Data sheet

RFP

V2D621P-2MCFBB6S51

InspectorP Rack Fine Positioning

2D MACHINE VISION

SICK
Sensor Intelligence.

RFP

Ordering information

Type	part no.
V2D621P-2MCFBB6S51	1121694

Other models and accessories ➜ www.sick.com/InspectorP_Rack_Fine_Positioning

Detailed technical data

Features

Technology	2D snapshot
Configurable	✓
Image sensor	CMOS monochrome
Shutter technology	Global-Shutter
Optical focus	Adjustable focus (electrical)
Working range	50 mm ... 350 mm [1)] 50 mm ... 700 mm [2)]
Illumination	Integrated
Illumination color	Red, LED, Visible, 617 nm, ± 15 nm Blue, LED, Visible, 470 nm, ± 15 nm
Feedback spot	LED, Visible, green, 525 nm, ± 15 nm
LED class	Risk group 1 (IEC 62471 (2006-07) / EN 62471 (2008-09))
Cold storage applications	✓
Lens	
Focal length	9.6 mm
Task	Localizing, navigating and guiding - Navigating Determining position - 2D position determination

[1)] Depending on application.

[2)] Depending on application, on SICK PL22 reflector.

Mechanics/electronics

Connection type	1 x M12, 17-pin male connector (serial, I/Os, voltage supply) 1 x M12, 4-pin female connector (Ethernet)
Supply voltage	12 V DC ... 24 V DC, ± 10 %

[1)] Special cold storage conditions apply that must be complied with at all times. See sick.com/8027368.

Power consumption	Typ. 4 ... 6 W [1]
Enclosure rating	IP65 (EN 60529 (1991-10), EN 60529/A2 (2002-02))
Protection class	III
Housing material	Aluminum die cast
Window material	PMMA
Weight	170 g
Dimensions (L x W x H)	71 mm x 43 mm x 35.6 mm

[1] Special cold storage conditions apply that must be complied with at all times. See sick.com/8027368.

Performance

Sensor properties	
Sensor resolution	1,280 px x 1,024 px (1.3 MP)
Repeatability	0.05 mm ... 0.1 mm typical [1]
Target	Drill holes (Hole diameter 8 mm ... 15 mm)

[1] Depending on application, layer 1: 0.05 mm, layer 2: 0.1 mm.

Interfaces

Ethernet	✓, TCP/IP
Function	FTP, HTTP
Data transmission rate	10/100 MBit/s
PROFINET	✓
Data transmission rate	10/100 MBit/s
Operator interfaces	Web-Interface
Configuration software	Web-Interface, PLC interface
Data storage and retrieval	Image and data logging via microSD memory card and external FTP
Digital output	4 digital outputs, 24 V
Output current	≤ 100 mA
Optical indicators	11 LEDs (5 status displays, 16 LEDs, 5 LED bar graphs, 1 green/red feedback spot)

Ambient data

Shock load	EN 60068-2-27:2009-05
Vibration load	EN 60068-2-6:2008-02
Ambient operating temperature	0 °C ... +50 °C [1] –35 °C ... +40 °C, Special cold storage conditions apply that must be complied with at all times. See sick.com/8027368. [1]
Storage temperature	–35 °C ... +70 °C [1]

[1] Permissible relative humidity: 0% ... 90% (non-condensing).

Certificates

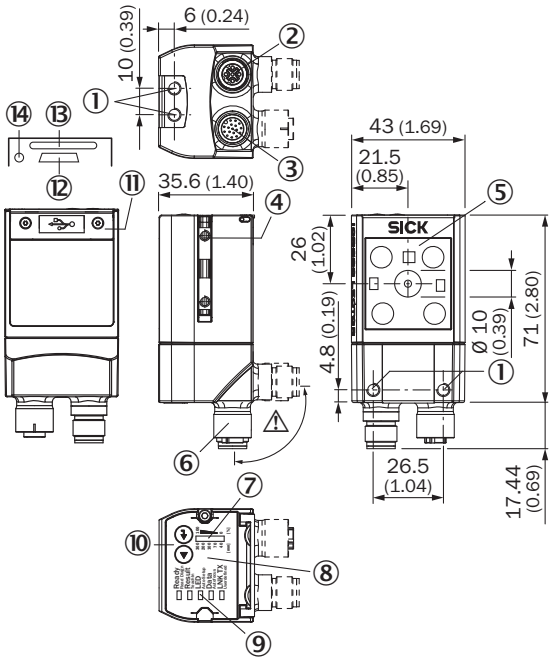
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
China RoHS	✓
cULus certificate	✓

Profinet certificate	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓
4Dpro	✓

Classifications

ECLASS 5.0	27310205
ECLASS 5.1.4	27310205
ECLASS 6.0	27310205
ECLASS 6.2	27310205
ECLASS 7.0	27310205
ECLASS 8.0	27310205
ECLASS 8.1	27310205
ECLASS 9.0	27310205
ECLASS 10.0	27310205
ECLASS 11.0	27310205
ECLASS 12.0	27310205
ETIM 5.0	EC001820
ETIM 6.0	EC001820
ETIM 7.0	EC001820
ETIM 8.0	EC001820
UNSPSC 16.0901	43211731

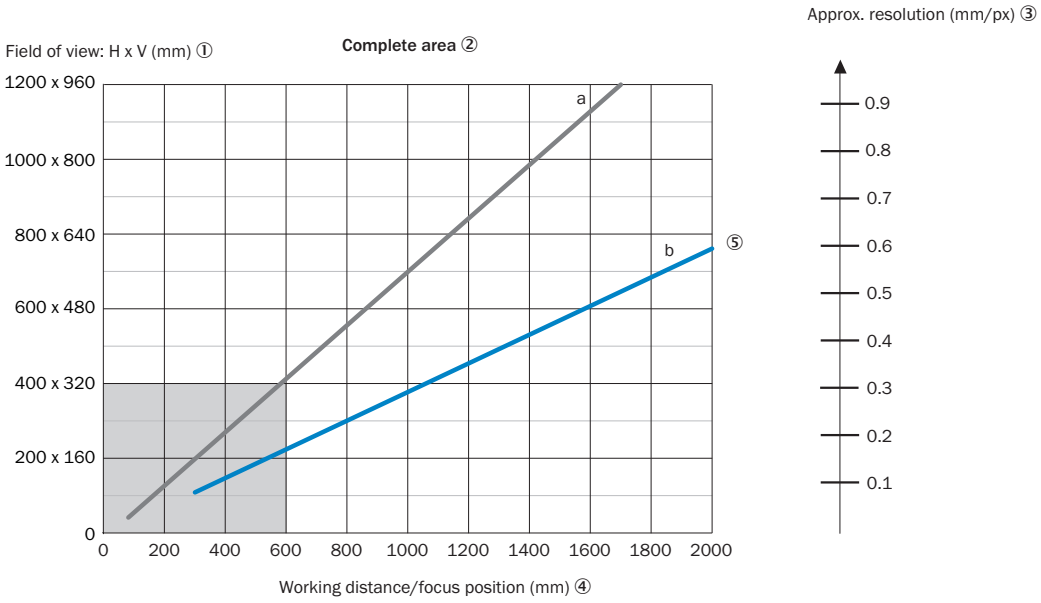
Dimensional drawing

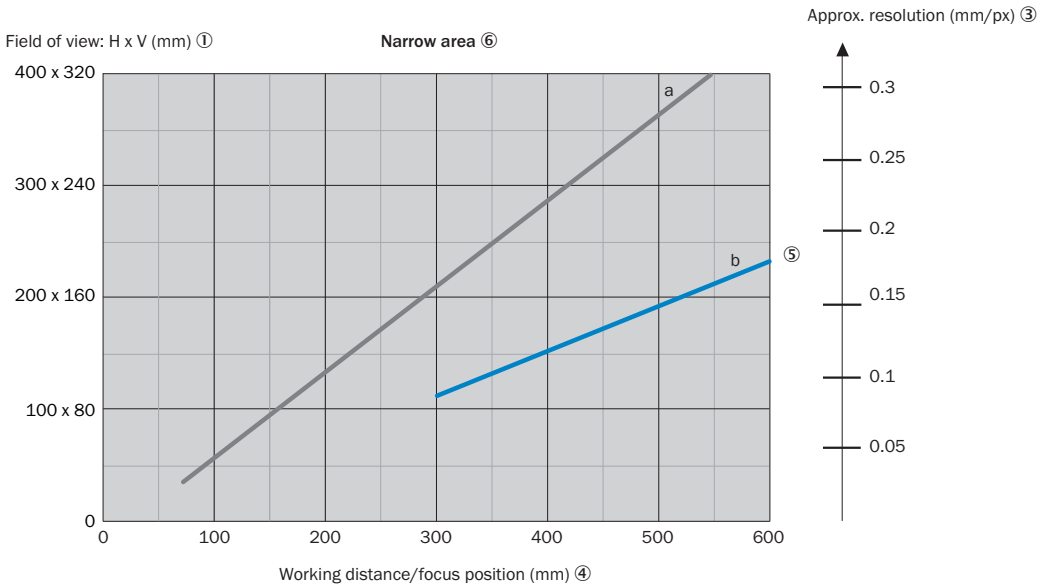


Dimensions in mm (inch)

① M5 blind tapped holes, 5 mm deep (4 x), for mounting the sensor
② “Ethernet” connection, 4-pin M12 female connector, D-coded
③ “Power/Serial Data/CAN/I/O” connection, 17-pin M12 male connector, A-coded
④ sliding nut M5, 5.5 mm deep (2 x), for mounting (as alternative)
⑤ reading window with internal illumination LEDs (4 x)
⑥ swivel connector unit
⑦ Bar graph
⑧ beeper (under housing cover)
⑨ LEDs for status display (2 levels), 5 x
⑩ Function button (2 x)
⑪ Cover (flap)
⑫ “USB” connection (female connector, 5-pin, type Micro-B) interface for temporary use (service)
⑬ Slot for microSD memory card
⑭ LED for microSD memory card

Field of view





Take into account the following aspects when designing the application: the field of view geometry of the device, and the position of the field of view in the space in front of the device. Possible angles at which the objects can arise in relation to the device. For the planned working distance: resultant field of view length and width as well as the approximate resolution.

① Field of view: Horizontal x vertical in mm
② complete area
③ approximate resolution in mm/px
④ Working distance/Focus position in mm
⑤ Focal length of lens, here example for f = 17.1 mm
⑥ Narrow range

Recommended accessories

Other models and accessories ➜ www.sick.com/InspectorP_Rack_Fine_Positioning

	Brief description	Type	part no.
connectors and cables			
	• **Connection type head A:** Female connector, M12, 17-pin, straight, A-coded • **Connection type head B:** Male connector, M12, 17-pin, straight, A-coded • **Signal type:** Power, serial, CAN, digital I/Os • **Cable:** 3 m, 17-wire • **Description:** Power, suitable for 2 A, shielded, Serial, CAN, Digital I/Os • **Application:** Drag chain operation	YM2A8D-030XXXF2A8D	6051194
Junction boxes			
		CDB650-204	1064114
Storage media			
	• **Description:** microSD memory card with 2 GB for industrial use	microSD memory card	4077575
Mounting systems			
	• **Description:** Thermal mounting kit consisting of screws and insulating spacers	Thermal mounting kit for cold storage	2127289

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com