

# V20-ALL-P3-I-W-M2-L

**Ordering information**

|                                 |                                                                                                                                                              |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Designation for ordering</b> | V20-ALL-P3-I-W-M2-L                                                                                                                                          |
| <b>Part number</b>              | 632-91007                                                                                                                                                    |
| <b>Order text</b>               | VISOR® V20 Allround, Professional, 255 jobs each with 255 detectors, infrared illumination, wide field of view, motorized focus, LAN interface, target laser |
| <b>Components supplied</b>      | VISOR® vision sensor, Operating manual, Mounting bracket (MK 45) and Allen key                                                                               |

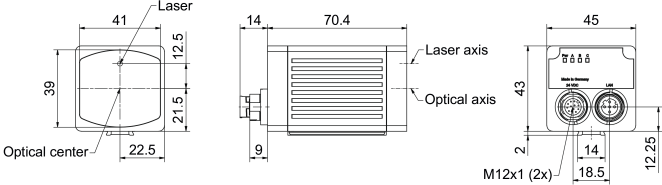


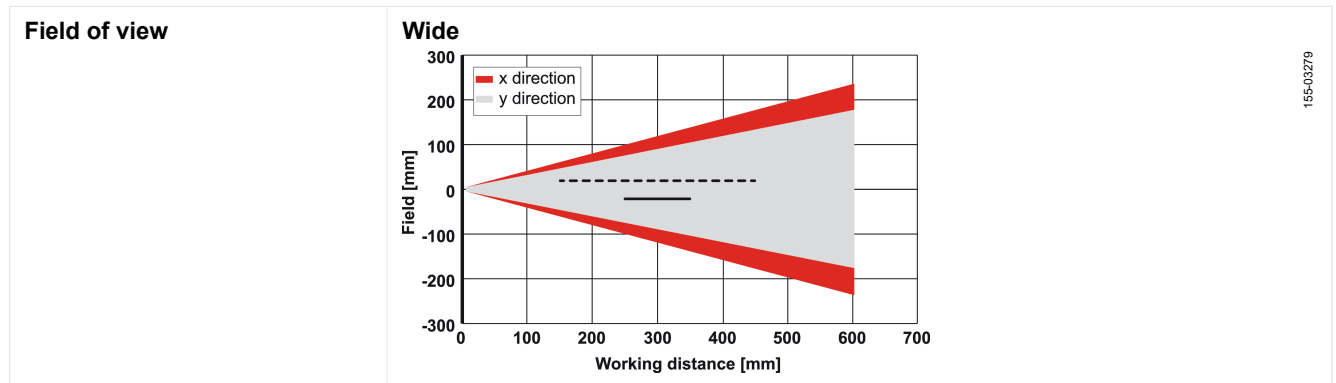
| Optical data                    |                    |
|---------------------------------|--------------------|
| Image chip type                 | Monochrome         |
| Light source                    | LED                |
| Light color                     | Infrared           |
| Wavelength [nm]                 | 850                |
| LED risk category [RG]          | 0                  |
| Explanation of risk category    | Acc. to EN 62471   |
| Resolution                      | HDV2               |
| Number of pixels (H x V) [px]   | 1440 x 1080        |
| Imaging chip technology         | CMOS               |
| Sensor size ["]                 | 1/2.9              |
| Pixel size [µm]                 | 3.45               |
| Field of view type              | Wide               |
| Operating distance [mm]         | 10 ... 10,000      |
| Focal length [mm]               | 6.5                |
| Opening angle [°]               | 46.0               |
| Min. field of view (X x Y) [mm] | 6 x 5              |
| Aperture number                 | 2.8                |
| Depth of field                  | Standard           |
| Focus drive                     | Motorized          |
| Target laser                    | Laser red (655 nm) |
| Laser class                     | 1 (IEC 60825-1)    |

| Functions                |                                                                                                                                                                                                                                                                                             |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hardware                 | VISOR®                                                                                                                                                                                                                                                                                      |
| Max. number of jobs      | 255                                                                                                                                                                                                                                                                                         |
| Max. number of detectors | 255                                                                                                                                                                                                                                                                                         |
| Alignment                | Contour comparison, Pattern matching, Edge detection                                                                                                                                                                                                                                        |
| Available detectors      | Pattern matching, Contour, Contour (3D), Contour check, BLOB, Target mark (3D), Data code, Barcode, OCR, Brightness, Contrast, Grayscale, Caliper, Classification (AI)                                                                                                                      |
| Result processing        | Text, Numbers, Robotics                                                                                                                                                                                                                                                                     |
| Pre-processing           | Arrangement, Filter                                                                                                                                                                                                                                                                         |
| Calibration              | Board (measurement), Board (robotics), Hand-Eye (robotics), Base-Eye (robotics), Scaling (measurement), Point pair list (robotics)                                                                                                                                                          |
| Robotic functions        | Gripper clearance check, Result offset, image coordinates, Result offset 2D, Result offset 3D                                                                                                                                                                                               |
| Additional functions     | Archiving, Image transmission, individual overlays, Multiple image acquisition, Multishot, Color channel, color distance and binarization, Multiple detection for contour and pattern matching detector, Multiple detection for detector contour (3D), Job checksum, Conditional executions |
| Network protocol         | TCP/IP, Profinet, EtherNet/IP, sFTP, SMB, FTP, Service Port                                                                                                                                                                                                                                 |

| Electrical data                     |                                                               |
|-------------------------------------|---------------------------------------------------------------|
| Operating voltage $U_B$ [V DC]      | 18 ... 30                                                     |
| Typical current draw [mA]           | 350                                                           |
| Type of voltage source              | The device must be supplied by a "Class 2" power supply unit. |
| Readiness delay [ms]                | $\leq 16,000$                                                 |
| Reverse polarity protection         | Yes                                                           |
| Overvoltage protection              | No                                                            |
| Residual ripple [%]                 | $\leq 5$ Vss, level 3                                         |
| Explanation of residual ripple      | EN 61000-4-17                                                 |
| Polarity                            | PNP/NPN                                                       |
| Short circuit protection            | Yes                                                           |
| Input threshold (High)              | $> U_B - 1V$                                                  |
| Input threshold (Low)               | $< 3V$                                                        |
| Input resistance [k $\Omega$ ]      | $> 20$                                                        |
| Max. output current [mA]            | 50                                                            |
| Explanation of max. output current  | max. 100 mA on pin 12                                         |
| Inductive loads                     | Typ.: Relay 17 K / 2 H, pneumatic valve 1.4 K / 190 mH        |
| Max. output current (total) [mA]    | 200                                                           |
| Ethernet transmission rate [Mbit/s] | 100                                                           |
| Number of switchable IOs            | 6                                                             |
| Number of outputs                   | 2                                                             |
| Number of inputs                    | 2                                                             |
| Encoder functions                   | Yes                                                           |

| Mechanical data                               |                                                               |
|-----------------------------------------------|---------------------------------------------------------------|
| Height [mm]                                   | 85.0                                                          |
| Length [mm]                                   | 45.0                                                          |
| Width [mm]                                    | 45.0                                                          |
| Weight [g]                                    | ~ 220                                                         |
| Front panel material                          | PMMA                                                          |
| Housing material                              | Aluminum (cast)                                               |
| Connection name                               | Supply                                                        |
| - Number of pins                              | 12                                                            |
| - Coding                                      | A                                                             |
| - Thread                                      | M12x1                                                         |
| - Material                                    | Metal                                                         |
| - Type                                        | Plug                                                          |
| Connection name                               | LAN                                                           |
| - Number of pins                              | 4                                                             |
| - Coding                                      | D                                                             |
| - Thread                                      | M12x1                                                         |
| - Material                                    | Metal                                                         |
| - Type                                        | Socket                                                        |
| Ambient temperature: operation [°C]           | 0 ... 50                                                      |
| Explanation of ambient temperature: operation | < 95 % humidity, non-condensing                               |
| Ambient temperature: storage [°C]             | -20 ... 60                                                    |
| Explanation of ambient temperature: storage   | < 95 % humidity, non-condensing                               |
| Protection class                              | IP 65, IP 67                                                  |
| Explanation of protection class               | For C-mount devices, only in combination with protective tube |
| Vibration and shock resistance                | EN 60068-2-6, EN 60068-2-27                                   |

| Technical drawings  |                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dimensional drawing |  <p>Technical drawings of the device showing three views: front, side, and top. The front view shows a square face with a laser axis and optical center. The side view shows the profile with a laser axis and optical axis. The top view shows the mounting holes and dimensions.</p> |



**Product link**

<https://www.sensopart.com/en/products/details/632-91007>