

Vision Sensor PHA400-F200A-B17-T-V1D



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

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





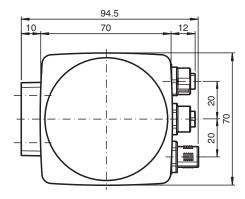


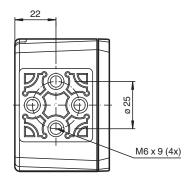


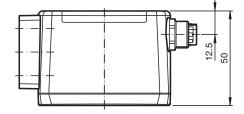
Function

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





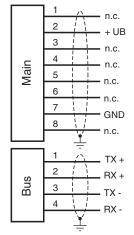


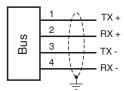
Technical Data

General specifications					
Light type	Integrated LED lightning (infrared)				
Object size	Hole diameter 13 mm				
Response delay	100 ms				
Read distance	400 mm				
Depth of focus	± 50 mm				

Operation indicator LED green: Ready for operation Function indicator 7 LEDs (communication, alignment aid, status information) Control elements Button for parameterization Electrical specifications Button for parameterization Operating voltage U _B 24 V DC +/- 15 %, PELV No-load supply current I ₀ max. 400 mA Power consumption P ₀ 6 W Interface type 100 BASE-TX PROFINET Protocol PROFINET IO Real-Time (RT) Conformance class A Transfer rate 100 MBit/s Conformity Shock resistance Vibration resistance EN 60068-2-27:2009 Vibration resistance EN 60068-2-6:2008 Emitted interference EN 61000-6-4:2007+A1:2011 Noise immunity EN 61000-6-2:2005 Photobiological safety exempt group according EN 62471:2008 Approvals and certificates CE CE conformity CE UL approval CULus Listed, General Purpose, Class 2 Power Source CCC approval CCC approval / marking not required for products rated ≤36 V Vimbient conditions -30 60 °C (-22 140 °F) (noncondensing; prevent icing on the lens!)	Technical Data		
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	Mass		approx. 200 g

Connection





Connection Assignment

Main

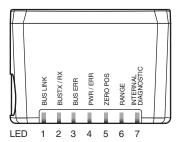
Profinet 1 & 2





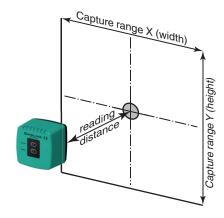
Indication





3

Characteristic Curve



Accessories

	V19-G-5M-PUR-ABG	Female cordset single-ended M12 straight A-coded, 8-pin, PUR cable grey, shielded
*	PCV-MB1	Mounting bracket for PCV* read head
S.	PCV-SC12A	Grounding clip for PCV system
S.	PCV-SC12	Grounding clip for PCV system
	V19-G-2M-PUR-ABG	Female cordset single-ended M12 straight A-coded, 8-pin, PUR cable grey, shielded

Additional Information

General

The PHA... Vision Sensor has been developed for the rack fine positioning of stock feeders. This device detects circular holes in the rack structure and determines the position deviation of these holes in relation to the target position. The Vision Sensor operates in two dimensions.

Mounting and Commissioning

Mount the PHA... Vision Sensor in such a way that the optical surface of the device captures the optimum distance to the carrier/hole (see "Technical Data"). The stability of the Vision Sensor mounting and the manner in which the vehicle is guided must ensure that the device is not operated outside of its depth of focus range.

All Vision Sensors can be adapted to optimally meet specific requirements by means of parameterization.

Indicators and Controls

The PHA... Vision Sensor is equipped with seven indicator LEDs for carrying out visual function checks and rapid diagnostics. The read head is equipped with two buttons at the back for activating the parameterization mode.

LEDs

LED	Color	Labeling	Meaning
1	yellow	BUS LINK	PROFINET communication active
2	yellow	BUS TX / RX	Data transfer
3	red	BUS ERR	PROFINET communication error
4	green/red	PWR/ERR	Fault with power supply/general error
5	yellow	ZERO POS	Zero position reached
6	yellow	RANGE	Within detection/capture range
7	red/green/yellow	INTERNAL DIAGNOSTIC	Internal diagnostics

External Parameterization

In order to parameterize the device externally, the parameterization code is required in the form of a data matrix containing the desired parameters. Data matrix code cards detailing the step-by-step process for externally parameterizing the device are printed in the operating instructions for the Vision Sensor.

- The Vision Sensor is switched over from normal operation to parameterization mode using button 2 on the back of the device. To switch the device over, button 2 must be pressed and held for more than two seconds. LED5 then flashes.
 - **Note:** Parameterization mode is exited automatically if the device is inactive for one minute. In this case, the Vision Sensor reverts to normal mode and operates without the settings having been changed.
- Place the parameterization code in the field of vision of the camera module. After the parameterization code is detected, the green LED4 lights up for one second. In the event of an invalid parameterization code, LED4 lights up red for two seconds.
- Briefly pressing button 2 will end parameterization mode. Unsaved changes will be lost.