



Optical reading head

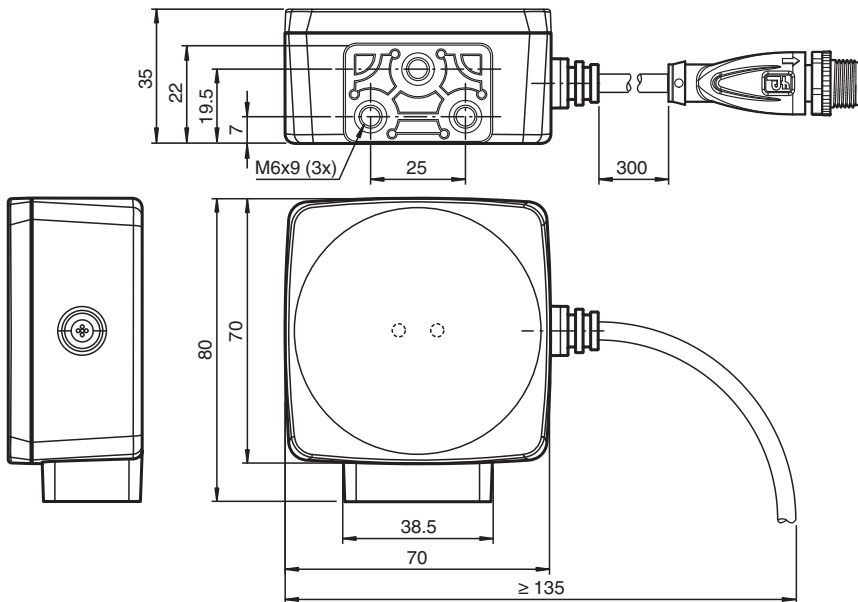
PXV100Q-F213-SSI-0.3M-V19

- Mechanically rugged: no wearing parts, long operating life, maintenance-free
- Non-contact positioning on Data Matrix code tape
- SSI interface
- High resolution and precise positioning, especially for facilities with curves and switch points as well as inclines and declines.
- Internal flash

Read head for incident light positioning system



Dimensions



Technical Data

General specifications

Passage speed	v	≤ 12.5 m/s
Maximum track length		max. 100000 m
Light type		Integrated LED lightning (red)
Evaluation frequency		40 s ⁻¹
Latency		50 ms
Read distance (z)		100 mm
Reading tolerance in z-direction		± 30 mm
Field of view		120 mm x 80 mm (for z = 100 mm)
Reading tolerance in y-direction		± 30 mm (for z = 100 mm)
Ambient light limit		100000 Lux
Accuracy x-position		± 0.2 mm (for z = 100 mm)
Accuracy y-position		± 0.2 mm (for z = 100 mm)

Release date: 2026-09-22 Date of issue: 2026-09-22 Filename: 70122726-100013_eng.pdf

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

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS

Technical Data

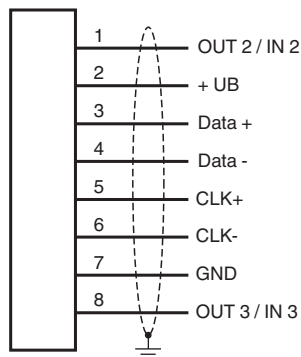
Nominal ratings		
Camera		
Type		CMOS , Global shutter
Functional safety related parameters		
MTTF _d		97 a
Indicators/operating means		
LED indication		2 LEDs (communication, status)
Electrical specifications		
Operating voltage	U _B	15 ... 30 V DC , PELV
No-load supply current	I ₀	max. 200 mA
Power consumption	P ₀	3 W (at no-load)
Interface		
Interface type		SSI interface
Data output code		Gray code, binary code , programmable
Process data		Position data (x, y) , speed (bi-directional) , status data , warning
Query cycle time		≥ 3 ms
Clock frequency		100 ... 1000 kHz
Monoflop time		T _m = 10 μs
Pause time	t _p	≥ 20 μs double request possible, if t _p ≤ 10 μs
Service interface		
Interface		UART 115,200 baud
Input		
Number		0 ... 2 , programmable
Input type		0 level: unswitched or -UB ... +7 V1 level: +13 V ... +UB
Input impedance		≥ 30 kΩ
Output		
Number		0 ... 2 , programmable
Output type		Push/pull , PNP , NPN , programmable
Switching voltage		Operating voltage
Switching current		100 mA each output
Conformity		
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
Approvals and certificates		
CE conformity		CE
UL approval		cULus Listed, Class 2 Power Source, Type 1 enclosure
CCC approval		CCC approval / marking not required for products rated ≤36 V
Ambient conditions		
Operating temperature		0 ... 60 °C (32 ... 140 °F) , -20 ... 60 °C (-4 ... 140 °F) (non-condensing; prevent icing on the lens!)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Relative humidity		90 % , non-condensing
Mechanical specifications		
Connection type		8-pin, M12 x 1 connector
Degree of protection		IP54
Material		
Housing		PC/ABS
Cable		PVC
Cable		
Sheath diameter		6.2 mm

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Bending radius		37 mm
Strain relief		60 N
Length	L	0.3 m
Mass		approx. 200 g
Dimensions		
Height		80 mm
Width		70 mm
Depth		35 mm
Factory settings		
SSI coding		digital
Data content		X-Position (22 Bit), Status (3 Bit)
Orientation		0 ° / 180 °
Resolution x-position		1 mm
Resolution y-position		1 mm
Speed resolution		0.1 m/s
X-offset		0 mm
Behaviour in case of missing x-position data		Substitute value 0
Behaviour in case of missing y-position data		Substitute value 0
Behaviour in case of missing speed data		Substitute value 2147483647
Extrapolation		Linear extrapolation
Marker position		Event marker instead of code tape
Output 2 (OUT2)		PP, Quality Values (Threshold 4)
Output 3 (OUT3)		No function

Connection Assignment



Indication

