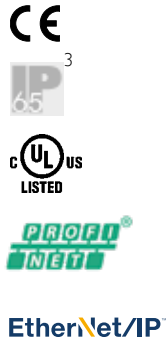


# VISOR® V20 Robotic

Advanced vision sensor for robotics applications, C-mount



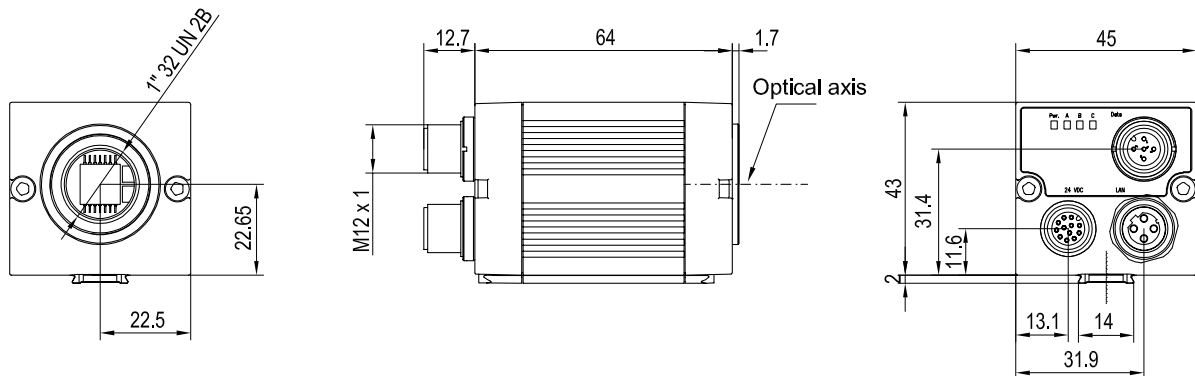
## PRODUCT HIGHLIGHTS

- Different detectors for locating up to 10,000 components
- Gripping space check – check for available space around gripper
- Result offset correction in VISOR® software for simple adjustment of gripper point
- Two calibration methods for robotics applications
- Offset of work plane through Z-offset function
- High-precision analysis due to 1.3 megapixel resolution

Optical data		Functions	
Resolution	1280 x 1024 pixels	Number of jobs / detectors	max. 255 / max. 255
CMOS	1/1.8", color	Special functions	Calibration plate (Robot) Point pair list (Robot) Z-Offset Gripping space check Result offset correction
Integrated lens, focal length	C-Mount	Detectors	Contour; pattern comparison, calliper; BLOB, contrast, brightness, grey level
Adjustment range	Dependent on lens	Properties	Position tracking: X/Y and orientation; pattern comparison / contour: teach-in and detection of patterns and contours; calliper: distance between edges; BLOB, grey threshold, brightness: evaluation of brightness; contrast: evaluation of contrast
Integrated illumination	None	Typical cycle times	same as VISOR® V20 Object sensor
Minimum field of view, X x Y	Dependent on lens		
Electrical data		Mechanical data	
Operating voltage, +U <sub>B</sub>	18 ... 26.4V DC <sup>1</sup>	Dimensions	65 x 45 x 45 mm (without plug)
Current consumption (without illumination and I/O)	≤ 120 mA	Enclosure rating	IP 65 <sup>3</sup>
Current consumption (without I/O)	≤ 200 mA	Material, housing	Aluminium, plastic
Protective circuits	Reverse-polarity protection, U <sub>B</sub> / short-circuit protection of all outputs	Material, front screen	Plastic
Power On Delay	Approx. 13 s after Power on	Ambient temperature: operation	0 ... +50 °C <sup>2</sup>
Outputs	PNP / NPN (switchable)	Ambient temperature: storage	-20 ... +60 °C <sup>2</sup>
Max. output current (per output)	50 mA, 100 mA (pin 12)	Weight	Approx. 160 g
Inputs	PNP/NPN High > U <sub>B</sub> -1V, Low < 3V	Plug connections	Supply and I/O M12, 12-pin Ethernet M12, 4-pin Data M12, 5-pin
Input resistance	> 20 kOhm	Vibration and impact resistance	EN 60947-5-2
Encoder input	High > 4V		
Interfaces	Ethernet (LAN), RS422, RS232, EtherNet/IP, PROFINET, SensoWeb		
Inputs/outputs	2 inputs, 4 outputs, 4 selectable inputs/outputs		

<sup>1</sup> Max. ripple < 5V<sub>SS</sub>    <sup>2</sup> 80 % air humidity, non-condensing    <sup>3</sup> With LPT45 C-mount protective casing

Part number	Article number
V20-RO-A2-C	536-91053

**VISOR® vision sensor**


153-00912

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**Lens**


	LO C 8	LO C 12	LO C 16	LO C 25	LO C 35	LO C 50	LO C 75
<b>Focal length</b>	8 mm	12 mm	16 mm	25 mm	35 mm	50 mm	75 mm
<b>Article number</b>	526-51513	526-51514	526-51515	526-51516	526-51525	526-51113	526-51116

**Accessories**

Connection cables	From Page A-38
Illumination	From Page A-27
Lenses	From Page A-25
Brackets	From Page A-4
Interface accessories	From Page A-38
Calibration	From Page A-38