



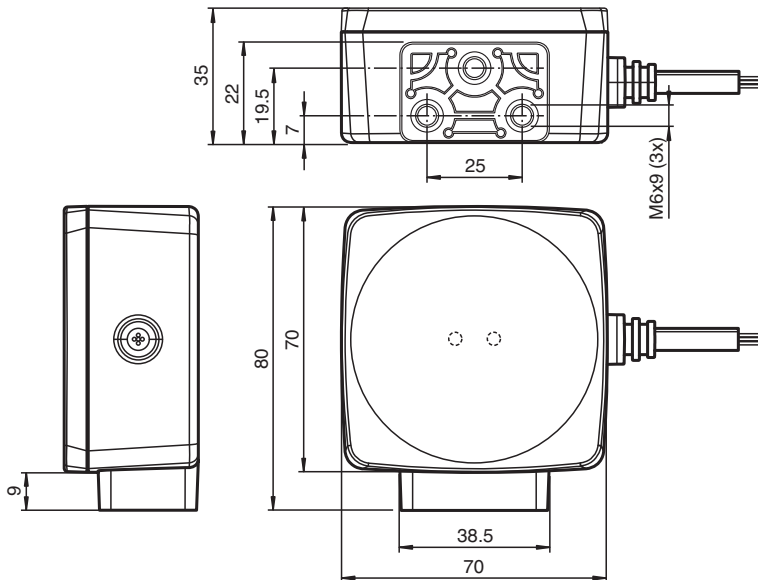
Optical reading head PXV100Q-F213-SSI-3M

- Mechanically rugged: no wearing parts, long operating life, maintenance-free
- Internal flash
- 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.

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)

Nominal ratings

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

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Technical Data

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		programmable, Gray code, binary code
Process data		Position data (x, y) , speed (bi-directional) , status data , warning
Transfer rate		
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		Open cable end
Degree of protection		IP54
Material		
Housing		PC/ABS
Cable		PVC
Cable		
Sheath diameter		6.2 mm

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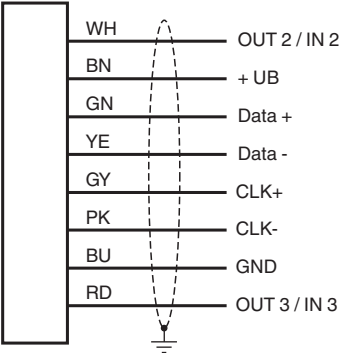
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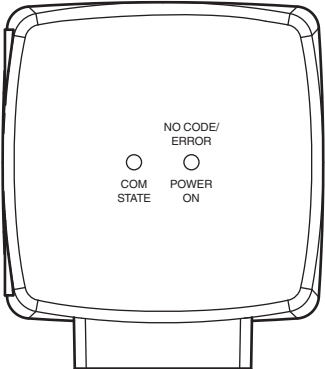
Technical Data

Bending radius		37 mm
Strain relief		60 N
Length	L	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



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