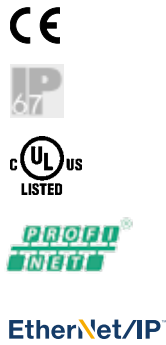


# VISOR® V10 object sensor

Standard vision sensor for object detection, 12 mm



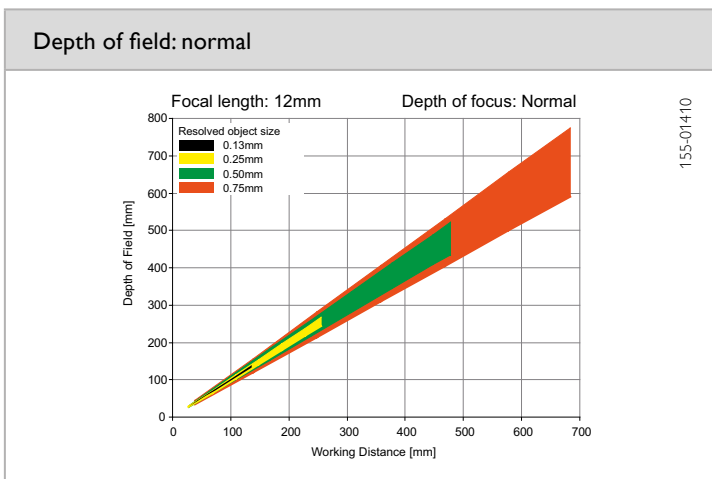
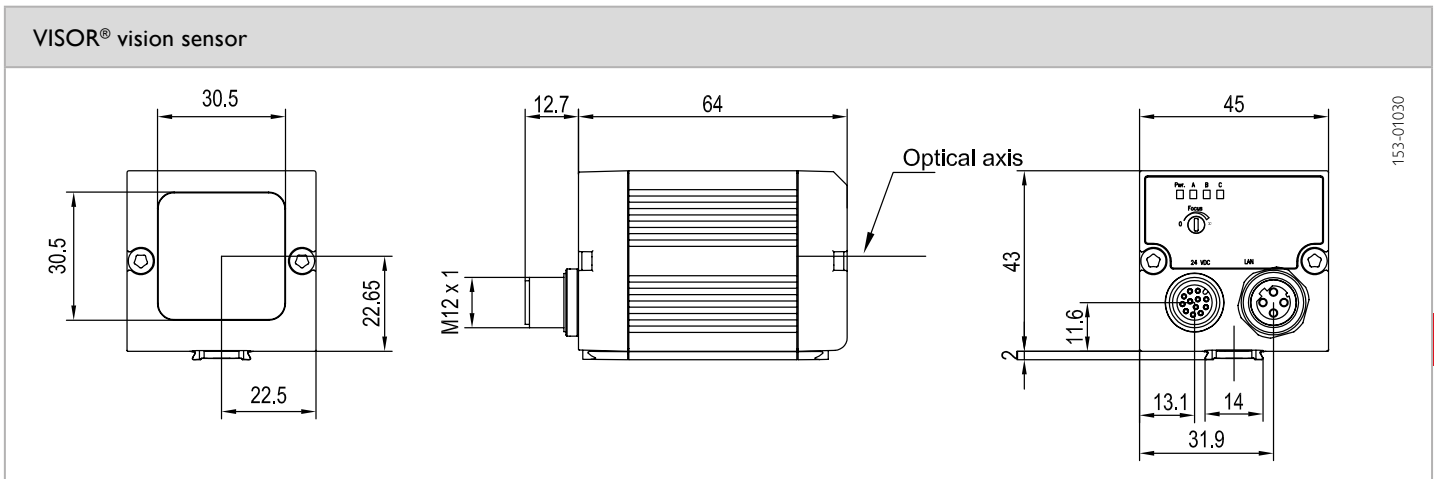
## PRODUCT HIGHLIGHTS

- User-friendly configuration and viewer software with hierarchical user rights
- Detectors for object detection
- Powerful part-finding and tracking
- Precise position determination: X/Y-position and orientation
- Comprehensive logic functions for digital switching outputs

| Optical data                                       |   | Functions                       |   |
|--|---|---------------------------------|---|
| Resolution   | 736 x 480 pixels  | Number of jobs / detectors      | 8 / 32  |
| CMOS   | 1/3", monochrome  | Detectors                       | Contour; pattern comparison, contrast, brightness, grey level   |
| Integrated lens, focal length                      | 12 mm, adjustable focal position  | Properties                      | Position tracking: X/Y and orientation; Pattern comparison / contour: teach-in and detection of patterns and contours; grey threshold, brightness: evaluation of brightness; contrast: evaluation of contrast |
| Adjustment range                                   | 30 mm to infinity   | Typical cycle times             | Typ. 20 ms pattern comparison<br>Typ. 30 ms contour<br>Typ. 2 ms brightness<br>Typ. 2 ms contrast<br>Typ. 2 ms grey threshold   |
| Integrated illumination                            | White, red, infrared LEDs   |                                 |   |
| Minimum field of view, X x Y                       | 8 x 6 mm <sup>2</sup>   |                                 |   |
| Electrical data                                    |   | Mechanical data                 |   |
| Operating voltage, +U <sub>B</sub>                 | 18 ... 26.4 V 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 67   |
| 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                                     | Ca. 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                          | Ca. 160 g   |
| Inputs   | PNP/NPN High > U <sub>B</sub> -1 V, Low < 3 V   | Plug connections                | Supply and I/O M12, 12-pin<br>Ethernet M12, 4-pin   |
| Input resistance                                   | > 20 kOhm   | Vibration and impact resistance | EN 60947-5-2  |
| Interfaces   | Ethernet (LAN), EtherNet/IP, PROFINET, SensoWeb                                       |                                 |   |
| Inputs/outputs                                     | 2 inputs, 4 outputs,<br>2 selectable inputs/outputs                                   |                                 |   |

<sup>1</sup> Max. ripple < 5 V<sub>SS</sub>    <sup>2</sup> 80 % air humidity, non-condensing

| Illumination | Depth of field | Part number   | Article number |
|--------------|----------------|---------------|----------------|
| White        | Normal         | V10-OB-S1-W12 | 535-91009      |
| Red          | Normal         | V10-OB-S1-R12 | 535-91011      |
| Infrared     | Normal         | V10-OB-S1-I12 | 535-91047      |



**Accessories**

|                       |                |
|-----------------------|----------------|
| Connection cables     | From Page A-38 |
| Illumination          | From Page A-30 |
| Brackets              | From Page A-14 |
| Interface accessories | From Page A-42 |