

## Technical Specification

### MOBOTIX MxIRLight Infrared LED Illuminator



## MxIRLight Series

PoE-powered high-caliber infrared illuminator for MOBOTIX cameras with B&W sensor

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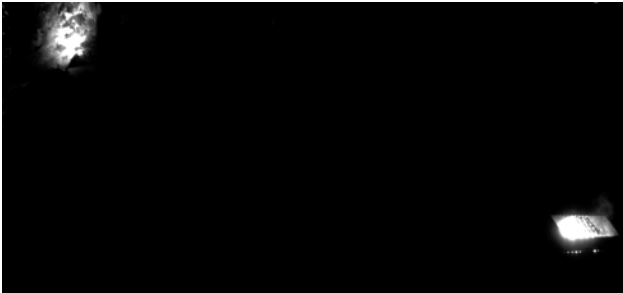
MxIRLight: Technical Data	
Product name	MxIRLight Infrared LED illuminators
MOBOTIX order codes and EAN (6 model variants)	Mx-A-IRA-120 (EAN: 4047438030342); Mx-A-IRA-90 (EAN: 4047438030359); Mx-A-IRA-60 (EAN: 4047438030366); Mx-A-IRA-45 (EAN: 4047438030373); Mx-A-IRA-30 (EAN: 4047438030380); Mx-A-IRA-15 (EAN: 4047438030397)
Supported video sources	All (MOBOTIX) cameras and doorstations with black & white sensor
Ambient temperature range	-30 to 60°C (-22 to 140°F)
IP Class	IP67 (dust tight; water tight when temporarily immersed in water up to a depth of 1 m)
Installation notes	This product must not be used in locations exposed to the dangers of explosion. Risk Group 2: The IR illuminator emits High-intensity infrared light. It is, therefore, dangerous to look into the operating device from close distances (less than 2m).
Dimensions (height x width x depth)	90 x 115 x 51 mm
Weight (without packaging)	750 g
Anschlusskabel (Länge: 90 cm)	RJ45-Stecker, auch passend für MOBOTIX RJ45-Anschlussbuchsen (zum wetterfesten Anschluss an MxSplitProtect oder MX-Overvoltage-Protection-Box)
Power supply	PoE+ IEEE 802.3at, via ethernet cable and standard PoE+ injector or switch (mode A or B, e.g., MxSwitch)
Power consumption	17 W to max 19 W (standby mode: approx 0.8 W)
Automatic switch-on/off via photosensor	- Switch-on immediately, when ambient light level drops below 3 lux; - Switch-off, when ambient light level exceeds 3 lux for more than 150 seconds
IR wavelength	860 nm (semi-discreet)
IR illumination angles (horizontal x vertical)	Depending on variant: 120° x 120°; 90° x 90°; 60° x 60°; 45° x 45°; 30° x 30°; 15° x 15°
IR illumination range	Depending on variant: 120°: 20 m, 90°: 35 m, 60°: 50 m, 45°: 80 m, 30°: 120 m, 15°: 160 m
IR emitter	4x High Power SMD LED
Housing	Aluminium, front with infrared-permeable protective glass
Certifications	EN 60950-1:2006 + A11:2009/A1:2010/A12:2011 EN 62471:2009 EN 55015:2013 EN 61547:2009 EN 61000-4-2:2009 AS/ NZS CISPR 15:2013
MTBF	> 80,000 hours
Delivery	Infrared Illuminator with aluminium housing and 0.9 m long connection cable with MOBOTIX RJ45 plug, mounting materials (brackets for wall, ceiling and floor mount screws, dowels, washers, Allen screws M6x20 for the optional MOBOTIX mounting brackets, Torx key, Allen wrench)
Detailed technical documentation	<a href="http://www.mobotix.com">www.mobotix.com</a> > Support > Manuals
Online version of this document	<a href="http://www.mobotix.com">www.mobotix.com</a> > Support > Spec Sheets

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### General Product Information



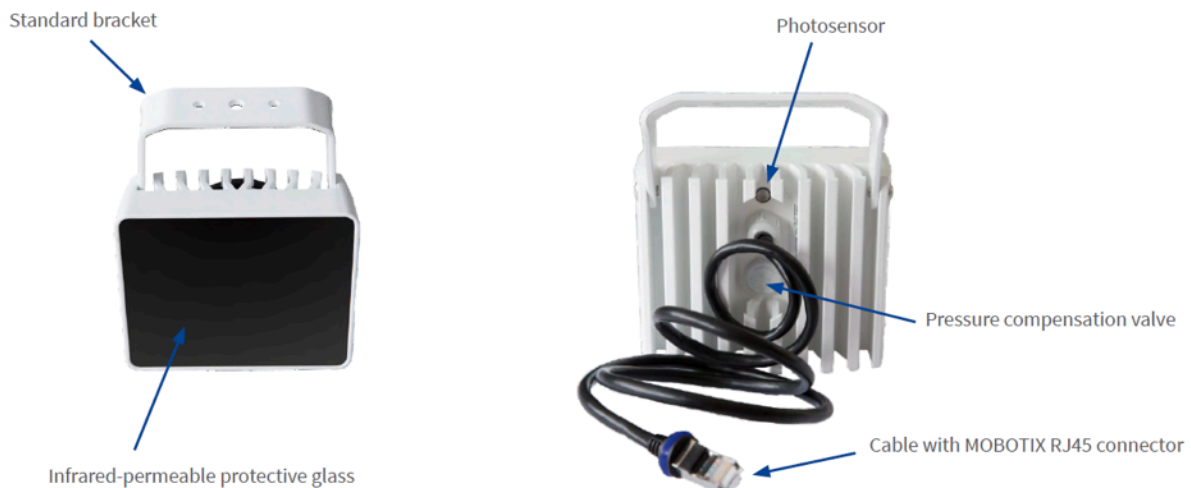
B/W sensor without IR illuminator



B/W sensor with IR illuminator

### MOBOTIX Infrared Illuminator: PoE-powered, Illumination Angle From 15° To 120°, Very Simple Installation

Thanks to their above-average light-sensitive 6MP Moonlight image sensors, MOBOTIX cameras are capable of being used even in difficult light conditions, and often even without artificial additional lighting. The new, cost-efficient, long-lasting MxIRLight Infrared Illuminators featuring low-power LED technology (max. 19 W, PoE+ standard) have proven to be worthwhile in very dark or completely dark applications with lighting lower than 3–5 lux (in comparison, street lights provide 10 lux). This especially applies for video installations requiring high image resolution and intelligent analysis functions such as MxActivitySensor or external license plate capture. The light produced by the MxIRLight Illuminator generates an infrared wavelength of 860 nm that is perfectly perceptible by a MOBOTIX camera with a **black/white** image sensor, yet only perceptible to the human eye as a red glimmer, in contrast to conventional white lights. **Note:** The combination of color sensor and MxIRLight does not change the image because this sensor is equipped with an IR blocking filter for maximum image quality by day.



### Six Weatherproof Models For Outdoor Applications (IP67)

MOBOTIX offers six different powerful MxIRLight Illuminators featuring the same compact, solid aluminum housing (H x B x T: 90 x 115 x 51 mm). The difference between the illuminators lies in their **illumination angle** (horizontal & vertical: 120°, 90°, 60°, 45°, 30°, 15°) and their **maximum range\*** (20 m, 35 m, 50 m, 80 m, 120 m, 160 m). The smaller the illumination angle, the narrower the lighting yet the longer the reach. The illuminator should be paired with the image angle of the camera lens in use.

\* max. range also depends on the reflection behavior of the area/structures under illumination

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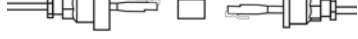


### Simple Installation And Operation

There is a robust universal bracket on the illuminator (screw connection) as standard. It can be expanded using the supplied L bracket to enable any standard installation option:



The MxIRLight is also fitted with a 90-cm cable with a MOBOTIX RJ45 connector, enabling users to have a weatherproof means to connect the device to the **MxSplitProtect** without further equipment.

Commercial connectors (with weatherproof housing) or the MOBOTIX MX- Overvoltage-Protection-Box can be used together with the MOBOTIX RJ45 connector for a weatherproof connection directly to an Ethernet cable, which is used by the MxIRLight for PoE+ power supply (IEEE 802.3at).

Thanks to the **photosensor** on the back of the device, the MxIRLight automatically switches on and off (once connected) when the sensor detects light conditions above/below the threshold of **3 lux**. Switching off is after **150 seconds**, so that IRLight does not switch off if the light increases briefly due to flashlights, headlights, lightning etc. When the IR illuminator is installed, the photosensor should not be covered or shaded too greatly or be exposed to light sources that focus on the sensor but not the camera's surveillance area.

### Accessories: Mounting Brackets For The MOBOTIX M15/M16 And M25/M26 Cameras

MOBOTIX offers two installation sets with brackets in white aluminum (Mx-M-IRA-ML and Mx-M-IRA-M) as an accessory; they are also an elegant means to install the MxIRLight on the VarioFlex wall mount of an M15/M16 AllroundDual camera or M25/M26 Allround camera.



Mx-M-IRA-ML



Mx-M-IRA-M

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Item	Count	Part Name
1.1	1	Infrared illuminator in aluminium housing with pre-mounted 0.9 m patch cable with RJ45 connector
1.2	1	Angle bracket for wall mounting
1.3	2	Washer
1.4	1	Allen screw and nut
1.5	1	Allen wrench 3 mm
1.6	1	Torx wrench TX20
1.7	2	Allen screw M6x20 (to mount the mounting brackets, optional accessories), stainless steel
1.8	2	Washer Ø 6.4 mm, stainless steel
1.9	2	Screw anchor S8
1.10	2	Wood screw 4.5x60 mm, stainless steel

### MxIRLight Infrared Illuminators: Ordering Information

Order Number	EAN	Description
Mx-A-IRA-120	4047438030342	Infrared illuminator with 120° illumination angle (horizontal and vertical), aluminum housing • 860 nm • IP67 • Range: up to 20 m / 22 yards • PoE+ power supply via network cable (IEEE 802.3at), 19 W (max.) power consumption • Photosensor for automatic switching on/off (threshold value: 3 lux, delay for switching off: 150 s) • Including standard mount for installing on wall and ceiling, screws, preassembled 0.9 m patch cable with RJ45 connector and MOBOTIX special sealing ring • Optional accessories: mounting brackets for M1x/M2x (Mx-M-IRA-ML/Mx-M-IRA-M) • Housing color: white
Mx-A-IRA-90	4047438030359	Infrared illuminator with 90° illumination angle (horizontal and vertical), aluminum housing • 860 nm • IP67 • Range: up to 35 m / 39 yards
Mx-A-IRA-60	4047438030366	Infrared illuminator with 60° illumination angle (horizontal and vertical), aluminum housing • 860 nm • IP67 • Range: up to 50 m / 55 yards
Mx-A-IRA-45	4047438030373	Infrared illuminator with 45° illumination angle, (horizontal and vertical) aluminum housing • 860 nm • IP67 • Range: up to 80 m / 88 yards
Mx-A-IRA-30	4047438030380	Infrared illuminator with 30° illumination angle (horizontal and vertical), aluminum housing • 860 nm • IP67 • Range: up to 120 m / 132 yards
Mx-A-IRA-15	4047438030397	Infrared illuminator with 15° illumination angle (horizontal and vertical), aluminum housing • 860 nm • IP67 • Range: up to 160 m / 175 yards

### MxIRLight Mounting Brackets For M1x And M2x: Ordering Information

Order Number	EAN	Description
Mx-M-IRA-ML	4047438030403	Mounting brackets for the MOBOTIX M15/M16 AllroundDual cameras • Accessories for the MxIRLight Infrared Illuminator • Material: aluminum • Color: white
Mx-M-IRA-M	4047438030410	Mounting brackets for the MOBOTIX M25/M26 Allround cameras • Accessories for the MxIRLight Infrared Illuminator • Material: aluminum • Color: white