

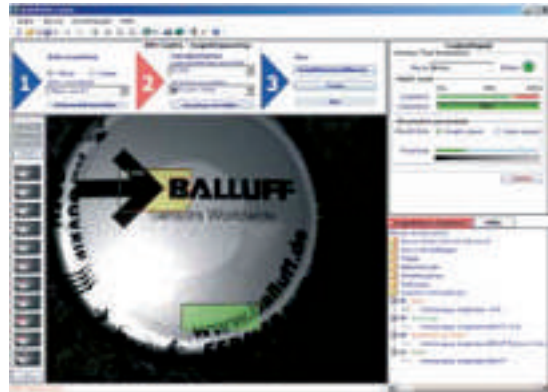
Vision Sensors BVS-E Standard

For increased quality and productivity

VISIONSENSOR

Inspect and monitor your production process with the BVS-E Standard. Choose the correct tool for your application from a large selection and set up your inspection. You can replace several sensors with a combination of tools. If different components are used, activate the relevant inspection via the PLC control to allow production to continue seamlessly without requiring a teach-in/setup process.

- Simple operation
- Convenient setup
- Reliable evaluation
- Extensive range of accessories
- Function module for PLC available



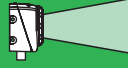
Software version 1.2

- 20 inspection memory cells
- Free rotation of tools
- Zoom function
- Existing sensors updated at no extra cost
- Seven independent tools



Vision Sensors BVS-E Standard

For increased quality and productivity



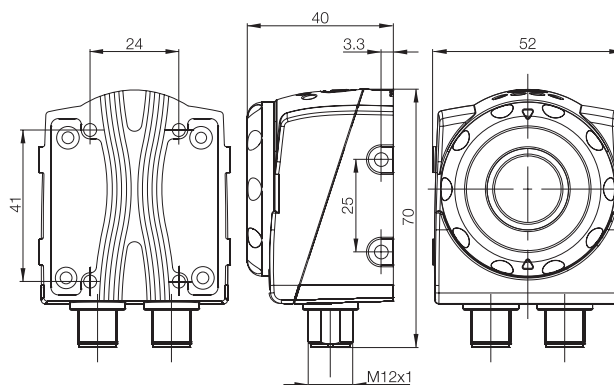
BVS-E Standard
 BVS-E Advanced
 BVS-C with configurator
 BVS-E Identification
 BVS starter kits

Series	Vision sensor		Vision sensor		Vision sensor	
Style	BVS-E Standard		BVS-E Standard		BVS-E Standard	
Lens, focal length	Wide-angle lens, 6 mm		Standard lens, 8 mm		Telephoto lens, 12 mm	
PNP	Ordering code	BVS000E	BVS0003	BVS0005	BVS0005	BVS0005
	Part number	BVS OI-3-005-E	BVS OI-3-001-E	BVS OI-3-003-E	BVS OI-3-003-E	BVS OI-3-003-E
NPN	Ordering code	BVS000C	BVS0004	BVS0006	BVS0006	BVS0006
	Part number	BVS OI-3-006-E	BVS OI-3-002-E	BVS OI-3-004-E	BVS OI-3-004-E	BVS OI-3-004-E
Supply voltage U_b	24 V DC $\pm 10\%$		24 V DC $\pm 10\%$		24 V DC $\pm 10\%$	
Switching inputs	1x Trigger, 1x Select		1x Trigger, 1x Select		1x Trigger, 1x Select	
Switching outputs	1x lighting synchron. or PNP, 3x PNP or NPN configurable		1x lighting synchron. or PNP, 3x PNP or NPN configurable		1x lighting synchron. or PNP, 3x PNP or NPN configurable	
Rated operating current I_e	100 mA		100 mA		100 mA	
Configuration interface	Ethernet 10/100 Base T		Ethernet 10/100 Base T		Ethernet 10/100 Base T	
Parameter configuration	ConVis for Windows		ConVis for Windows		ConVis for Windows	
Typ. detection rate	3...15 Hz (depending on evaluation function)		3...15 Hz (depending on evaluation function)		3...15 Hz (depending on evaluation function)	
Image sensor	CMOS-SW-VGA 640x480		CMOS-SW-VGA 640x480		CMOS-SW-VGA 640x480	
Working range	50...1000 mm		50...1000 mm		50...1000 mm	
Working distance, Field of view (horizontalxvertical)	50 mm, 42x30 mm	1000 mm, 640x480 mm	50 mm, 25x20 mm	1000 mm, 460x380 mm	50 mm, 17x12 mm	1000 mm, 320x210 mm
Lighting	LED, incident light (red), deselectable		LED, incident light (red), deselectable		LED, incident light (red), deselectable	
Eye safety per IEC 62471	Exempt group		Exempt group		Exempt group	
Dimensions	58x52x40 mm		58x52x40 mm		58x52x40 mm	
Connection	2 connectors M12 (8- and 4-pin)		2 connectors M12 (8- and 4-pin)		2 connectors M12 (8- and 4-pin)	
Degree of protection per IEC 60529	IP 54		IP 54		IP 54	
Ambient temperature range T_a	-10...+55 °C		-10...+55 °C		-10...+55 °C	

Refer to the chapter "Basic Information and Definitions" on page 15 for optical and electrical information.

To define the field of view and working distance, use the distance calculator at:

www.balluff.com/vision



EPLAN macros – Electrical project planning made easy. Also for the BVS!



Description	Starter kit
Version	for BVS-E Standard
Ordering code	BVS000A
Part number	BVS Z-SK-OI-01
Contents	Vision Sensor, mounting bracket, installation accessories, connector, software and quick guide

Lights, connectors and mounting components, see chapter "Accessories", on page 37



Vision Sensors BVS-E Advanced

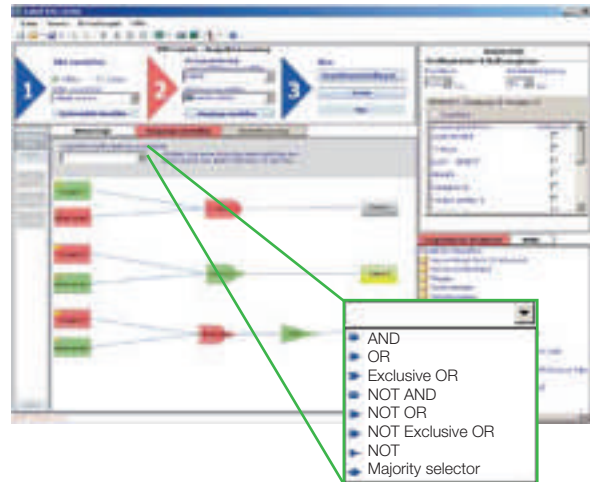
360° detection for optimized process control

VISIONSENSOR

In addition to the standard functions of the BVS-E, the advanced vision sensor also monitors the rotational position. It can detect objects regardless of the location and position. Production can be monitored more efficiently through shorter process times and the option of using logical functions to combine individual checks.

- 360° position tracking
- Faster processor reduces process times
- Features linked by logical functions
- Extensive range of accessories
- Function module for PLC available

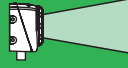
Logical connections



360°

Vision Sensors BVS-E Advanced

360° detection for optimized process control



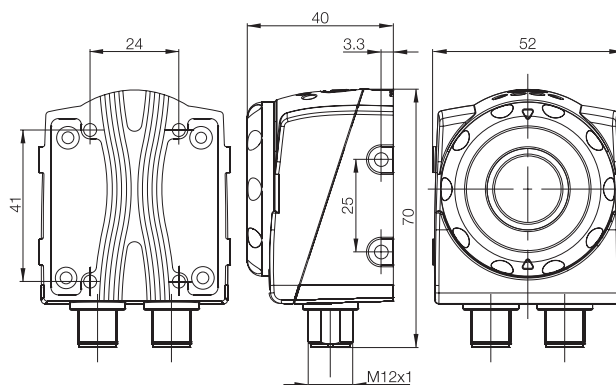
BVS-E Standard
BVS-E Advanced
 BVS-C with configurator
 BVS-E Identification
 BVS starter kits

Series	Vision sensor		Vision sensor	Vision sensor
Style	BVS-E Advanced		BVS-E Advanced	BVS-E Advanced
Lens, focal length	Wide-angle lens, 6 mm		Standard lens, 8 mm	Telephoto lens, 12 mm
PNP	Ordering code	BVS000L	BVS000J	BVS000K
	Part number	BVS OI-3-055-E	BVS OI-3-051-E	BVS OI-3-053-E
NPN	Ordering code	BVS000R	BVS000P	BVS000N
	Part number	BVS OI-3-056-E	BVS OI-3-052-E	BVS OI-3-054-E
Supply voltage U_b	24 V DC $\pm 10\%$		24 V DC $\pm 10\%$	24 V DC $\pm 10\%$
Switching inputs	1x Trigger, 1x Select		1x Trigger, 1x Select	1x Trigger, 1x Select
Switching outputs	1x lighting synchron. or PNP, 3x PNP or NPN configurable		1x lighting synchron. or PNP, 3x PNP or NPN configurable	1x lighting synchron. or PNP, 3x PNP or NPN configurable
Rated operating current I_e	100 mA		100 mA	100 mA
Configuration interface	Ethernet 10/100 Base T		Ethernet 10/100 Base T	Ethernet 10/100 Base T
Parameter configuration	ConVis for Windows		ConVis for Windows	ConVis for Windows
Typ. detection rate	3...50 Hz (depending on evaluation function)		3...50 Hz (depending on evaluation function)	3...50 Hz (depending on evaluation function)
Image sensor	CMOS-SW-VGA 640x480		CMOS-SW-VGA 640x480	CMOS-SW-VGA 640x480
Working range	50...1000 mm		50...1000 mm	50...1000 mm
Working distance, Field of view (horizontalxvertical)	50 mm, 42x30 mm	1000 mm, 640x480 mm	50 mm, 25x20 mm	1000 mm, 460x380 mm
			50 mm, 17x12 mm	1000 mm, 320x210 mm
Lighting	LED, incident light (red), deselectable		LED, incident light (red), deselectable	LED, incident light (red), deselectable
Eye safety per IEC 62471	Exempt group		Exempt group	Exempt group
Dimensions	58x52x40 mm		58x52x40 mm	58x52x40 mm
Connection	2 connectors M12 (8- and 4-pin)		2 connectors M12 (8- and 4-pin)	2 connectors M12 (8- and 4-pin)
Degree of protection per IEC 60529	IP 54		IP 54	IP 54
Ambient temperature range T_a	-10...+55 °C		-10...+55 °C	-10...+55 °C

Refer to the chapter "Basic Information and Definitions" on page 15 for optical and electrical information.

To define the field of view and working distance, use the distance calculator at:

www.balluff.com/vision



EPLAN macros – Electrical project planning made easy. Also for the BVS!



Description	Starter kit
Version	for BVS-E Advanced
Ordering code	BVS000M
Part number	BVS Z-SK-OI-03
Contents	Vision Sensor, mounting bracket, installation accessories, connector, software and quick guide

Lights, connectors and mounting components, see chapter "Accessories", on page 37

