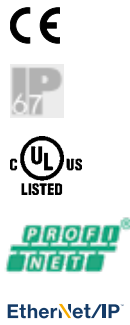



# VISOR® V20 Allround Advanced, narrow field of view

Combines VISOR® Object Color, Code Reader



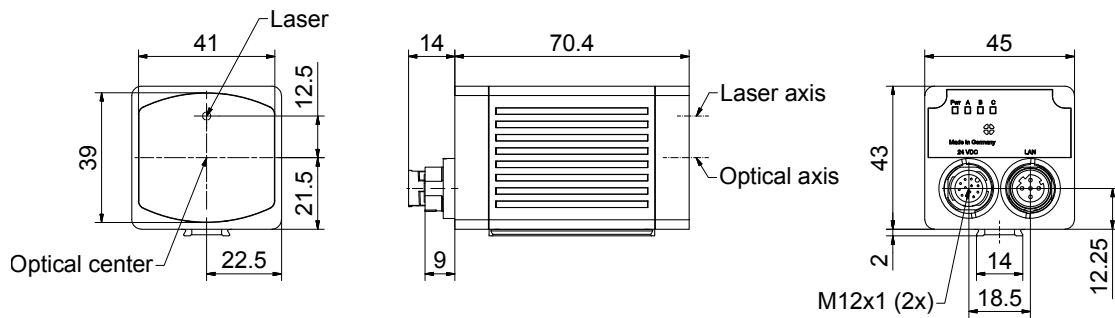
## PRODUCT HIGHLIGHTS

- All evaluations ("Detectors") of object sensor and code reader united in one device
- Highly accurate evaluation via 1.5 megapixel chip
- Real-world engineering units at a mouse click
- Precise determination of X/Y position, orientation and tracking
- Can be used for all common 2D codes (ECC 200-Datamatrix) and common 1D barcodes
- Detection of differences in height in the pseudo height image with multishot technology

Optical data		Functions	
Resolution	1440 x 1080 pixels	Number of jobs / detectors	Max. 255 / max. 255
Imaging chip CMOS	1/2.9", monochrome / color	Detectors	Position tracking; X/Y and orientation; <b>Pattern matching, contour:</b> teach-in and detection of patterns and contours; <b>Calliper:</b> distance between edges; <b>BLOB, grey threshold, brightness:</b> evaluation of brightness; <b>Contrast:</b> evaluation of contrast; <b>Color value<sup>2</sup>:</b> output of color values; <b>Color field<sup>2</sup>:</b> area inspection of colors, with selectable tolerance; <b>Color list<sup>2</sup>:</b> finding the most similar colors; <b>Barcode:</b> reading 1D barcodes; EAN, UPC, RSS, 2/5 Interleaved, 2/5 Industrial, code 32, code 39, code 93, code 128, ECC200 GS1, pharm code, codabar; <b>Datacode:</b> reading 2D codes; ECC200, QR code, PDF 417, ECC200 GS1; <b>OCR:</b> reading of fonts; <b>Result processing: Text, Math:</b> checking and calculating with results from detectors
Integrated lens, focal length [mm]	20 (narrow)		
Pixel size	3.45 µm x 3.45 µm		
Focus	Motorized		
Adjustment range	100 mm to infinity		
Integrated illumination	White (5000 K), red (635 nm) <sup>1</sup> , infrared (850 nm) <sup>1</sup> LEDs		
Minimum field of view, X x Y	18 x 14 mm		
Target laser	Laser: red (635 nm) class 1  (IEC 60825-1)		
Electrical data		Mechanical data	
Operating voltage, +U <sub>B</sub>	18 ... 30 DC <sup>3</sup>	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 <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> -1V / Low < 3V	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

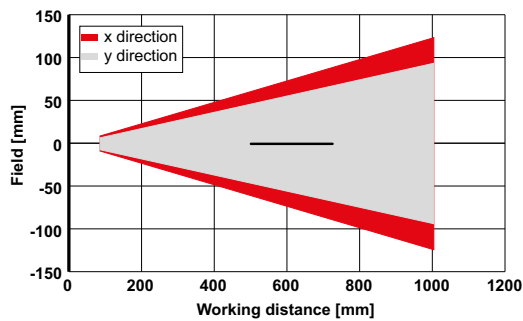
VISOR® vision sensor



153-13554

3

Field of view V20, narrow



155-03098

— Normal depth of field

Illumination, Multishot



155-02565

Illumination	Part number	Article number
White	LM 100 WWK-24Q4-2L12	532-51096
Red	LM 100 RWK-24Q4-2L12	532-51097
—	LM 100 W DF	532-51098

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Illumination	Part number	Article number	Accessories
White	V20-ALL-A3-W-N-M2-L	632-91025	Connection cables
Red	V20-ALL-A3-R-N-M2-L	632-91022	Illumination
Infrared	V20-ALL-A3-I-N-M2-L	632-91019	Brackets
White	V20C-ALL-A3-W-N-M2-L	632-91029	Interface accessories

[www.sensopart.com/en/accessories](http://www.sensopart.com/en/accessories)