

VISOR® V20 Color

Advanced vision sensor for object detection, colour, C-mount



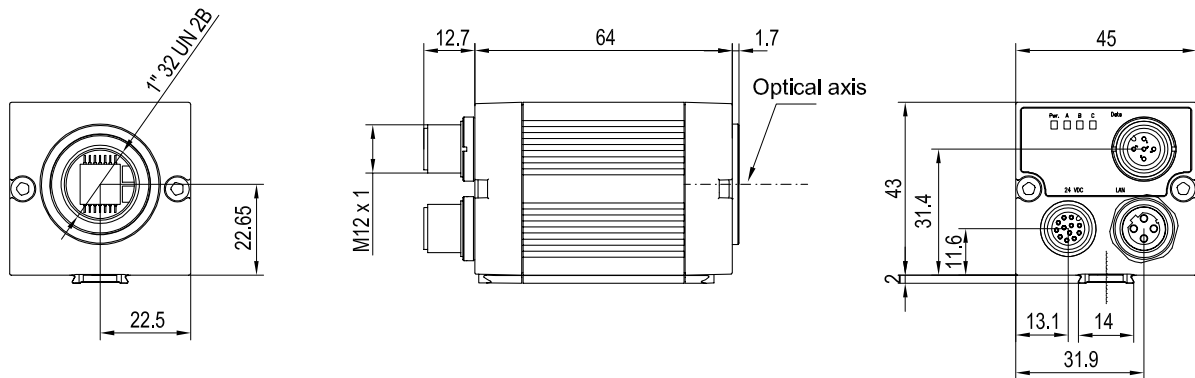
PRODUCT HIGHLIGHTS

- Object detection in colour with 1.3 megapixel resolution
- Reliable detection of very slight colour nuances or self-illuminating components
- Powerful part finding and tracking
- User-friendly configuration and viewer software with hierarchical user rights
- Real-world engineering units and robot coordinates at a mouse click
- Encoder input

Optical data		Functions	
Resolution	1280 x 1024 pixels	Number of jobs / detectors	max. 255 / max. 255
CMOS	1/1.8", colour	Detectors	Contour; pattern comparison; calliper; BLOB; contrast; brightness; grey level; colour value; colour area; colour list
Integrated lens, focal length	C-Mount	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; colour area: two-dimensional colour inspection with adjustable tolerance; colour list: finding the most similar colours
Adjustment range	Dependent on lens	Typical cycle times ²	Typ. 20 ms pattern comparison; typ. 30 ms contour; Typ. 8 ms calliper; typ. 30 ms BLOB; typ. 2 ms brightness; typ. 2 ms contrast; typ. 2 ms grey threshold; typ. 2 ms colour value; typ. 30 ms colour area; typ. 2 ms colour list
Integrated illumination	None		
Minimum field of view, X x Y	Dependent on lens		
Electrical data		Mechanical data	
Operating voltage, +U _b	18 ... 26.4V DC ¹	Dimensions	65 x 45 x 45 mm (without plug)
Current consumption (without illumination and I/O)	≤ 120 mA	Enclosure rating	IP 65 ³
Current consumption (without I/O)	≤ 200 mA	Material, housing	Aluminium, plastic
Protective circuits	Reverse-polarity protection, U _b / 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 ⁴
Outputs	PNP / NPN (switchable)	Ambient temperature: storage	-20 ... +60 °C ⁴
Max. output current (per output)	50 mA, 100 mA (pin 12)	Weight	Approx. 160 g
Inputs	PNP/NPN High > U _b -1 V, Low < 3 V	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		

¹ Max. ripple < 5V_{SS} ² With VGA-resolution (640 x 480 Pixel) ³ With LPT45 C-mount protective casing ⁴ 80 % air humidity, non-condensing

Part number	Article number
V20C-CO-A2-C	536-91021

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
Focal length	8 mm	12 mm	16 mm	25 mm	35 mm	50 mm	75 mm
Article number	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-30
Lenses	From Page A-27
Brackets	From Page A-14
Interface accessories	From Page A-42