

Smart 3D camera family for stationary and mobile robot applications

EASY AND FLEXIBLE USE OF 3D MACHINE VISION

Low system costs, quick implementation, and a high degree of flexibility in use. This is what the 3D product family of smart 3D cameras promises. With an integrated processor and application-specific software modules on the camera, the smart 3D camera provides independently operating 3D machine vision and can therefore also be used very easily as a 3D stereo sensor. Processed 3D information such as pick points are forwarded from the smart 3D camera directly to the robot application.

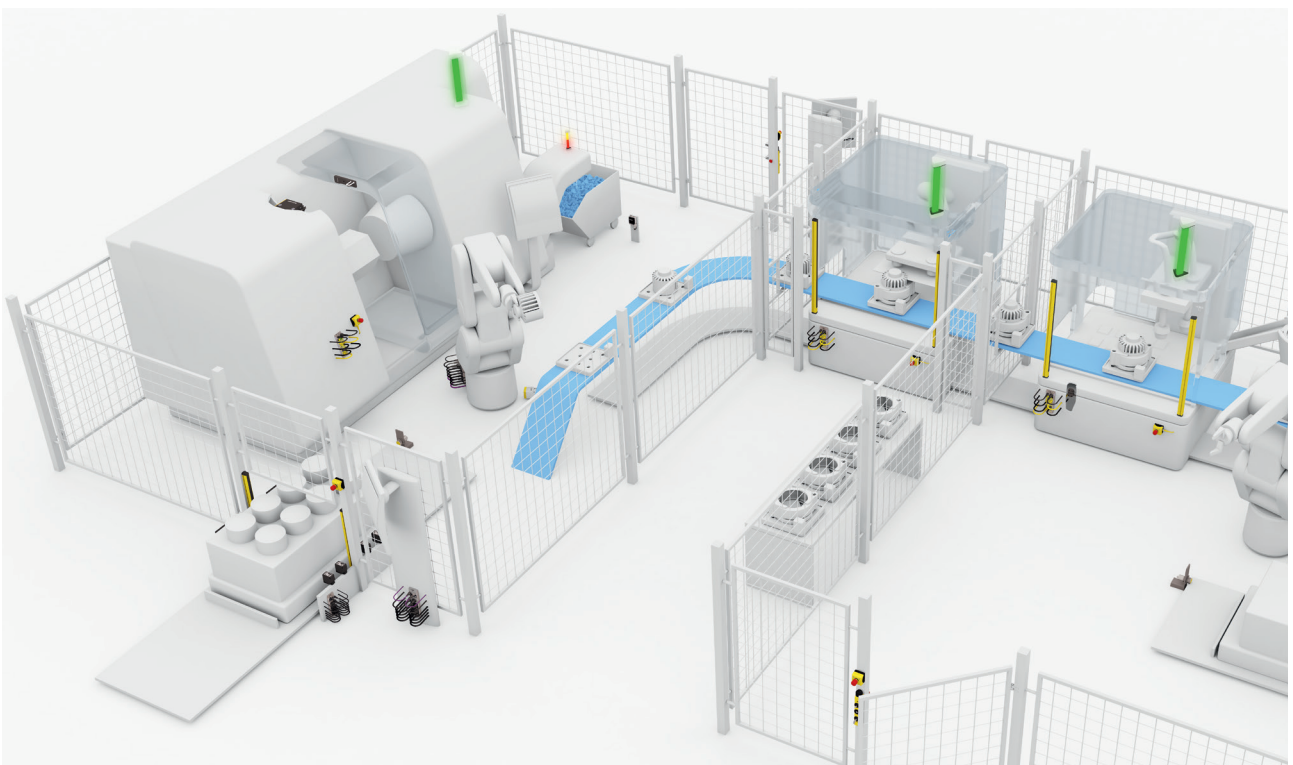
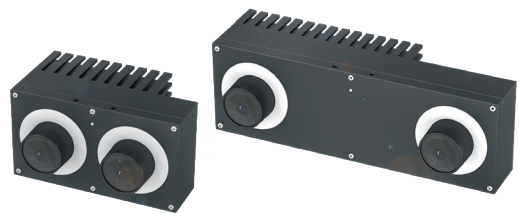
It is configured via a user-friendly web-based user interface. The connection to a PC for further processing of the data is also possible. Via the GigE Vision interface individual 3D applications can be created based on the camera data.

The camera models measure up to 1.2 million 3D data points and achieve frame rates of up to 25 Hz depending on the resolution. Various robot interfaces are already integrated for communication between robot and camera.

Features

- Quick implementation and easy to use thanks to user-friendly web-based user interface
- High application flexibility thanks to optional software modules and GigE Vision interface
- Low system costs and high system reliability with on-board processing and application-specific software modules
- Increased productivity thanks to smart software modules

CE
FC



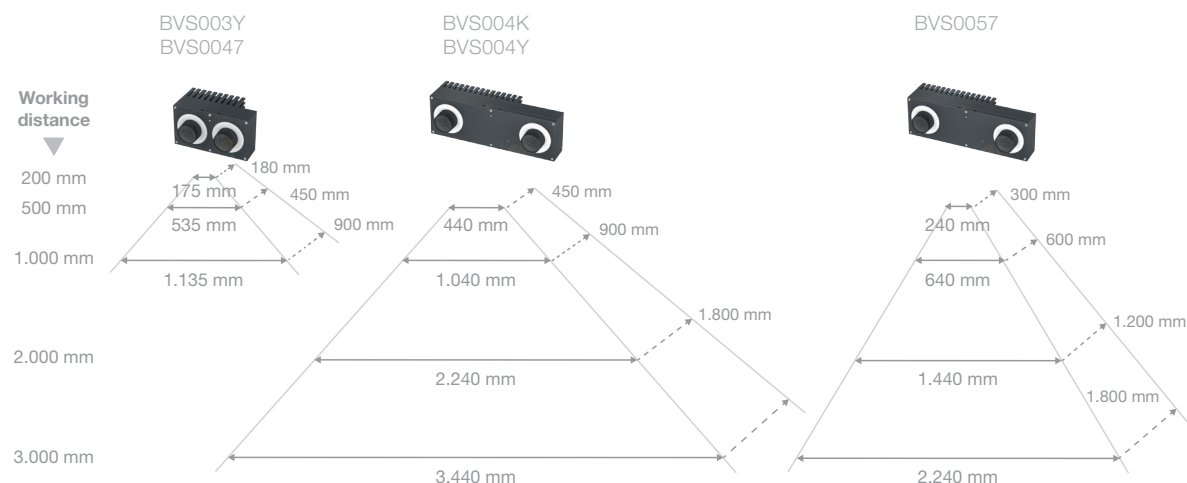
Smart 3D camera family with integrated processor and user-friendly user interface for stationary and mobile robot applications

SMART
3D CAMERA
FAMILY
BVS 3D-RV0



	BVS003Y	BVS0047	BVS004K	BVS004Y	BVS0057
2D codes	QR code, AprilTag	QR code, AprilTag	QR code, AprilTag	QR code, AprilTag	QR code, AprilTag
Application	Bin picking, object detection, gripping point calculation	Bin picking, object detection, gripping point calculation	Bin picking, object detection, gripping point calculation	Bin picking, object detection, gripping point calculation	Bin picking, object detection, gripping point calculation
Image resolution	1.2 MP (1280 × 960 pixels)	1.2 MP (1280 × 960 pixels)	1.2 MP (1280 × 960 pixels)	1.2 MP (1280 × 960 pixels)	1.2 MP (1280 × 960 pixels)
Sensor type Vision	CMOS 1/3" color global shutter	CMOS 1/3" mono-chrome global shutter	CMOS 1/3" mono-chrome global shutter	CMOS 1/3" color global shutter	CMOS 1/3" mono-chrome global shutter
Focal length	4 mm	4 mm	4 mm	4 mm	6 mm
Housing material	Aluminium, painted	Aluminium, painted	Aluminium, painted	Aluminium, painted	Aluminium, painted
Dimension	135 × 75 × 96 mm	135 × 75 × 96 mm	230 × 75 × 84 mm	230 × 75 × 84 mm	230 × 75 × 84 mm
Interface	LAN (Gigabit Ethernet) GigE Vision 2.0 TCP/UDP	LAN (Gigabit Ethernet) GigE Vision 2.0 TCP/UDP	LAN (Gigabit Ethernet) GigE Vision 2.0 TCP/UDP	LAN (Gigabit Ethernet) GigE Vision 2.0 TCP/UDP	LAN (Gigabit Ethernet) GigE Vision 2.0 TCP/UDP
Connection 1	M12 male, 8-pin, A-coded	M12 male, 8-pin, A-coded	M12 male, 8-pin, A-coded	M12 male, 8-pin, A-coded	M12 male, 8-pin, A-coded
Connection 2	M12 female, 8-pin, A-coded	M12 female, 8-pin, A-coded	M12 female, 8-pin, A-coded	M12 female, 8-pin, A-coded	M12 female, 8-pin, A-coded
Operating voltage U _B	18...30 V DC	18...30 V DC	18...30 V DC	18...30 V DC	18...30 V DC
Ambient temperature	0...+50 °C	0...+50 °C	0...+50 °C	0...+50 °C	0...+50 °C
IP rating	IP54	IP54	IP54	IP54	IP54

WORKING RANGE



OUTPUT DATA

- Processed 3D information: grasp points, object dimensions, load carrier position, load carrier fill level
- Camera data via GigE Vision: left and right camera image, depth image (disparity image), confidence image, error image