



Quick Start Guide  
Baumer GigE network components for Power over Ethernet

Vision Technologies  
Sensor Solutions  
Motion Control

Product Specification Baumer GigE network components for PoE

All Baumer GigE network components are designed to meet industrial standards with an operation voltage between 24 and 48 volts as well as DIN rail mounting.

GigE Power Injector

The injector is designed to supply operating voltages for up to two independent PoE cameras. It provides 2 lines, each with a PC port and a camera port. The injector has no further function than providing power to PoE cameras, which occurs absolutely transparent.

GigE Power Switches

The new Power Switches are available in different variations. The 4-port switch allows you to connect up to 3 cameras. All ports are able to handle standard GigE cameras as well as PoE cameras. A clever technique automatically identifies which type of camera is connected to each port and delivers power only if requested by the camera. The expanded 6-port switch is even more flexible and provides two more ports where the last port is realized as a SFP port. This universal port is able to provide an interface for a standard copper connection or a fiber optic interface to realize set-ups in harsh environments or to communicate over longer distances.



PoE Power Supply

- Standard PoE devices need to be supplied with 48V.
- Baumer PoE cameras can be supplied with 24 to 48 V.
- Please pay attention to the manufacturers data sheet.



Electromagnetic Compatibility

Please make sure, in case of a single end grounding of the power supply the camera must be connected to the chassis of the machine which has to be grounded.

Technical Data Baumer GigE network components for PoE

Power over Ethernet

Power supply	24 - 48 V DC, according to IEEE 802.3
Supported Powered Devices	Class 0 (on 48V PoE)
Feeding (per port)	up to 15,4 W
Protective Functions	Protection against polarity reversal Disconnection of powered devices on <ul style="list-style-type: none"><li>Overload</li><li>Overtemperature</li></ul>

GigE Power Injector

Housing	IP20, plastic
Media Interface	transparent for transferrate up to 1000 Mbit/sec

GigE Power Switch / GigE Power Switch Extended

Housing	IP20, plastic
Media Interface	1000base-T, 100base-TX, 10base-T
Features	Auto-Negotiation, Auto-Crossover, Jumboframes up to 10 kBytes
max. Reach (Ethernet)	100 m per port
max. Reach (Fiber Optic)	up to 10 km

LED<sup>1)</sup> Signaling Baumer GigE network components for PoE



Power PoE



Power Switch



Link / Activity SFP



Power over Ethernet



Ethernet Link

Device Type	Power PoE	Power Switch	Link / Activity SFP	Power over Ethernet	Ethernet Link
Injector	■	□	□	■	□
Switch	■	■	□	■	■
Switch Extended	■	■	■	■	■

LED Signal	Power PoE	Power Switch	Link / Activity SFP	Power over Ethernet	Ethernet Link
ON	operating voltage for PoE OK	operating voltage for switch OK	network device detected	PD detected, classification correct	network device detected
Flashing	□	□	data transfer	error detected	data transfer
OFF	no operating voltage for PoE	no operating voltage for switch	no network device detected	no PD detected	no network device detected

1) LED position on backside

Applicable SFP Modules Switch Extended

The following SFP modules are tested and declared as 100% compatible, but just should serve as examples:

SFP Module Type	Copper		Fiber Optic		Fiber Optic	
Examples SFP Module	▪ Hi-Optel HTSFP-24-1112F Order-Number: OD108783		▪ Coretek CT-1250TSP-MB4L Order Number: OD108785		▪ Coretek CT-1250NSP-SB1L Order Number: OD108784	
Media Interface	1000base-T		1000base-SX		1000base-LX	
Wiring	Cable Type	max. Reach	Cable Type	max. Reach	Cable Type	max. Reach
	Cat-6	100 m	50 / 125 µm Multi Mode Fiber	500 m	9 / 125 µm Single Mode Fiber	10 km
	Connector Type					
	8P8C		LC		LC	



The applicable fiber optic SFP modules are **Class 1 laser devices**.

- Avoid direct eye exposure to the beam coming from the SFP module or the fiber optic cable.
- Please pay attention to the safety instruction given in the manufacturers manuals.



Conformity:  
CE, FCC Part 15 Class A, RoHS



FCC – Class A device

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Environmental requirements

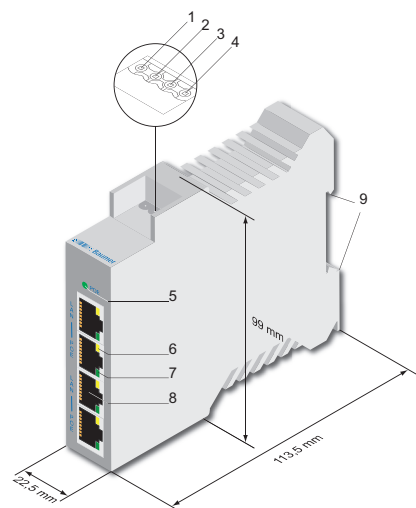
Storage temp.	-10°C ... +70°C
Operating temp.	+5°C ... +55°C
Humidity	10 % ... 90 % Non-condensing

Further Information

For further information on our products visit [www.baumer.com](http://www.baumer.com)  
For technical issues, please contact our technical support:  
[support@baumeroptronic.com](mailto:support@baumeroptronic.com) · Phone +49 (0)3528 4386-0 · Fax +49 (0)3528 4386-86  
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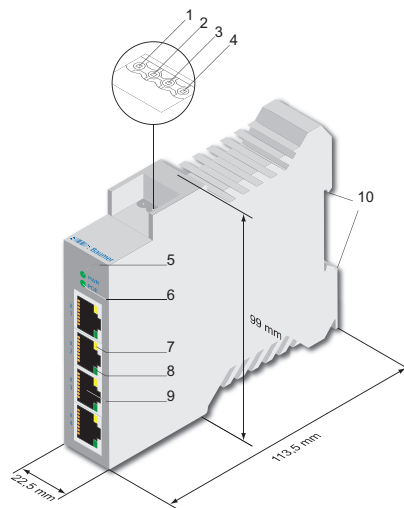




1	Not connected
2	Not connected
3	24 - 48 V (PoE)
4	GND (PoE)
5	Power PoE
6	Power over Ethernet
7	No function
8	8P8C Jack
9	Clamp for DIN Rail (with Functional Earth)

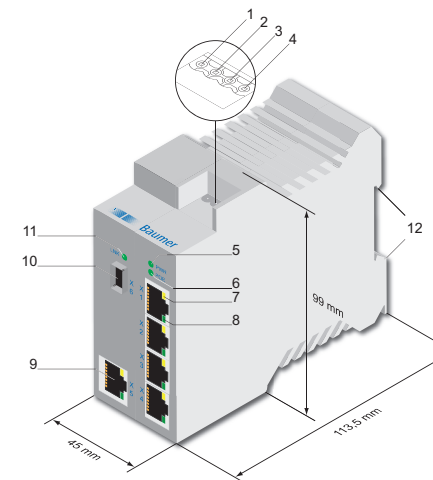
X1	PC (Data)
X2	Camera (PoE + Data)
X3	PC (Data)
X4	Camera (PoE + Data)

Order number: OD108589



1	24 - 48 V (Switch)
2	GND (Switch)
3	24 - 48 V (PoE)
4	GND (PoE)
5	Power Switch
6	Power PoE
7	Power over Ethernet
8	Ethernet Link
9	8P8C Jack
10	Clamp for DIN Rail (with Functional Earth)

Order number: OD108591



1	24 - 48 V (Switch)
2	GND (Switch)
3	24 - 48 V (PoE)
4	GND (PoE)
5	Power Switch
6	Power PoE
7	Power over Ethernet
8	Ethernet Link
9	8P8C Jack
10	SFP Port
11	Link / Activity (SFP)
12	Clamp for DIN Rail (with Functional Earth)

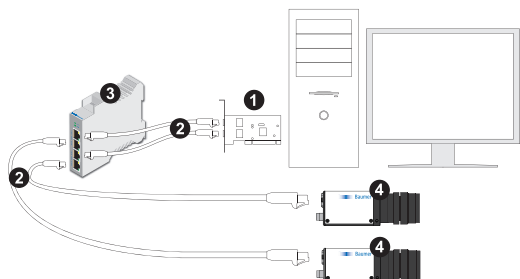
Order number: OD108590

- Connect the injector according to section "Connectors and Dimensions" to the power supply

**Connection scheme for 8P8C jacks**

- Please pay attention to the fact that the PoE injection occurs each between: **X1 and X2** respectively **X3 and X4**

- Establish the connection between the injector and the GigE board on your PC using an appropriate Ethernet cable (at least Cat-6)
- Connect the PoE devices (such as Baumer PoE cameras) to the injector using also at least Cat-6 Ethernet cable



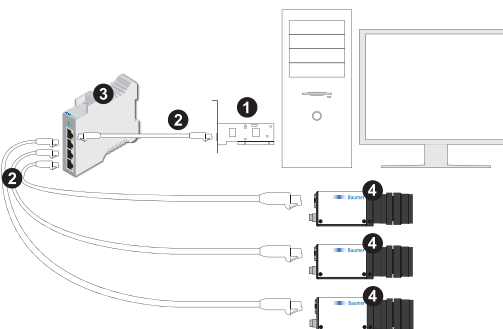
Installation sample  
1 - PCI board (NIC);  
2 - GigE cable;  
3 - Baumer PoE Injector;  
4 - Baumer PoE Camera

- Connect the switch according to section "Connectors and Dimensions" to the power supply

**Connection scheme for 8P8C jacks**

- All ports of the switch are equal and their wiring is arbitrary.

- Establish the connection between the switch and the GigE board on your PC using an appropriate Ethernet cable (at least Cat-6, max. cable length: 100 m)
- Connect the PoE devices (such as Baumer PoE cameras) to the switch using also at least Cat-6 Ethernet cable (max. cable length: 100 m)



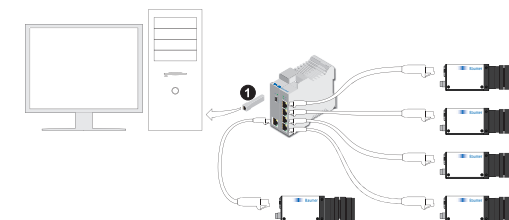
Installation sample  
1 - PCI board (NIC);  
2 - GigE cable;  
3 - Baumer PoE Switch;  
4 - Baumer PoE Camera

- Connect the switch according to section "Connectors and Dimensions" to the power supply

**Connection scheme for 8P8C jacks**

- All ports of the switch are equal and their wiring is arbitrary.

- Establish the connection between the switch and the GigE board on your PC according to section "Installation Switch" or use a SFP module (copper or LWL)
- Connect the PoE devices (such as Baumer PoE cameras) to the switch using also at least Cat-6 Ethernet cable (max. cable length: 100 m)
- The SFP port does not provide Power over Ethernet. The figure below displays an installation sample, the purpose of the SFP is not only for the connection to a PC, but can be used for any non-PoE device.



Installation sample  
1 - SFP module (Copper or LWL)