JI-114Z Ethernet switch PoE – 4 ports

The JI-114Z Ethernet switch serves as an easy and fast expansion of a local LAN network. It is equipped with four powerful PoE ports for data connection and powering JABLOTRON IP cameras with one cable. The switch supports networks with both 10 Mbps and 100 Mbps transmission speed. ***This product is compatible with JA-101K, JA-103K, JA-106K, JA-107K control panels.***

The switch should be installed by a trained technician with a valid certificate issued by an authorized distributor.

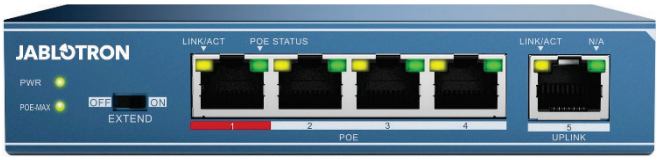


Figure 1: Ethernet switch PoE

Ethernet switch function

The ethernet switch allows you to connect network devices to a star structure and simultaneously connects them to another device, e.g. a router, see the figure below. The essential function of the PoE switch is to power individual cameras via a data cable. The advantage is easy connection without the need for separate power cables and power sources for individual devices. When using Cat-5e category LAN cables the length of the connection cable of each device can be up to 150 meters (10/100 Mbps). With the EXTEND switch located on the front panel of the ethernet switch you can boost the PoE power supply of each device to increase the maximum LAN cable length to up to 250 meters (10 Mbps).

"EXTEND" switch	Cable selection	Bit rate	Transmission distance with PoE (meters)
Off	No specification	100 Mbps	150
Off	No specification	10 Mbps	150
On	Cat-5e	100 Mbps	150
On	Cat-5e	10 Mbps	250

When using multiple cameras simultaneously streaming data to a server, the first port has the highest priority in case of data overload. Data from the device connected to the first port always have priority over other connected devices.

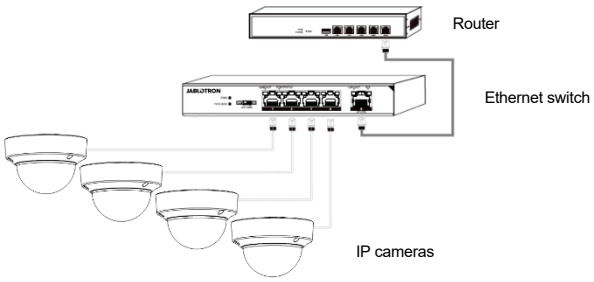


Figure 2: Ethernet switch connection diagram

Installation

The switch can be installed in two ways:

1. Fixed mounting onto a wall or other flat surface. This installation uses screws and perhaps wall plugs from the package.
2. Placing onto a flat surface. The device can be used without a fixed mounting, when the self-adhesive rubber foot pads from the package are used

Fixed mounting procedure:

For fixed installation choose a steady flat surface with enough space around the switch for easy access to connectors.

1. Select either self-cutting screws or screws for a wall plug, depending on the type of surface.
2. Mark points for the fixing screws, 93 mm apart.
3. When using the wall plugs pre-drill two holes with a diameter of 6 mm. When using the self-cutting screws, you can pre-drill holes with a diameter of 2 mm, depending on the type of surface.
4. Screw in the screws, but do not tighten them to the end, keep a gap of at least 2.5 mm between the screw head and the surface / wall plug.
5. Place the switch onto the mounting screws and slide it down to lock it in place.

Installation without fixed mounting:

The device can be used without fixed mounting. In such a case it is recommended to use the self-adhesive rubber foot pads from the package. Remove the protective foil from the rubber foot pads (4 pcs) and stick them to the marked points on the bottom of the switch.

Installation with grounding:

The device is equipped with a grounding terminal marked with a ground symbol. If there is a grounding bar available at the installation place (e.g. rack case) it is recommended to connect the switch to the ground by a grounding cable.

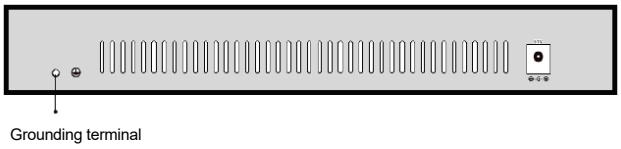


Figure 3. Rear panel of the switch with the grounding terminal

Caution:

If you attach the RJ-45 connector to the cable yourself, make sure the other end of the cable is not connected to any device. Connect the LAN cables to the switch last of all.

Description

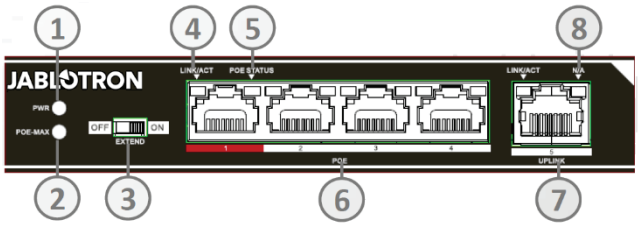


Figure 4: Front panel of the switch: ***1*** *– power supply indicator;* ***2*** *– PoE power supply overload indicator;* ***3*** *– "EXTEND" switch to boost the PoE power supply to increase the maximum LAN cable length;* ***4*** *– LAN device activity indicator;* ***5*** *– PoE power supply use indicator;* ***6*** *– RJ-45 connectors for IP cameras with PoE power supply;* ***7*** *– RJ-45 connector for router connection;* ***8*** *– no function*

Description of LED indicators:

LED	Status	Description
PWR (1)	ON	The device is connected to the power supply properly.
	OFF	The device is not connected to the power adapter or the power adapter is not connected to the electrical grid.
POE-MAX (2)	ON	The PoE power supply reports a close-to-overload status! The available output is less than 6 W.
	Flashing	PoE power supply has maximum load.
	OFF	The PoE power supply is working properly and the available output is more than 6 W.
LINK/ ACT (4)	ON	The corresponding port is connected properly.
	Flashing	The corresponding port is transmitting data.
	OFF	The corresponding port is not connected.
POE STATUS (5)	ON	The corresponding port is powering a camera up to 30 W.
	Flashing	The corresponding port is overloaded, consumption exceeds 30 W.
	OFF	The corresponding port does not use a PoE power supply.

Power supply

The ethernet switch requires a permanent power supply for functioning, it is provided by the supplied power adapter. The manufacturer does not allow you to use any other type of power supply.

Caution: The device cannot be backed up by a battery against a power outage, but an external backup UPS can be used to overcome a short outage.

LAN network connection

In order to transfer data from the connected cameras to the internet the Ethernet switch must be connected to the local network router. The length of this connection cannot exceed 100 meters.

Package content

- Ethernet switch
- Power adapter
- Self-adhesive rubber foot pads – 4 pcs
- Wall plugs for mounting on a wall – 2 pcs
- Self-cutting screws 15 mm – 2 pcs

JABLOTRON a.s.
Pod Skalkou 4567/33 | 46601 | Jablonec n. Nisou
Czech Republic | www.jablotron.com

JI-114Z Ethernet switch PoE – 4 ports

Technical specifications

Power (power adapter from 230 V AC)	*48 V DC*
Maximum current consumption	*1.25 A*
Communication interface	*5x RJ-45 10/100 Mbps Ethernet*
PoE ports	*4*
High priority ports	*Port 1*
Maximum load per port	*30 W*
Total maximum load	*58 W*
PoE standard	*IEEE 802.3af, IEEE 802.3at*
Maximum cable length – CAT-5e category cable with PoE:	
EXTEND mode OFF (10/100 Mbps)	*150 m*
EXTEND mode ON (10 Mbps)	*250 m*
Transmission speed:	
Ethernet	*10 Mbps (Half Duplex) / 20 Mbps (Full Duplex)*
Fast Ethernet	*100 Mbps (Half Duplex) / 200 Mbps (Full Duplex)*
Transmission medium	
Ethernet	*Cat. 3 or better UTP/STP*
Fast Ethernet	*Cat. 5 or better UTP/STP*
Switching capacity	*1 Gbps*
Average operational humidity	*75% RH, non-condensation*
Operational temperature range	*0 °C to +40 °C*
Storage temperature range	*-40 °C to +70 °C*
Ingress protection	*IP20*
Dimensions, weight	*132 x 28 x 94 mm, 300 g*
Complies with	*EN 55032, EN 50130-4, EN IEC 63000, EN IEC 62368-1, EN 55035, EN IEC 61000-3-2, -3-3*

Hangzhou Hikvision Digital Technology Co., Ltd hereby declares that the JI-114Z is designed and manufactured in compliance with the relevant European Union harmonisation legislation: Directives No: 2014/30/EU and 2011/65/EU, when used as intended. The original of the conformity assessment can be found at www.jablotron.cz –*Downloads* section.

Importer: JABLOTRON a. s., Pod Skalkou 4567/33, 466 01, Jablonec nad Nisou

Note: Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling. Please return the product to the dealer or contact your local authority for further details of your nearest designated collection point.