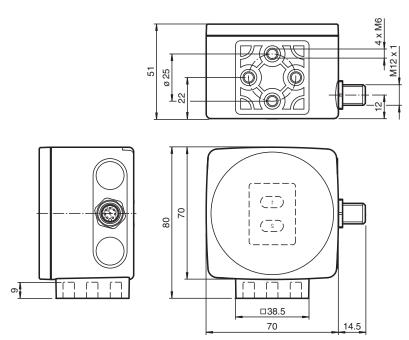


Optical reading head PCV100-F200-R4-V19-6011

- RS-485 interface
- Non-contact positioning on Data Matrix code tape
- Travel ranges up to 10 km, in X and Y direction
- Mechanically rugged: no wearing parts, long operating life, maintenance-free
- High resolution and precise positioning, especially for facilities with curves and switch points as well as inclines and declines.

Read head for incident light positioning system

Dimensions



Technical Data

Release date: 2024-02-07 Date of issue: 2024-02-07 Filename: 259538_eng.pdf

General specifications			
Passage speed	V	≤ 6 m/s	
Measuring range		max. 10000 m	
Light type		Integrated LED lightning (red)	
Scan rate		40 s ⁻¹	
Read distance		100 mm	
Depth of focus		± 40 mm	
Reading field		60 mm x 35 mm	
Ambient light limit		100000 Lux	
Resolution		± 0.1 mm	

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

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1

Technical Data

CameraTypeCoKOS, Global shutterProcessor600 MHzSpeed of conjunction600 MHzDight resolution600 MHzDight resolution7 LEDs (communication, alignment ald, status information)Electrical specifications7 LEDs (communication, alignment ald, status information)Power consumptionPower consumptionPower consumptionPower consumptionPower consumptionPower consumptionPower consumptionPower consumptionPower consumptionConstructional inputs and status informationData output code100 Macrosole MHzData output code20 NBCData output code20 NBCData output code20 NBCData output code20 NBCDiput type10 3 Switch outputs, PNO programmable short-circuit protectedDiput type10 3 Switch outputs, PNO programmable short-circuit protectedDiput type10 3 Switch outputs, PNO programmable short-circuit protectedSwitching voltage10 3 Switch outputs, PNO programmable short-circuit protectedSwitching voltage10 3 Switch outputs, PNO programma				
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Mass approx. 160 g Dimensions 70 mm Height 70 mm Width 70 mm Depth 50 mm	Material			
Mass approx. 160 g Dimensions 70 mm Height 70 mm Width 70 mm Depth 50 mm	Housing		PC/ABS	
Dimensions Height 70 mm Width 70 mm Depth 50 mm			approx. 160 g	
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Width 70 mm Depth 50 mm	Height		70 mm	
Depth 50 mm	•		70 mm	
	Factory settings			

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

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 Get

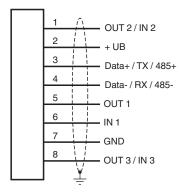
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Release date: 2024-02-07 Date of issue: 2024-02-07 Filename: 259538_eng.pdf

Technical Data

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Connection



Connection Assignment

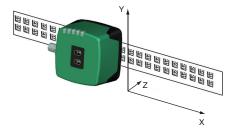


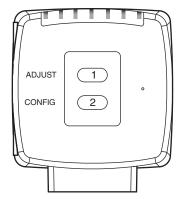
Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

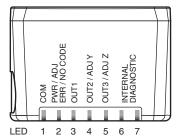
3

Characteristic Curve

Coordinates







4

Additional Information

General

The reading head is part of the positioning system in the method for measurement by Pepperl+Fuchs. It consists of a camera module and an integrated illumination unit among other things. The reading head detects position marks, which are put on an adhesive code band in the form of Data Matrix code. The mounting of the code band is as a rule stationary on a firm part of the plant (elevator shaft, overhead conveyor mounting rails...); that of the reading head is parallel on the moving "vehicle" (elevator car, overhead conveyor chassis...).

Mounting and commissioning

Mount the reading head such that its optical surface captures the optimal read distance to the code band (see Technical Data). The stability of the mounting and the guidance of the vehicle must be provided such that the depth of field of the reading head is not closed during operation. All reading heads can be optimally customized by parameterization for specific requirements. The parameterization of reading heads with a bidirectional interface (all except SSI-interface) can take place via the interface itself (internal parameterization) or via an optical parameterization code (external parameterization). The reading heads with SSI interface only have the possibility of external parameterization via optical parameterization codes.

Displays and Controls

The reading head allows visual function check and fast diagnosis with 7 indicator LEDs. The reading head has 2 buttons on the reverse of the device to activate the alignment aid and parameterization mode.

LEDs

LED	Color	Label	Meaning
1	Yellow	COM	Communication active
2	Green/red	PWR/ADJ ERR/NO CODE	Code recognized/not recognized, Error
3	Yellow	OUT1	Output 1
4	Yellow	OUT2/ADJ Y	Output 2, Alignment aid Y
5	Yellow	OUT3/ADJ Z	Output 3, Alignment aid Z
6,7	red/green/yellow	INTERNAL DIAGNOSTICS	Internal diagnostics

External parameterization

For external parameterization you require the parameterization code as Data Matrix with the desired reading head parameters. Data Matrix code cards for step-by-step external parameterization are printed in the reading heads operating instructions.

Parameterization is only possible within 10 minutes of switching on the reading head. If a button is pressed after 10 minutes subsequent to switching on, there is visual signaling via the LEDs (LED1, yellow/LED2, red/LED3, yellow/LED4, yellow/LED5, yellow flash for 2 seconds)

• The switchover from normal operation to parameterization mode is via button 2 on the reverse of the reading head. Button 2 must be pressed for more than 2 seconds. LED3 now flashes.

Note: Parameterization mode automatically ends after 1 minute of inactivity. The reading head returns to normal operation and works with unchanged settings.

- Place the parameterization code in the view of the camera module. After recognition of the parameterization code, the green LED2 lights up for 1s. In the event of an invalid parameterization code, the red LED2 lights up for 2 s.
- A short press on button 2 ends the parameterization mode and the changed parameters are not stored volatile in the reading head.

Alignment aid for the Y and Z coordinates

The activation of the alignment aid is only possible within 10 minutes of switching on the reading head. The switchover from normal operation to "alignment aid operating mode is via button 1 on the reverse of the reading head.

- Press the button 1 for longer than 2 s. LED2 flashes green for a recognized code band. LED2 flashes red for an unrecognized code band.
 <u>Z coordinate</u>: If the distance of the camera to the code band too small, the yellow LED5 lights up. If the distance of the camera to the code band too large, the yellow LED5 lights up. Within the target range, the yellow LED5 flashes at the same time as the green LED2.
- Y coordinate: If the optical axis of the camera is too deep in relation to the middle of the code band, the yellow LED4 lights up. If the optical axis is too high, the yellow LED4 extinguishes. Within the target range, the yellow LED4 flashes at the same time as the green LED2.
- A short press on button 1 ends the alignment aid and the reading head changes to normal operation.

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