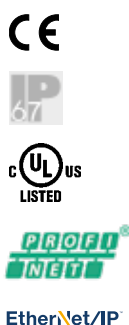



VISOR® V20 Robotic Professional, medium field of view

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

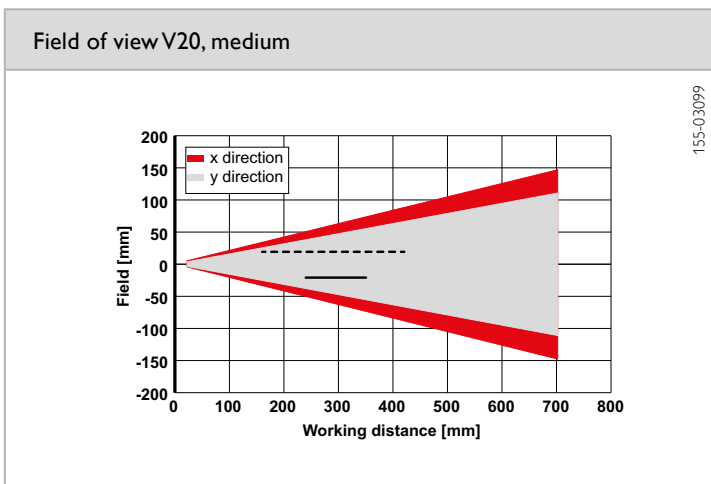
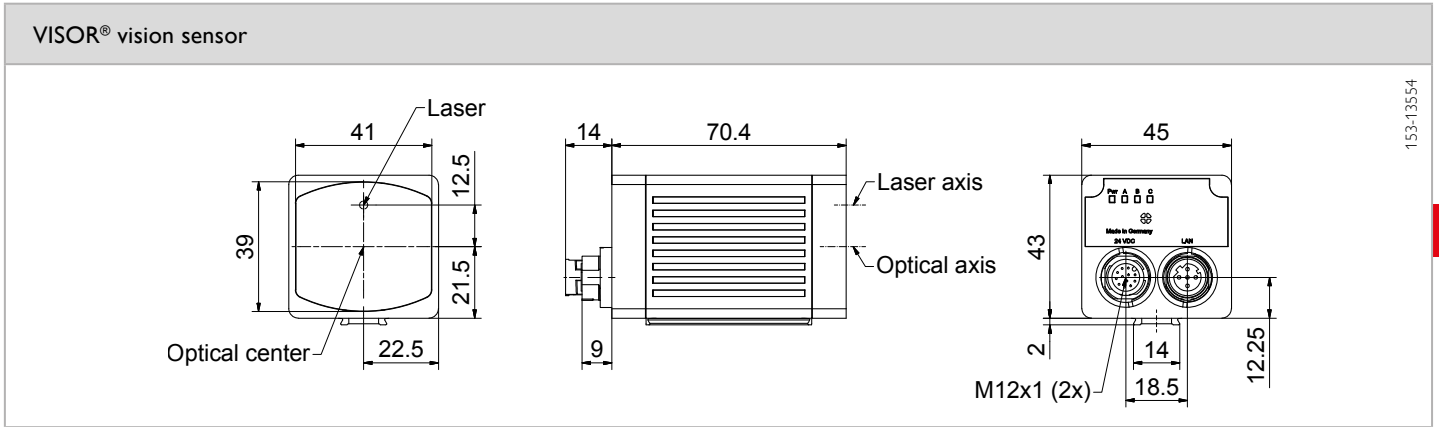


PRODUCT HIGHLIGHTS

- Calibration methods tailored to the application
- 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
- Can be used for all common 2D codes, bar codes and OCR

| 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, 3D 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; Barcode: 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; Datacode: reading 2D codes: ECC200 (GS1), QR code (GS1), Micro QR code, Aztec code (GS1), PDF 417; OCR: reading of fonts; Result processing: Text, Math: checking and calculating with results from detectors |
| Integrated lens, focal length [mm] | 12 (medium) | | |
| Pixel size | 3.45 µm x 3.45 µm | | |
| Focus | Motorized | | |
| Adjustment range | 25 mm to infinity | | |
| Integrated illumination | White (5000 K), red (635 nm) ¹ , infrared (850 nm) ¹ LEDs | | |
| Minimum field of view, X x Y | 10 x 8 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 | 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 < 5 V_s ⁴ 80 % air humidity, noncondensing



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----- Increased depth of field
 _____ Normal depth of field

| Illumination | Part number | Article number | Accessories |
|--------------|---------------------|----------------|--|
| White | V20-RO-P3-W-M-M2-L | 632-91121 | Connection cables www.sensopart.com/en/accessories Illumination Brackets Interface accessories Target Marks |
| Red | V20-RO-P3-R-M-M2-L | 632-91124 | |
| Infrared | V20-RO-P3-I-M-M2-L | 632-91127 | |
| White | V20C-RO-P3-W-M-M2-L | 632-91131 | |