



Vision sensors
LECTOR®65x, LECTOR®652 Dynamic Focus

V2D652R-MEWA6



Model Name > [V2D652R-MEWHA6](#)
Part No. > [1063405](#)



At a glance

- 2/4 megapixel resolution; high frame repetition rate of 40 Hz
- Dynamic focus adjustment from object to object
- Integrated high-power LED illumination
- Function buttons, aiming laser, optical and acoustic feedback signal
- Intelligent, rapid decoding algorithms

Your benefits

- Highly flexible code position, object height, and transport speed due to a large field of view and dynamic focus
- Cost-effective, straightforward, modular integration of multiple devices adapted to the width of the conveyor belt
- Minimum training and installation work due to intuitive device equipment that includes function buttons, auto setup, integrated illumination, an aiming laser, an acoustic feedback signal, and a green feedback LED
- Intelligent decoding algorithms ensure maximum reading performance and high package throughput, even with codes that are difficult to read
- SICK IDpro platform facilitates quick and easy integration into numerous industrial networks



Features

Sensor:	CMOS matrix sensor, gray scale values
Focus:	Dynamic focus control
Light source:	Lighting LEDs: white ($\lambda = 6000 \text{ K} \pm 500 \text{ K}$) feedback spot: visible green light ($\lambda = 525 \text{ nm} \pm 15 \text{ nm}$) aiming laser: visible red light ($\lambda = 630 \text{ nm} \dots 680 \text{ nm}$)
LED class:	Risk group 1 (IEC 62471 (2006-07) / EN 62471 (2008-09))
Reading field:	Side
Sensor resolution:	2,048 px x 1,088 px
Internal lighting:	White
Laser class:	1M (IEC 60825-1 (2007-3)), complies with 21 CFR 1040.10 except for the tolerance according to "Laser Notice No. 50" from June 24, 2007
Scanning frequency:	70 Hz, at 2 megapixels resolution
Code resolution:	$\geq 0.12 \text{ mm}^1$

¹⁾ Depends on distance

Performance

Bar code types:	Interleaved 2 of 5, Codabar, Code 128, Code 32, Code 39, Code 93, GS1 DataBar, GS1-128/EAN 128, Pharmacode, UPC/GTIN/EAN
2D code types:	Data Matrix ECC200, GS1 Data-Matrix, MaxiCode, PDF417, QR code
Internal image storage:	512 MB
Code qualification:	On the basis of ISO/IEC 16022, ISO/IEC 15415, ISO/IEC 18004

Interfaces

Configuration software:	SOPAS
Control elements:	2 buttons (choose and start/stop functions)
Serial (RS-232, RS-422):	1
Function (Serial (RS-232, RS-422)):	Host, AUX
Data transmission rate (Serial (RS-232, RS-422)):	300 Baud ... 115.2 kBaud, AUX: 57.6 kBaud (RS-232)
USB:	1
Remark (USB):	USB 2.0
Ethernet:	1
Function (Ethernet):	Host, AUX, image transmission
Data transmission rate (Ethernet):	10/100/1,000 Mbit/s
Protocol (Ethernet):	TCP/IP, FTP (image transmission), EtherNet/IP, PROFINET (optional via external connection module CDF600-2)
CAN bus:	1
Function (CAN bus):	SICK CAN sensor network (Master/Slave, Multiplexer/Server)
Data transmission rate (CAN bus):	20 kbit/s ... 1 Mbit/s
Protocol (CAN bus):	CSN (SICK CAN Sensor Network)
PROFIBUS DP:	1
Remark (PROFIBUS DP):	Optional via external connection module (CDF600-2)
DeviceNet:	0
Switching inputs:	4 ("Sensor 1", "Sensor 2", 2 inputs via optional CMC600 in CDB650/CDM420)
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")
Reading pulse:	Auto pulse, CAN, Ethernet, Non-powered, Presentation mode, Switching inputs, Serial interface
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)
Memory card:	MicroSD memory card (flash card) max. 16 GB, optional

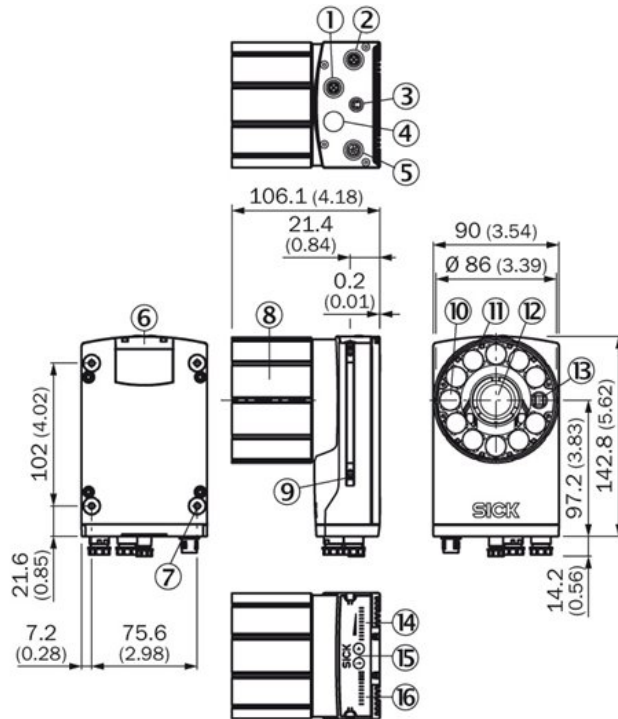
Mechanics/electronics

Power consumption:	Typ. 20 W, ± 20 %
Enclosure rating:	IP 65 (EN 60529 (1991-10), EN 60529/A2 (2002-02))
Weight:	963 g
Lens:	Integrated
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 %
Housing:	Die-cast aluminum
Housing color:	Light blue (RAL 5012)
Protection class:	III
Dimensions:	142.8 mm x 90 mm x 106.1 mm

Ambient data

Electromagnetic compatibility (EMC):	EN 61000-6-2 (2005-08)/EN 61000-6-3 (2007-01)
Shock resistance:	EN 60068-2-6
Electrical safety:	EN 60950-1 (2011-01)
Ambient operating temperature:	0 °C ... 50 °C
Storage temperature:	-20 °C ... 70 °C
Permissible relative humidity:	90 %, non-condensing
Ambient light safety:	2,000 lx, on code

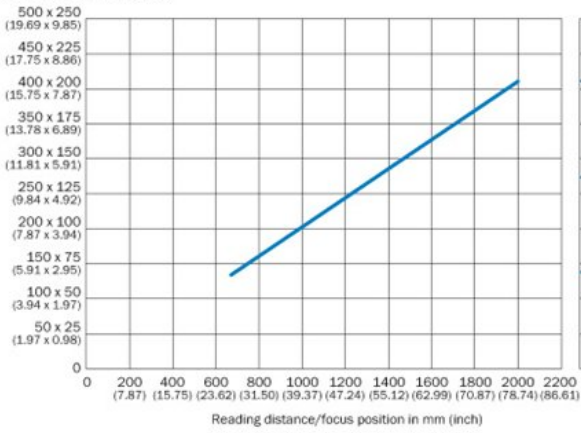
Dimensional drawing



- |1| P1 connection, no function, planned "Ethernet", depending on type
- |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 (flap) for the slot of the microSD memory card
- |7| blind hole thread M5, 5 mm deep (4 x), for mounting
- |8| lens protective cover
- |9| sliding nut M5, 5.5 mm deep (2 x), for mounting (as alternative)
- |10| green feedback LED
- |11| Ring light
- |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)



1D-Code

2D-Code

1D-Code	2D-Code
R = 0.3 mm (11.8 mil)	R = 0.4 mm (15.7 mil)
R = 0.2 mm (7.9 mil)	R = 0.3 mm (11.8 mil)
R = 0.1 mm (3.9 mil)	R = 0.2 mm (7.9 mil)

R = resolution

f = 54.0 mm (2.13 inch) (V2D652R-xxHxx)

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