



## Stationary read device

### OPC120P-F201-B17



- Reading on highly reflective surfaces with new polarization filter
- PROFINET interface with integrated switch
- Reads Data Matrix codes at high speeds of up to 10 m/s at 50 readings/s

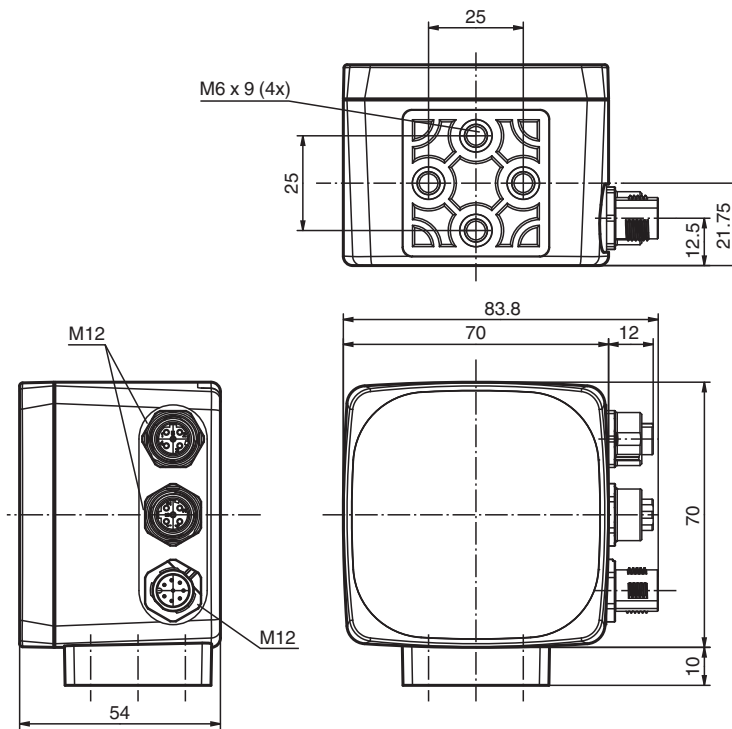
Optical Print Inspector, reading of Data Matrix codes, PROFINET, speeds up to 10 m/sec, polarization filter



### Function

With the Optical Print Inspector, Pepperl+Fuchs provides the solution to code reading and detection tasks in the field of printing, paper, and packaging. Whether reading 1-D and 2-D codes at high speeds, reading reliably on reflective surfaces and at varying intervals, or performing various detection tasks — with the Optical Print Inspector, you always have the right Vision Sensor close at hand.

### Dimensions



### Technical Data

#### General specifications

Light type	Integrated LED lightning (white)
Polarization filter	yes
Symbologies	Data Matrix

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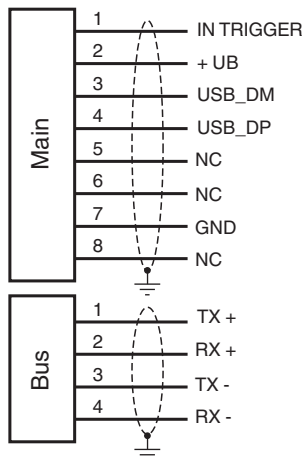
## Technical Data

Read distance		70 ... 180 mm Nominal distance: 120 mm
Reading field		Minimum read field: 28 mm x 45 mm Read field at nominal distance: 45 mm x 70 mm Maximum read field: 65 mm x 105 mm
Modul size		Minimum module size: 0.2 mm
Evaluation frequency		up to 50 Hz
Target velocity		triggered max. 10 m/s
Data Matrix		
Symbol size		rectangular up to 144 x 144 modules rectangular up to 16 x 48 modules
Data format		ASCII, C40, Text, X12, Edifact, Base 256 , all according to ISO 646
Orientation		omnidirectional
<b>Nominal ratings</b>		
Camera		
Type		CMOS , Global shutter
Number of pixels		752 x 480 pixels
Gray scale		256
Image recording		real-time , Program-controlled or triggered externally
<b>Functional safety related parameters</b>		
MTTF <sub>d</sub>		40.5 a
Mission Time (T <sub>M</sub> )		8 a
Diagnostic Coverage (DC)		0 %
<b>Indicators/operating means</b>		
LED indication		7 LEDs (communication, alignment aid, status information)
<b>Electrical specifications</b>		
Operating voltage	U <sub>B</sub>	24 V DC ± 15% , PELV
No-load supply current	I <sub>0</sub>	max. 300 mA
Power consumption	P <sub>0</sub>	6 W
<b>Interface</b>		
Interface type		100 BASE-TX
Protocol		PROFINET IO Real-Time (RT) Conformance class A
Transfer rate		100 MBit/s
<b>Interface 2</b>		
Interface type		USB Service
<b>Input</b>		
Input voltage		to be applied externally 24 V ± 15% PELV
Number/Type		Trigger
Input current		approx. 10 mA at 24 V DC
Switching threshold		low: < 10 V, high: > 15 V
Cable length		max. 30 m
<b>Output</b>		
Switching type		PNP
Switching voltage		to be applied externally 24 V ± 15 % PELV
Switching current		100 mA each output
Cable length		max. 30 m
<b>Compliance with standards and directives</b>		
Standard conformity		
Noise immunity		EN 61326-1:2006
Emitted interference		EN 61000-6-4:2007/A1:2011
Degree of protection		EN 60529
Photobiological safety		Risk group 1 according to IEC 62471
<b>Approvals and certificates</b>		
CCC approval		CCC approval / marking not required for products rated ≤36 V

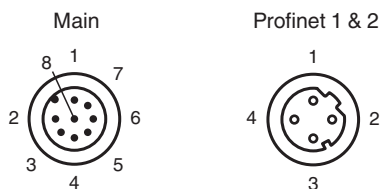
## Technical Data

Approvals	CE
<b>Ambient conditions</b>	
Ambient temperature	0 ... 45 °C (32 ... 113 °F)
Storage temperature	-20 ... 85 °C (-4 ... 185 °F)
Relative humidity	90 % , noncondensing
<b>Mechanical specifications</b>	
Degree of protection	IP67
Connection	8-pin, M12x1 connector, standard (supply+IO) , 4-pin, M12x1 socket, D-coded (LAN) , 4-pin, M12x1 socket, D-coded (LAN)
Material	
Housing	PC/ABS
Optical face	Plastic pane
Installation	4 x M6 threading
Mass	approx. 200 g
<b>Dimensions</b>	
Height	70 mm
Width	70 mm
Depth	53 mm

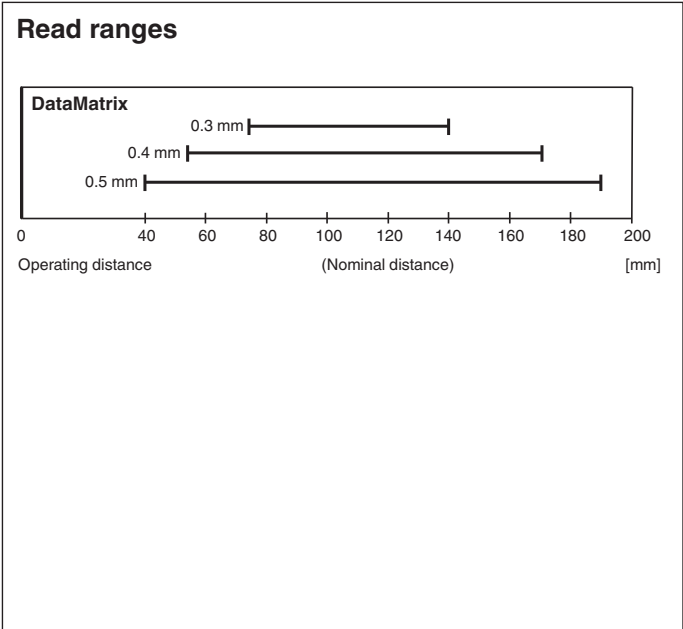
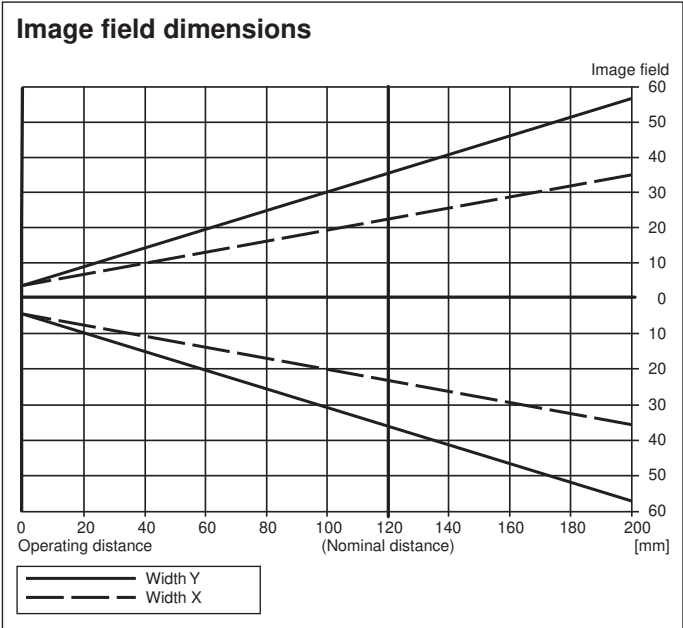
## Connection



## Connection Assignment



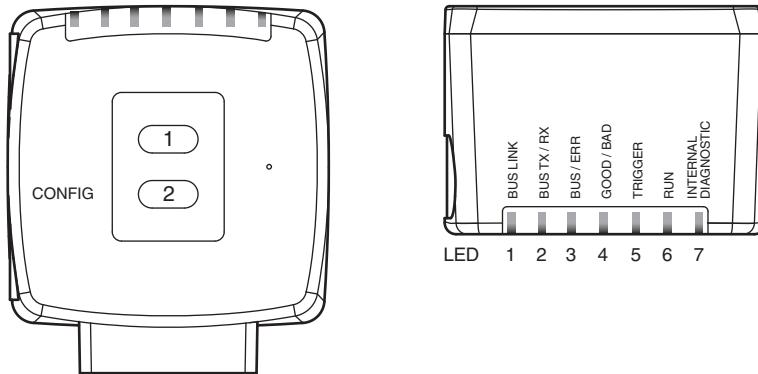
**Characteristic Curve**



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**Indication**

The Optical Print Inspector is equipped with seven indicator LEDs for carrying out visual function checks and rapid diagnostics. In addition, the device is fitted with two buttons on the back of the unit.



LED	Color	Label	Description
1	Green	BUS Link	PROFINET connection activated
2	Yellow	BUS TX / RX	PROFINET data transfer
3	Red	BUS / ERR	PROFINET communication error
4	Green/red	GOOD / BAD	Reading successful/failed
5	Yellow	TRIGGER	Trigger sensor triggered
6	Yellow	RUN	Device ready for operation
7	Red/yellow/green	INTERNAL DIAGNOSTICS	Diagnostic message

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