

Vision Sensor

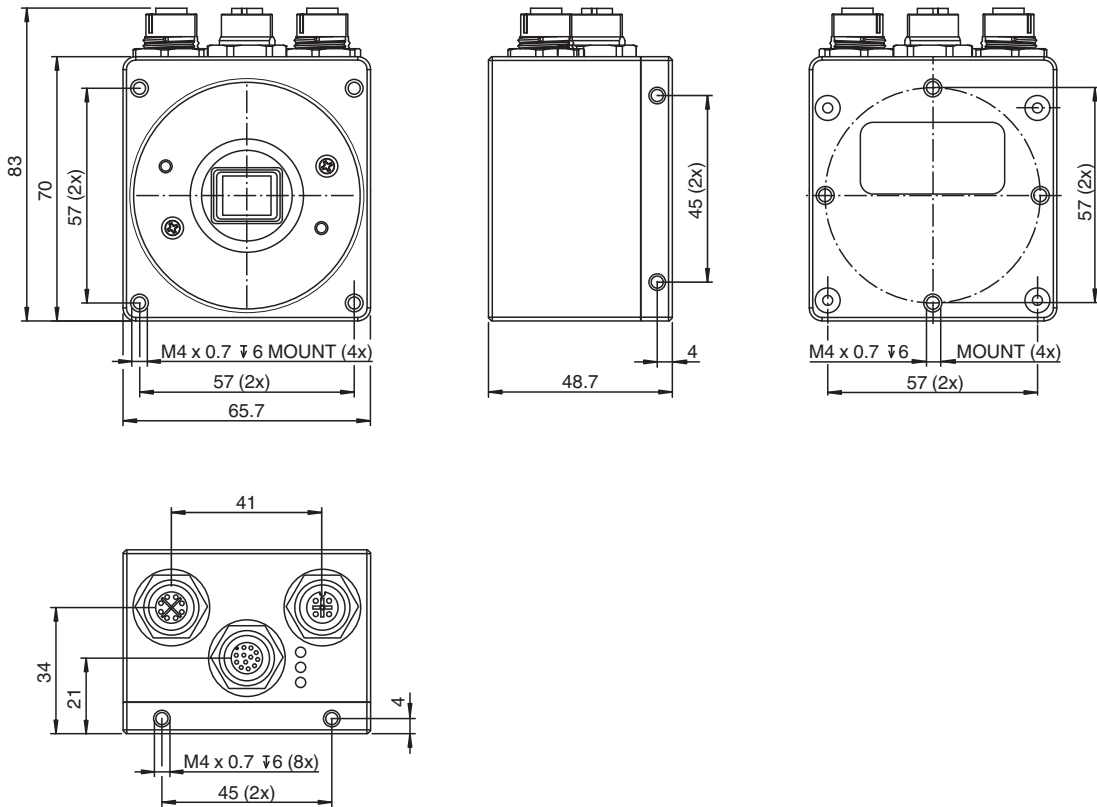
VOS5000-F227-C-S

- 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
- Exchangeable lens (C-Mount)
- Easy integration with flexible programmable data output

Vision sensor for advanced object detection; Resolution: 2560 x 2048 pixels; Light source: external illumination; Lens: C-mount connection



Dimensions



Release date: 2024-03-12 Date of issue: 2024-03-12 Filename: 70111629_eng.pdf

Technical Data

General specifications

Light source	External lighting
Picture detail	dependant of operating distance (see manual)

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

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Technical Data

Trigger mode	Free-running or triggered externally		
Depth of focus	± 5 % of the operating distance		
Resolution	2560 x 2048 pixels		
Image sensor	1" CMOS monochrom Global Shutter 5 µm pixel size		
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		
Electrical specifications			
Operating voltage	U _B	21 ... 30 V DC	
No-load supply current	I ₀	300 mA	
Interface 1			
Interface type	Ethernet		
Protocol	PROFINET IO TCP/IP EtherNet/IP		
Transfer rate	1 GBit/s		
Interface 2			
Interface type	RS-232 , serial		
Transfer rate	115.2 kBit/s		
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. 200 mA each output		
Switching delay	Switch-on time (ON): 400 µs Switch-off time (OFF): 80 µs		
Standard conformity			
Emitted interference	EN 61000-6-4:2007+A1:2011		
Noise immunity	EN 61000-6-2:2005		
Approvals and certificates			
Approvals	CE		

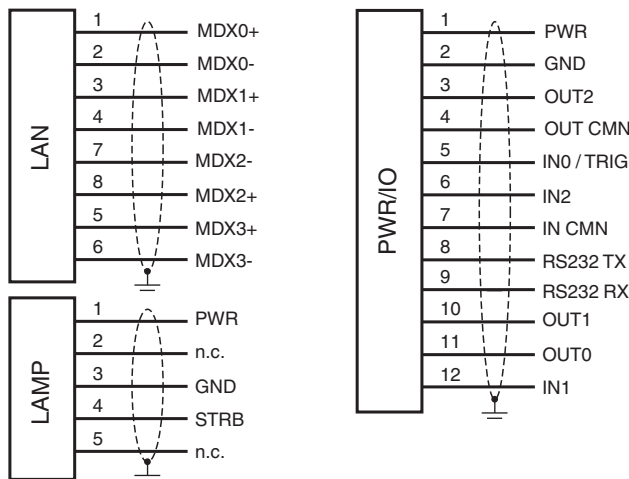
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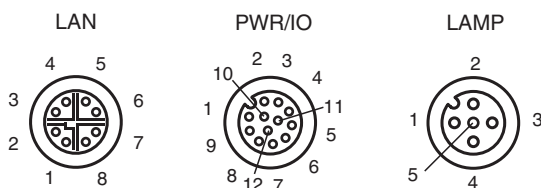
Technical Data

Ambient conditions	
Ambient temperature	0 ... 50 °C (32 ... 122 °F)
Storage temperature	-20 ... 60 °C (-4 ... 140 °F)
Mechanical specifications	
Degree of protection	IP67 (with mounted lens protection cover)
Connection	5-pin M12 socket ; 8-pin M12 socket X-coded ; 12-pin M12 socket
Material	
Housing	anodized aluminum
Installation	Mounting bracket
Mass	450 g
Objective connection	C-mount connection for external lens with different focal lengths
Dimensions	
Height	48 mm
Width	66 mm
Length	83 mm

Connection Assignment



Connection



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