



## Image-based code readers ICR89x / ICR890

ICR890



**Model Name** > **ICR890**

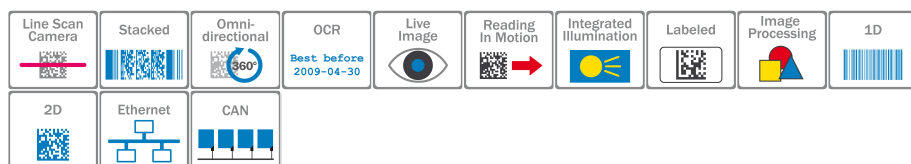


### At a glance

- Large reading field for conveyor coverage up to 1,300 mm
- High-end CCD sensor (8,192 pixel)
- Integrated, real-time focus control
- Integrated high-performance decoder board
- Integrated digital zoom function
- OCR compatible picture quality
- Online status monitoring of all system components
- Constant resolution over the entire DOF

### Your benefits

- Fast and reliable identification of poorly printed codes, optimizes read rates
- Easy configuration with SOPAS software minimizes installation and maintenance efforts
- Real-time performance monitoring and analysis using SICK visualization platform SVP
- Modular design ensures a short mean time to repair (MTTR under 10 min)
- High reliability (80,000 h MTBF) ensures a long lifetime
- Low cost of ownership
- Maintenance-free, no cyclic calibrations
- Simple component exchange via a quick-action lock system



### Features

|                                        |                            |
|----------------------------------------|----------------------------|
| Reading field:                         | Front                      |
| Focus:                                 | Dynamic focus control      |
| Sensor:                                | Line camera                |
| Sensor resolution:                     | 8,192 px x 200 dpi (2.5 m) |
| Reading distance (at code resolution): | 1.4 m ... 3.3 m (0.3 mm)   |
| Scanning frequency:                    | 19,100 Hz                  |
| Light source:                          | Visible red light (620 nm) |
| MTBF:                                  | 80,000 h                   |
| MTTR (Mean time to repair):            | < 10 min                   |
| Covered conveyor width:                | 1,300 mm (150 dpi)         |
| Depth of field:                        | 1,700 mm (150 dpi)         |

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## Performance

|                               |                                                                                      |
|-------------------------------|--------------------------------------------------------------------------------------|
| Bar code types:               | Interleaved 2 of 5, Codabar, Code 128, Code 39, EAN/UPC with add-on, GS1-128/EAN 128 |
| 2D code types:                | Others on request, Data Matrix ECC200, MaxiCode                                      |
| OCR fonts:                    | On request                                                                           |
| Transport speed:              | ≤4.8 m/s (100 lpi)                                                                   |
| Print ratio:                  | 2:1 ... 3:1                                                                          |
| Minimum object distance:      | 50 mm                                                                                |
| Number of objects per second: | 10                                                                                   |

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## Interfaces

|                                           |                                                     |
|-------------------------------------------|-----------------------------------------------------|
| Serial (RS-232):                          | ✓                                                   |
| Function (Serial (RS-232)):               | AUX                                                 |
| Data transmission rate (Serial (RS-232)): | ≤ 57,600 Baud                                       |
| Ethernet:                                 | ✓ (3)                                               |
| Function (Ethernet):                      | AUX, real-time image output                         |
| Data transmission rate (Ethernet):        | 1x 10/100 Mbit/s, 2x Gbit/s                         |
| Protocol (Ethernet):                      | TCP/IP                                              |
| CAN bus:                                  | ✓ (2)                                               |
| Function (CAN bus):                       | SICK CAN sensor network (Master/Slave, Multiplexer) |
| Data transmission rate (CAN bus):         | 10 kbit/s ... 1 Mbit/s                              |
| Protocol (CAN bus):                       | CSN (SICK CAN Sensor Network)                       |
| PROFIBUS DP:                              | ✓                                                   |
| Remark (PROFIBUS DP):                     | Via MSC800 controller                               |
| PROFINET:                                 | -                                                   |
| DeviceNet:                                | -                                                   |
| Optical indicators:                       | 5 LED (status displays)                             |
| Reading pulse:                            | CAN                                                 |
| Memory card:                              | SD card, 128 MB                                     |

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## Mechanics/electronics

|                        |                                              |
|------------------------|----------------------------------------------|
| Power consumption:     | 250 W, typical                               |
| Electrical connection: | 7 x M12 2 x RJ-45 1 x IN/OUT power supply    |
| Housing:               | Die-cast aluminum, Aluminum extruded profile |
| Housing color:         | Light blue (RAL 5012)                        |
| Weight:                | 37 kg                                        |
| Dimensions:            | 1,224 mm x 348 mm x 231 mm                   |
| Enclosure rating:      | IP 64 (DIN 40 050)                           |
| Protection class:      | III (IEC 1010-1)                             |
| Lens:                  | 135 mm (standard)                            |

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## Ambient data

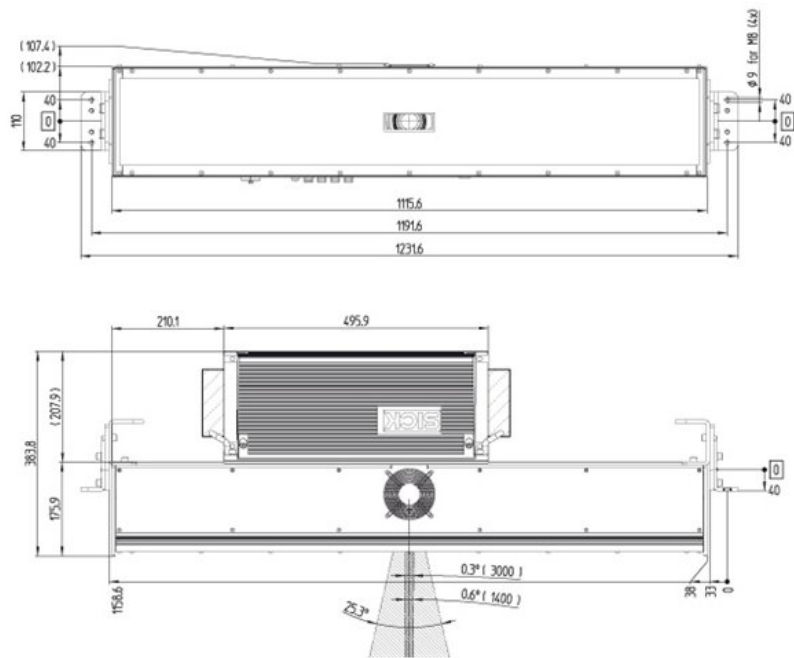
|                                      |                           |
|--------------------------------------|---------------------------|
| Bar code print contrast (PCS):       | ≥ 40 %                    |
| Electromagnetic compatibility (EMC): | EN 61000-6-2/EN 61000-6-4 |
| Vibration resistance:                | IEC 68-2-6                |
| Shock resistance:                    | IEC 68-2-27/IEC 68-2-32   |
| Ambient operating temperature:       | 0 °C ... 50 °C            |
| Storage temperature:                 | -20 °C ... 70 °C          |
| Permissible relative humidity:       | 95 %, non-condensing      |
| Ambient light safety:                | 2,000 lx, on code         |

General notes

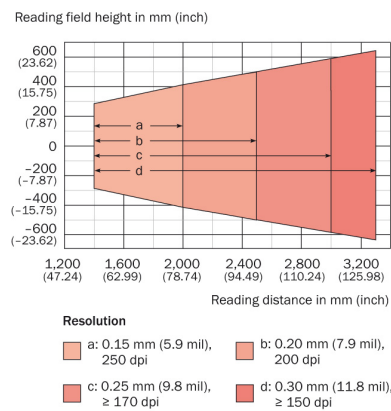
Items supplied:

Consisting of camera, decoder, lighting and deflector mirror. Additional components are assembled according to customer requirements.

Dimensional drawing



Reading field diagram



#### **Australia**

Phone +61 3 9457 0600  
1800 334 802 – tollfree  
E-Mail sales@sick.com.au

#### **Belgium/Luxembourg**

Phone +32 (0)2 466 55 66  
E-Mail info@sick.be

#### **Brasil**

Phone +55 11 3215-4900  
E-Mail sac@sick.com.br

#### **Canada**

Phone +1 905 771 14 44  
E-Mail information@sick.com

#### **Ceská Republika**

Phone +420 2 57 91 18 50  
E-Mail sick@sick.cz

#### **China**

Phone +86 4000 121 000  
E-Mail info.china@sick.net.cn  
Phone +852-2153 6300  
E-Mail ghk@sick.com.hk

#### **Danmark**

Phone +45 45 82 64 00  
E-Mail sick@sick.dk

#### **Deutschland**

Phone +49 211 5301-301  
E-Mail kundenservice@sick.de

#### **España**

Phone +34 93 480 31 00  
E-Mail info@sick.es

#### **France**

Phone +33 1 64 62 35 00  
E-Mail info@sick.fr

#### **Great Britain**

Phone +44 (0)1727 831121  
E-Mail info@sick.co.uk

#### **India**

Phone +91-22-4033 8333  
E-Mail info@sick-india.com

#### **Israel**

Phone +972-4-6801000  
E-Mail info@sick-sensors.com

#### **Italia**

Phone +39 02 27 43 41  
E-Mail info@sick.it

#### **Japan**

Phone +81 (0)3 3358 1341  
E-Mail support@sick.jp

#### **Magyarország**

Phone +36 1 371 2680  
E-Mail office@sick.hu

#### **Nederlands**

Phone +31 (0)30 229 25 44  
E-Mail info@sick.nl

#### **Norge**

Phone +47 67 81 50 00  
E-Mail austefjord@sick.no

#### **Österreich**

Phone +43 (0)22 36 62 28 8-0  
E-Mail office@sick.at

#### **Polska**

Phone +48 22 837 40 50  
E-Mail info@sick.pl

#### **România**

Phone +40 356 171 120  
E-Mail office@sick.ro

#### **Russia**

Phone +7-495-775-05-30  
E-Mail info@sick.ru

#### **Schweiz**

Phone +41 41 619 29 39  
E-Mail contact@sick.ch

#### **Singapore**

Phone +65 6744 3732  
E-Mail admin@sicksgp.com.sg

#### **Slovenija**

Phone +386 (0)1-47 69 990  
E-Mail office@sick.si

#### **South Africa**

Phone +27 11 472 3733  
E-Mail info@sickautomation.co.za

#### **South Korea**

Phone +82 2 786 6321/4  
E-Mail info@sickkorea.net

#### **Suomi**

Phone +358-9-25 15 800  
E-Mail sick@sick.fi

#### **Sverige**

Phone +46 10 110 10 00  
E-Mail info@sick.se

#### **Taiwan**

Phone +886-2-2375-6288  
E-Mail sales@sick.com.tw

#### **Türkiye**

Phone +90 (216) 528 50 00  
E-Mail info@sick.com.tr

#### **United Arab Emirates**

Phone +971 (0) 4 8865 878  
E-Mail info@sick.ae

#### **USA/México**

Phone +1(952) 941-6780  
1 800-325-7425 – tollfree  
E-Mail info@sickusa.com

More representatives and agencies  
at [www.sick.com](http://www.sick.com)