


# VISOR® V10 Object AI, Advanced, wide field of view

Vision sensor for object detection, presence and completeness checking, Position control and measurement tasks with robust AI technology for easy set-up



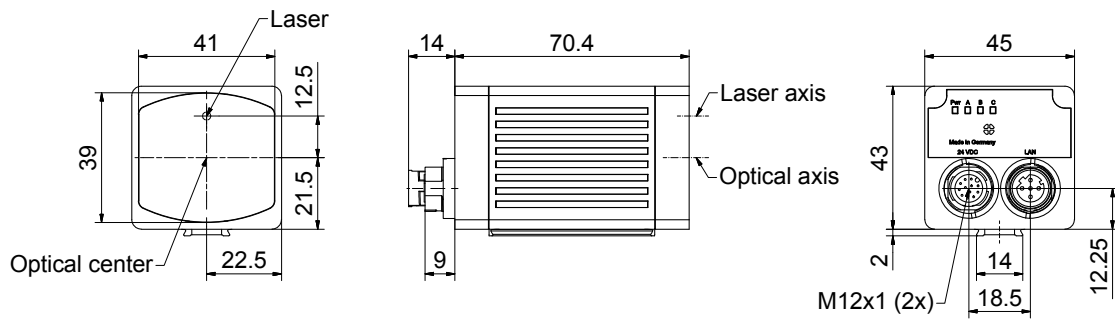
## PRODUCT HIGHLIGHTS

- All function of the VISOR® Object Advanced
- "Classification (AI)" detector for user-friendly, robust classification and inspection tasks

Optical data		Functions	
Resolution	800 x 600 pixels	Number of jobs / detectors	Max. 255 / max. 255
Imaging chip CMOS	1/3.6", monochrome / color	Detectors	Position tracking: X/Y and orientation;
Integrated lens, focal length [mm]	5.2 (wide)		<b>Pattern matching, contour:</b> teach-in and detection of patterns and contours;
Pixel size	4.8 µm x 4.8 µm		<b>Calliper:</b> distance between edges;
Focus	Motorized		<b>BLOB, grey threshold, brightness:</b> evaluation of brightness;
Adjustment range	0 mm to infinity		<b>Contrast:</b> evaluation of contrast;
Integrated illumination	White (5000 K), red (635 nm) <sup>1</sup> , infrared (850 nm) <sup>1</sup> LEDs		<b>Color value</b> <sup>2</sup> : output of color values;
Minimum field of view, X x Y	2 mm x 1 mm		<b>Color area</b> <sup>2</sup> : area inspection of colors, with selectable tolerance;
Target laser	Laser: red (635 nm) class 1  (IEC 60825-1)		<b>Color list</b> <sup>2</sup> : finding the most similar colors;
			<b>Result processing:</b>
			- <b>Math:</b> checking and calculating with results from detectors
		- <b>Classification (AI):</b> classification of objects with AI technology	
Electrical data		Mechanical data	
Operating voltage, +U <sub>B</sub>	18 ... 30 DC <sup>3</sup>	Dimensions	70.4 mm x 45 mm x 45 mm (without plug)
Current consumption (without I/O)	≤ 300 mA	Enclosure rating	IP 67 & IP 65
Protective circuits	Reverse-polarity protection, U <sub>B</sub> / short-circuit protection of all outputs	Material, housing	Aluminium, die-cast, RoHS compliant
Power On Delay	Approx. 13 s after Power on	Material, front screen	Plastic
Outputs	PNP/NPN (switchable)	Ambient temperature: operation	0 ... +50 °C <sup>4</sup>
Max. output current (per output)	50 mA, 100 mA (pin 12)	Ambient temperature: storage	-20 ... +60 °C <sup>4</sup>
Switching threshold inputs incl. encoder	PNP/NPN High > U <sub>B</sub> -1 V / Low < 3 V	Weight	Approx. 200 g
Input resistance	> 20 kΩ	Plug connections	Supply and I/O M12, 12-pin, Ethernet M12, 4-pin
Interfaces	Ethernet (LAN), EtherNet/IP, PROFINET, SensoWeb, Service Port	Vibration resistance	EN 60068-2-6
Inputs/outputs	2 inputs, 2 outputs, 6 selectable inputs/outputs	Shock resistance	EN 60068-2-27
Encoder	✓		

<sup>1</sup> Not color hardware    <sup>2</sup> Color hardware    <sup>3</sup> Max. ripple < 5V<sub>SS</sub>    <sup>4</sup> 80 % air humidity, noncondensing

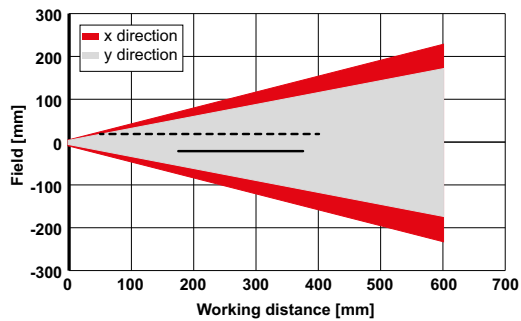
VISOR® vision sensor



153-13554

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Field of view V10, wide



155-03101

----- Increased depth of field  
 \_\_\_\_\_ Normal depth of field

Illumination	Part number	Article number	Accessories
White	V10-OAI-A3-W-W-M2-L	631-91146	Connection cables
Red	V10-OAI-A3-R-W-M2-L	631-91149	Illumination
Infrared	V10-OAI-A3-I-W-M2-L	631-91151	Brackets
White	V10C-OAI-A3-W-W-M2-L	631-91155	Interface accessories
			<a href="http://www.sensopart.com/en/accessories">www.sensopart.com/en/accessories</a>