



Vision Sensor

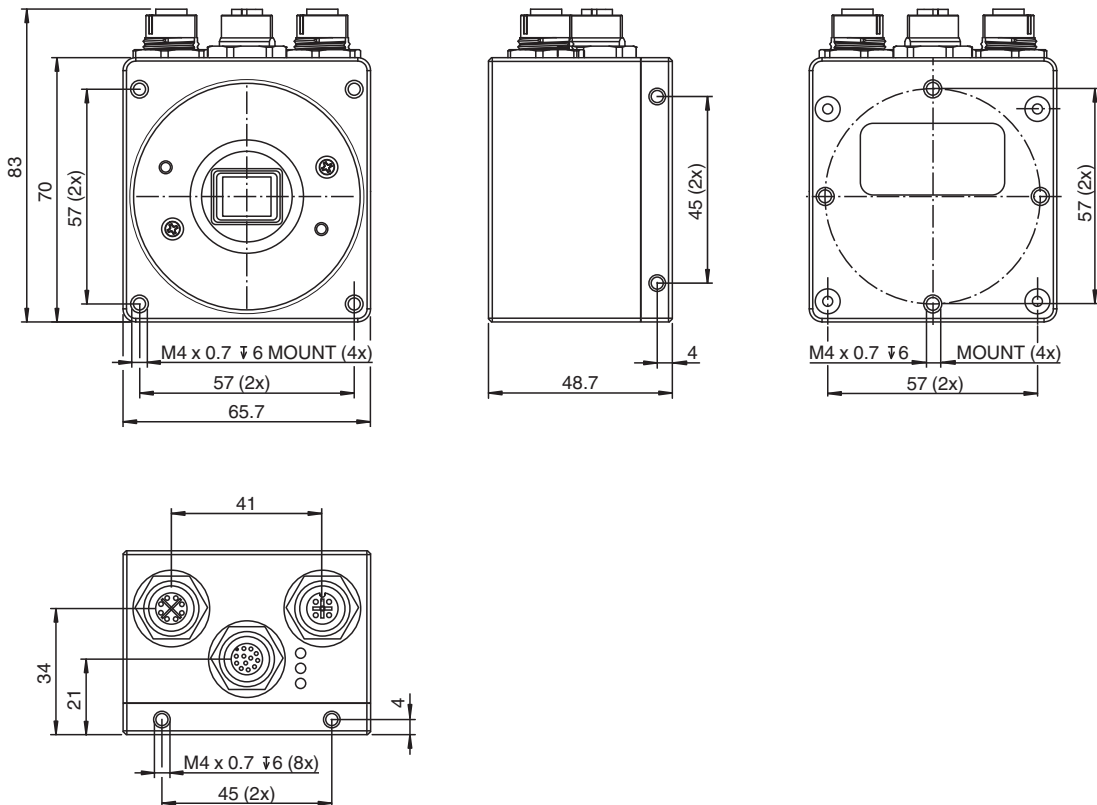
VOS5000-F227-C-I

- Reads all standard 1-D and 2-D codes
- Reads DPM codes
- Multi code reading
- Output string formatting
- Code quality output
- 32 Jobs on-board can be saved
- Offline parameterization
- 5.2 megapixel resolution
- Exchangeable lens (C-Mount)
- Mechanical focus adjustment

Vision sensor for 1-D and 2-D code reading; Resolution: 2560 x 2048 pixels; Light source: external illumination; Lens: C-mount connection



Dimensions



Technical Data

General specifications

Release date: 2024-03-12 Date of issue: 2024-03-12 Filename: 70130667_eng.pdf

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

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Technical Data

Sensing range	1-D barcode: 451 mm x 361 mm with min. line width of 0.3 mm (reading distance depends on lens) 2-D barcode: 333 mm x 267 mm with min. module size of 0.3 mm (reading distance depends on lens) 1-D barcode: 752 mm x 602 mm with min. line width of 0.5 mm (reading distance depends on lens) 2-D barcode: 556 mm x 445 mm with min. module size of 0.5 mm (reading distance depends on lens)	
Light source	External lighting	
Picture detail	dependant of operating distance	
Readable codes	1-D Codes: Code 128, Code 39, Int 2 of 5, Codabar, UPC-A/E, EAN-8/13, Code 11, Code 32, Plessey, MSI Plessey, Telepen, BC 412, Pharmacode, DataBar, Postcode, Trioptic 2-D Codes: Data Matrix, QR-Code, Micro QR-Code, PDF417, Micro PDF417, Aztec, Han Xin Code, Maxi Code, Grid Matrix, Dotcode	
Trigger mode	Free-running or triggered externally	
Depth of focus	± 5 % of the operating distance	
Evaluation frequency	25 Hz	
Target velocity	max. 4 m/s	
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		
Identification and Verification	1-D and 2-D codes	
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		

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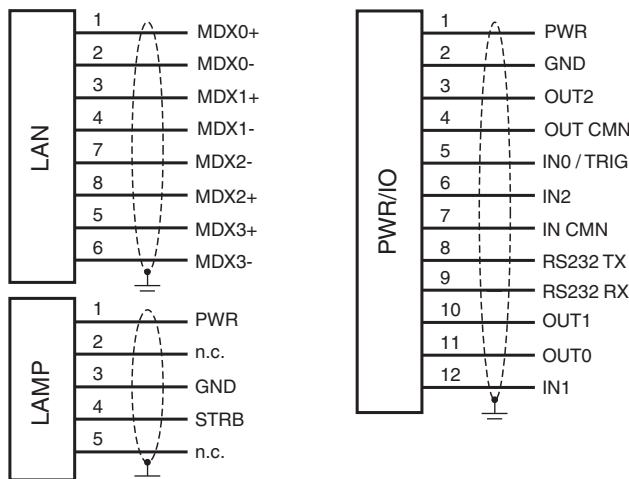
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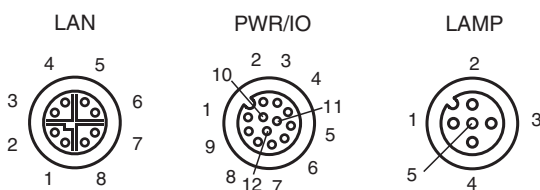
Technical Data

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): 400 μ s Switch-off time (OFF): 80 μ s
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	
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 , plastic
Installation	Mounting bracket
Mass	approx. 200 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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