


VISOR® V50 Object Advanced, medium field of view

Vision sensor for object detection, presence check, completeness check, position inspection and measurement tasks



PRODUCT HIGHLIGHTS

- User-friendly configuration and viewer software with hierarchical user rights
- Object detection with 5 megapixel chip
- Real-world engineering units at a mouse click
- Precise position determination: X/Y-position and orientation
- Comprehensive logic and calculation functions for maximum flexibility
- Encoder input

Optical data		Functions	
Resolution	2560 x 1936 pixels	Number of jobs / detectors	Max. 255 / max. 255
Imaging chip CMOS	1/1.8", monochrome / color	Detectors	Position tracking; X/Y and orientation; Pattern matching, contour: teach-in and detection of patterns and contours; Calliper: distance between edges; BLOB, grey threshold, brightness: evaluation of brightness; Contrast: evaluation of contrast; Color value²: output of color values; Color area²: area inspection of colors, with selectable tolerance; Color list²: finding the most similar colors; Result processing; Math: checking and calculating with results from detectors
Integrated lens, focal length [mm]	20 (medium)		
Pixel size	2.8 µm x 2.8 µm		
Focus	Motorized		
Adjustment range	100 mm to infinity		
Integrated illumination	White (4500 K), red (625 nm) ¹ , infrared (850 nm) ¹ LEDs		
Minimum field of view, X x Y	32 x 24 mm		
Target laser	Laser: red (655 nm) class 1  (IEC 60825-1)		
Electrical data		Mechanical data	
Operating voltage, +U _B	18 ... 30 DC ³	Dimensions	70.4 x 45 x 45 mm (without plug)
Current consumption (without I/O)	≤ 300 mA	Enclosure rating	IP 67 & IP 65
Protective circuits	Reverse-polarity protection, U _B / 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 ⁴
Max. output current (per output)	50 mA, 100 mA (pin 12)	Ambient temperature: storage	-20 ... +60 °C ⁴
Switching threshold inputs incl. encoder	PNP/NPN	Weight	Approx. 200 g
Input resistance	High > U _B -1 V / Low < 3 V	Plug connections	Supply and I/O M12, 12-pin, Ethernet M12, 4-pin
Interfaces	> 20 kΩ	Vibration resistance	EN 60068-2-6
Inputs/outputs	Ethernet (LAN), EtherNet/IP, PROFINET, SensoWeb, Service Port	Shock resistance	EN 60068-2-27
Encoder	2 inputs, 2 outputs, 6 selectable inputs/outputs		
	✓		

¹ Not color hardware ² Color hardware ³ Max. ripple < 5V_{SS} ⁴ 80 % air humidity, noncondensing

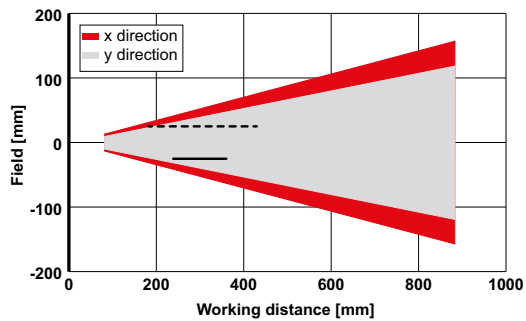
VISOR® vision sensor



153-13554

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Field of view V50, medium



155-03559

----- Increased depth of field
 ——— Normal depth of field

Illumination	Part number	Article number	Accessories	
White	V50-OB-A3-W-M-M2-L	635-91011	Connection cables	www.sensopart.com/en/accessories
Red	V50-OB-A3-R-M-M2-L	635-91013	Illumination	
Infrared	V50-OB-A3-I-M-M2-L	635-91015	Brackets	
White	V50C-OB-A3-W-M-M2-L	635-91018	Interface accessories	
White	V50-OB-A3-W-MD-M2-L	635-91051		
Red	V50-OB-A3-R-MD-M2-L	635-91052		
Infrared	V50-OB-A3-I-MD-M2-L	635-91053		