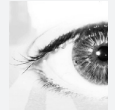




Vision Sensor

BIS510P-F201A-60



- Automatic learning of the reference image
- Automatic search for optimum image section
- Reliable on reflective surfaces through polarization filter technology
- Integrated error image memory
- Integrated illumination
- Image and barcode recognition with 10 page/s and a maximum sheet speed of 4 m/s

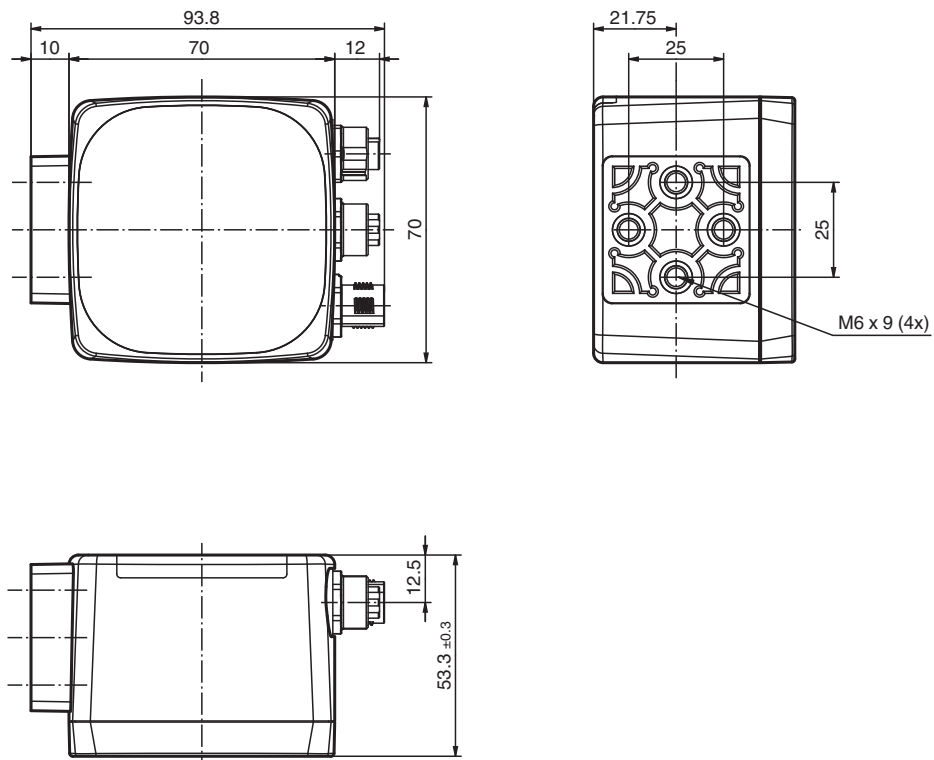
Sheet inspection sensor for monitoring print by comparing stored images or barcode evaluation



Function

The sheet identification sensor from Pepperl+Fuchs enables fast and simple monitoring of the correct sheet sequence in collating, folding and binding machines. Sheets can be monitored either by using the image comparison method or reading in barcodes printed on the sheets. The device can be operated locally, as a stand-alone unit or in a network where several sensors are connected together. The sensor includes a camera, illumination unit and evaluating computer with digital input and output signals as well as a network interface.

Dimensions



Release date: 2020-03-26 Date of issue: 2020-03-27 Filename: 268532_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

General specifications			
Light type		Integrated LED lightning (white)	
Symbologies		2/5 interleaved, Code13, Code39, Code128, Pharmacode	
Object size		25 mm x 25 mm	
Read distance		52 mm	
Depth of focus		± 5 mm	
Reading field		65 mm x 40 mm	
Evaluation frequency		10 Hz	
Target velocity		triggered max. 4 m/s	
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	
Indicators/operating means			
Operation indicator		LED green: Ready for operation	
Control elements		2 x Button	
LED indicator		Trigger, Good, Bad, Teach, Diag1, Diag2, PWR	
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 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		1 trigger input 1 teach input 2 input (IN1, IN2)	
Input current		approx. 2 mA at 24 V DC	
Switching threshold		low: < 10 V, high: > 15 V	
Cable length		max. 30 m	
Output			
Number/Type		Teach active, Good, Bad, Ready	
Switching type		PNP , short-circuit/overload protected	
Switching voltage		to be applied externally 24 V ± 15 % PELV	
Switching current		max. 100 mA each output	
Cable length		max. 30 m	
Compliance with standards and directives			
Standard conformity			
Noise immunity		EN 61326-1	
Emitted interference		EN 61000-6-4	
Degree of protection		EN 60529	
Laser class		IEC 60825-1:2007	
Approvals and certificates			
Approvals		CE	
Ambient conditions			
Ambient temperature		0 ... 45 °C (32 ... 113 °F)	
Storage temperature		-20 ... 60 °C (-4 ... 140 °F)	
Relative humidity		80 % , noncondensing	

Release date: 2020-03-26 Date of issue: 2020-03-27 Filename: 268532_eng.pdf

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

Pepperl+Fuchs Group
www.pepperl-fuchs.comUSA: +1 330 486 0001
fa-info@us.pepperl-fuchs.comGermany: +49 621 776 1111
fa-info@de.pepperl-fuchs.comSingapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS

Technical Data

Shock resistance	< 50 g
Vibration resistance	< 3 G , 11 ... 200 Hz
Mechanical specifications	
Degree of protection	IP67
Connection	8-pin, M12x1 connector, standard (supply+IO) , 5-pin, M12x1 socket, standard (IO) , 4-pin, M12x1 socket, D-coded (LAN)
Material	
Housing	PC/ABS
Optical face	Plastic pane
Installation	4 x M6 threading
Mass	approx. 160 g

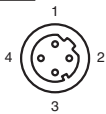
Connection

IO



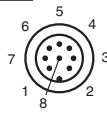
Pin	Signal
1	OUT +UB
2	IN 1
3	GND
4	IN 2
5	OUT 1

LAN



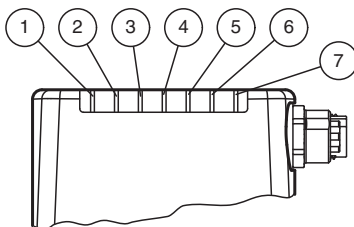
Pin	Signal
1	TX+ Ethernet
2	RX+ Ethernet
3	TX- Ethernet
4	RX- Ethernet

24 V DC+IO



Pin	Signal
1	IN Trigger
2	+UB
3	OUT Good
4	OUT Bad
5	IN Start Teach
6	OUT Ready
7	GND
8	OUT Teach Active

Assembly











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

Accessories

	V19-G-ABG-PG9	Female connector, M12, 8-pin, shielded, field attachable
	V19-G-2M-PUR-ABG	Female cordset, M12, 8-pin, shielded, PUR cable

Release date: 2020-03-26 Date of issue: 2020-03-27 Filename: 268532_eng.pdf

Accessories

	V19-G-5M-PUR-ABG	Female cordset, M12, 8-pin, shielded, PUR cable
	V1SD-G-2M-PUR-ABG-V45X-G	Connection cable, M12 to RJ-45, PUR cable 4-pin, CAT5e
	V1SD-G-2M-PUR-ABG-V45-G	Connection cable, M12 to RJ-45, PUR cable 4-pin, CAT5e
	V15-G-2M-PUR	Female cordset, M12, 5-pin, PUR cable
	V15-G-5M-PUR	Female cordset, M12, 5-pin, PUR cable
	V15-G-2M-PUR-V15-G	Connecting cable, M12 to M12, PUR cable 5-pin
	V15S-G-5M-PUR-ABG	Male cordset, M12, 5-pin, shielded, PUR cable
	PCV-MB1	Mounting bracket for PCV* read head

Release date: 2020-03-26 Date of issue: 2020-03-27 Filename: 268532_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

Accessories

Additional accessories can be found in the Internet.

Release date: 2020-03-26 Date of issue: 2020-03-27 Filename: 268532_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**