

V20-RO-P4-I-M-M3-L

Ordering information

Designation for ordering	V20-RO-P4-I-M-M3-L
Part number	637-91077
Order text	VISOR® XE V20 Robotic Professional, infrared illumination, medium field of view, motorized focus, LAN interface, target laser
Components supplied	VISOR® XE 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
Resolution	SPXGA
Number of pixels (H x V) [px]	1600 x 1200
Imaging chip technology	CMOS
Sensor size ["]	1/2.9
Pixel size [μm]	3.00
Field of view type	Mittel
Operating distance [mm]	30 ... 10,000
Focal length [mm]	12.0
Opening angle [°]	23.0
Min. field of view (X x Y) [mm]	13.5 x 10.1
Aperture number	2.8
Depth of field	Standard
Focus drive	Motorized
Target laser	Laser red (655 nm)
Laser class	1 (IEC 60825-1)

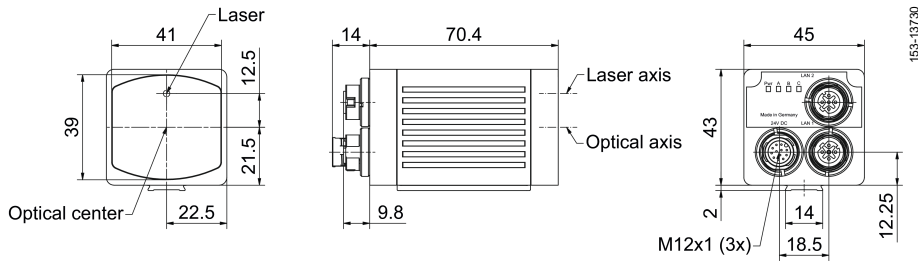
Functions	
Hardware	VISOR® XE
Max. number of jobs	255
Max. number of detectors	255
Alignment	Contour comparison, Pattern matching, Edge detection
Available detectors	Pattern matching, Contour, Contour (3D), BLOB, Target mark (3D), Data code, Barcode, OCR, Brightness, Contrast, Gray level, Caliper
Result 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, Multiple detection for contour and pattern matching detector, Multiple detection for detector contour (3D), Job checksum, Conditional executions

Electrical data	
Operating voltage UB [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]	≤ 16,000
Reverse polarity protection	Yes
Overvoltage protection	No
Residual ripple [%]	≤ 5 Vss, level 3
Explanation of residual ripple	EN 61000-4-17
Polarity	PNP/NPN
Short circuit protection	Yes
Input threshold (High)	> UB-1V
Input threshold (Low)	< 3V
Input resistance [kΩ]	> 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	No

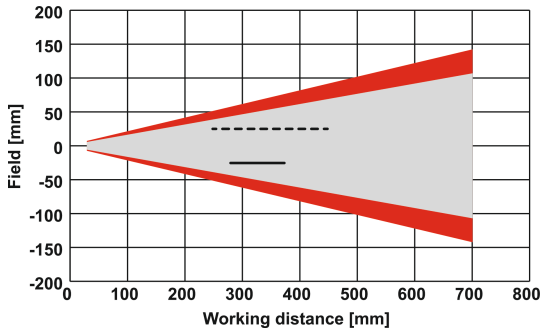
Mechanical data	
Height [mm]	85.0
Length [mm]	45.0
Width [mm]	45.0
Weight [g]	~ 220
Front panel material	PMMA
Housing material	Aluminum (cast)
Connection name	Supply
- Number of pins	12
- Coding	A
- Thread	M12x1
- Material	Metal
- Type	Plug
Connection name	LAN
- Number of pins	4
- Coding	D
- Thread	M12x1
- 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



Field of view



Product link

<https://www.sensopart.com/en/products/details/637-91077>