



Model Number

OPC120P-F201-B17

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

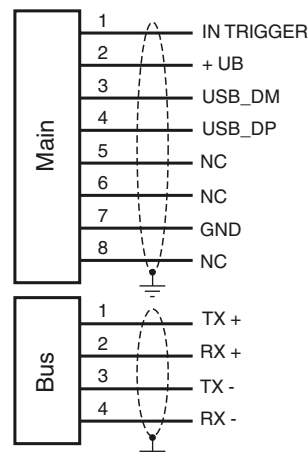
Features

- 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

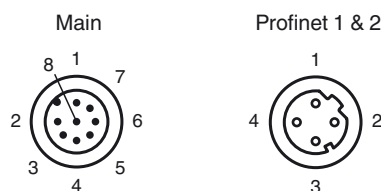
Function

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.

Electrical connection



Pinout



Technical data

General specifications

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

Nominal ratings

Camera	
Type	CMOS, Global shutter
Number of pixels	752 x 480 pixels
Gray scale	256
Image recording	real-time, Program-controlled or triggered externally

Functional safety related parameters

MTTF _d	40.5 a
Mission Time (T _M)	8 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

LED indicator	7 LEDs (communication, alignment aid, status information)
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Electrical specifications

Operating voltage	U_B	24 V DC \pm 15% , PELV
No-load supply current	I_0	max. 300 mA
Power consumption	P_0	6 W

Interface

Interface type	100 BASE-TX
Protocol	PROFINET IO Real-Time (RT) Conformance class A
Transfer rate	100 MBit/s

Interface 2

Interface type	USB Service
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Input

Input voltage	to be applied externally 24 V \pm 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

Output

Switching type	PNP
Switching voltage	to be applied externally 24 V \pm 15% PELV
Switching current	100 mA each output
Cable length	max. 30 m

Ambient conditions

Ambient temperature	0 ... 45 °C (32 ... 113 °F)
Storage temperature	-20 ... 85 °C (-4 ... 185 °F)
Relative humidity	90% , noncondensing

Mechanical specifications

Degree of protection	IP65
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

Compliance with standards and directives

Standard conformity	
Noise immunity	EN 61326-1:2006
Emitted interference	EN 61000-6-4:2007/A1:2011
Degree of protection	EN 60529
Laser class	IEC 60825-1:2007

Approvals and certificates

UL approval	cULus Listed, General Purpose, Class 2 Power Source, Type 1 enclosure
CCC approval	CCC approval / marking not required for products rated \leq 36 V
Approvals	CE

Accessories**V19-G-2M-PUR-ABG**

Female cordset, M12, 8-pin, shielded, PUR cable

V15S-G-5M-PUR-ABG

Male cordset, M12, 5-pin, shielded, PUR cable

V1SD-G-2M-PUR-ABG-V45-G

Connection cable, M12 to RJ-45, PUR cable 4-pin, CAT5e

V1SD-G-2M-PUR-ABG-V45X-G

Connection cable, M12 to RJ-45, PUR cable 4-pin, CAT5e

V19-G-ABG-PG9

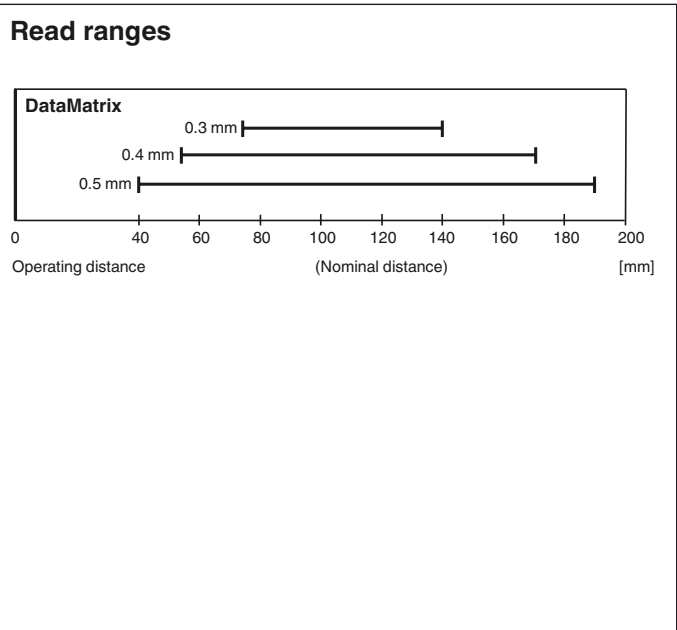
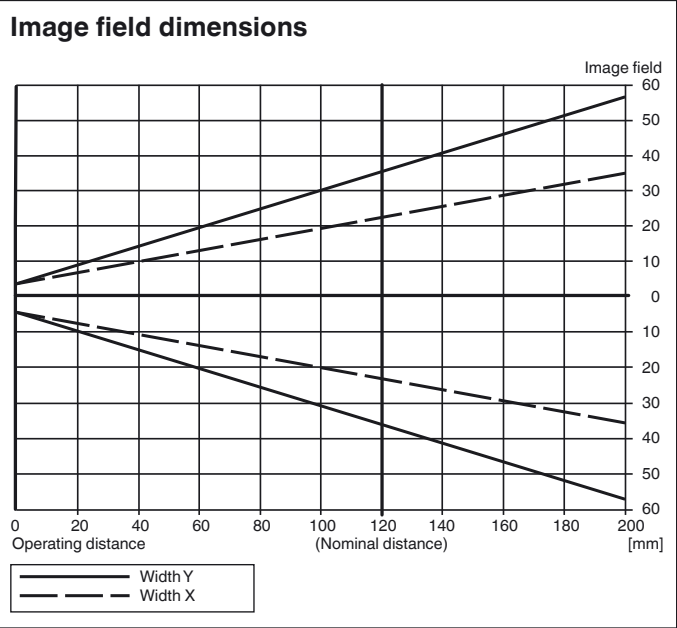
Female connector, M12, 8-pin, shielded, field attachable

V19-G-0,2M-YOPC-0,2M-V1S/V31-G

Y connection cable

Other suitable accessories can be found at www.pepperl-fuchs.com

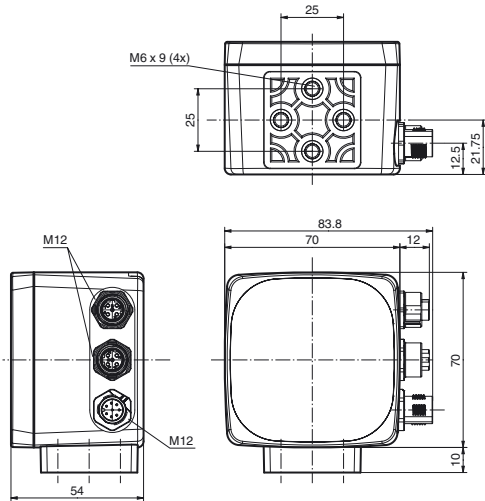
Curves / Diagrams



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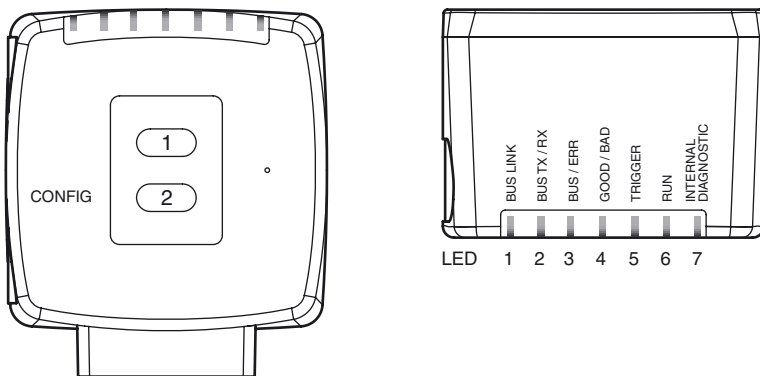
Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Dimensions



Indicators/Controls

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/yel-low/green	INTERNAL DIAGNOSTICS	Diagnostic message

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