

the **sensor** people

Product overview Mobile Identification Systems

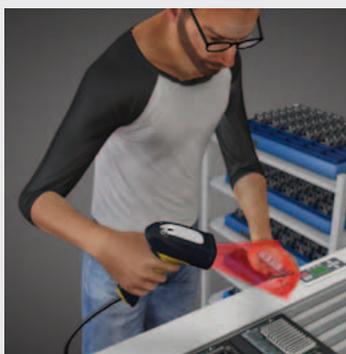
for bar codes, 2D-codes and RFID



Scanners for mobile identification.

The ultimate in versatility and reliable identification.

Wherever mobility is key, mobile code reader from Leuze electronic provide the ideal answer for reliable identification of all currently used and future-oriented code types. In applications ranging from transport to shipping, inventory checks to order picking. The scanners offer outstanding resolution and read quality, as well as an impressive range and the ultimate in user convenience. For everything from simple identification assignments through to directly marked codes involving complex reading requirements. Additional benefits: Easy availability of suitable interfaces and unbeatable expertise from the Leuze electronic specialists for every conceivable application.



Reading techniques and connection possibilities.

Identification techniques



Bar code

The bar code is a machine-readable code whose information is encrypted in bars of differing widths and gaps. Bar codes come in many different forms for varying applications.



2D-code

The 2D data matrix code (ECC 200) is able to store large substantially higher quantities of data in a minuscule space by means of elements arranged in a matrix. This code type benefits from "Reed Solomon" error correction, which permits partially destroyed codes to be successfully read.



Direct marked 2D-code

As modern cameras with intelligent lighting are capable of decoding even poor contrasting codes, it is possible to apply codes directly onto objects. Depending on the inscription method used (printing, laser or needle), a data matrix code or dot matrix code is drawn. This process is particularly suitable as a method of ensuring part traceability.



RFID technology

This method of identification is not an optical technique but an inductive one, which uses transponders as data carriers. Benefits of RFID are its suitability for use in hostile or dirty industrial environments, system functionality even without a visual connection and the in-process updating of data (e.g. for process control purposes). Depending on the range HF (13,56 MHz) or UHF (868 MHz) can be used.



The interfaces



RS 232 C interface

The RS 232 C interface is also known as V 24. Data transmission between the host (PLC/PC) and reading device takes place in the asynchronous mode.



PS2 keyboard interface

Looping a handheld scanner into the keyboard interface is a simple and convenient way of transmitting data to the PC using the same format as a keyboard.



USB port

Modern PCs and handheld scanners can interchange data directly via the USB port. This variant is comparable to the keyboard interface. Partially with COM port emulation available.



Bluetooth interface

Bluetooth is a wireless transmission technology using ISM band (2.4 GHz). Class 2 permits a transmission range of up to 10 metres. Using Bluetooth version V 1.2 resp. 2.0, disturbance of WLAN networks is practically excluded.

Handheld
bar code readers.



Z-3110



Specifications

Reading technology

CCD touchreader

Code types/
transponder types

Bar codes:

Code 2/5 Int.; Code 39;
Code 128; EAN 8/13;
(all customary codes)

Reading distance

0–20 mm

Interfaces

RS 232, PS2 and USB

Supply voltage

5 V DC

Current consumption

110 mA

Protection class

Drop height

1 m

Weight

100 g

Delivery contents

Handheld scanner

Accessories

RS 232 cable

PS2 cable

USB cable

Power supply unit

Tabletop mount

Applications

Touch reader
(contact bar code
reading) e. g. reading
bar codes on docu-
ments such as deliv-
ery notes, job orders etc.

IT 1300g



Line imager

Bar codes:

Code 2/5 Int.; Code 39;
Code 128; EAN 8/13;
(all customary codes)

10–660 mm

RS 232, PS2 and USB

5 V DC

360 mA

IP 41

1.5 m

159 g

Handheld scanner

RS 232 cable

PS2 cable

USB cable

Power supply unit

Tabletop mount

Wall mount

Handheld scanner for wide range of applications and bar code types such as reading bar codes from packages, boxes or pallets. Device with large rotation and tilt angle, for fast pick-up of bar codes.

IT 3820



Line imager with wireless transmission

Bar codes:

Code 2/5 Int.; Code 39;
Code 128; EAN 8/13;
(all customary codes)

25–1120 mm

RS 232, PS2 and USB

230 V AC (3.7 V DC batt.)

825 mA

IP 41 (base: IP 41)

1.8 m (base: 1 m)

261 g (base: 250 g)

Handheld scanner
incl. battery

Base station

RS 232 cable

PS2 cable

USB cable

Power supply unit

Handheld scanner for wide range of applications, fitted with Bluetooth technology for mobile applications. Device with large rotation and tilt angle, for fast pick-up of bar codes.

IT 3800i



Line imager

Bar codes:

Code 2/5 Int.; Code 39;
Code 128; EAN 8/13;
(all customary codes)

16.5–2080 mm

RS 232, PS2 and USB

4.5–14 V DC

360 mA

IP 54

2 m

213 g

Handheld scanner

RS 232 cable

PS2 cable

USB cable

Power supply unit

Tabletop mount

Wall mount

Bowden cable

Industrial handheld scanner for wide range of bar code types, such as bar codes on packages, boxes or pallets under hostile environmental conditions. Device with large rotation and tilt angle, for fast pick-up of bar codes.

IT 3820i



Line imager with wireless transmission

Bar codes:

Code 2/5 Int.; Code 39;
Code 128; EAN 8/13;
(all customary codes)

25–1120 mm

RS 232, PS2 and USB

230 V AC (3.7 V DC batt.)

825 mA

IP 54 (base: IP 41)

2 m (base: 1 m)

272 g (base: 250 g)

Handheld scanner
incl. battery

Base station

RS 232 cable

PS2 cable

USB cable

Power supply unit

Industrial handheld scanner for wide range of applications, fitted with Bluetooth technology for mobile applications under rough operating conditions. Device with large rotation and tilt angle, for fast pick-up of bar codes.

Handheld scanners for bar codes and RFID.

HFM 3500D

HFM 3520D Bluetooth



Specifications	
Reading technology	Mobile combination device Bar code/RFID HF (13.56 MHz)
Code types/ transponder types	Transponder: ISO 15693 Bar codes: Code 39; Code 128; Code 93; EAN 8/13; 2/5 Int. (all common)
RFID reading/writing distance	0–30 mm ■
Bar code reading distance	0–450 mm ■
2D-code	no
Interfaces	RS 232 via 9-pin Sub-D USB converter cable
Supply voltage	5V DC
Current consumption	200 mA
Protection class	IP 54
Drop height	1 m
Weight	172 g
Delivery contents	
	Combination device incl. RS 232; Cable, 4 m
Accessories	
	Power supply unit USB-RS 232 converter cable
	Base station Power supply unit RS 232 cable USB-RS 232 converter cable
Applications	
	Mobile combination device for transponders and bar codes; designed especially for reading bar code information and subsequently writing this information to a transponder.
	Mobile combination device for transponders and bar codes; designed especially for reading bar code information and subsequently writing this information to a transponder.

Handheld scanners for bar codes and 2D-codes.



IT 1900



IT 1902



Specifications	
Reading technology	Imager handheld scanner
Code types/ transponder types	<p>Bar codes: Code 2/5 Int.; Code 39; Code 128; EAN 8/13; (all customary codes)</p> <p>2D-codes: Data matrix code ECC200; Aztec; QR-Code; PDF 417; Maxicode; (all customary codes)</p>
Reading distance	0-561 mm
Interfaces	RS 232, PS2 and USB
Supply voltage	4-5.5 V DC
Current consumption	450 mA
Protection class	IP 41
Drop height	1.8 m
Weight	147 g
Delivery contents	
	Handheld scanner
Accessories	
	RS 232 cable PS2 cable USB cable Power supply unit Tabletop mount Wall mount
Applications	
	Handheld scanner for wide range of applications and code types, such as reading bar codes on packages, boxes or pallets. Omnidirectional code reading.
	Imager handheld scanner with wireless transmission
	<p>Bar codes: Code 2/5 Int.; Code 39; Code 128; EAN 8/13; (all customary codes)</p> <p>2D-codes: Data matrix code ECC200; Aztec; QR-Code; PDF 417; Maxicode; (all customary codes)</p>
	0-561 mm
	RS 232, PS2 and USB
	230 V AC (3.7 V DC batt.)
	1000 mA
	IP 41 (base: IP 41)
	1.8 m (base: 1 m)
	214 g (base: 179 g)
	Handheld scanner incl. battery
	Base station RS 232 cable PS2 cable USB cable Power supply unit
	Handheld scanner for wide range of code types and applications. With Bluetooth for mobile applications. Omnidirectional code reading.

Handheld scanners
for bar codes and
2D-codes.



IT 1910i



Specifications

Reading technology

Imager handheld scanner

Code types/
transponder types

Bar codes:

Code 2/5 Int.; Code 39;
Code 128; EAN 8/13;
(all customary codes)

2D-codes:

Data matrix code
ECC200; Aztec;
QR-Code; PDF 417;
Maxicode;
(all customary codes)

Reading distance

25–596 mm

Interfaces

RS 232, PS2 and USB

Supply voltage

4–5,5 V DC

Current consumption

470 mA

Protection class

IP 65

Drop height

2 m

Weight

300 g

Delivery contents

Handheld scanner

Accessories

RS 232 cable
PS2 cable
USB cable
Power supply unit
Tabletop mount
Wall mount
Bowden cable

Applications

Industrial handheld scanner for wide range of code types such as codes on packages, boxes or pallets under hostile application conditions. Omnidirectional code reading.

IT 1911i



FIS 6170

HS 6508

HS 6578



Imager handheld scanner with wireless transmission

Imager handheld scanner

Imager handheld scanner

Imager handheld scanner with wireless transmission

Bar codes:

Code 2/5 Int.; Code 39; Code 128; EAN 8/13; (all customary codes)

2D-codes:

Data Matrix Code
ECC200; Aztec;
QR-Code; PDF 417;
Maxicode;
(all customary codes)

25 – 596 mm

RS 232, PS2 and USB
230V AC (3.7V DC batt.)

1000mA

IP 65 (base: IP 51)

2 m (base: 1 m)

380 g (base: 290 g)

Handheld scanner
incl. battery

Base station
RS 232 cable
PS2 cable
USB cable
Power supply unit

Industrial handheld scanner for wide range of code types and applications. With Bluetooth for mobile applications under rough operating conditions. Omnidirectional code reading.

Bar codes:

Code 2/5 Int.; Code 39; Code 128; EAN 8/13; (all customary codes)

2D-codes:

Data Matrix Code
ECC200; QR-Code;
PDF 417

0 – 51 mm

RS 232 and USB

5V DC

500mA

–

1.5 m

204 g

Handheld scanner

RS 232 cable
USB cable
Power supply unit
Tabletop mount
Bowden cable

Industrial handheld scanner reading direct marked codes (laser or needle applied) with minimal contrast, e.g. on metals, plastics etc. Omnidirectional code reading.

Bar codes:

Code 2/5 Int.; Code 39; Code 128; EAN 8/13; (all customary codes)

2D-codes:

Data Matrix Code
ECC200; QR-Code;
PDF 417

0 – 233 mm

RS 232, PS2 and USB

4,5–5,5V DC

330mA

IP 65

2 m

336 g

Handheld scanner

RS 232 cable
PS2 cable
USB cable
Power supply unit
Wall mount

Robust industrial handheld scanner reading direct marked codes (needle applied) with minimal contrast, also large bar codes. Omnidirectional code reading.

Bar codes:

Code 2/5 Int.; Code 39; Code 128; EAN 8/13; (all customary codes)

2D-codes:

Data Matrix Code
ECC200; QR-Code;
PDF 417

0 – 233 mm

RS 232, PS2 and USB
230V AC (3.6V DC batt.)

915mA

IP 65 (base: IP 41)

2 m (base: 1 m)

414 g (base: 298 g)

Handheld scanner
incl. battery

Base station
RS 232 cable
PS2 cable
USB cable
Power supply unit

Robust industrial handheld scanner with bluetooth reading direct marked codes (needle applied) with minimal contrast, also large bar codes. Omnidirectional code reading.

Handheld scanners for bar codes, 2D-codes and RFID.



HFU 4500D

HFU 4520D Bluetooth



Specifications	
Reading technology	Mobile combination device 2D/Bar code/RFID UHF (868/915 MHz)
Code types/ transponder types	Transponder: EPC 1 Gen 2 Bar codes: Code 39; Code 128; Code 93; EAN 8/13; 2/5 Int. (all common) 2D-codes: ECC 200; PDF 417; GS1 Databar
RFID reading/writing distance	0–450 mm ■
Bar code reading distance	30–350 mm ■
2D-code	10–150 mm
Interfaces	RS 232 via 9-pin Sub-D USB converter cable
Supply voltage	5V DC
Current consumption	200mA
Protection class	IP 54
Drop height	1m
Weight	280g
Delivery contents	
	Combination device incl. RS 232; Cable, 4 m
Accessories	
	Power supply unit USB-RS 232 converter cable
	Base station Power supply unit RS 232 cable USB-RS 232 converter cable
Applications	
	Mobile combination device for transpond- ers and 1D/2D-codes; designed especially for reading 1D/2D informa- tion and subsequently writing to a transponder.
	Mobile combination device with Bluetooth 2D/Bar code/RFID UHF (868/915 MHz) Transponder: EPC 1 Gen 2 Bar codes: Code 39; Code 128; Code 93; EAN 8/13; 2/5 Int. (all common) 2D-codes: ECC 200; PDF 417; GS1 Databar 0–450 mm ■ 30–350 mm ■ 10–150 mm RS 232 via 9-pin Sub-D USB converter cable 230V AC (3.7V DC batt.) 200mA IP 54 (base: IP 54) 1m (base: 1m) 380g (base: 200g) Combination device incl. battery Base station Power supply unit RS 232 cable USB-RS 232 converter cable Mobile combination device for transpond- ers and 1D/2D-codes; designed especially for reading 1D/2D informa- tion and subsequently writing to a transponder.

Practical applications.



Order picking

- Fast and reliable identification of merchandise.
- Economical identification solutions for manual identification increase cost effectiveness of the system.
- High-performance, diversified product portfolio of mobile code readers for strong performance and, thus, high system availability.



Bar code



Traceability of parts

- Read permanent, direct markings (e. g. on tools, motor components, engine parts, surgical/medical instruments etc.) that must always be identifiable during the course of a given process.
- Flexible use in production/manufacturing for identifying electronic components, tools etc.
- Error correction through “Reed-Solomon” algorithm – even if a part of the code is destroyed, identification is still possible.
- High-performance, diversified product portfolio of mobile, 2D-code readers for a wide range of application types



2D-code



DOT code



Process control

- Read bar code information and then subsequently write to a transponder with a device
- Process control by means of changeable information through RFID
- Robust transponder to withstand high industrial stress caused by chemicals, temperature, etc.



RFID HF



RFID UHF



Switching Sensors

Optical Sensors
Ultrasonic Sensors
Fiber Optic Sensors
Inductive Switches
Forked Sensors
Light Curtains
Special Sensors

Measuring Sensors

Distance Sensors
Sensors for Positioning
3D Sensors
Light Curtains
Forked Sensors

Products for Safety at Work

Optoelectronic Safety Sensors
Safe Locking Devices and Switches
Safe Control Components
Machine Safety Services

Identification

Bar Code Identification
2D-Code Identification
RF Identification

Data Transmission/ Control Components

MA Modular Interfacing Units
Data Transmission
Safe Control Components

Industrial Image Processing

Light-Section Sensors
Smart Camera

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