Online data sheet



V2D652R-MEWHA6 Dynamic Focus

Lector65x

IMAGE-BASED CODE READERS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
V2D652R-MEWHA6 Dynamic Focus	1063405

Other models and accessories ➜ www.sick.com/Lector65x

Detailed technical data

Features

Reading field	Side
Focus	Dynamic focus control
Sensor	CMOS matrix sensor, grayscale values
Sensor resolution	2,048 px x 1,088 px
Internal lighting	White
Light source	Lighting LEDs: white (λ = 6000 K ± 500 K) Feedback spot: visible green light (λ = 525 nm ± 15 nm) Aiming laser: visible red light (λ = 630 nm ... 680 nm)
LED class	Risk group 1 (IEC 62471 (2006-07) / EN 62471 (2008-09))
Laser class	1M, complies with 21 CFR 1040.10 except for the tolerance according to “Laser Notice No. 50” from June 24, 2007 (IEC 60825-1 (2007-3))
Scanning frequency	70 Hz, With resolution of 2 megapixels
Focal length	54 mm
Code resolution	≥ 0.12 mm [1]
Reading distance	670 mm ... 2,000 mm [2]

[1] Depends on distance.

[2] Depends on lens used, for details see field of view diagram.

Performance

Readable code structures	1D, 2D, Stacked
Bar code types	GS1-128 / EAN 128, UPC / GTIN / EAN, Interleaved 2 of 5, Pharmacode, GS1 DataBar, Code 39, Code 128, Codabar, Code 32, Code 93, USPS (Postnet, Planet, USPS4SCB), Australian Post, Dutch KIX Post, Royal Mail, Swedish Post
2D code types	Data Matrix ECC200, GS1 Data-Matrix, MaxiCode, QR code
Stacked code types	PDF417
Code qualification	On the basis of ISO/IEC 16022, ISO/IEC 15415, ISO/IEC 18004
Internal image storage	512 MB

Interfaces

Ethernet TCP/IP	✓
Function	Host, AUX, FTP (image transmission)
Data transmission rate	10/100/1,000 Mbit/s
PROFINET	✓
Function	PROFINET Dual Port (optional via external connection module CDF600-2)
EtherNet/IP™	✓
Data transmission rate	10/100/1,000 Mbit/s
Serial	✓, RS-232, RS-422
Function	Host, AUX
Data transmission rate	0.3 kBaud ... 115.2 kBaud, AUX: 57.6 kBaud (RS-232)
CAN	✓
Function	SICK CAN sensor network (Master/Slave, Multiplexer/Server)
Data transmission rate	20 kbit/s ... 1 Mbit/s
PROFIBUS DP	✓
Type of fieldbus integration	Optional over external fieldbus module CDF600-2
USB	✓
Remark	USB 2.0
Switching inputs	4 (“Sensor 1”, “Sensor 2”, 2 inputs via optional CMC600 parameter memory in CDB650/ CDM420)
Configurable inputs	Encoder input, external trigger
Switching outputs	6 (CDB650: “Result 1”, “Result 2”, “Result 3”, “Result 4”, 2 external outputs via CMC600 or CDM420: “Result 1”, “Result 2”, 2 external outputs via CMC600 or cable with open end: “Result 1”, “Result 2”, “Result 3”, “Result 4”)
Configurable outputs	Good read, External illumination control, free configurable output condition, "device ready"
Reading pulse	Switching inputs, non-powered, serial interface, Ethernet, CAN, auto pulse, presentation mode
Optical indicators	21 LEDs (10 x status display, 10 x LED bar graph, 1 green feedback spot)
Acoustic indicators	Beeper/buzzer (can be switched off, can be assigned a function to signal a result)
Operating elements	2 buttons (choose and start/stop functions)
Configuration software	SOPAS ET
Memory card	Micro SD memory card (flash card) max. 16 GB, optional
Data storage and retrieval	Image and data storage via microSD memory card, internal storage and external FTP
Maximum encoder frequency	1 kHz
External illumination control	Via digital output (max. 24 V trigger) or via external illumination connector

Mechanics/electronics

Electrical connection	1 x M12, 17-pin plug (serial, CAN, I/Os, power supply) 2 x M12, 8-pin socket (Ethernet, P1 not yet with function) 1 x M8, 4-pin socket (USB)
Operating voltage	24 V DC, ± 20 %
Power consumption	Typ. 20 W, ± 20 %
Output current	≤ 100 mA
Housing	Aluminum die cast
Housing color	Light blue (RAL 5012)
Enclosure rating	IP65 (EN 60529 (1991-10), EN 60529/A2 (2002-02))

Protection class	III
Electrical safety	EN 60950-1 (2011-01)
Weight	963 g
Dimensions (L x W x H)	142.8 mm x 90 mm x 106.1 mm
Lens	54 mm, integrated

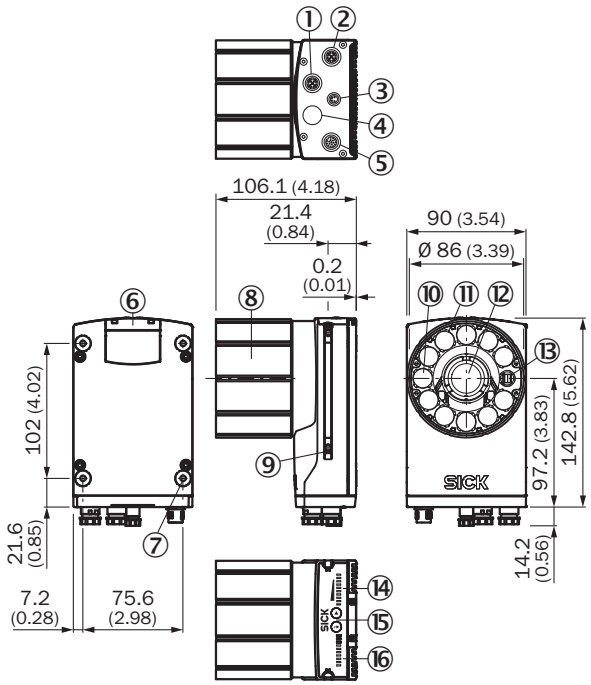
Ambient data

Electromagnetic compatibility (EMC)	EN 61000-6-2 (2005-08) / EN 61000-6-3 (2007-01)
Shock resistance	EN 60068-2-6
Ambient operating temperature	0 °C ... +50 °C
Storage temperature	–20 °C ... +70 °C
Permissible relative humidity	90 %, Non-condensing
Ambient light immunity	2,000 lx, on code

Classifications

ECl@ss 5.0	27280103
ECl@ss 5.1.4	27280103
ECl@ss 6.0	27280103
ECl@ss 6.2	27280103
ECl@ss 7.0	27280103
ECl@ss 8.0	27280103
ECl@ss 8.1	27280103
ECl@ss 9.0	27280103
ETIM 5.0	EC002550
ETIM 6.0	EC002550
UNSPSC 16.0901	43211701

Dimensional drawing (Dimensions in mm (inch))

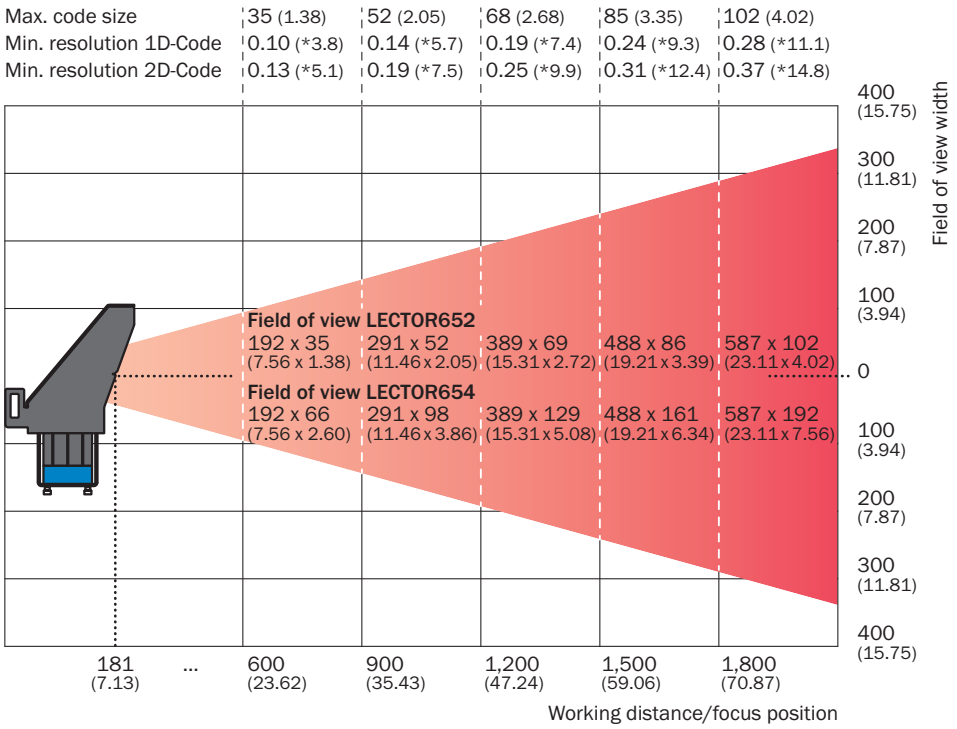


① "Ethernet" P1 connection
② P3 connection "Ethernet"
③ X2 "USB" connection or "trigger external lighting", depending on type
④ P2 connection "CAN OUT", depending on type
⑤ X1 "Power/Serial Data/CAN/I/O" connection or "CAN IN", depending on type
⑥ Cover for the microSD memory card
⑦ M5 blind tapped holes, 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

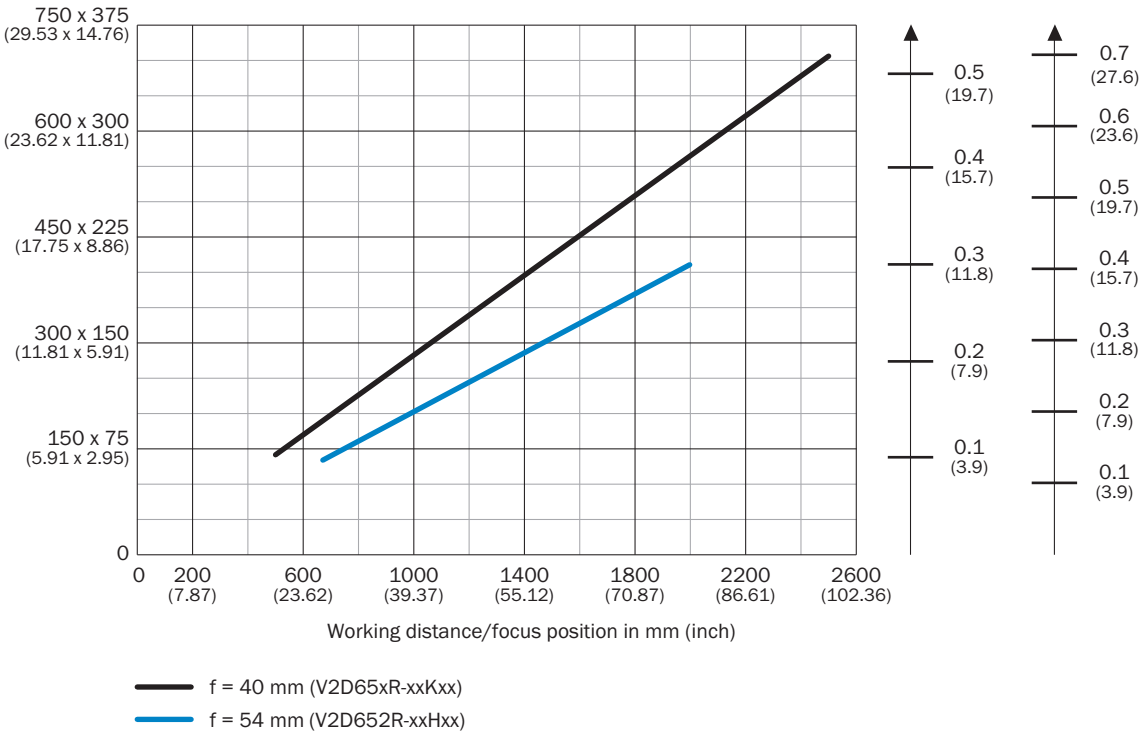
Field of view Lector65x Dynamic Focus with Panorama 54 mm

Dimensions in mm (inch/*mil)



Field of view in mm² (sq inch)

Min. resolution in mm (mil)



Recommended accessories

Other models and accessories ➜ www.sick.com/Lector65x

	Brief description	Type	Part no.
Mounting brackets and plates			
	Mounting bracket with screws including skew angle display	Mounting bracket	2069169
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
Plug connectors and cables			
	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, drag chain use, 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, shielded, 2 m	Connection cable (male connector-male connector)	6049728
	Head A: male connector, M8, 4-pin, straight Head B: male connector, USB-A, 4-pin, straight Cable: USB 2.0, unshielded, 2 m	Connection cable (male connector-male connector)	6051164

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