Leuze electronic

the sensor people

LSIS 220 Series
Compact code reader –
for moving 1D- and 2D-codes as well

Small, fast and very clever.
The LSIS 220 series code readers.

Better optics and optimized resolution for faster code reading, even in motion.

Particularly when reading moving codes, how quickly the captured data can be processed is decisive. A very high resolution is, due to the larger quantity of data that is collected, a hindrance in this case and brings no real added value. Furthermore, it is important that everything located in the read field of the sensor be in focus in order, for example, to reliably detect codes that are not centered when moved past the reader.

We took all of this into account in the development of the new LSIS 220 and, in addition to the robust construction, the integrated RS 232 or USB interface, and the range of readable codes, also equipped it with optimized resolution and improved optics. Thus, the new readers now offer more performance reserves, reliability and speed, even with moving codes.

The LSIS 220 series is a universal code reader for:

Bar code
The bar code is a machine-read-able format whose information is encoded in bars of varying width. Bar codes exist for various applications in different forms.

Stacked code
Since they are encoded in multiple lines, stacked codes can contain more information than simple bar codes. Depending on type, they may also include error correction for reading damaged codes.

2D-code
2D- or Data Matrix Codes can store a great amount of information in a very small space due to their matrix structure. In addition, a special error correction algorithm also allows partially destroyed codes to be read.

The most important features at a glance

- Optimized camera resolution of 838 × 640 pixels for fast code reading, even while in motion
- Improved optics for larger read field and in-focus detection all the way to the edge areas
- Detection of 2D-codes, stacked codes and bar codes
- RS 232 or USB interface
- M12 turning connector (8-pin)
- Switching input and switching output
- LED indicator for completed read operations and switching inputs
- Trigger button for manual activation and configuration
- Construction without mechanically moved parts, robust metal housing with glass window and protection class IP 65 make the devices very well suited for industrial use
- Extremely small construction size, also for installation under difficult conditions
- Metric mounting thread
- Extensive selection of accessories

Flexible in use and able to take a beating.

The code readers of the LSIS 220 series are suitable for a variety of applications in various industries. With protection rating IP 65 and robust design, even rough industrial use, such as in robotic arms or automatic testing machines, poses no challenge.

Sample areas of application

- Handling and automated testing systems
- Manual reading by holding up the code by hand
- Automatic reading in robotic systems
- Analysis automation (blood analysis, etc.)
- Part tracing with code labels
- Reading moving codes

LEUZE ELECTRONIC IN MOTION

Experience the LSIS 220 live in action.
Simply scan in the adjacent QR code with the LSIS 220 or your smart phone and you can experience the possibilities of the LSIS 220 up close.

Omnidirectional code reading

- The camera system can read the codes at any angle. As a result, it is not necessary to align the code on the part

Reading codes in automatic handling machines

- Compact and lightweight housing
- Robust metal housing suitable for industrial use
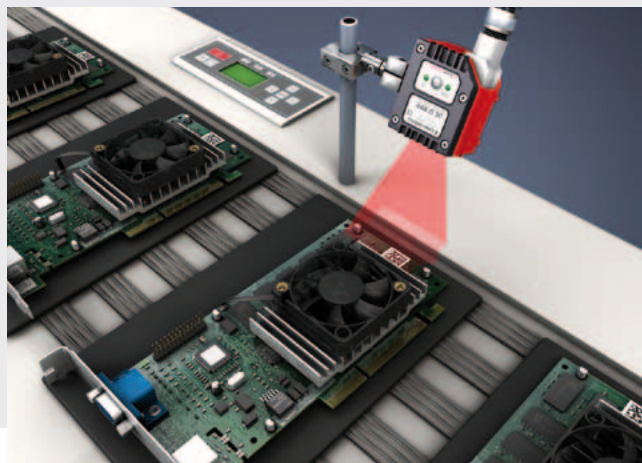- Large read field with improved optics

Reading codes in presentation mode

- Fast and reliable identification of the merchandise by holding up the code
- The device is permanently mounted; as a result, the employees have both hands free for holding up the code
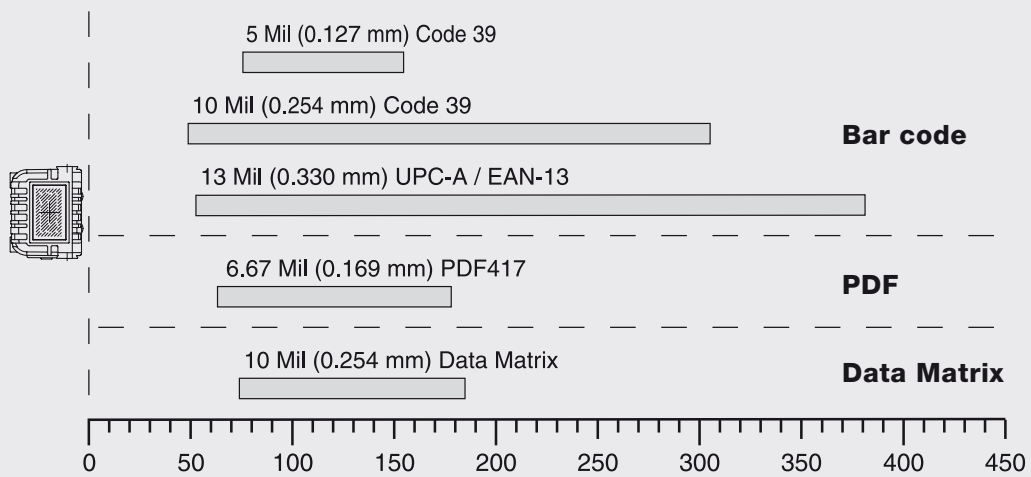

Reading codes in intralogistics

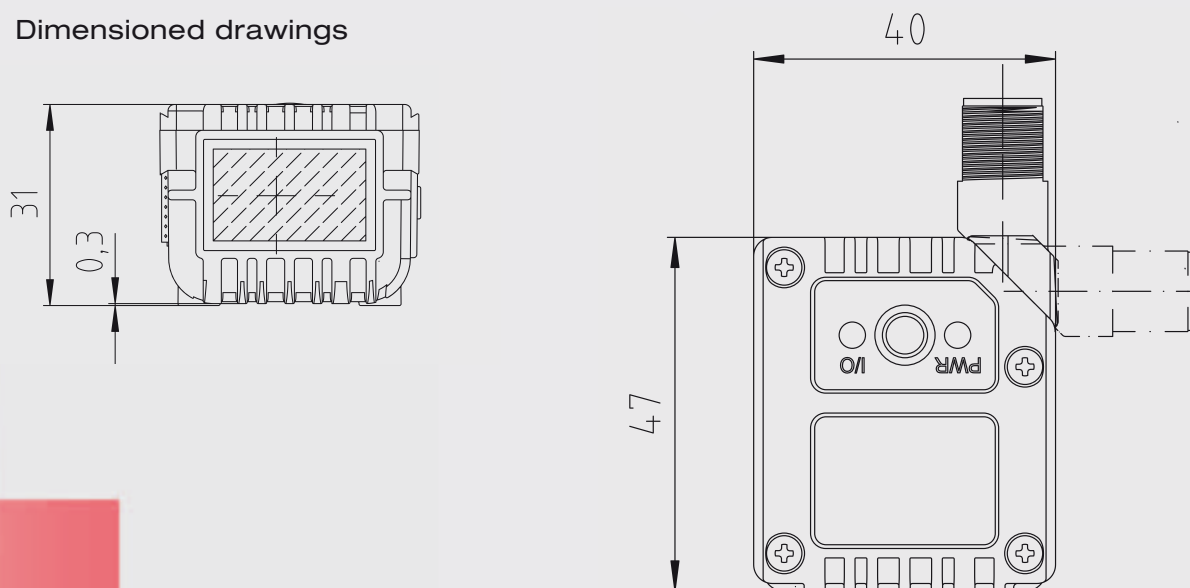- Detection of codes in production for parts tracking
- Identification of parts

Technical features

Reading distances

5 Mil (0.127 mm) Code 39

10 Mil (0.254 mm) Code 39

Bar code

13 Mil (0.330 mm) UPC-A / EAN-13

6.67 Mil (0.169 mm) PDF417

PDF

10 Mil (0.254 mm) Data Matrix

Data Matrix

| 0 | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 |

Dimensioned drawings

40

31

0,3

47

PWR I/O

Electrical data	LSIS 222	LSIS 223
Operating voltage U_B	10 … 30 V DC	5 V DC
Power consumption	3 W	2.5 W
Interfaces		
Interface type	RS 232	USB
Trigger	serial command, auto-trigger mode or switching input	
Types of codes		
2D-codes	Data Matrix ECC 200, MaxiCode, PDF417, MicroPDF, QR Code, Aztec, Code 49, EAN/UCC Composite	
Bar codes	2 / 5 Interleaved, Code 39, Code 128, Code 93, Codabar, UPC / EAN, GS1 Databar	
Optical data		
Optical system	high-resolution CMOS pixel array 838 × 640	
Contrast	20 % (black/white)	
Light source	integrated diffuse LED (red)	
Reading distance	53 … 381 mm (EAN 13 100%)	
Focal point	127 mm	
Read direction	omnidirectional, various tilt and rotational angles up to 45°	
Mechanical data		
Housing	diecast zinc	
Weight	130 g	
Dimensions	47 × 40 × 32 mm	
Environmental data		
Ambient temperature (operation)	0 °C … +40 °C	
Ambient temp. (storage)	-20 °C … +70 °C	
Relative humidity	0 … 95 %, (non-condensing)	

Optoelectronic Sensors

Cubic Series
Cylindrical Sensors, Mini Sensors, Fiber Optic Sensors
Measuring sensors
Special Sensors
Light curtains
Forked Sensors
Double Sheet Monitoring, Splice Detection
Inductive switches
Accessories

Identification Systems
Data Transmission Systems
Distance Measurement

Bar Code Readers
RF-IDent-systems
Modular Interfacing Units
Industrial Image Processing Systems
Optical Data Transmission Systems
Optical Distance Measurement/Positioning
Mobile code readers

Safety Sensors
Safety Systems
Safety Services

Safety Laser Scanner
Safety Light Curtains
Transceivers and Multiple Light Beam Safety Devices
Single Beam Safety Devices
AS-i-Safety Product Range
Safety Sensor Technology for PROFIBUS DP
Safety Switches, Locking Devices, Command Devices
Safety relays/controllers
Sensor Accessories and Signal Devices
Safety Engineering Software
Machine Safety Services