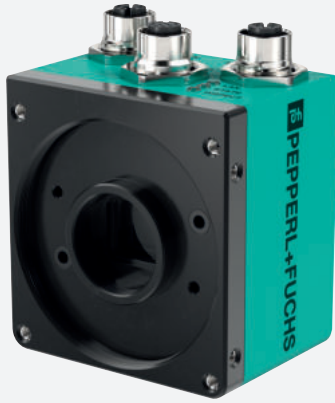




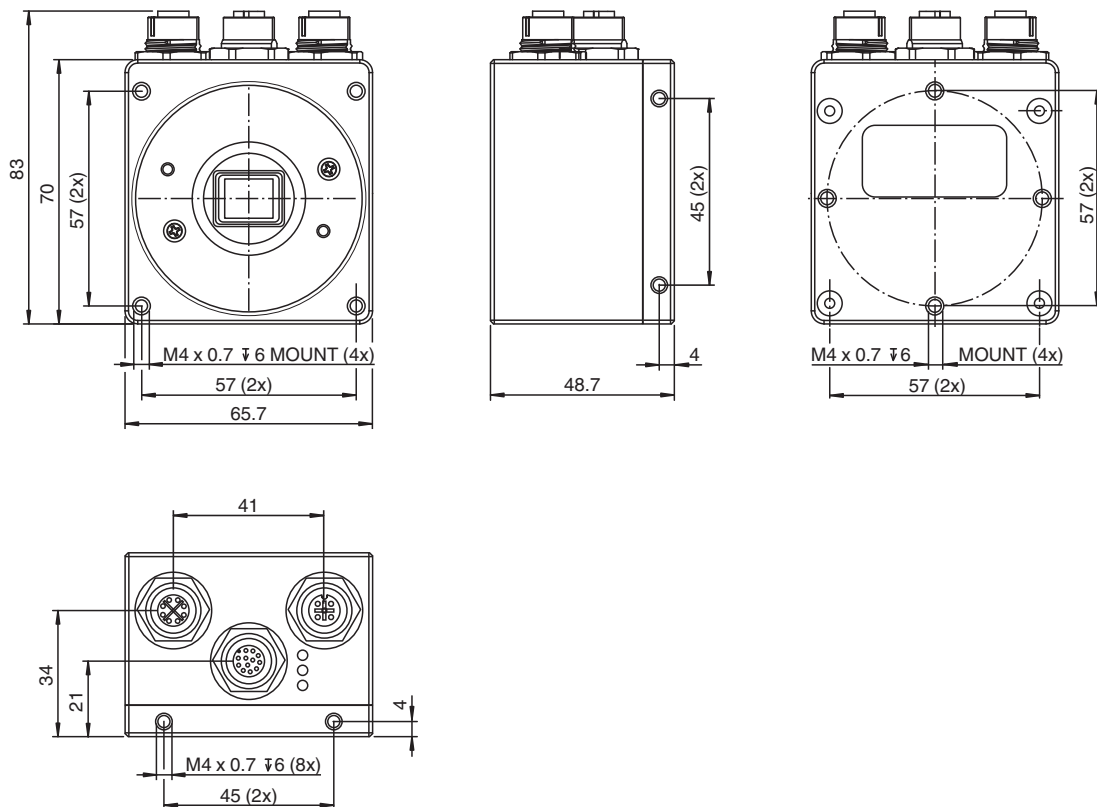
## Vision Sensor VOS5000-F227-C-I

- 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

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

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**PEPPERL+FUCHS**

## Technical Data

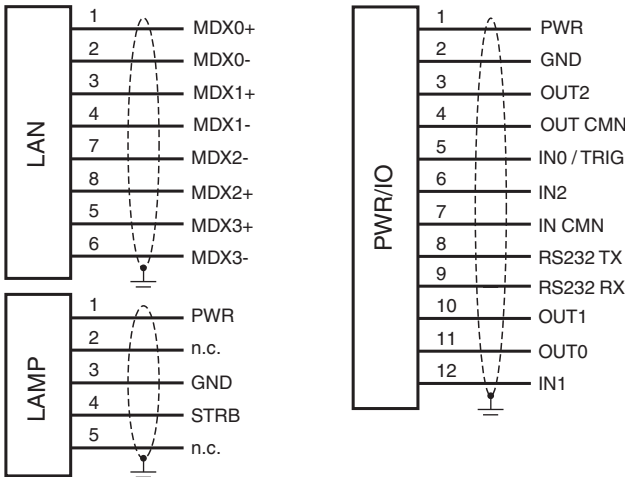
|                                   |                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sensing range                     | 1-D barcode: 451 mm x 361 mm with min. line width of 0.3 mm (reading distance depends on lens)<br>2-D barcode: 333 mm x 267 mm with min. module size of 0.3 mm (reading distance depends on lens)<br>1-D barcode: 752 mm x 602 mm with min. line width of 0.5 mm (reading distance depends on lens)<br>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                    |                                                                                                                                                                                                                                                                                                                                                                                                        | <b>1-D Codes:</b> 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<br><br><b>2-D Codes:</b> 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<br>Global Shutter<br>5 µm pixel size                                                                                                                                                                                                                                                                 |
| <b>Parameterization/software</b>  |                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                        |
| Parameter assignment              |                                                                                                                                                                                                                                                                                                                                                                                                        | Parameterization via PC user interface VCT Tool                                                                                                                                                                                                                                                                        |
| Evaluation procedure              |                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                        |
| Identification and Verification   |                                                                                                                                                                                                                                                                                                                                                                                                        | 1-D and 2-D codes                                                                                                                                                                                                                                                                                                      |
| <b>Indicators/operating means</b> |                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                        |
| LED 1                             |                                                                                                                                                                                                                                                                                                                                                                                                        | Steady blue: sensor started, not set up<br>Steady green: job loaded, ready for execution<br>Flashing green: job loaded and being executed, capture in progress<br>Steady red: sensor fault                                                                                                                             |
| LED 2                             |                                                                                                                                                                                                                                                                                                                                                                                                        | Flashing blue: starting (duration approx. 20 seconds)<br>Steady green: measurement successful (Pass)<br>Steady blue: measurement borderline (Recycle)<br>Steady red: measurement unsuccessful (Fail)                                                                                                                   |
| LED 3                             |                                                                                                                                                                                                                                                                                                                                                                                                        | Steady blue: warm reset or restart<br>Steady red/green/yellow: network activity                                                                                                                                                                                                                                        |
| <b>Electrical specifications</b>  |                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                        |
| Operating voltage                 | U <sub>B</sub>                                                                                                                                                                                                                                                                                                                                                                                         | 21 ... 30 V DC                                                                                                                                                                                                                                                                                                         |
| No-load supply current            | I <sub>0</sub>                                                                                                                                                                                                                                                                                                                                                                                         | 300 mA                                                                                                                                                                                                                                                                                                                 |
| <b>Interface 1</b>                |                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                        |
| Interface type                    |                                                                                                                                                                                                                                                                                                                                                                                                        | Ethernet                                                                                                                                                                                                                                                                                                               |
| Protocol                          |                                                                                                                                                                                                                                                                                                                                                                                                        | PROFINET IO<br>TCP/IP<br>EtherNet/IP                                                                                                                                                                                                                                                                                   |
| Transfer rate                     |                                                                                                                                                                                                                                                                                                                                                                                                        | 1 GBit/s                                                                                                                                                                                                                                                                                                               |
| <b>Interface 2</b>                |                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                        |
| Interface type                    |                                                                                                                                                                                                                                                                                                                                                                                                        | RS-232 , serial                                                                                                                                                                                                                                                                                                        |
| Transfer rate                     |                                                                                                                                                                                                                                                                                                                                                                                                        | 115.2 kBit/s                                                                                                                                                                                                                                                                                                           |
| <b>Input</b>                      |                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                        |
| Input type                        |                                                                                                                                                                                                                                                                                                                                                                                                        | optically decoupled Inputs                                                                                                                                                                                                                                                                                             |
| Input voltage                     |                                                                                                                                                                                                                                                                                                                                                                                                        | Logic low (OFF): 0 ... 3 V<br>Logic high (ON): 11 ... 30 V<br>Switching threshold: 12 V                                                                                                                                                                                                                                |
| Control input                     |                                                                                                                                                                                                                                                                                                                                                                                                        | Image capture trigger + 2 general purpose inputs<br>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<br>Switch-off time (OFF): 10 µs<br>Image capture trigger: 62 µs (until image capture is triggered)                                                                                                                                                                                          |
| <b>Output</b>                     |                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                        |

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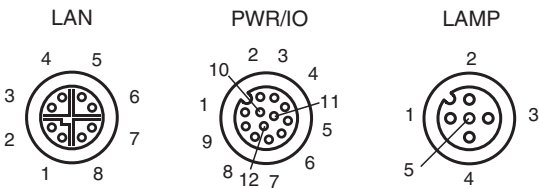
Technical Data

|                                   |                                                                       |                                                                   |
|-----------------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------------|
| 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 µs<br>Switch-off time (OFF): 80 µs       |
| <b>Standard conformity</b>        |                                                                       |                                                                   |
| Emitted interference              |                                                                       | EN 61000-6-4:2007+A1:2011                                         |
| Noise immunity                    |                                                                       | EN 61000-6-2:2005                                                 |
| <b>Approvals and certificates</b> |                                                                       |                                                                   |
| Approvals                         |                                                                       | CE                                                                |
| <b>Ambient conditions</b>         |                                                                       |                                                                   |
| Ambient temperature               |                                                                       | 0 ... 50 °C (32 ... 122 °F)                                       |
| Storage temperature               |                                                                       | -20 ... 60 °C (-4 ... 140 °F)                                     |
| <b>Mechanical specifications</b>  |                                                                       |                                                                   |
| 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 |
| <b>Dimensions</b>                 |                                                                       |                                                                   |
| Height                            |                                                                       | 48 mm                                                             |
| Width                             |                                                                       | 66 mm                                                             |
| Length                            |                                                                       | 83 mm                                                             |

Connection Assignment



Connection



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