Stationary read device

OPC70P-F201-R2-45

- Reads 1-D and 2-D codes at high speeds of up to 10 m/s at 100 readings/s
- High depth of focus
- Logo comparison
- Rotary encoder input
- Reliable on reflective surfaces through polarization filter technology
- Presence detection

Optical Print Inspector, reads all common 1-D and 2-D codes, detects logos, Ethernet, RS 232, speeds of up to 10 m/s; 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, with overly long barcodes or performing diverse detection tasks with the Optical Print Inspector, you always have the right Vision Sensor at your disposal.

Dimensions
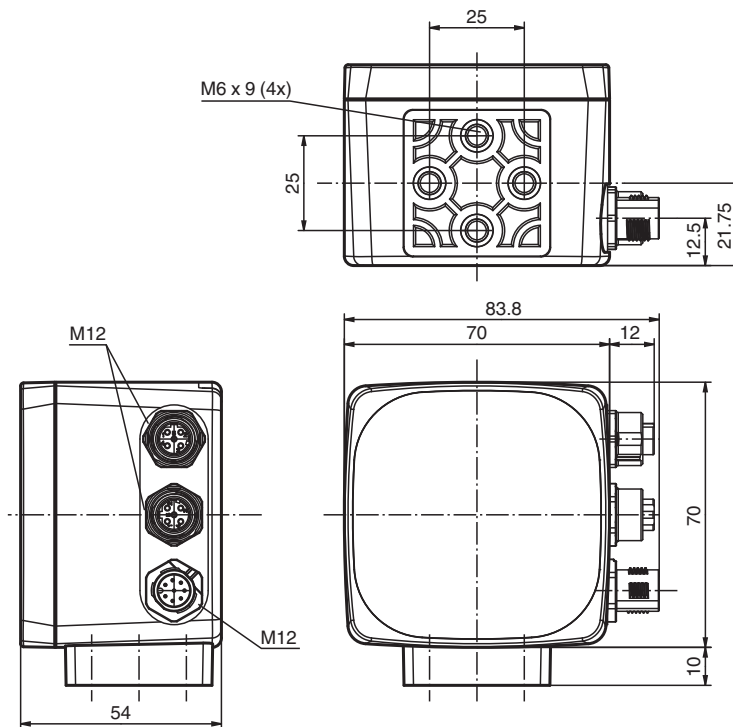
Technical Data

General specifications

Light type	Integrated LED lightning (white)
Polarization filter	yes
Symbologies	Data Matrix, Code 39, Code 128, Int 2 of 5, EAN13, Pharmacode

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Technical Data

Read distance	45 ... 90 mm Nominal distance: 70 mm
Reading field	Minimum read field: 22 mm x 30 mm Read field at nominal distance: 28 mm x 45 mm Maximum read field: 35 mm x 55 mm
Modul size	Minimum module size: 0.15 mm
Evaluation frequency	up to 100 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

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

Operation indicator	LED green: Ready for operation
LED indication	for good/poor reading

Electrical specifications

Operating voltage	U_B	24 V DC ± 15% , PELV
No-load supply current	I_0	max. 250 mA
Power consumption	P_0	6 W

Interface

Interface type	serial , RS 232
Transfer rate	max. 115.2 kBit/s
Cable length	max. 30 m

Interface 1

Interface type	Ethernet
Protocol	TCP/IP
Transfer rate	100 MBit/s
Cable length	max. 30 m

Input

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

Output

Number/Type	GOOD, BAD, Matchcode
Switching type	PNP
Switching voltage	to be applied externally 24 V ± 15 % PELV
Switching current	100 mA each output
Cable length	max. 30 m

Compliance with standards and directives

Standard conformity	
Noise immunity	EN 61326-1:2006

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

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Technical Data

Emitted interference	EN 61000-6-4:2007/A1:2011
Degree of protection	EN 60529
Photobiological safety	Risk group 1 according to IEC 62471
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 ≤36 V
Approvals	CE
Ambient conditions	
Ambient temperature	0 ... 45 °C (32 ... 113 °F)
Storage temperature	-20 ... 60 °C (-4 ... 140 °F)
Mechanical specifications	
Degree of protection	IP67
Connection	8-pin, M12x1 connector, standard (supply+IO) , 5-pin, M12x1 socket, standard (RS 232) , 4-pin, M12x1 socket, standard (LAN)
Material	
Housing	PC/ABS
Installation	4 x M6 threading
Mass	approx. 160 g

Connection

RS 232

Pin	Signal
1	+UB
2	TX RS232
3	GND
4	RX RS232
5	NC

LAN

Pin	Signal
1	TX+ Ethernet
2	RX+ Ethernet
3	TX- Ethernet
4	RX- Ethernet

(24 V DC + I/O)
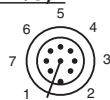
Pin	Signal
1	IN Trigger
2	+UB
3	OUT Good
4	OUT Bad
5	IN 1
6	IN Encoder A
7	GND
8	OUT Matchcode

Assembly
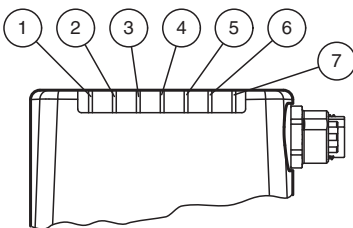
1	LED DIAG2	yellow
2	LED DIAG1	yellow
3	LED POWER	green
4	LED READY	yellow
5	LED BAD	yellow
6	LED GOOD	yellow
7	LED TRIGGER	yellow

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Accessories

	V19-G-2M-PUR-ABG	Female cordset single-ended M12 straight A-coded, 8-pin, PUR cable grey, shielded
	V15S-G-5M-PUR-ABG	Male cordset single-ended M12 straight A-coded, 5-pin, PUR cable grey, shielded
	V1SD-G-2M-PUR-ABG-V45-G	Connection cable, M12 to RJ-45, PUR cable 4-pin, CAT5e
	V19-G-ABG-PG9	Female connector M12 straight A-coded 8-pin, for cable diameter 5 - 8 mm, shielded, field-attachable
	V19-G-0,2M-YOPC-0,2M-V1S/V31-G	Y connection cable M12 socket straight A-coded 8-pin to M12 plug / M8 socket straight A-coded 4-pin, 3x PUR cable grey, shielded

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