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The most compact 25GigE industrial camera – with RDMA and GigE Vision 3.0

Fanless, energy-efficient and ultra-fast with over 100 fps at 24.6 MP



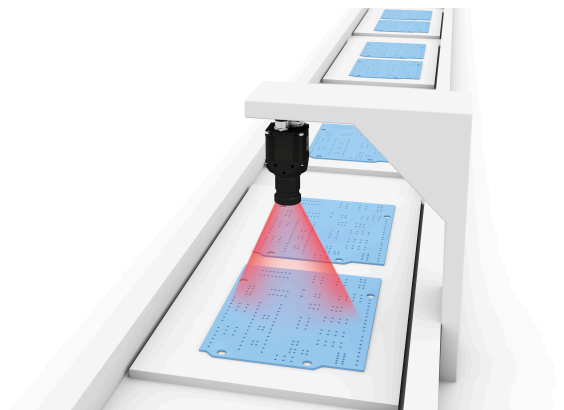
With the new BVS CA-GW camera family, Balluff is launching the most compact 25GigE industrial camera currently available on the market. This family was developed specifically for demanding industrial applications and combines the highest image quality with ultra-fast data transmission – ideal for use in industrial automation, logistics, packaging and pharmaceutical industries, measurement technology and the semiconductor industry.

Maximum performance in the smallest space – with 25GigE, RDMA and RoCEv2

The cameras in the BVS CA-GW family feature a compact design with a front surface area of only 40 × 40 mm and enable frame rates of over 100 frames per second at a resolution of 24.6 megapixels with a maximum power consumption of only 12 watts at 12 V.

They use the latest Pregius S sensors from Sony's 2.7 series with resolutions from 5.1 to 24.6 MP, including the new IMX901 and IMX902 sensors with aspect ratios of 4:1 and 3:1 respectively. You can find an overview of our entire sensor selection [here](#).

A technological highlight is the integration of RDMA (Remote Direct Memory Access) technology, which allows direct data transfer to the host computer's RAM – without burdening the CPU and with minimal latency. This is achieved via the RoCEv2 protocol, which is part of the new GigE Vision 3.0 standard. Data is transferred via fibre optic cables with SFP28 transceiver; alternatively, a version with copper connection (10GigE) is also available.



Versatile sensor options and easy integration thanks to GigE Vision 3.0

Around 20 sensor variants are available at the start of series production, including monochrome, colour and UV sensors. The cameras are fully compatible with the new GigE Vision 3.0 standard, which enables easy implementation in existing systems. The in-house [Machine Vision Software Impact Acquire](#) ensures smooth image capture and full compatibility with common computer platforms.

For connecting external components such as encoders, liquid lenses or flash controllers, the series offers digital inputs and outputs, two GPIOs, an RS232 interface and a software-switchable input (5 or 24 VDC, TTL or PLC signal). The modular design also allows for customer-specific adaptations – such as special filters, extended temperature ranges, frozen firmware versions or production under clean room conditions. Discover our [Custom Design & Engineering \(CDE\)](#) division for individual, tailor-made solutions.

Special features

- ✓ Latest GigE Vision 3.0 standard with RDMA technology to reduce CPU load.
- ✓ Extremely small design with a front surface area of only 40 × 40 mm.
- ✓ Maximum power consumption 12 watts at 12V
- ✓ SFP28 fibre optic technology offers a cost-effective and long-range connection.
- ✓ The latest Pregius S sensors from Sony ensure maximum image quality and flexibility.
- ✓ Lens connection with C-mount and TFL mount (especially for IMX901 sensor).



More: <https://www.balluff.com/en-nz/products/BVS%20CA-GW1>



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