



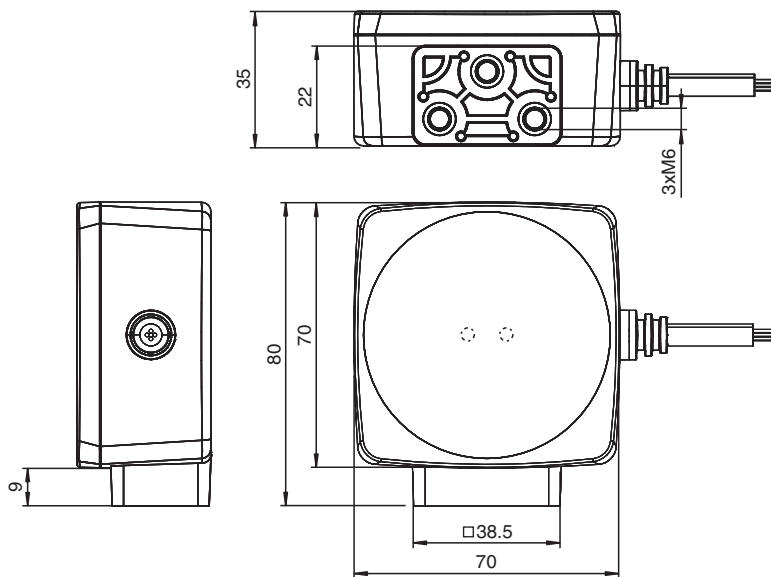
## Optical reading head PGV40RS-F213-B16-1.5M

- Mechanically rugged: no wearing parts, long operating life, maintenance-free
- CANopen interface
- Non-contact positioning on Data Matrix code tape
- Noncontact positioning with Data Matrix TAGs
- Reading of Data Matrix control codes
- Visible red light
- Fixed cable
- Terminating resistor, switchable
- Timestamp of the image capture
- Synchronization option

Read head for incident light positioning system



### Dimensions



### Technical Data

#### General specifications

|                  |   |                                |
|------------------|---|--------------------------------|
| Passage speed    | v | ≤ 8 m/s                        |
| Measuring length |   | max. 10000 m                   |
| Light type       |   | Integrated LED lightning (red) |
| Scan rate        |   | 100 s <sup>-1</sup>            |
| Latency          |   | 20 ms                          |
| Read distance    |   | 40 mm                          |
| Depth of focus   |   | + 25 mm - 15 mm                |
| Reading field    |   | 70 mm x 45 mm                  |

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

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## Technical Data

|                                             |                                                                                                         |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Resolution                                  | 0.2 mm                                                                                                  |
| Ambient light limit                         | 100000 Lux                                                                                              |
| Accuracy                                    | ± 0.4 mm                                                                                                |
| <b>Nominal ratings</b>                      |                                                                                                         |
| Camera                                      |                                                                                                         |
| Type                                        | CMOS , Global shutter                                                                                   |
| Processor                                   |                                                                                                         |
| Clock pulse frequency                       | 600 MHz                                                                                                 |
| Speed of computation                        | 4800 MIPS                                                                                               |
| Digital resolution                          | 32 Bit                                                                                                  |
| <b>Functional safety related parameters</b> |                                                                                                         |
| MTTF                                        | 72 a                                                                                                    |
| MTTF <sub>d</sub>                           | 144 a                                                                                                   |
| MTBF                                        | 72 a                                                                                                    |
| Mission Time (T <sub>M</sub> )              | 20 a                                                                                                    |
| Diagnostic Coverage (DC)                    | 0 %                                                                                                     |
| <b>Indicators/operating means</b>           |                                                                                                         |
| LED indication                              | 2 LEDs                                                                                                  |
| <b>Electrical specifications</b>            |                                                                                                         |
| Operating voltage                           | U <sub>B</sub> 15 ... 30 V DC , PELV                                                                    |
| No-load supply current                      | I <sub>0</sub> max. 200 mA                                                                              |
| Power consumption                           | P <sub>0</sub> 3 W                                                                                      |
| <b>Interface</b>                            |                                                                                                         |
| Interface type                              | CANopen , Switchable terminal resistor                                                                  |
| Data output code                            | binary code                                                                                             |
| Transfer rate                               | max. 1 MBit/s                                                                                           |
| Termination                                 | Switchable terminal resistor                                                                            |
| Dielectric strength                         | ± 16 V                                                                                                  |
| <b>Output</b>                               |                                                                                                         |
| Output type                                 | 2 switch outputs, programmable , Push/pull , PNP , NPN                                                  |
| Switching voltage                           | Operating voltage                                                                                       |
| Switching current                           | 100 mA                                                                                                  |
| <b>Conformity</b>                           |                                                                                                         |
| Shock resistance                            | EN 60068-2-27:2009                                                                                      |
| Vibration resistance                        | EN 60068-2-6:2008                                                                                       |
| Emitted interference                        | EN 61000-6-4:2007+A1:2011                                                                               |
| Noise immunity                              | EN 61000-6-2:2005                                                                                       |
| Photobiological safety                      | exempt group according to EN 62471:2008                                                                 |
| <b>Standard conformity</b>                  |                                                                                                         |
| Emitted interference                        | EN 61000-6-4:2007+A1:2011                                                                               |
| Noise immunity                              | EN 61000-6-2:2005+AC:2005                                                                               |
| Shock resistance                            | EN 60068-2-27:2009                                                                                      |
| Vibration resistance                        | EN 60068-2-6:2008                                                                                       |
| <b>Approvals and certificates</b>           |                                                                                                         |
| CE conformity                               | CE                                                                                                      |
| UKCA conformity                             | UKCA                                                                                                    |
| UL approval                                 | cULus Listed, Class 2 Power Source, Type 1 enclosure                                                    |
| CCC approval                                | CCC approval / marking not required for products rated ≤36 V                                            |
| <b>Ambient conditions</b>                   |                                                                                                         |
| Operating temperature                       | 0 ... 60 °C (32 ... 140 °F) , -20 ... 60 °C (-4 ... 140 °F) (noncondensing; prevent icing on the lens!) |
| Storage temperature                         | -40 ... 85 °C (-40 ... 185 °F)                                                                          |
| Relative humidity                           | 90 % , noncondensing                                                                                    |

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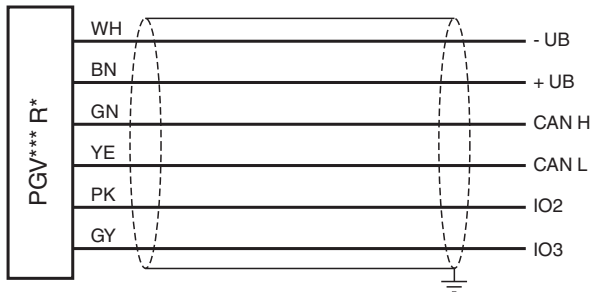
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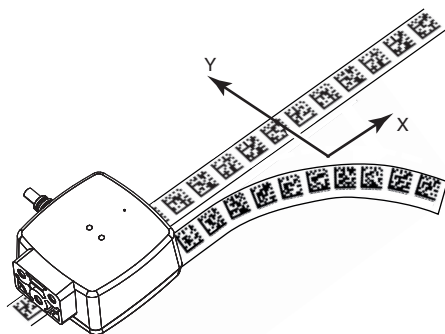
Technical Data

| Mechanical specifications |   |                      |
|---------------------------|---|----------------------|
| Connection type           |   | Open cable end       |
| Degree of protection      |   | IP54                 |
| Material                  |   |                      |
| Housing                   |   | PC/ABS               |
| Cable                     |   | PVC                  |
| Cable                     |   |                      |
| Sheath diameter           |   | 5.8 mm               |
| Strain relief             |   | 60 N                 |
| Length                    | L | 1.4 m                |
| Mass                      |   | approx. 200 g        |
| Dimensions                |   |                      |
| Height                    |   | 70 mm                |
| Width                     |   | 70 mm                |
| Depth                     |   | 35 mm                |
| Factory settings          |   |                      |
| X resolution (protocol)   |   | 0.1 mm               |
| Y resolution (protocol)   |   | 0.1 mm               |
| Angle resolution          |   | 0.1 °                |
| Baud rate                 |   | 500 kBit/s           |
| Terminating resistor      |   | On                   |
| Read head address         |   | 8                    |
| Function input/output 2   |   | Sync out , Push/pull |
| Function input/output 3   |   | not connected        |

Connection

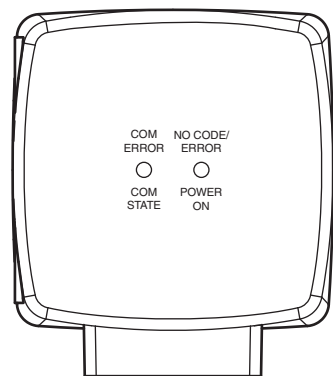


Function Principle



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