standard sockets (surface- or flush-mounted)
- Two LEDs display current connection and supply statuses
- Developed, produced and patented by MOBOTIX Germany



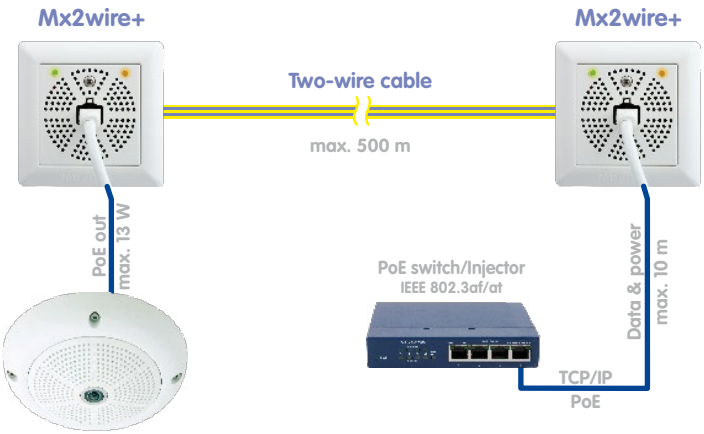
Made in Germany – Patented and produced by MOBOTIX

Mx2wire+ turns an existing two-wire cable into a modern multimedia cable – simply, quickly and cost-effectively!

MOBOTIX Mx2wire+

INTRODUCTION

Using the Mx2wire+ system from MOBOTIX, an Ethernet network with PoE can be established using existing cables up to 500 m. This means that you can utilize a two-wire cable that is no longer in use (analog telephone line, antenna cable or bell wire, for instance) to connect a 10/100 Mbps Ethernet device such as a PC, WLAN, IP camera, IP telephone or IP door station without having to lay any new cables or implement any other constructional measures. An (identical) Mx2wire+ unit is required at both ends of the cable, and it automatically configures itself as either the sender or the receiver (MOBOTIX patent).



Mx2wire+ requires a PoE power supply via a standard PoE switch (Class 0, IEEE 802.3af or Class 4, IEEE 802.3at) for operation

If no PoE switch is used, power can also be supplied using the NPAPoE set from MOBOTIX or a DC power supply unit

The significant additional benefit of Mx2wire+ is that, in addition to data, the power to operate PoE end devices (Power over Ethernet according to the IEEE 802.3af standard, a MOBOTIX network camera, for example) can also be transferred via the two-wire cable.

Mx2wire+ is delivered via PoE from a network cable that feeds in. The connected end devices are supplied with up to 13 watts via PoE. Mx2wire+ does not therefore require its own power supply, as the network distributor (switch) typically supplies power over the data cables (PoE) so that the two Mx2wire+ units as well as the standard PoE end device are supplied.

Flexible installation options

Mx2wire+ is delivered in a standard socket frame in different designs, however, it can also be used with the surface-mounted socket provided.

TWO-WIRE CABLES - AN OVERVIEW

A two-wire cable is usually a two-wire copper cable whose two wires are twisted together (twisted pair). A classic two-wire cable is an analog telephone wire with a wire diameter of 0.8 mm, which, in terms of quality (according to the ISO/IEC 11801 standard), corresponds to a category 1 cable for voice transmission. MX2wire+ can also be operated using untwisted cables that have at least two wires forming a physical connection between the two Mx2wire+ units. Please note that the quality, length and diameter of the two-wire cable used all have an influence on the transfer of data and the PoE output.

By correctly combining or twisting additionally available wires to form two wires or cables, the transmission line for data and power can be considerably increased

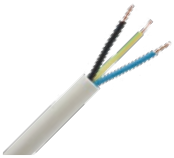
Antenna or Coaxial Cable (e.g. for an Analog Camera)

- Cable type: RG according to MIL-C-17 (coaxial cable)
- An analog camera can be easily exchanged for an IP camera
- Interference-free thanks to closed systems and cable shielding
- Range (at 40 Mbps): over 500 m

Analog Telephone Line or Bell Wire

- Cable type: JY, A2Y and YR (telephone and low-voltage cable)
- Very good availability in buildings
- Core diameter 0.6 to 0.8 mm
- Range (at 40 Mbps): over 300 m

Power Line (Should No Longer Be Live)



- Cable type: NY (installation cable)
- Widespread availability of cables
- **Cables must be disconnected from the power supply!**
- Wire cross-section max. 2.5 mm^2
- Range (at 40 Mbps): over 300 m

Ethernet Installation Cable

- Cable type: Cat7 (S/FTP, 4x2xAWG 23, 1,000 MHz)
- Long range data and power transmission
- Range (at 40 Mbps): over 500 m

Multimedia cable

Mx2wire+ takes over the cable function for network and PoE, therefore, the cable cannot be simultaneously used for power, analog telephone or antenna connection anymore.

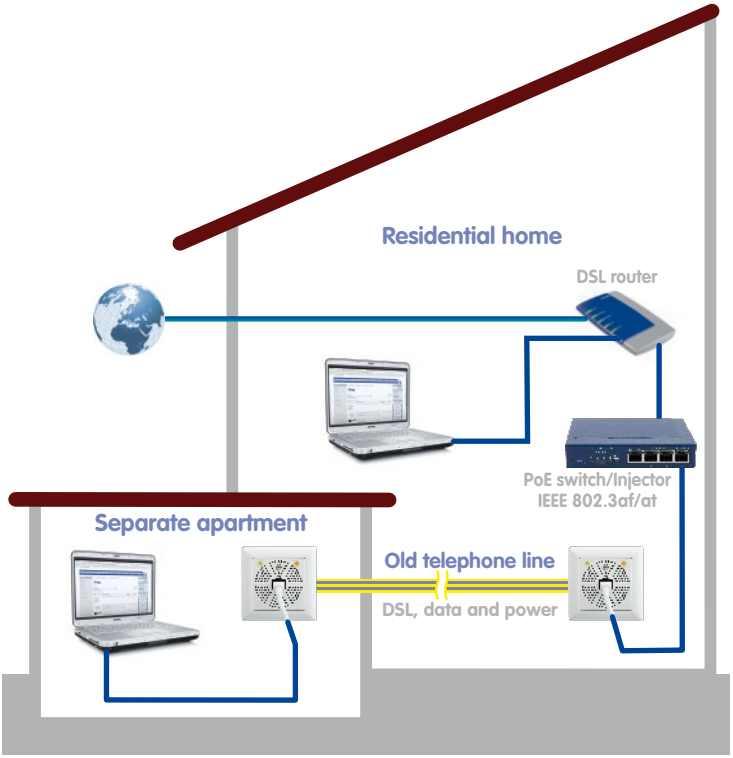
MOBOTIX Mx2wire+

APPLICATION EXAMPLES

a) Connecting A PC To The Internet In A Separate Apartment

An Internet connection exists on the ground floor of a house and a PC in a separate apartment is to be linked to this. The concrete walls and/or distance make a network extension via WLAN impossible. In this example, Mx2wire+ is simply connected to the two wires of the analog telephone line that is no longer being used. All that Mx2wire+ requires to supply power to the end device (PC) and for its own consumption is a PoE switch or injector.

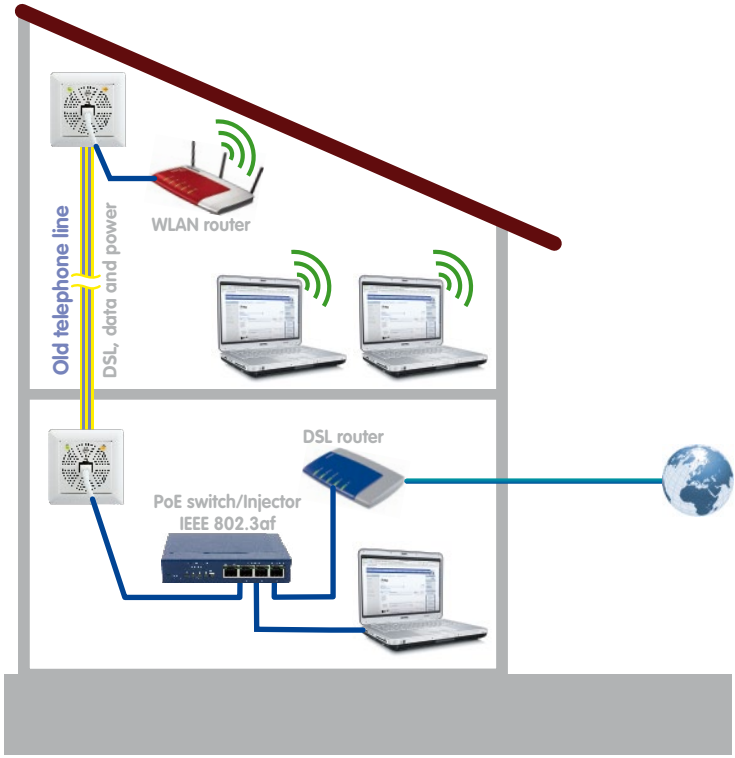
Mx2wire+ eliminates the enormous amount of time and cost normally required for cabling simply by reusing the old telephone line as a network cable



Due to physical constraints, cables exceeding a certain length can still transfer data but not power. When installations have no PoE-supplied end devices (PCs, for example), the range of the two-wire cable may increase significantly, provided that low data rates are sufficient for the application.

b) Connecting A WLAN Router To A Remote DSL Connection

The DSL connection is on the ground floor. Several PCs located two floors higher are to be connected to this. WLAN cannot be used over the entire distance. The distance from the router on the ground floor to the second floor can once again be bridged by Mx2wire+ and an analog telephone line, for example. By connecting a WLAN router to the Mx2wire+ unit on the second floor, the PCs there can now access the Internet via WLAN.



Power is supplied to the Wi-Fi router via the Mx2wire+ devices (max. 13 W)

The concrete ceiling makes it impossible to set up a WLAN connection to the top floor

In principle, an Mx2wire+ unit can be installed using the on-wall socket, a standard in-wall socket or a cavity socket.

On-wall socket

Standard in-wall socket

Cavity socket (wood or plasterboard, for example)

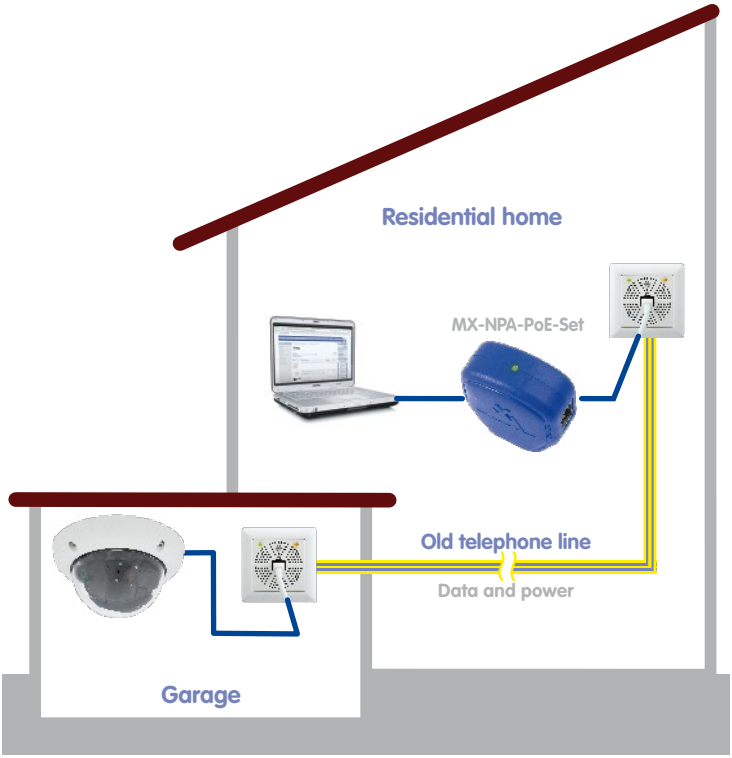
MOBOTIX Mx2wire+

c) Connecting An IP Camera To A PC

Mx2wire+ allows an old power line to be used to connect a modern, PoE-supplied IP camera including audio/video and switch functions. A standard PoE switch/router or the compact MX-NPA-PoE set including crossover function (as shown here in the example) is used for the PoE power supply. A patch cable (at least Cat5) is used to connect the PC, which serves to control the camera, directly to the PoE switch.

Here, a two-wire cable, formerly used as a power connection, serves to connect an IP camera in a garage while keeping costs to a minimum

No power supply is necessary for the camera in the garage



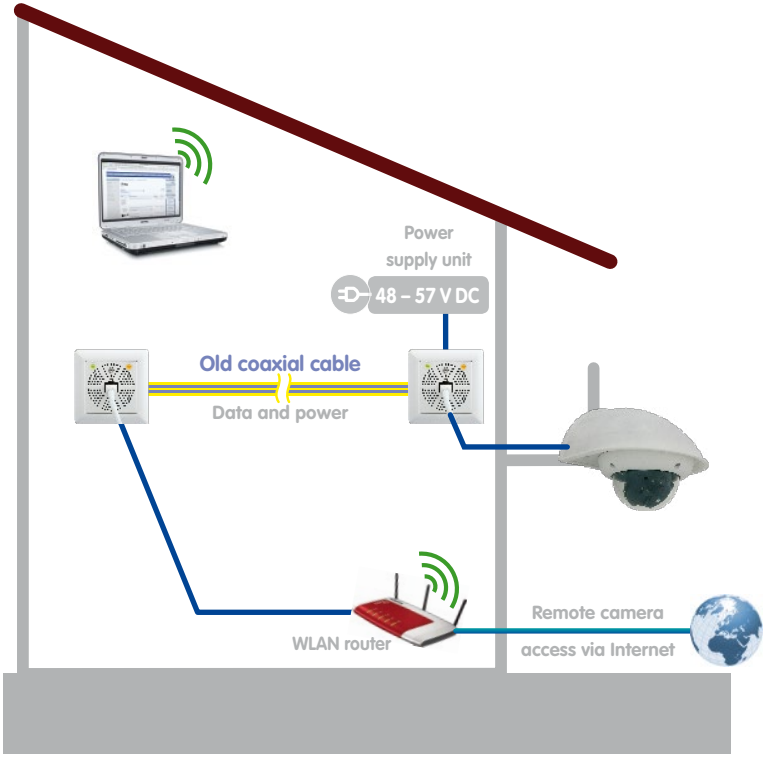
Power Supply for Mx2wire+

All Mx2wire+ installations require a suitable PoE power supply (Class 0). Here, you can always choose between a standard PoE switch/router or the MX-NPA-PoE set that is available from MOBOTIX as an accessory.

d) Exchanging An Analog Camera For An IP Camera

Anyone who would like to benefit from the numerous cost and technological advantages of a high-resolution MOBOTIX IP camera, but has an analog camera already installed, can continue to conveniently use the camera's coaxial cable as a two-wire cable. A standard power supply (48 V DC, 600 mA) whose voltage outputs are connected to an Mx2wire+ unit is used for the PoE power supply for the IP camera. The existing Wi-Fi DSL router connected to the second Mx2wire+ unit is used for remote camera access via the Internet and the Dynamic Domain Name System (DynDNS) entry.

Coaxial cables are ideally suited for longer distances (up to 500 m)



Only the analog camera needs to be replaced with a HiRes camera. The coaxial cable and potentially even the analog camera's power supply unit can still be used

MX-NPA-PoE-Set and MX-NPA-Box

The MOBOTIX PoE injector – compact, robust and flexible. The weatherproof NPA-Box (IP65) is also suited for outdoor installation.

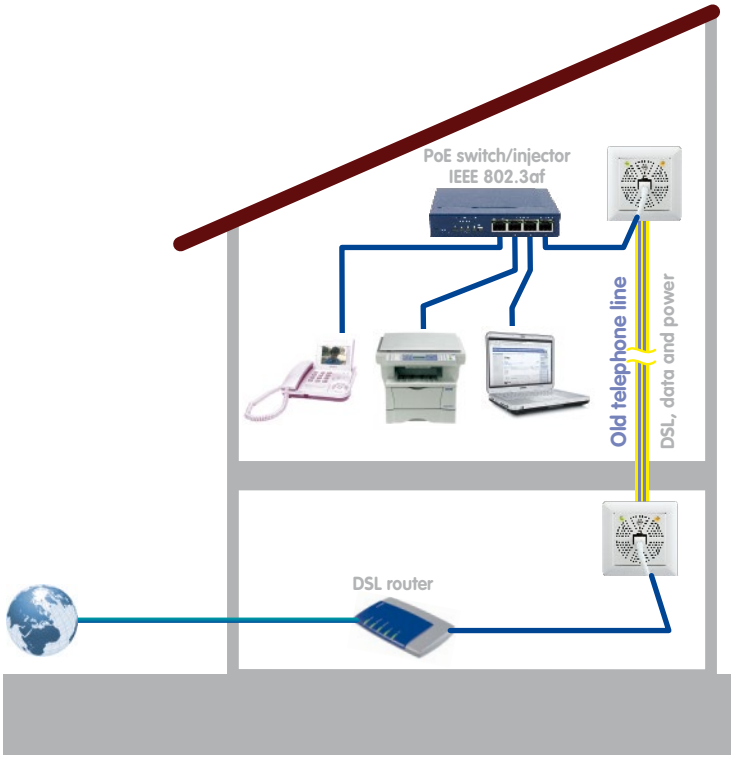
MOBOTIX Mx2wire+

e) Connecting Several Network End Devices Via Mx2wire+

An internet connection exists on the ground floor. An office with various network devices (PCs, printers and IP video phones) is to be set up on the first floor. Mx2wire+ is connected to the two wires of the analog telephone line that is no longer used. All that Mx2wire+ requires to supply power to the IP telephone and for its own consumption is a PoE switch, to which the remaining network devices can also be directly connected.

The PoE switch on the first floor serves to supply power to the Mx2wire+ device in the basement

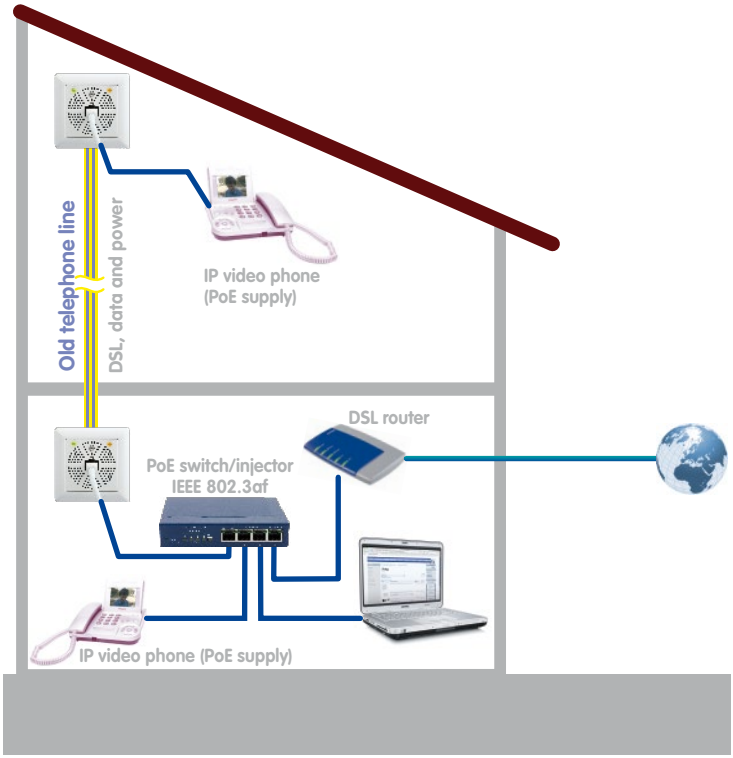
Mx2wire+ turns the former telephone line into a network cable for several end devices in the office



The Mx2wire+ media converter must always be installed indoors on a wall or ceiling protected from weather and moisture. If in doubt, use the normal functional conditions of a standard socket without cover as a reference.

f) Replacing An Analog Telephone With An IP Video Phone

A DSL connection and a PC can be found on the ground floor. An analog telephone line extends upstairs from the ground floor. Mx2wire+ is used to transform the telephone line into a network cable that can transport data as well as power. The old telephones can easily be replaced with IP video phones that are also supplied with power from the PoE switch via Mx2wire+.



No power connection is required for the Mx2wire+ device and IP telephone as up to 13 watts of power can be supplied via PoE

Electrical Installation

Electrical systems and equipment may only be set up, changed and maintained by a qualified electrician (or under the management and supervision of a qualified electrician) in accordance with electrotechnical regulations.

MOBOTIX Mx2wire+

OVERVIEW: MAXIMUM POWER LEVELS FOR MX2WIRE+ (POWER SUPPLIED VIA: POE+, IEEE 802.3AT)

Antenna or Coaxial Cable

Thickness	Length of coaxial cable		
	50 m	100 m	500 m
0.6 mm inner core	Data: 50 Mbps Power: 13 W	Data: 50 Mbps Power: 11 W	Data: 45 Mbps Power: none

Telephone Line and Bell Wire

Thickness	Length of telephone line/bell wire		
	50 m	100 m	200 m
0.6 mm	Data: 50 Mbps Power: 13 W	Data: 50 Mbps Power: 13 W	Data: 50 Mbps Power: 8 W
0.8 mm	Data: 50 Mbps Power: 13 W	Data: 50 Mbps Power: 13 W	Data: 50 Mbps Power: 13 W

Installation Cable

Thickness	Length of installation cable		
	50 m	100 m	200 m
1.5 mm^2	Data: 50 Mbps Power: 13 W	Data: 50 Mbps Power: 13 W	Data: 50 Mbps Power: 13 W

Extending The Range With Network Installation Cables

In conjunction with Mx2wire+, PoE class 3 power can be transmitted over a distance of 500 m at a data rate of approx. 45 Mbps.

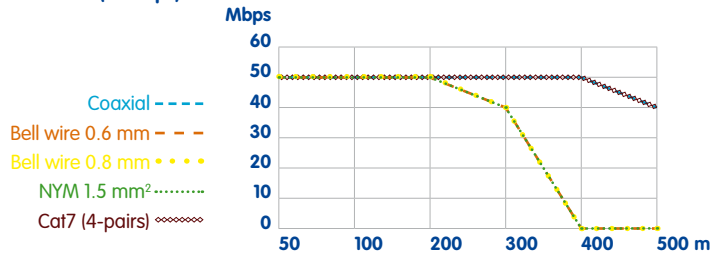
Type	Length of network installation cable (use of all four wire pairs)		
	200 m	300 m	500 m
Cat-7	Data: 50 Mbps Power: 13 W	Data: 50 Mbps Power: 13 W	Data: 45 Mbps Power: 12 W

Due to physical constraints, cables exceeding a certain length can still transfer data but not power. When installations have no PoE-supplied end devices (PCs, for example), the range of the two-wire cable may increase significantly, provided that low data rates are sufficient for the application.

MOBOTIX network cameras – economical and powerful

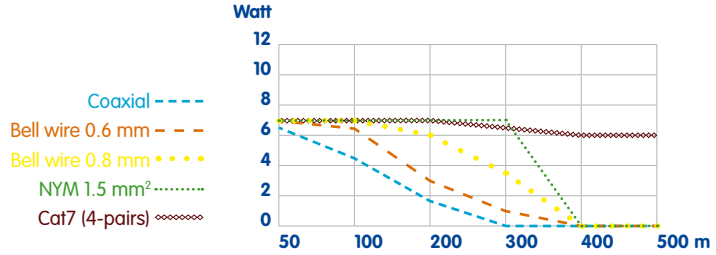
Less than 4 watts are enough to power a high-resolution MOBOTIX network camera, including all integrated features such as motion detection and long-term internal storage connected and supplied via the two-wire cable.

Net Data Rates (In Mbps)



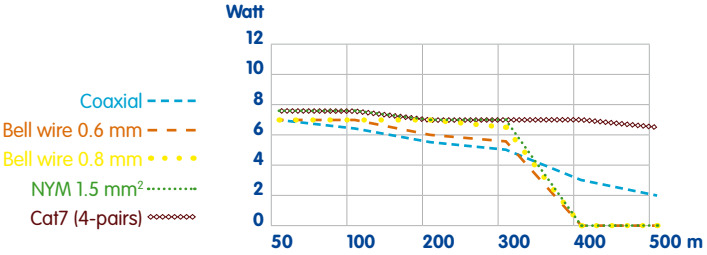
Net data rate (that can be effectively used by the end device)

Power Output With PoE Power Supply (In Watts)



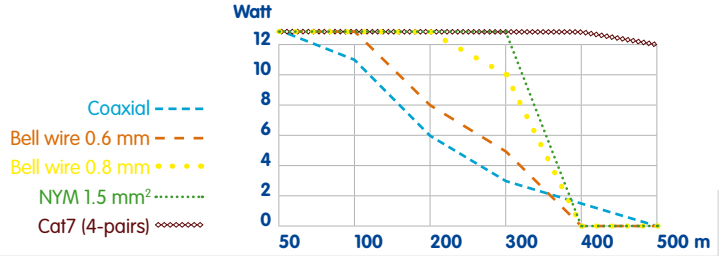
Power supply: PoE according to IEEE 802.3af

Power Output With NPA-PoE Power Supply (In Watts)



Power supply: MOBOTIX NPA-PoE set

Power Output With PoE+ Power Supply (In Watts)



Power supply: PoE+ according to IEEE 802.3at or DC power supply unit (48–57 V, 600 mA)

MOBOTIX Mx2wire+

MX2WIRE+ POWER SUPPLY (OWN CONSUMPTION AND END DEVICE)

It is important to consider the fact that the Mx2wire+ pair requires approx. 6 watts for its own consumption (3 watts for each Mx2wire+ unit) when making the choice of how to supply the Mx2wire+ pair and the end device connected to it (e.g., MOBOTIX camera). Power can be supplied via one of the two Mx2wire+ units or via both units at the same time (for long cable lengths).

There are two basic options here:

1. Connection via PoE device (PoE injector, PoE switch or a combination router/PoE switch of classes 0 or 4)
2. Connection via an external power supply unit (48–57 V DC, 600 mA)

POE POWER LEVEL CLASSES (IEEE 802.3AF AND 802.3AT STANDARDS)

Mx2wire+ supplies end devices with up to 13 W of power (PoE class 3)

Class	Max. power consumption	
0	**0,44 W – 12,95 W**	for Mx2wire+
1	0,44 W – 3,84 W	
2	**3,84 W – 6,49 W**	for end device (max.) with power supply via PoE
3	6,49 W – 12,95 W	for end device (max.) with power supply via PoE or power supply unit (48–57 V DC)
4	**12,95 W – 25,5 W**	Class 4: IEEE 802.3at (PoE+)

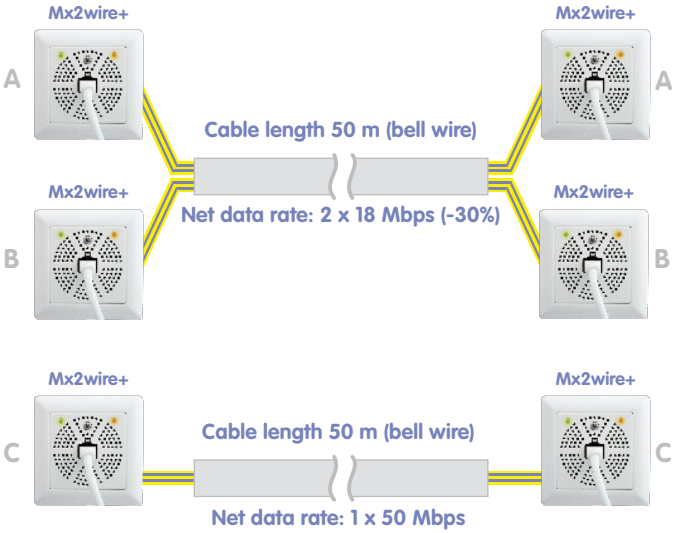
CONNECTING A POE-SUPPLIED END DEVICE (E.G., MOBOTIX CAMERA)

MOBOTIX Q24M Hemispheric camera – for more information, visit www.mobotix.com

It does not matter which of the two Mx2wire+ units is used to provide the PoE power supply when connecting a PoE end device to the Mx2wire+ media converter. Always ensure, however, that sufficient PoE power is supplied. Due to Mx2wire+'s own consumption, a maximum of 13 watts can ultimately be delivered to a PoE end device.

Less than 5 watts of power is sufficient to connect and supply a modern MOBOTIX Q24M Hemispheric Camera with all its integrated functions (long-term recording to flash memory, audio, two-way communication, recording upon detection of movements in an image, convenient event searching, etc.) via the two-wire cable, for example

MULTIPLE COEXISTENT MX2WIRE+ UNITS



Cables that are right next to each other can interfere with one another and reduce data rates

Example: A 50 meter long four-wire cable (bell wire), of which two wires are used for each pair of Mx2wire+ units (A and B)

The data rate is 18 Mbps for each Mx2wire+ pair (from A to A and from B to B). If only one pair is connected (from C to C), the net data rate of Mx2wire+ is 50 Mbps. The reduced data rate in this example is due to the cables interfering with each other.

Normally, the two pairs act like a network hub, that is, the data transferred from A to A is also available on the two units of the data path from B to B. In order to prevent this, each couple of Mx2wire+ units is paired at the factory, which means that they have the same network number (network ID) and can therefore communicate with each other..

The network number is located in the top left corner of every Mx2wire+ circuit board

Note

Two Mx2wire+ units must always be used as a pair (as originally packed). The two paired units have the same network ID. The network ID is printed on a sticker located in the top left corner of the circuit board.

A MOBOTIX software tool will be available in the near future to subsequently manually pair (ID assignment) two individual Mx2wire+ units.

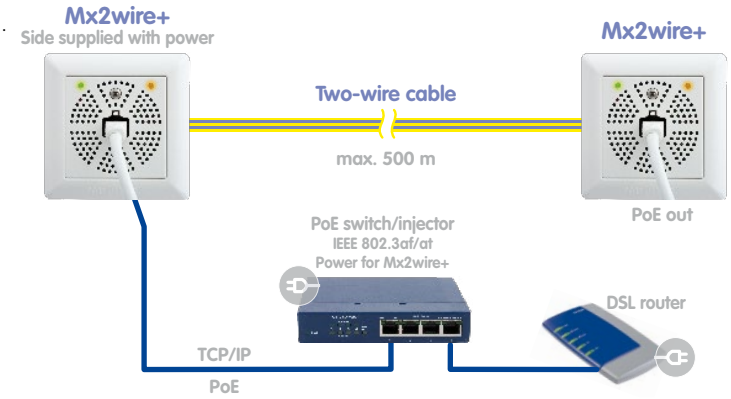
Two cables that are directly next to each other and "in the same cable conduit," so to speak, interfere with each other, which may lead to a reduced data rate. This is also the case when no electrical connection has been established.

MOBOTIX Mx2wire+

CONNECTION OPTIONS (POSITIONING OF POE POWER SUPPLY)

PoE Power Supply Between Router And Mx2wire+ Unit

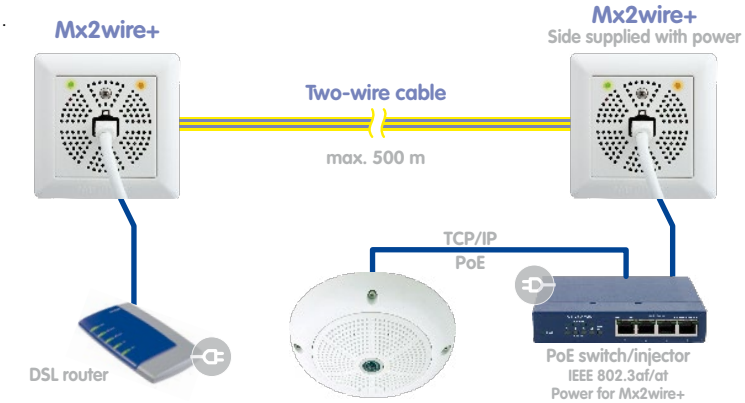
Mx2wire+ always requires a PoE power supply of at least 6 watts (own consumption)



By default, Mx2wire+ logs onto the switch as a PoE class 0 device (can be changed to class 4).

PoE Power Supply Between Mx2wire+ Unit And PoE End Device (Such As A Camera)

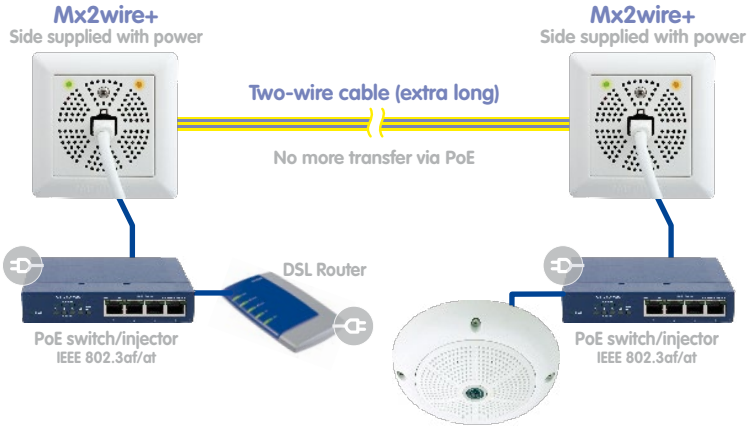
Camera and Mx2wire+ are supplied separately by the PoE switch



Connecting to the DSL router without a power supply is only possible if PoE power is supplied to the other Mx2wire+ unit.

When data and power are sent via the two-wire cable, a (feeding) Mx2wire+ unit functions as the sender while the other unit functions as the (data) receiver. The sender is the Mx2wire+ unit that is supplied directly from the PoE switch.

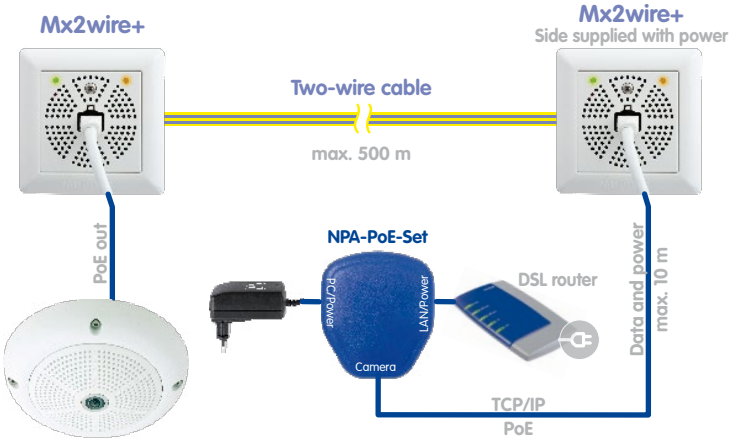
PoE Power Supplied To Both Mx2wire+ Units Simultaneously



Cables exceeding a certain length can still transfer data but not power

If the two-wire cable is not sufficient to supply the Mx2wire+ remote station with power due to its length, both sides can be supplied with power via PoE.

PoE Power Supply Using The MOBOTIX PoE Injector (MX-NPA-PoE Set)



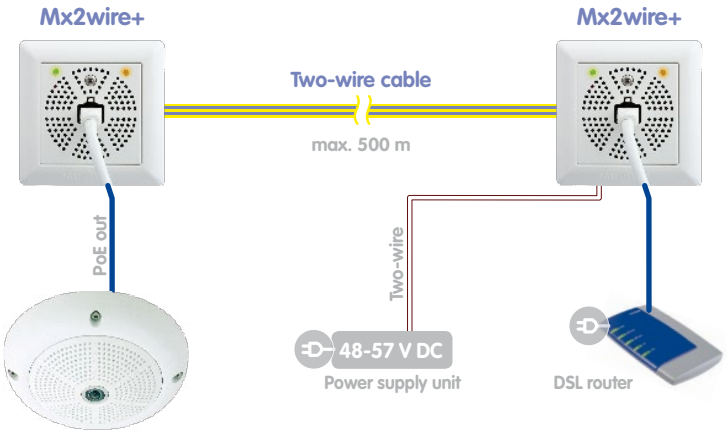
The NPA-PoE set (pictured here) or the weatherproof NPA box (not pictured here, available in 2012) are suited for standard PoE power supply according to IEEE 802.3af

The blue NPA-PoE set, which is available as an accessory from MOBOTIX (MX-NPA-PoE set), can be used as an alternative to the standard PoE switch (IEEE 802.3af).

Communication between the units is possible in both directions, as the 'sender' and 'receiver' roles always configure themselves automatically.

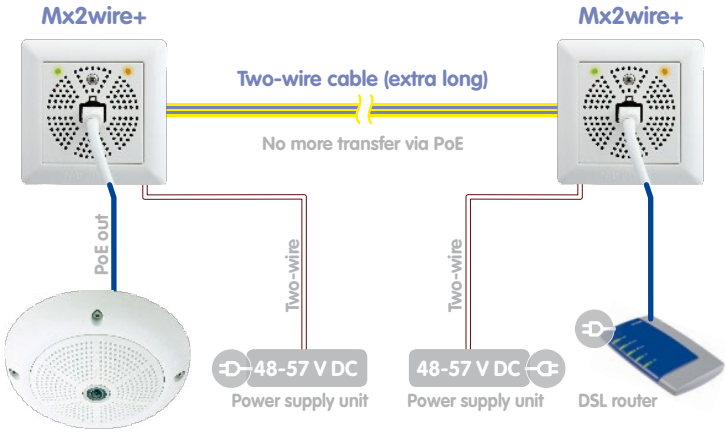
MOBOTIX Mx2wire+

Network Without PoE, Power Supply Through One Device Via Power Supply Unit



The power required for Mx2wire+ and one PoE end device can be supplied by connecting an external power supply unit (48–57 V DC, 600 mA) to another Mx2wire+ unit (max. power output for end device: PoE class 3/13 W).

Network Without PoE, Power Supply Through Both Devices Via Power Supply Unit



If the two-wire cable is not sufficient to supply the Mx2wire+ remote station with power due to its length, both Mx2wire+ units can be supplied with power via a power supply unit (48–57 V DC, 600 mA).

Greater data security

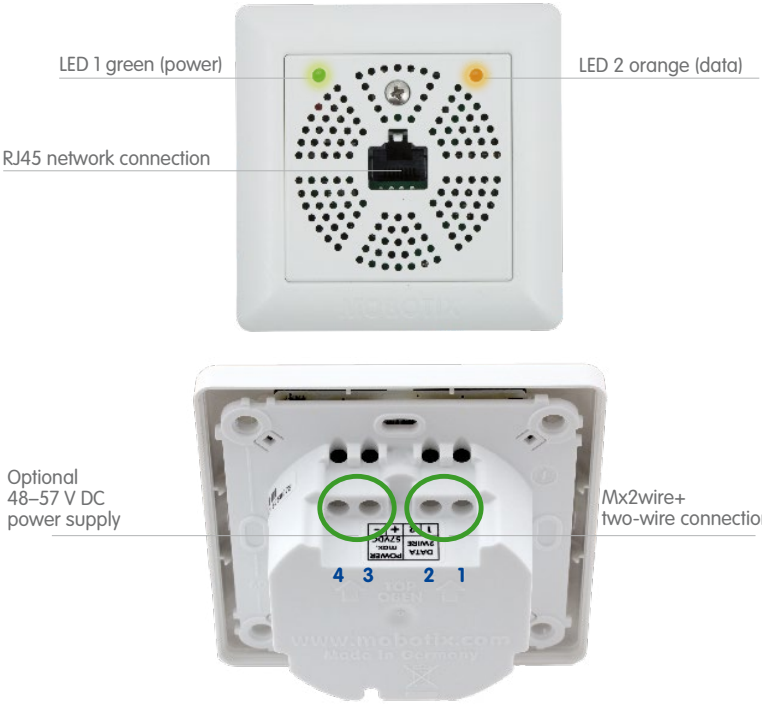
The Mx2wire+ media converter uses an efficient encryption method (128-bit AES), unlike a standard network cable.

HOUSING AND CONNECTORS

The Mx2wire+ media converter is a set of two Mx2wire+ units, each consisting of a circuit board and housing, front panel, frames, flush-mounted or surface-mounted socket and assembly parts.

Connectors

- Front: RJ45 network (Ethernet network including PoE power supply)
- Rear: Two-wire (connectors 1 and 2) and MxBus (connectors 3 and 4, not yet available)



The terminals of Mx2wire+ are designed for wire cross-sections of between 0.13 mm² and 2.5 mm² (solid wire)

Only connectors 1 and 2 may be used for the two-wire connection. Connectors 3 and 4 are only used for connecting a separate power supply unit if there is no other PoE supply (switch/injector) available in the system or its power level is no longer sufficient to supply power to the end devices.

A robust, high-quality product – Made in Germany

Mx2wire+ does not have any mechanical parts and is practically maintenance-free. It also features a very high operating temperature range of -30 to +50 °C.

MOBOTIX Mx2wire+

ADDITIONAL INFORMATION ON MX2WIRE+

Weather Proof Qualities

The Mx2wire+ media converter is extremely robust and fi nished to a very high quality. Due to the nature of the types of installation described in this manual, however, it is neither resistant to water jets nor absolutely dustproof. Therefore, we strongly recommend that you only use Mx2wire+ in a protected indoor area.

MOBOTIX wall mount with Q24 camera

In order to ensure that Mx2wire+ also functions properly in harsh and demanding environments and out of doors, extra provisions must be made to improve the device's sealing (protective housing, integration of the Mx2wire+ unit in the MOBOTIX wall mount when a MOBOTIX D15, D24 or Q24 camera is used, for example). Additional heating or ventilation is not normally required, as Mx2wire+ features a very high operating temperature range of -30 to +50 °C.

Professional, Safe Installation

Electrical installations should only be carried out by properly trained specialists. MOBOTIX recommends having Mx2wire+ installed only by specialists accustomed to installing network devices and having proper respect for the pertinent regulations regarding lightning protection and fire prevention as well as the current technology for preventing damages from electrical surges.

Electrical surges can be induced by other electrical appliances, improper wiring, but also from the outside (e.g. lightning strikes to phone or power lines).

Data Transfer Rates And Cable Lengths

We have tested the product very carefully and, instead of specifying non-recurrent peak values, we only provide the important net data rate, which was measured over a long period of time. However, we can provide

NO guarantee of possible cable lengths, data rates and power transmission,

as various physical factors are not within the area of responsibility of MOBOTIX (sources of interference such as machines or power cables, the condition and quality of the cables used, etc.). The nominal data rate, connection length and power transmission can only be individually tested and determined at the place of installation.

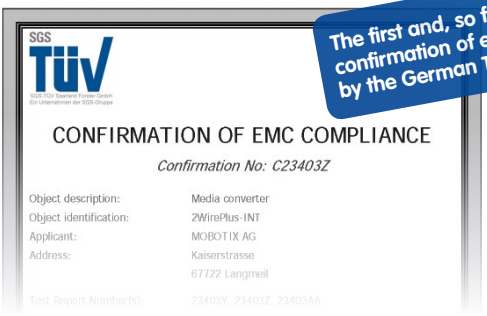
Electromagnetic Compatibility (EMC)

Mx2wire+ is built to be interference-proof

Electromagnetic compatibility encompasses all unintentional or intentional malfunctions of electrical or electronic equipment generated by electrical, magnetic or electromagnetic fields and processes, for example. This includes interference from currents and voltages. The proof and verification of immunity to interference and a sufficiently low level of electromagnetic interference are regulated by EMC directives and EMC standards.

The European EMC Directive defines electro-magnetic compatibility as "the ability of a device, equipment or a system to function satisfactorily in its electromagnetic environment without introducing intolerable electromagnetic disturbances to anything in that environment."

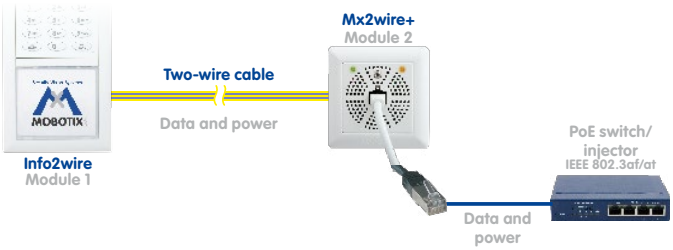
The Mx2wire+ media converter complies with the relevant EMC regulations for information technology devices.



The first and, so far, only product of its kind with confirmation of electro-magnetic compatibility by the German Technical Control Board (TÜV)!

Special Mx2wire+ Versions For MOBOTIX T24 IP Video Door Station

When replacing a simple doorbell with a high-quality IP video door station, MOBOTIX offers a weatherproof backlit house number field lit by economical, long-lasting LEDs for its T24 outdoor station that integrates the Mx2wire+ unit in an outdoor model and contains a second corresponding unit for installation in the home.



For more information: www.mobotix.com > Products

MOBOTIX Mx2wire+

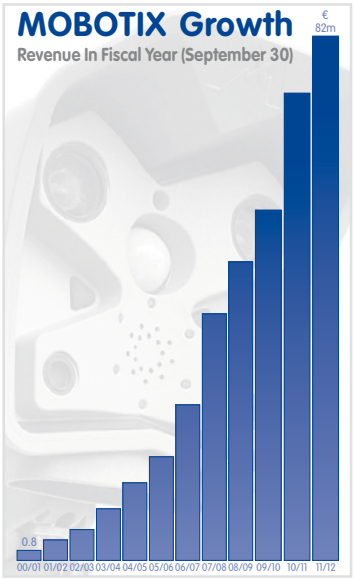
HiRes Video Innovations

The German company MOBOTIX AG is known as the leading pioneer in network camera technology since its founding in 1999, and its **decentralized concept has made high resolution video systems cost efficient**. Whether in embassies, airports, train stations, ports, gas stations, hotels or on highways – over hundred thousand MOBOTIX video systems have been in operation on every continent for years.

Pioneer In Network Camera Technology

In just a short time, MOBOTIX has climbed to second place in Europe and fourth place worldwide in terms of market share. MOBOTIX has been exclusively manufacturing megapixel cameras for many years now and is regarded as **the global market leader in high-resolution video systems**. In the **decentralized MOBOTIX concept**, every camera has an integrated high-speed processor and, if needed, a digital memory device (MicroSD/SD card) for long-term recording.

MOBOTIX cameras can make event-driven recordings even without a central PC or DVR and can digitally store videos long term with sound. This is why MOBOTIX solutions represent an unbeatably good value with their excellent image quality, even for small-scale installations.



Free Consulting Service

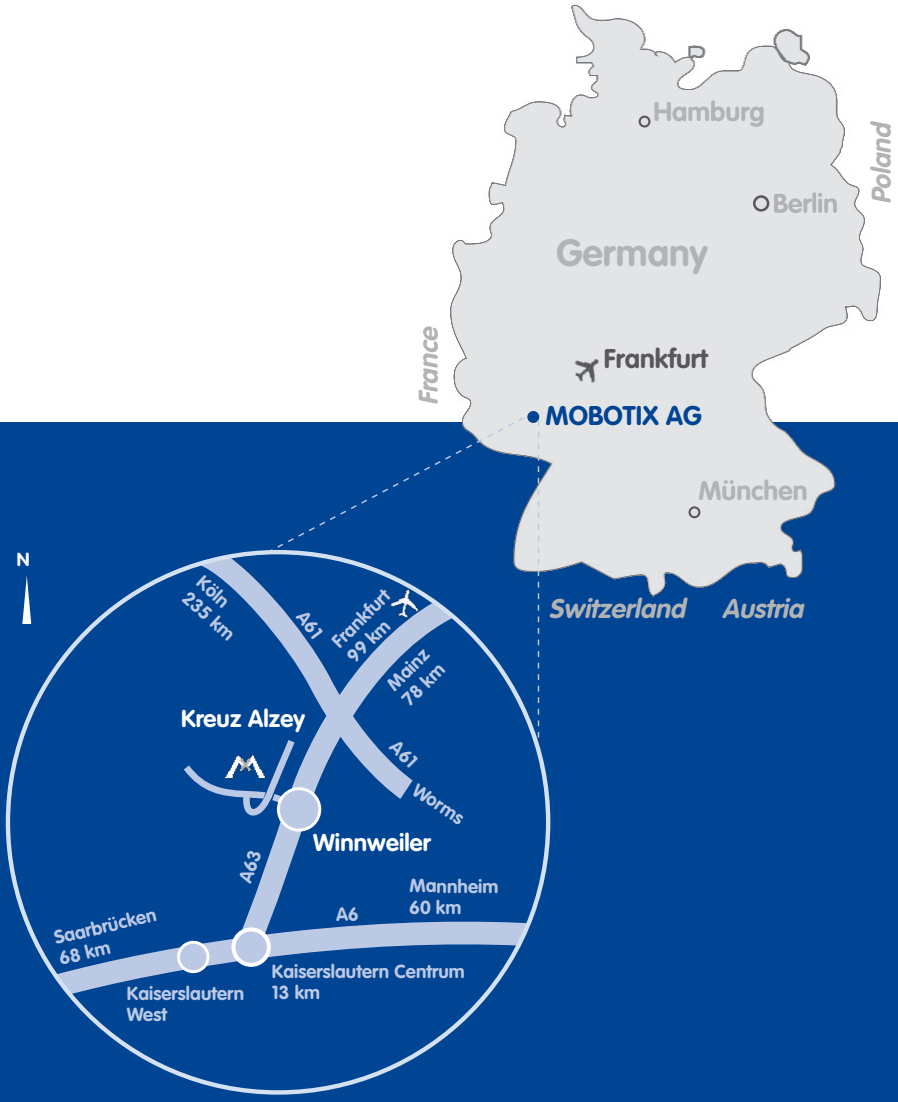
Simply call us or send us an e-mail. We will get in touch with you promptly.

With MOBOTIX, you are in the best hands right from the start. Both our in-house project managers and our experienced, highly-specialized Secure partners ensure that every system is optimally designed and installed.

Our support specialists will help you with any technical questions you may have.

MOBOTIX training programs and seminars

MOBOTIX has its own training center with an extensive offering for all interested parties, customers, partners and security companies. MOBOTIX offers seminars for basic and advanced users. For more information: www.mobotix.com



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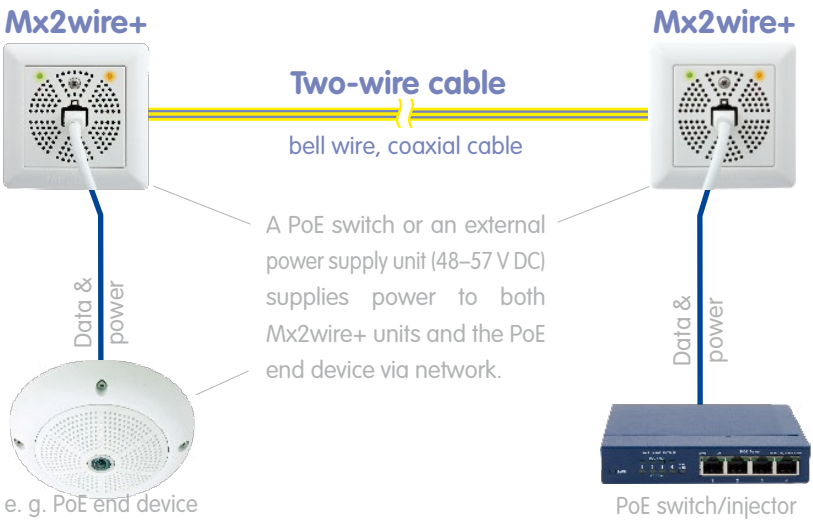
EN

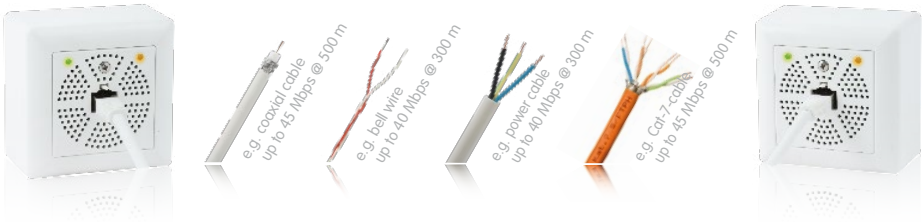
Mx2wire+ Media Converter

The HiRes Video Company MOBOTIX

Ethernet with PoE. Via Two-Wire Cable.



The Mx2wire+ Set includes all components required to set up an Ethernet connection via an existing two-wire cable (bell wire, antenna cable). The product is delivered with two Mx2wire+ units, three different designer panel frames (interchangeable), surface-mounted sockets, cavity sockets and assembly parts.



... all for €298*

06/2013

www.mobotix.com

HiRes Video Innovations

The German company MOBOTIX AG is known as the leading pioneer in network camera technology and its decentralized concept has made high-resolution video systems cost-efficient.

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