



V2D654P-2MEWHA6

InspectorP65x

2D VISION

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
V2D654P-2MEWHA6	1082306

Other models and accessories → www.sick.com/InspectorP65x



Detailed technical data

Features

Task	Positioning, inspection, Measuring, reading
Technology	2D, snapshot, image analysis
Sensor	CMOS matrix sensor, grayscale values
Focus	Dynamic focus control
Internal lighting	White, Blue
Light source	Illumination LEDs: white ($\lambda = 6,000 \text{ K} \pm 500 \text{ K}$), blue ($\lambda = 455 \pm 20 \text{ nm}$) Feedback spot: visible green light ($\lambda = 525 \text{ nm} \pm 15 \text{ nm}$) Aiming laser: visible red light ($\lambda = 630 \text{ nm} \dots 680 \text{ nm}$)
Laser class	1, complies with 21 CFR 1040.10 except for the tolerance according to "Laser Notice No. 50" from June 24, 2007 (IEC 60825-1:2014, EN 60825-1:2014)
LED class	"White + feedback LED" option: risk group 1 (low risk) according to IEC 62471-1:2006-07/EN 62471-1:2008-09 Irradiance: LB: $< 10 \times 103 \text{ W}/(\text{m}^2\text{sr})$ within 100 s; at a distance of $\geq 200 \text{ mm}$ LR: $< 7 \times 105 \text{ W}/(\text{m}^2\text{sr})$ within 10 s; at a distance of $\geq 200 \text{ mm}$, "Blue + feedback LED" option: risk group 2 (moderate risk) according to IEC 62471-1:2006-07/EN 62471-1:2008-09 due to exposure to blue light. Irradiance: LB: $< 10 \times 103 \text{ W}/(\text{m}^2\text{sr})$ within 50 s (RG 2); at a distance of $\geq 200 \text{ mm}$ LR: $< 7 \times 105 \text{ W}/(\text{m}^2\text{sr})$ within 10 s (RG 1); at a distance of $\geq 200 \text{ mm}$ Risk RG 1 (low risk) corresponding to LB $< 10 \times 103 \text{ W}/(\text{m}^2\text{sr})$ within 100 s for distances $> 1 \text{ m}$
Spectral range	Approx. 400 nm ... 900 nm
Lens	Integrated
Optical format	1"

Performance

Sensor resolution	2,048 px x 2,048 px (4.2 Mpixel)
Scan/frame rate	40 Hz

Interfaces

Serial	✓, RS-232, RS-422
Data transmission rate	300 Baud ... 115.2 kBaud

Ethernet	✓, TCP/IP
Function	FTP, HTTP
Data transmission rate	10/100/1,000 Mbit/s
CAN	✓
Function	SICK CAN sensor network (master/slave)
Operator interfaces	Web server
Configuration software	SICK AppStudio
Data storage and retrieval	Image and data logging via microSD memory card and external FTP
Output current	≤ 100 mA
Maximum encoder frequency	1 kHz
Operating elements	2 buttons
Optical indicators	21 LEDs (10 x status display, 10 x LED bar graph, 1 green feedback spot)
Acoustic indicators	Beeper

Mechanics/electronics

Connections	1 x M12, 17-pin male connector (serial, I/Os, voltage supply) 1 x M8, 4-pin female connector (USB, not used) 2 x M12, 8-pin female connector (Gigabit Ethernet, only one connection used)
Supply voltage	24 V DC, ± 20 %
Enclosure rating	IP65
Protection class	III (EN 60950-1 (2014-08))
Housing material	Aluminum die cast
Window material	Glass
Weight	963 g
Dimensions (L x W x H)	142.8 mm x 90 mm x 106.1 mm

Ambient data

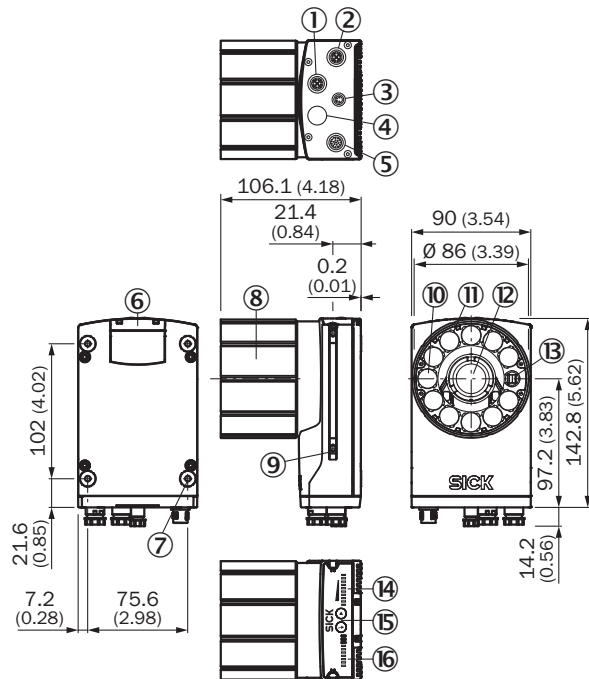
Shock load	EN 60068-2-27:2009-05
Vibration load	EN 60068-2-6:2008-02
Ambient operating temperature	0 °C ... +50 °C ¹⁾
Ambient storage temperature	-20 °C ... +70 °C ¹⁾

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

Classifications

ECl@ss 5.0	27310205
ECl@ss 5.1.4	27310205
ECl@ss 6.0	27310205
ECl@ss 6.2	27310205
ECl@ss 7.0	27310205
ECl@ss 8.0	27310205
ECl@ss 8.1	27310205
ECl@ss 9.0	27310205
ETIM 5.0	EC001820
ETIM 6.0	EC001820

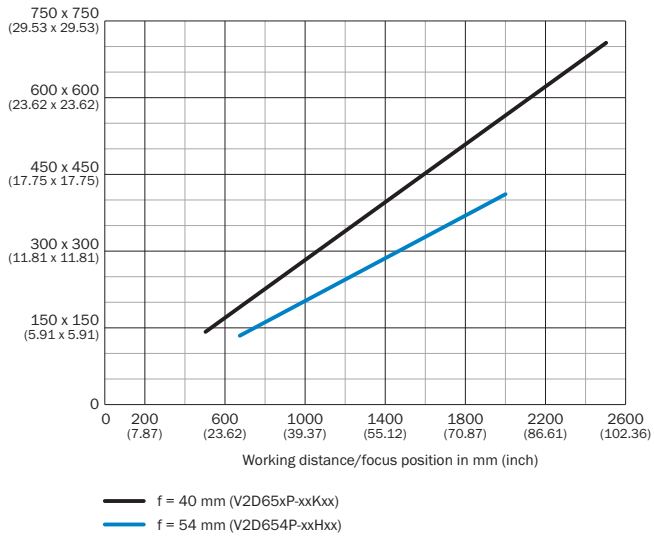
Dimensional drawing (Dimensions in mm (inch))



- ① "Ethernet" P1 connection
- ② P3 connection "Ethernet"
- ③ X2 "USB" connection or "trigger external lighting", depending on type
- ④ P2 connection "CAN OUT", depending on type
- ⑤ X1 "Power/Serial Data/CAN/I/O" connection or "CAN IN", depending on type
- ⑥ Cover for the microSD memory card
- ⑦ M5 blind tapped holes, 5 mm deep (4 x), for mounting the sensor
- ⑧ Protective cover for optics
- ⑨ Sliding nut M5, 5.5 mm deep (2 x), for mounting (as alternative)
- ⑩ Green feedback LED
- ⑪ Ring lighting
- ⑫ Lens
- ⑬ Outlet, aiming laser
- ⑭ Bar graph display
- ⑮ Function button (2 x)
- ⑯ LED for status display (2 levels), 10 x

Field of view

Field of view in mm² (sq inch)









Selection Guide

SICK AppSpace



Recommended accessories

Other models and accessories → www.sick.com/InspectorP65x

	Brief description	Type	Part no.
Mounting brackets and plates			
	Mounting bracket set consisting of mounting angle, cooling plate and screw including skew angle display	Mounting bracket kit	2069171
Other mounting accessories			
	Sliding nut, M5, short	Sliding nut	5324896
Plug connectors and cables			
	Head A: female connector, M12, 17-pin, straight, A-coded Head B: Flying leads Cable: Power, serial, CAN, digital I/Os, suitable for 2 A, Changed color coding of the flying leads, shielded, 3 m	Connecting cable (female connector - open)	2070425
	Head A: female connector, M12, 17-pin, straight, A-coded Head B: male connector, M12, 17-pin, straight, A-coded Cable: Power, serial, CAN, digital I/Os, suitable for 2 A, shielded, 3 m	Connection cable (male connector - female connector)	6051194
	Head A: male connector, M12, 8-pin, straight, X-coded Head B: male connector, RJ45, 8-pin, straight Cable: Gigabit Ethernet, twisted pair, PUR, halogen-free, shielded, 2 m	SSL-2J08-G02MACE	6049728
Modules			
	Connection device basic for connecting one sensor with 2 A fuse, 5 cable glands and RS-232 interface to sensor via M12, 17-pin female connector, all outputs available on screw/spring-loaded terminals.	CDB650-204	1064114

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