



ICD890-45232020

ICD8xx

IMAGE-BASED CODE READERS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
ICD890-45232020	1121586

This product can only be ordered as part of the ICR890-4 12K Core system.

Other models and accessories → [www.sick.com/ICD8xx](http://www.sick.com/ICD8xx)



### Detailed technical data

#### Features

<b>Application</b>	Indoor area
<b>Function</b>	Line camera with integrated 1D/2D code decoder, image output and additional optional 2D vision functions
<b>Optical focus</b>	Dynamic focus control or constant focus
<b>Sensor</b>	CMOS line sensor
<b>Sensor resolution</b>	12,288 px (200 dpi, high resolution)
<b>Processor</b>	Standard performance
<b>Line frequency</b>	Max. 43 kHz
<b>Lens</b>	Integrated
<b>Focal length</b>	120 mm
<b>Reading distance</b>	1,550 mm ... 3,900 mm <sup>1)</sup>
<b>Field of view</b>	1,800 mm (170 dpi) 1,560 mm (200 dpi)
<b>Code resolution</b>	≥ 0.1 mm
<b>Operating mode</b>	Forward, backward, start/stop
<b>Further functions</b>	Extended analysis of code quality, empty tote detection, hazardous material detection, object classification, 2D dimensioning (image-based calculation of object dimensions)

<sup>1)</sup> Related to device reference point, for details see field of view diagram.

#### Mechanics/electronics

<b>Connection type</b>	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
<b>Supply voltage</b>	24 V DC, -10 % +20 %
<b>Power consumption</b>	Typ. 80 W, standby typ. 50 W
<b>Battery</b>	Type: TL-2450 cell (1/10C cell), soldered, non-rechargeable Chemical system: Lithium thionyl chloride (Li-SOCI2) Lithium quantity: 0.2 g

<b>Current consumption</b>	10 A
<b>Housing material</b>	Aluminum die cast
<b>Housing color</b>	Light blue (RAL 5012)
<b>Enclosure rating</b>	IP65 (EN 60529:1991-10 / A2:2000-02 / A3:2013)
<b>Protection class</b>	III (EN 61140)
<b>Electrical safety</b>	EN 61010-1:2010-10
<b>Weight</b>	Approx. 11 kg
<b>Dimensions (L x W x H)</b>	486.6 mm x 300 mm x 179 mm
<b>MTBF</b>	120,000 h
<b>MTR</b>	< 10 min

## Performance

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

## Interfaces

<b>USB</b>	✓
Function	USB 2.0
<b>Ethernet</b>	✓ (3), TCP/IP
Function	FTP, real-time image output
Data transmission rate	1 Gbit/s
<b>CAN</b>	✓ (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
<b>Optical indicators</b>	3 LED (device status displays) 3 double LED (ethernet status displays)
<b>Configuration software</b>	SOPAS ET
<b>Memory card</b>	1 x 2.5 inch SSD (image and data logging), 1 x microSD memory card (configuration data back-up)

## Ambient data

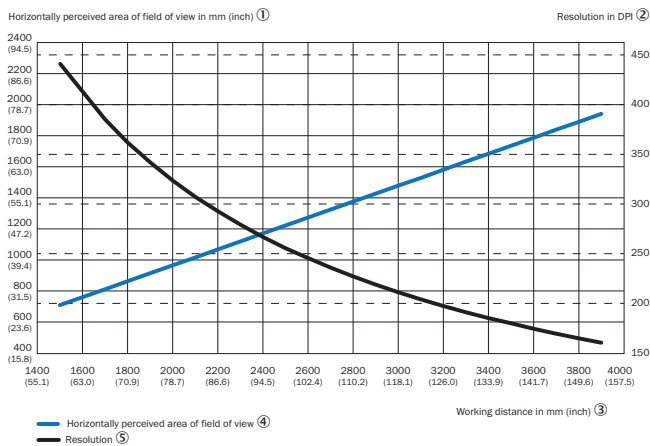
<b>Electromagnetic compatibility (EMC)</b>	IEC 61000-6-4:2018, IEC 61000-6-2:2019
<b>Vibration resistance</b>	IEC 60068-2-6:2007-12
<b>Shock resistance</b>	IEC 60068-2-27:2008-02
<b>Ambient operating temperature</b>	-10 °C ... +50 °C
<b>Storage temperature</b>	-20 °C ... +70 °C

<b>Permissible relative humidity</b>	95 %, Non-condensing
<b>Ambient light immunity</b>	2,000 lx, on code
<b>Contamination rating</b>	2 (EN 61010-1)
<b>Altitude (above sea level)</b>	< 2,000 m

### Classifications

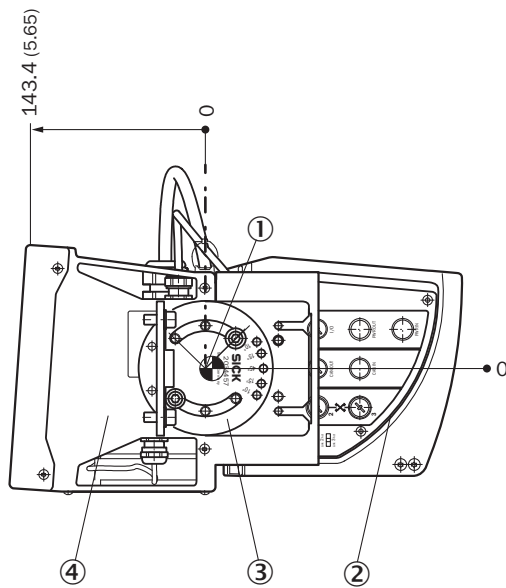
<b>ECLASS 5.0</b>	27280103
<b>ECLASS 5.1.4</b>	27280103
<b>ECLASS 6.0</b>	27280103
<b>ECLASS 6.2</b>	27280103
<b>ECLASS 7.0</b>	27280103
<b>ECLASS 8.0</b>	27280103
<b>ECLASS 8.1</b>	27280103
<b>ECLASS 9.0</b>	27280103
<b>ECLASS 10.0</b>	27280103
<b>ECLASS 11.0</b>	27280103
<b>ECLASS 12.0</b>	27280103
<b>ETIM 5.0</b>	EC002550
<b>ETIM 6.0</b>	EC002550
<b>ETIM 7.0</b>	EC002999
<b>ETIM 8.0</b>	EC002999
<b>UNSPSC 16.0901</b>	43211701

### 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

### Recommended services

Additional services → [www.sick.com/ICD8xx](http://www.sick.com/ICD8xx)

	Type	Part no.
<b>Extended warranty</b>		
<ul style="list-style-type: none"> <li>• <b>Product area:</b> Machine vision, LiDAR sensors, safety camera sensors, Safety laser scanners, Safety radar sensors, Radar sensors, Fixed mount barcode scanners, Image-based code readers, RFID, Mobile handheld scanners</li> <li>• <b>Range of services:</b> The services correspond to the scope of the statutory manufacturer warranty (SICK general terms of delivery).</li> <li>• <b>Duration:</b> Five-year warranty from delivery date.</li> </ul>	Extended warranty for a total of five years from delivery date	1680671
<b>Service agreements</b>		
<ul style="list-style-type: none"> <li>• <b>Product area:</b> Robot guidance systems, Track and trace systems, Driver assistance systems, Object detection systems, Profiling systems, Gateway systems, Quality control systems</li> <li>• <b>Range of services:</b> Maintenance, Troubleshooting, extended warranty, 8/5 remote support, 8/5 help desk</li> <li>• <b>Duration:</b> Duration is arranged individually with the customer and defined in the contract</li> </ul>	Bronze service agreements for Systems	1616164

## 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](http://www.sick.com)