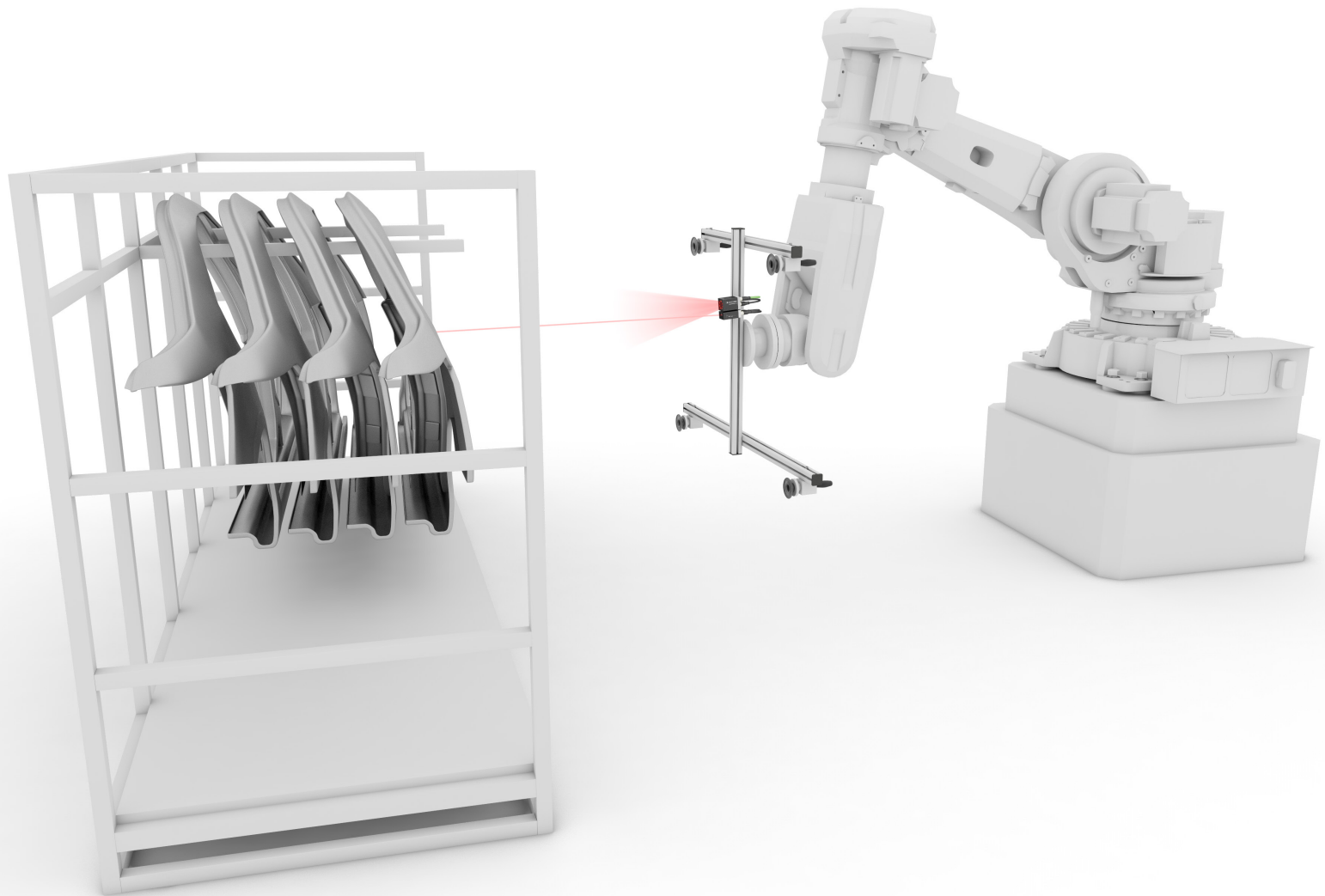


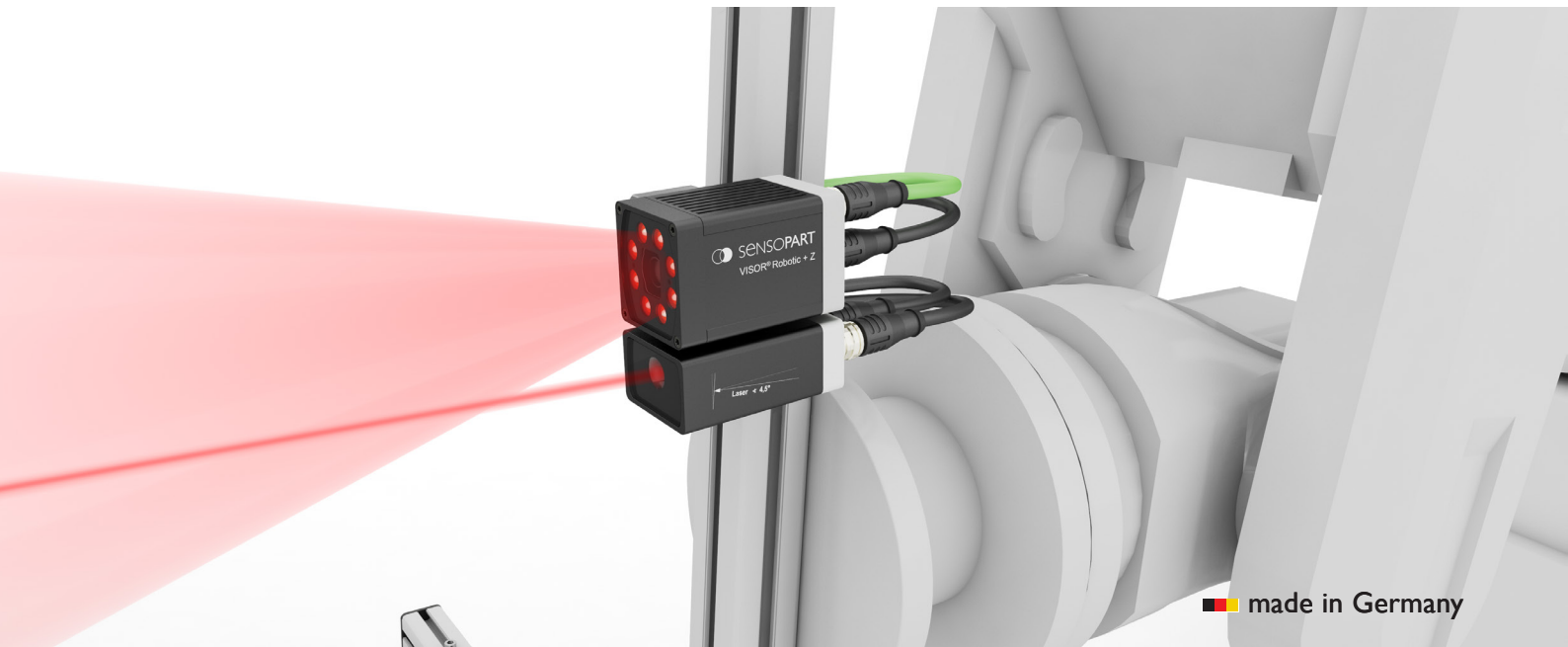
VISOR[®] Robotic +Z

Everything in view, everything under control - the vision sensor for robotics applications



VISOR® Robotic +Z

Robot approach using depth information



VISOR® V20 Robotic +Z Advanced

Vision Sensor with distance measurement for robot guidance. In addition, object inspections such as presence and completeness checks and measurement tasks can be performed.

Applications

- Robot approach using depth information
- Positioning
- Object detection
- Measurement
- Identification

255 jobs with 255 detectors each

- **Distance:** Distance determination of the VISOR® to a measuring object
- **Position tracking X/Y and orientation of the target**
- **Pattern matching, contour, Target Mark 3D:** Teach-in and recognition of patterns, contours and 3D poses
- **Caliper:** Distance between edges
- **BLOB, gray threshold, brightness:** Evaluation of brightness
- **Contrast:** Evaluation of contrast
- **Result processing:** Robotics, text, math: Checking and calculating of detector results

Product highlights

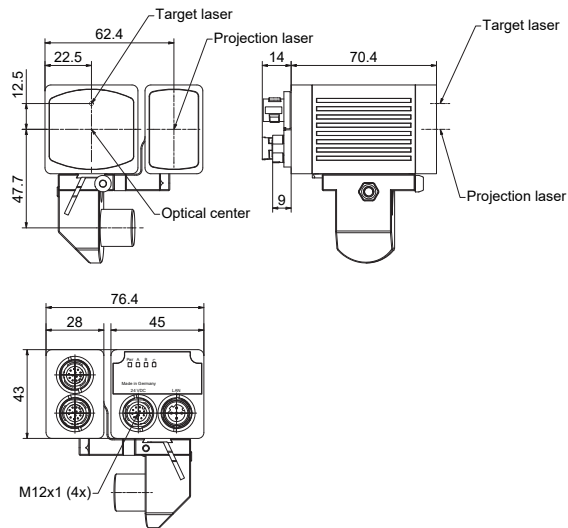
Resolution	V20: 1440 × 1080
Series	Robotic
Variant	Advanced
Image chip	Monochrome
Lens type	Medium (integrated)
Integrated illumination	LED, rot
Distance measurement	yes
Working distance min. [mm]	150
Working distance max. [mm]	2500
Speed [Hz]	100
Light source	Laser, red (class 2)



QR code for further information

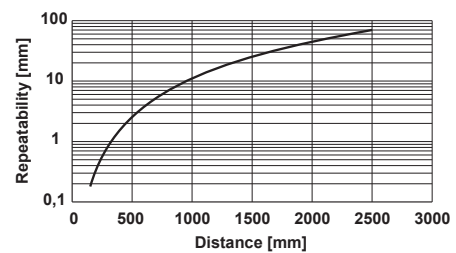
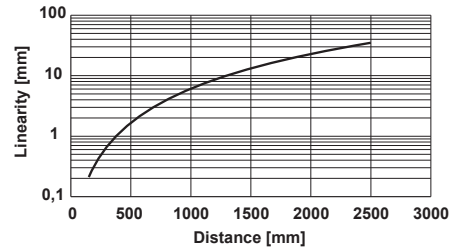


VISOR® Robotic +Z with integrated illumination and lens



153-13554

Linearity & Repeatability



Optical data

Resolution	1440 × 1080 Pixel
Imaging chip CMOS	1/2.9", monochrome
Integrated lens, focal length [mm]	12 (medium)
Pixel size	3.45 μm × 3.45 μm
Focus	Motorized
Integrated illumination	Red LED (625 nm)

Optical data

Minimum field of view X × Y and operating range	Two-dimensional evaluation: Field of view size and working distance can be calculated with SensoPart's SensoCalc calculator Distance measurement: 150 mm ... 2500 mm
Light spot	Distance for 150 mm: 2 mm × 5 mm Distance for 2500 mm: 5 mm × 6 mm
Measuring frequency Distance measurement	≤ 100 Hz
Type of light (IEC 60825-1)	Target Laser: Red, 655 nm, class 1 Projection laser: Red 635 nm, class 2 LED: red 630 nm (RG0, EN 62471)

Electrical data

Operating voltage +U _B	24 V DC (18 ... 30V DC) ¹
Current consumption (without I/O)	≤ 300 mA
Protective circuits	Reverse-polarity protection, U _B /short-circuit protection of all outputs
Power On Delay	< 14 s
Warm-up time	≤ 20 min
Temperature drift	0.01 %/K
Outputs	PNP/NPN (switchable)
Max. output current (per output)	50 mA, 100 mA (pin 12)
Switching threshold inputs incl. encoder	PNP/NPN High > U ^B -1V/Low < 3V
Input resistance	> 20 kΩ
Interfaces	Ethernet (LAN), EtherNet/IP, PROFINET, SensoWeb, Service Port
Inputs/outputs	2 inputs, 2 outputs, 6 selectable inputs/outputs
Encoder	✓

Mechanical data

Dimensions	76.4 mm × 45 mm × 45 mm (without plug)
Enclosure rating	IP 67 & IP 65
Material, housing	Aluminium, die-cast, RoHS compliant
Material, front screen	Plastic
Ambient temperature: operation	0 ... +40° C ²
Ambient temperature: storage	-20 ... +60° C ²
Weight	Approx. 490 g
Plug connections	Supply and I/O M12, 12-pin, Ethernet M12, 4-pin
Vibration resistance	EN 60068-2-6
Shock resistance	EN 60068-2-27



¹ Max. ripple < 5V_s ² 80 % air humidity, noncondensing

SensoPart is one of the leading manufacturers of photoelectric sensors and image processing vision sensors for factory automation. We also offer inductive and ultrasonic sensors, thereby covering a wide spectrum of industrial automation tasks. Our products are used in countless applications and sectors today – from automotive construction and mechanical engineering to electronics manufacturing and the solar industry, as well as the food sector and pharmaceutical industry.



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