# Vision Sensor
VOS1000-F226R-8MM-S

- Wide range of detection tools for flexible inspection tasks
- Combinable vision tools for feature detection, completeness checking, code reading, text recognition and object position checking
- 32 Jobs on-board can be saved
- Integrated illumination
- Mechanical focus adjustment
- Easy integration with flexible programmable data output

Vision sensor for advanced object detection; Resolution: 640 x 480 pixels; Light source: integrated LED flash, red; Lens: M12 lens; Focal length: 8 mm

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Dimensions
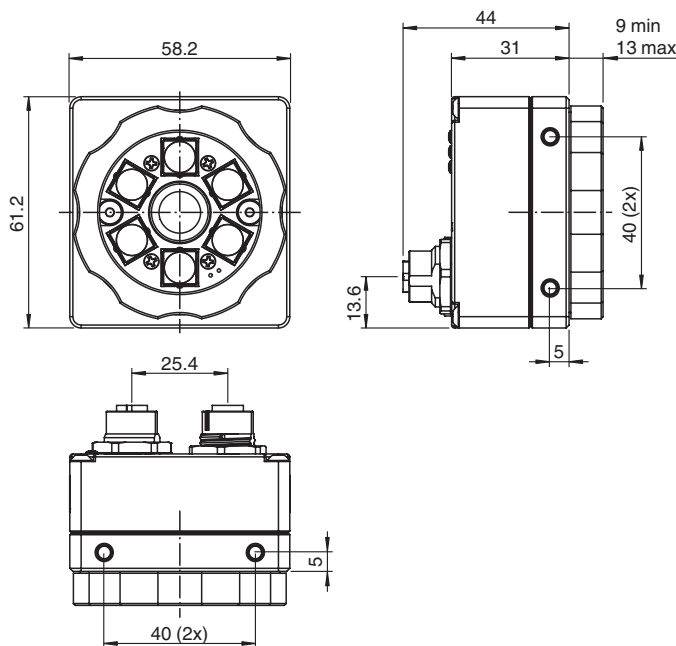
Technical Data

General specifications

Light source	Integrated LED lightning , red
Picture detail	dependant of operating distance (see manual)
Trigger mode	Free-running or triggered externally
Depth of focus	± 5 % of the operating distance
Focal length	8 mm
Resolution	640 x 480 pixels
Image sensor	1/3" CMOS monochrom Global Shutter 3.75 µm pixel size

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Technical Data

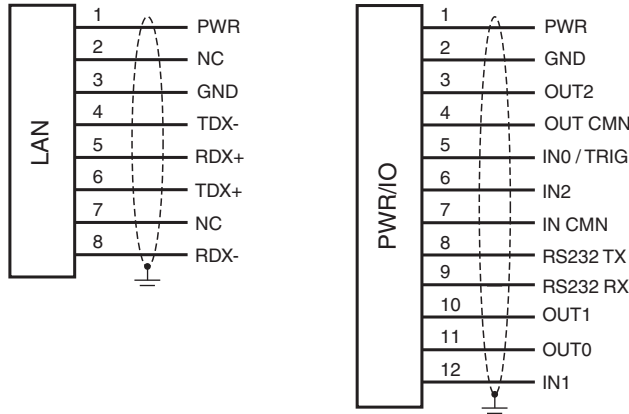|		
Lens		M12 integrated lens
Parameterization/software		
Parameter assignment		Parameterization via PC user interface VCT Tool
Evaluation procedure		
Positioning and Guidance		Based on Parts or product marks, up to four Locators to detect X,Y shift and rotation
Identification and Verification		OCR, 1-D and 2-D codes
Detection &Pattern Matching		Pixel-, contour- or edge count
Measuring		Distance, angle, circle size (after calibration)
Indicators/operating means		
LED 1		Steady blue: sensor started, not set up Steady green: job loaded, ready for execution Flashing green: job loaded and being executed, capture in progress Steady red: sensor fault
LED 2		Flashing blue: starting (duration approx. 20 seconds) Steady green: measurement successful (Pass) Steady blue: measurement borderline (Recycle) Steady red: measurement unsuccessful (Fail)
LED 3		Steady blue: warm reset or restart Steady red/green/yellow: network activity
Focus setting		Focus adjustable via centering
Electrical specifications		
Operating voltage	U_B	12 ... 30 V DC
No-load supply current	I_0	300 mA
Interface		
Interface type		Ethernet 100 Mbit/s , RS 232 , PROFINET , Ethernet TCP/IP , EtherNet/IP , MODBUS
Input		
Input type		optically decoupled Inputs
Input voltage		Logic low (OFF): 0 ... 3 V Logic high (ON): 11 ... 30 V Switching threshold: 12 V
Control input		Image capture trigger + 2 general purpose inputs 2 inputs can be used for job switching
Input current		8 mA (typical)
Internal protection circuit		3 kΩ / 4000 V (rms)
Switching delay		Switch-on time (ON): 20 µs Switch-off time (OFF): 10 µs Image capture trigger: 62 µs (until image capture is triggered)
Output		
Output type		3 general purpose outputs , freely programmable , optically decoupled
Switching voltage		max. 30 V
Switching current		max. 100 mA each output
Switching delay		Switch-on time (ON): 150 µs Switch-off time (OFF): 50 µs
Standard conformity		
Emitted interference		EN 61000-6-4:2007+A1:2011
Noise immunity		EN 61000-6-2:2005
Approvals and certificates		
Approvals		CE
Ambient conditions		
Ambient temperature		0 ... 50 °C (32 ... 122 °F)
Storage temperature		-20 ... 60 °C (-4 ... 140 °F)
Mechanical specifications		
Housing length		61 mm
Housing width		58 mm
Housing height		57 mm
Degree of protection		IP67
Connection		8-pin M12 socket A-coded ; 12-pin M12 socket
Material		

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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Technical Data

Housing	anodized aluminum
Optical face	Plastic pane
Installation	Mounting bracket
Mass	approx. 200 g

Connection Assignment

LAN
1	PWR
2	NC
3	GND
4	TDX-
5	RDX+
6	TDX+
7	NC
8	RDX-

PWR/IO
1	PWR
2	GND
3	OUT2
4	OUT CMN
5	IN0 / TRIG
6	IN2
7	IN CMN
8	RS232 TX
9	RS232 RX
10	OUT1
11	OUT0
12	IN1

Connection

LAN

PWR/IO
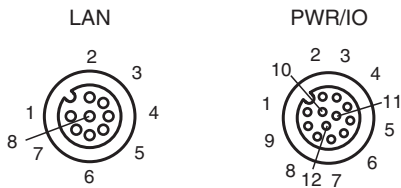
Accessories

	V112-G-BK3M-PUR-ABG-V112-G	Cordset M12 socket to M12 plug A-coded, 12-pin, PUR cable black, shielded
	V112S-G-BK5M-PUR-ABG	Male cordset single-ended M12 straight A-coded, 12-pin, PUR cable black, shielded
	V19S-G-GN5M-PUR-ABG-V45-G	Ethernet bus cable M12 plug straight A-coded 8-pin to RJ45 plug straight 8-pin, PUR cable green, Cat6A, pairs shielded and overall shield, for connection of VOS cameras
	VOS-LE-COV-M12	Protective cover
	VOS-MH01	Mounting aid for VOS sensors

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