SICK.COM



DATA SHEET

ICD890-44342020

ICD8xx
Image-based code readers

SICK Sensor Intelligence



IMAGE-BASED CODE READERS

ICD890-44342020

ORDERING INFORMATION

Type	part no.
ICD890-44342020	1092550

Further device versions and accessories at www.sick.com/ICD8xx

DETAILED TECHNICAL DATA

FEATURES

Application	Indoor area
Function	Line camera with integrated 1D/2D code decoder, image output and additional optional 2D vision functions
Optical focus	Dynamic focus control Fixed focus
Sensor	CMOS line sensor monochrome
Sensor resolution	8,192 px (200 dpi, Standard resolution)
Processor	Standard performance
Line frequency	Max. 50 kHz
Lens Focal length	Integrated 95 mm
Reading distance	1,550 mm ... 3,600 mm [1]
Field of view	1,200 mm (170 dpi) 1,035 mm (200 dpi)
Code resolution	≥ 0.1 mm
Operating mode	Forward, backward, start/stop
Working range	1,550 mm ... 3,600 mm [1]
Further functions	Extended analysis of code quality, empty tote detection, object classification, 2D dimensioning (image-based calculation of object dimensions)

[1] Related to device reference point, for details see field of view diagram.

MECHANICS/ELECTRONICS

Connection type	3 x M12, 8-pin female connector, X-coded, CAT 6A (Ethernet 1 ... 3) 1 x M12, 12-pin female connector, A-coded (I/O) 1 x M12, 5-pin female connector (CAN Out) 1 x M12, 5-pin male connector, A-coded (CAN In) 1 x M12, 8-pin female connector (Light 1) 1 x M12, 5-pin female connector, L-coded (PWR Out) 1 x M12, 5-pin male connector, L-coded (PWR In) 1 x USB, 5-pin female connector, type A

Supply voltage	24 V DC, –10 % +20 %
Power consumption	Typ. 80 W, standby typ. 50 W
Battery	Type: TL-2450 cell (1/10C cell), soldered, non-rechargeable Chemical system: Lithium thionyl chloride (Li-SOCl2) Lithium quantity: 0.2 g
Current consumption	10 A
Housing material	Aluminum die cast
Housing color	Light blue (RAL 5012)
Enclosure rating	IP65 (EN 60529:1991-10 / A2:2000-02 / A3:2013)
Protection class	III (EN 61140)
Electrical safety	EN 61010-1:2010-10
Weight	Approx. 11 kg
Dimensions (L x W x H)	486.6 mm x 300 mm x 179 mm
MTBF	120,000 h
MTTR	< 10 min

PERFORMANCE

Readable code structures	1D codes, 2D codes, Stacked, plain text
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, postal codes
2D code types	Data Matrix ECC200, GS1 Data-Matrix, MaxiCode, QR code, Aztec, PDF417
Skew angle	≤ 75°
Transport speed	≤ 4.5 m/s
Minimum object distance	≥ 50 mm
Number of objects per second	≤ 10
Image type	JPEG, TIFF, BMP
Image output	Up to 4 (s)FTP clients, AWS S3 client, FTP Server, Samba Server, REST Server

INTERFACES

USB		✓
	Function	USB 2.0
Ethernet		✓ (3) , TCP/IP
	Function	FTP, real-time image output
	Data transmission rate	1 Gbit/s
CAN		✓ (2)
	Remark	CSN (SICK CAN Sensor Network)
	Function	1 x CAN In, 1 x CAN Out
	Data transmission rate	20 kbit/s ... 500 Mbit/s
Optical indicators		3 LED (device status displays) 3 double LED (ethernet status displays)
Configuration software		SOPAS ET
Memory card		1 x 2.5 inch SSD (image and data logging), 1 x microSD memory card (configuration data back-up)

AMBIENT DATA

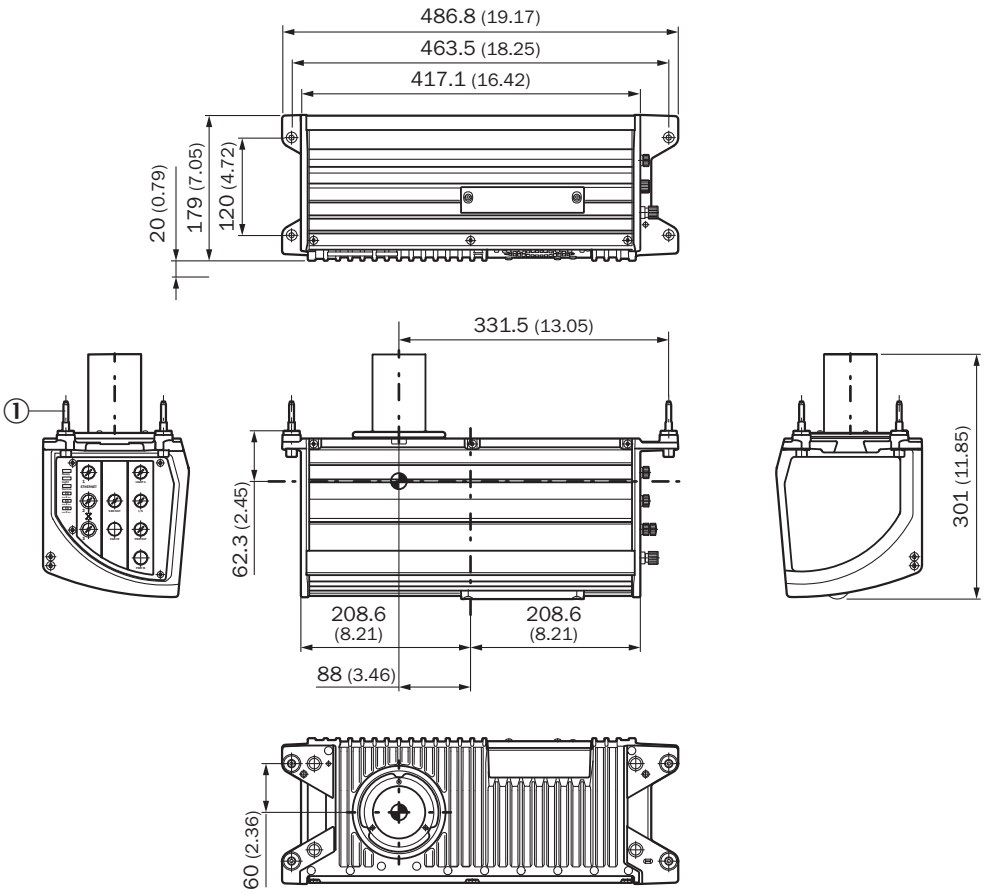
Electromagnetic compatibility (EMC)	IEC 61000-6-4:2018 / IEC 61000-6-2:2019
Vibration resistance	IEC 60068-2-6:2007-12
Shock resistance	IEC 60068-2-27:2008-02
Ambient operating temperature	–10 °C ... +50 °C
Storage temperature	–20 °C ... +70 °C
Relative humidity	95 %, Non-condensing
Ambient light immunity	2,000 lx, on code
Contamination rating	2 (EN 61010-1)

Altitude (above sea level)	< 2,000 m

CERTIFICATES

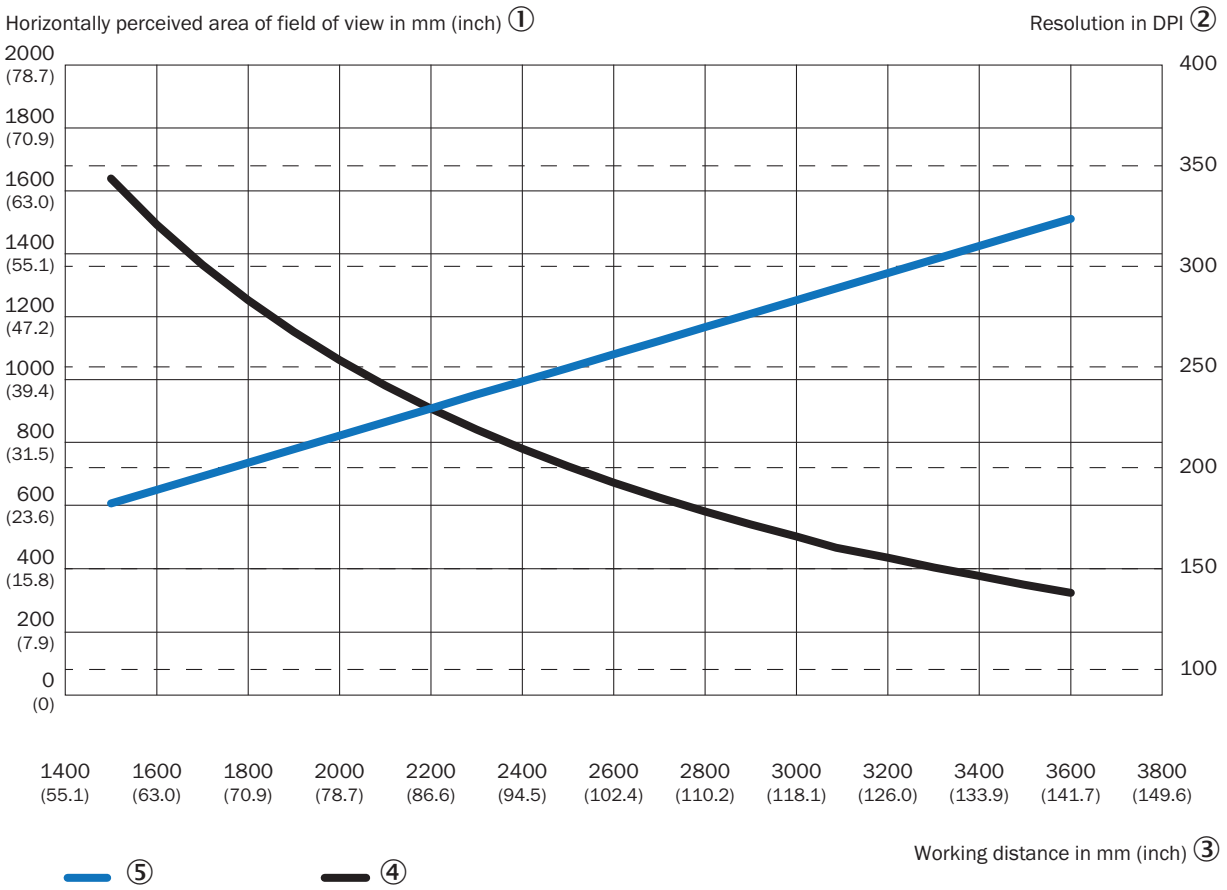
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
China RoHS	✓
BIS registration	✓
UN38.3 Test Summary Report	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

DIMENSIONAL DRAWING



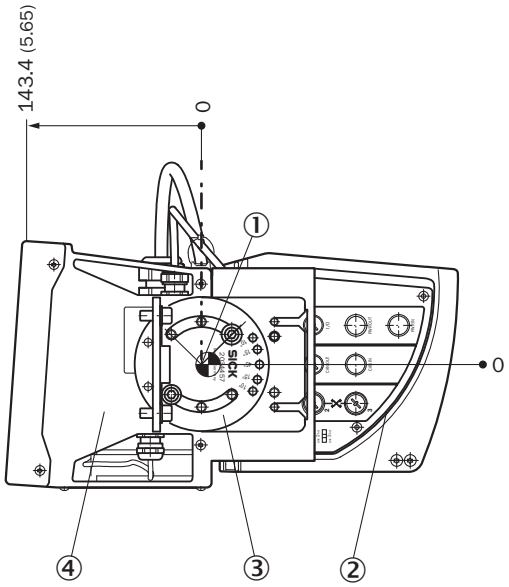
Dimensions in mm (inch)
structure and device dimensions, unit: mm (inch), decimal separator: period
① 4 M8 mounting screws with centering pin for mounting the device on the ICI890 illumination unit

FIELD OF VIEW



① Horizontal perceived field of view area in mm (inch)
② Resolution in DPI
③ Working distance in mm (inch)
④ Horizontal perceived field of view area
⑤ Resolution

DEVICE REFERENCE POINT



① device reference point
② camera ICD890
③ Mounting bracket
④ illumination ICI890

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/1092550

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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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