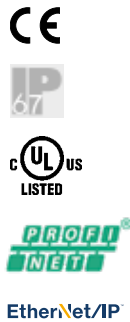



VISOR® V20 Robotic Advanced, narrow field of view

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



PRODUCT HIGHLIGHTS

- Simple calibration methods for robotics applications
- Result offset 3D for direct gripper point transmission to robot
- Easy adjustment of the work plane
- Target Mark technology provides 3D object poses in no time

Optical data		Functions			
Resolution	1440 x 1080 Pixel	Number of jobs / detectors	Max. 255 / max. 255		
Imaging chip CMOS	1/2.9", monochrome / color	Detectors	Position tracking; X/Y and orientation; Pattern matching, contour: teach-in and detection of patterns and contours; Target Mark 3D: 3D pose determination; Calliper: distance between edges; BLOB, grey threshold, brightness: evaluation of brightness; Contrast: evaluation of contrast; Result processing: Math: 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) ¹ , infrared (850 nm) ¹ 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 _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 High > U _B -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 VISOR® V20-CR-Advanced	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	✓				

¹ Not color hardware ² Color hardware ³ Max. ripple < 5V_s ⁴ 80 % air humidity, noncondensing

Sold & Serviced By:



Toll Free Phone (877) SERV098
www.electromate.com
sales@electromate.com

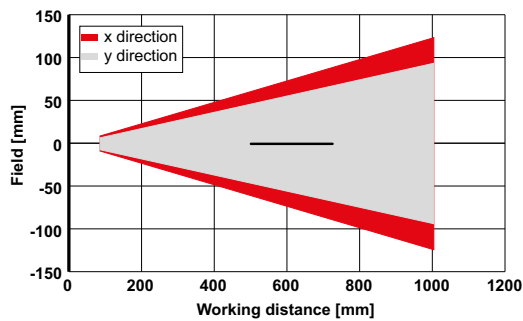
VISOR® vision sensor



153-13554

3

Field of view V20, narrow



155-03098

— Normal depth of field

Illumination	Part number	Article number	Accessories
White	V20-RO-A3-W-N-M2-L	632-91066	Connection cables www.sensopart.com/en/accessories Illumination Brackets Interface accessories Target Marks
Red	V20-RO-A3-R-N-M2-L	632-91069	
Infrared	V20-RO-A3-I-N-M2-L	632-91072	
White	V20C-RO-A3-W-N-M2-L	632-91076	

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