



## Power over Gigabit Ethernet

Single-cable cameras improve industrial vision applications

Vision Technologies  
Sensor Solutions  
Motion Control

# Striking a new path with cost-effective vision solutions using PoE

## Benefits

- Single-cable solution for GigE
- Reduce installation and maintenance costs
- Simplify your set-up
- Easy integration using Baumer network components
- Versatility of camera models available

## Simplicity with PoE

Baumer makes industrial vision applications our specialty and introduces a new series of cameras specifically designed to provide the first single-cable implementation of Gigabit Ethernet. Typically Gigabit Ethernet cameras need a separate cable for the power supply in addition to the data cable. Thanks to the new Power over Gigabit Ethernet (PoE) technology, Baumer can offer a single-cable solution for the TXG series, combining the data and power onto a single Ethernet cable. These new cameras use PoE technology to simplify the mechanical design and to increase the reliability of a vision system while simultaneously reducing the cost of

installation and maintenance. These advantages, combined with the extended GigE cable length of up to 100 m, enable new and exciting approaches to solving industrial vision applications. To rectify the lack of appropriate industrial network components, Baumer has developed their own solutions. For example, the new Power Injectors and Power Switches simplify the integration of GigE and PoE cameras onto industrial networks. These units are designed to meet industrial standards with an operation voltage between 24 and 48 volts as well as DIN rail mounting.



## Reduced installation and maintenance costs

The economics or return on investment of industrial image processing systems are very sensitive to installation and maintenance costs. Compared with the typical Gigabit Ethernet cameras, the new PoE cameras use less cabling, thereby improving the mechanical design, increasing the reliability and reducing the weight of a vision system. To take full advantage of PoE technology, Baumer offers the most advanced, specially engineered PoE network components, providing our customers a single source solution. Bottom line, using Baumer PoE technologies simplifies your set-up and saves you money.



## Applications

- Automated Handling & Robotics
- Industrial image processing
- Logistics
- Traffic systems

**Baumer**  
**PoE**

**GIG**<sup>™</sup>  
**VISION**

**GEN<i>i</i>CAM**

# Industrial cameras and networking components – all from one source

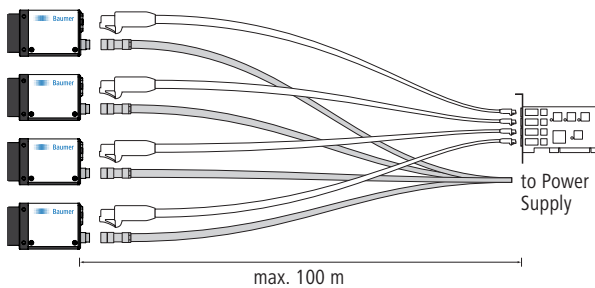


## Advanced industrial network components

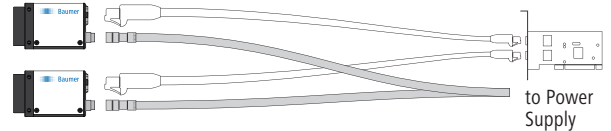
The Baumer GigE Power Switch is available in two variations. The 4-port switch allows you to connect up to 3 cameras. All ports handle standard GigE cameras as well as PoE cameras. A clever technique automatically identifies which type of camera is connected to each port and delivers power only if requested by the camera. The extended 6-port switch provides two more ports where the last port can be used as a standard copper port or as a SFP-compatible fiber optic port to realize set-ups in harsh environments or to communicate over longer distances. In addition to switches, Baumer also provides Power Injectors that supply operating voltages for up to two independent PoE cameras at one time.

## Innovations made by Baumer – designed to keep you one step ahead

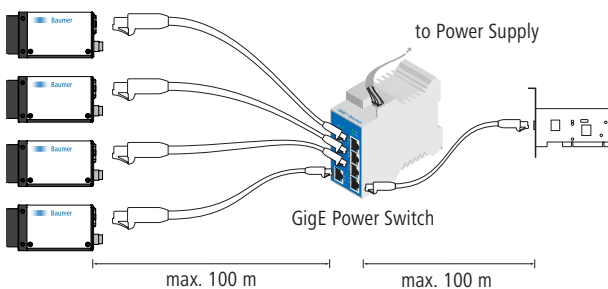
### Simplify your set-up



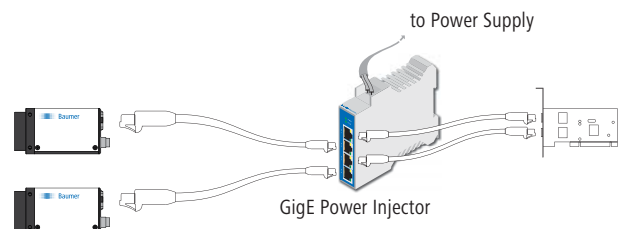
Traditional configuration



Traditional configuration



Improved GigE Power Switch configuration



Improved GigE Power Injector configuration

# Baumer PoE cameras and accessories

## Excellent camera specifications

All Baumer PoE cameras are based on state-of-the-art Sony CCD sensors with frame rates up to 90 frames per second and resolutions from VGA to 5 megapixel. The compact and robust housing design with dimensions of 36 x 36 x 58 mm<sup>3</sup> is equipped with a trigger and flash interface. Additionally, Baumer offers an IP67-rated enclosure for demanding applications in harsh environments.

Advanced features:

True Partial Scan, Binning, Command Trigger, Trigger Delay, Debouncer



## For every task, the right camera

Camera model	Sensor format CCD	Sensor type	Resolution [pixel]	Pixel size [µm]	Full frames [max. fps]
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### Monochrome

TXG03-P	1/3"	SONY ICX424	656 x 494	7.4 x 7.4	90
TXG04-P	1/2"	SONY ICX414	656 x 494	9.9 x 9.9	57
TXG06-P	1/2"	SONY ICX415	776 x 582	8.3 x 8.3	64
TXG08-P	1/3"	SONY ICX204	1032 x 776	4.65 x 4.65	28
TXG13-P	1/2"	SONY ICX267	1392 x 1040	4.65 x 4.65	20
TXG14-P	2/3"	SONY ICX285	1392 x 1040	6.45 x 6.45	20
TXG14f-P	2/3"	SONY ICX285	1392 x 1040	6.45 x 6.45	30
TXG20-P	1/1.8"	SONY ICX274	1624 x 1236	4.4 x 4.4	16
TXG50-P	2/3"	SONY ICX625	2448 x 2050	3.45 x 3.45	15

### Color

TXG03c-P	1/3"	SONY ICX424	656 x 490	7.4 x 7.4	90
TXG06c-P	1/2"	SONY ICX415	776 x 578	8.3 x 8.3	64
TXG08c-P	1/3"	SONY ICX204	1032 x 772	4.65 x 4.65	28
TXG13c-P	1/2"	SONY ICX267	1384 x 1036	4.65 x 4.65	20
TXG14c-P	2/3"	SONY ICX285	1384 x 1036	6.45 x 6.45	20
TXG20c-P	1/1.8"	SONY ICX274	1624 x 1232	4.4 x 4.4	16
TXG50c-P	2/3"	SONY ICX625	2448 x 2050	3.45 x 3.45	15

## For every camera, the right network components

Network component model	Ports	Power supply	Feeding (per port)	Media interface	Dimensions [mm]
GigE Power Injector	4x 8P8C Jack <sup>1)</sup>	24 - 48 V	14.5 W	transfer rate up to 1000 Mbit/sec	22.5 x 113.5 x 99
GigE Power Switch	4x 8P8C Jack <sup>1)</sup>	24 - 48 V	14.5 W	1000base-T, 100base-TX, 10base-T	22.5 x 113.5 x 99
GigE Power Switch Extended	5x 8P8C Jack <sup>1)</sup> 1x SFP	24 - 48 V	14.5 W	1000base-T, 100base-TX, 10base-T	45 x 113.5 x 99

<sup>1)</sup> supporting Power over Ethernet (PoE)

Are you feeling inspired?

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**Baumer**

