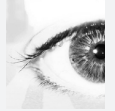




Vision Sensor

PHA200-F200A-R2-T-5927



- Large capture range
- High operating range
- Integrated contrast compensation
- Compact design
- Integrated illumination
- Detects the position of an index hole

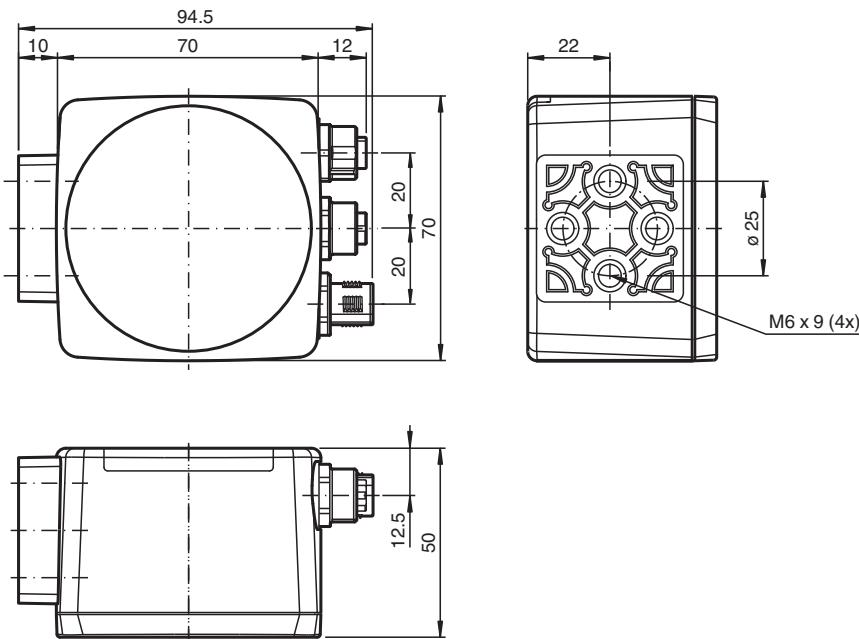
Precision positioning on hole in the 70 mm x 70 mm housing



Function

The sensor has been developed for the precision positioning of high-bay racking operating equipment. It detects circular holes in the racking structure and their positional deviation from the nominal position. The sensor operates in two dimensions.

Dimensions



Release date: 2020-03-26 Date of issue: 2020-03-27 Filename: 256961_eng.pdf

Technical Data

General specifications

Light source	LED
Light type	Integrated LED lightning (infrared)
Object size	Hole diameter 13 mm
Response delay	100 ms

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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

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Technical Data

Read distance	200 mm
Depth of focus	± 50 mm
Relative stroke	10 mm
Capture range	max. 120 mm x 100 mm
Nominal ratings	
Camera	
Type	CMOS , Global shutter
Number of pixels	752 x 480 pixels
Gray scale	256
Functional safety related parameters	
MTTF _d	70 a
Mission Time (T _M)	10 a
Diagnostic Coverage (DC)	0 %
Indicators/operating means	
Operation indicator	LED green: Ready for operation
Function indicator	4 x LED yellow: +X, -X, +Y, -Y
Control elements	none
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	Cycle stop, relative stroke
Input current	1.6 mA at 24 V
Switching threshold	low: < 10 V, high: > 15 V
Cable length	max. 30 m
Output	
Switching type	PNP , short-circuit/overload protected
Signal output	+X, -X, +Y, -Y
Switching voltage	24 V
Switching current	max. 100 mA each output
Cable length	max. 30 m
Compliance with standards and directives	
Directive conformity	
EMC Directive 2004/108/EC	EN 61326-1 , EN 61000-6-4
Standard conformity	
Noise immunity	EN 61326-1:2006
Emitted interference	EN 61000-6-4:2007/A1:2011
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	

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 **PEPPERL+FUCHS**

Technical Data

Operating temperature	-30 ... 60 °C (-22 ... 140 °F) , (noncondensing; prevent icing on the lens!)
Storage temperature	-30 ... 85 °C (-22 ... 185 °F)
Relative humidity	90 % , noncondensing
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 (RS 232) , 4-pin, M12x1 socket, standard (LAN)
Material	
Housing	PC/ABS
Optical face	Plastic pane
Installation	4 x M6 threading
Mass	approx. 160 g

Connection

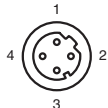
RS 232



Pin	Signal
-----	--------

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

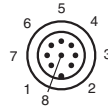
LAN



Pin	Signal
-----	--------

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

24 V DC+IO



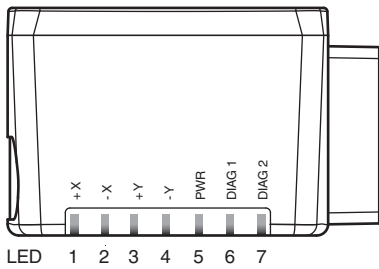
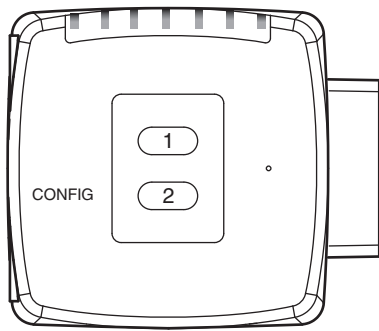
Pin	Signal
-----	--------

- 1 OUT +X
- 2 +UB
- 3 OUT -Y
- 4 OUT +Y
- 5 OUT -X
- 6 IN 1
- 7 GND
- 8 IN 2

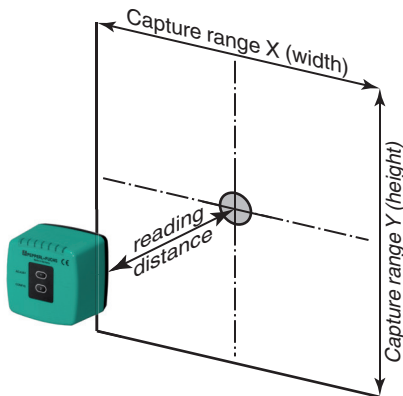
Release date: 2020-03-26 Date of issue: 2020-03-27 Filename: 256961_eng.pdf

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






Assembly



Characteristic Curve



Accessories

	V19-G-5M-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
	PCV-MB1	Mounting bracket for PCV* read head

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Accessories

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

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