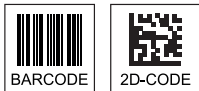


## HS 6578 DPM

## DPM hand-held scanner with radio transmission

en 02-2014/07 50121036-01



- Hand-held scanner for directly-marked codes (needle print or laser marking on flat surfaces)
- Radio transmission
- Very sturdy, ergonomic housing
- Robust trigger button
- Built-in decoder
- Display for successful reading with LED, signal tone and vibration
- RS 232, PS/2 or USB interface
- Operating temperature from -20 to +50 °C
- Protection class IP 65

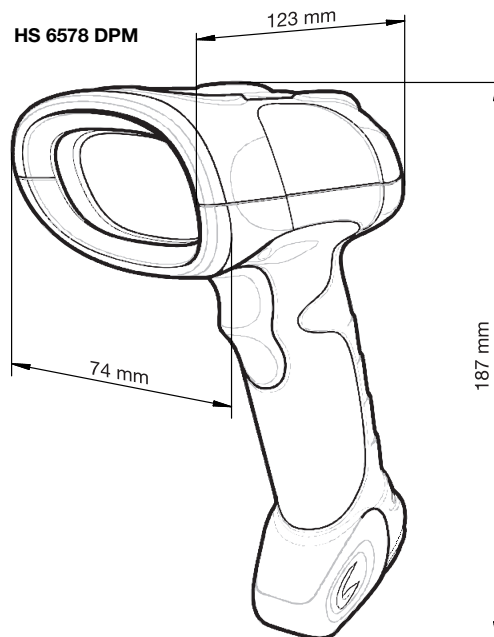


### Accessories

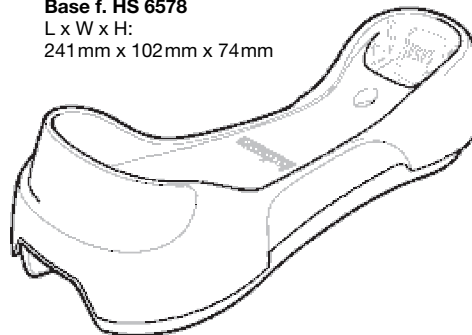
(available separately)

- **RS 232 cable - voltage via pin 9**  
Part no. 50120436
- **USB cable**  
Part no. 50120432
- **PS/2 cable**  
Part no. 50120438
- **Power supply unit (100 ... 240VAC)**  
Part no. 50120430
- **Base f. HS 6578** (charging/transfer station)  
Part no. 50120446
- **Replacement battery**  
Part no. 50120448

### Dimensioned drawing



**Base f. HS 6578**  
L x W x H:  
241 mm x 102 mm x 74 mm



### Electrical connection

for USB cable (part no. 50120432)

USB type A	Signal
1	5VDC
2	Data -
3	Data +
4	GND

for RS 232 cable - voltage via pin 9 (part no. 50120436)

9-pin Sub-D	Signal
2	TXD
3	RXD
5	GND
9	5VDC

for PS/2 cable (part no. 50120438)

PS/2 connector	Signal
1	PC Data
3	GND
4	5VDC
5	PC Clock
	KB data
	KB clock

PS/2 socket	Signal
1	PC Data
3	GND
4	5VDC
5	PC Clock
	KB data
	KB clock

We reserve the right to make changes • DS\_HS6578DPM\_en\_50121036\_01.fm

### Technical Data

#### Electrical data

Operating voltage  $U_B$   
Current consumption  
Battery  
Charging time

#### HS 6578 DPM

Li-Ion 2200mAh / 3.6V  
4.5h with external power supply unit

#### Base f. HS 6578

4.75 ... 14VDC  
max. 915mA @ 5VDC

#### Interfaces

Interface type  
Trigger  
Radio transmission  
Operating range

RS 232, PS/2 and USB  
via button  
Bluetooth V2.1, class 2, serial port and HID profiles  
max. 33m (depending on environment)

#### Types of codes

Bar codes

2/5 Interleaved, Code 39, Code 128, Code 93, Codabar, UPC/EAN, GS1 Databar  
Data Matrix codes ECC 200, Aztec, PDF417, MicroPDF, QR Code

2D-codes

#### Optical data

Optical system  
Light source

CMOS imager 752x480  
alignment aid: 650nm laser diode, IEC class 2 (EN/IEC 60825-1)  
illumination element: 630nm LED  
21 ... 157mm (UPC/EAN 13, 100% or 0.33mm)

Reading distance

#### Mechanical data

Weight  
Dimensions

#### HS 6578 DPM

414g  
187x74x123mm

#### Base f. HS 6578

298g (without cable)  
241x102x74mm

#### Environmental data

Ambient temperature (operation)  
Ambient temp. (storage)  
Ambient temperature (load)

-20°C ... +50°C  
-40°C ... +70°C  
0°C ... +40°C  
(ideal: 0°C ... +35°C)

-20°C ... +50°C  
-40°C ... +70°C  
0°C ... +40°C  
(ideal: 0°C ... +35°C)

Relative humidity  
Protection class  
Shock resistance

5 ... 95% (non-condensing)  
IP 65  
can withstand multiple falls onto a concrete floor from a height of 2 m

5 ... 95% (non-condensing)  
n.a.  
n.a.

Certifications

UL 60950-1, C22.2 No. 60950-1

### Read field

Code type	Module size [mil]	Module size [mm]	From [mm]	To [mm]
Code 39	3	0.076	27.9	40.6
	5	0.127	0	88.9
	7.5	0.191	0	137.2
	20	0.508	27.9	233.7
UPC/EAN 13	13 (100%)	0.330	20.3	157.5
PDF 417	6.67	0.169	0	94.0
	10	0.254	0	114.3
	15	0.381	0	142.2
Data Matrix Code	4	0.102	25.4	53.3
	5	0.127	10.2	68.6
	7.5	0.191	0	88.9
	10	0.254	0	111.8
QR Code	4	0.102	27.9	35.6
	5	0.127	12.7	55.9
	7.5	0.191	0	83.8
	10	0.254	0	101.6

#### Notice:

Please notice that the real reading distances are also influenced by factors such as labeling material, printing quality, scanning angle, printing contrast etc., and may thus deviate from the reading distances specified here.



Additional information on the product and on configuring (code type release, number of digits, etc.) can be found in the operating instructions (Product Reference Guide). Download at [www.leuze.com](http://www.leuze.com).

### Order guide

#### Part no.

HS 6578 DPM

DPM hand-held scanner with radio transmission with RS 232, PS/2 and 50120440 USB Interface

### Remarks

#### Operate in accordance with intended use!

- The product may only be put into operation by competent persons.
- Only use the product in accordance with the intended use.

Robust 2D-code hand-held scanner with integrated decoder for directly marked codes (DPM). These codes may be dot-peened or printed. Laser-etched codes on flat surfaces can also be detected.

Data transmission during keyboard-wedge operation via USB or PS/2 interface, or serial communication via RS 232 and USB interface.

For a functional unit, a hand-held scanner, the base station and corresponding cable as well as a power supply unit and must be ordered.

### Laser safety notices



#### ATTENTION, LASER RADIATION – LASER CLASS 2

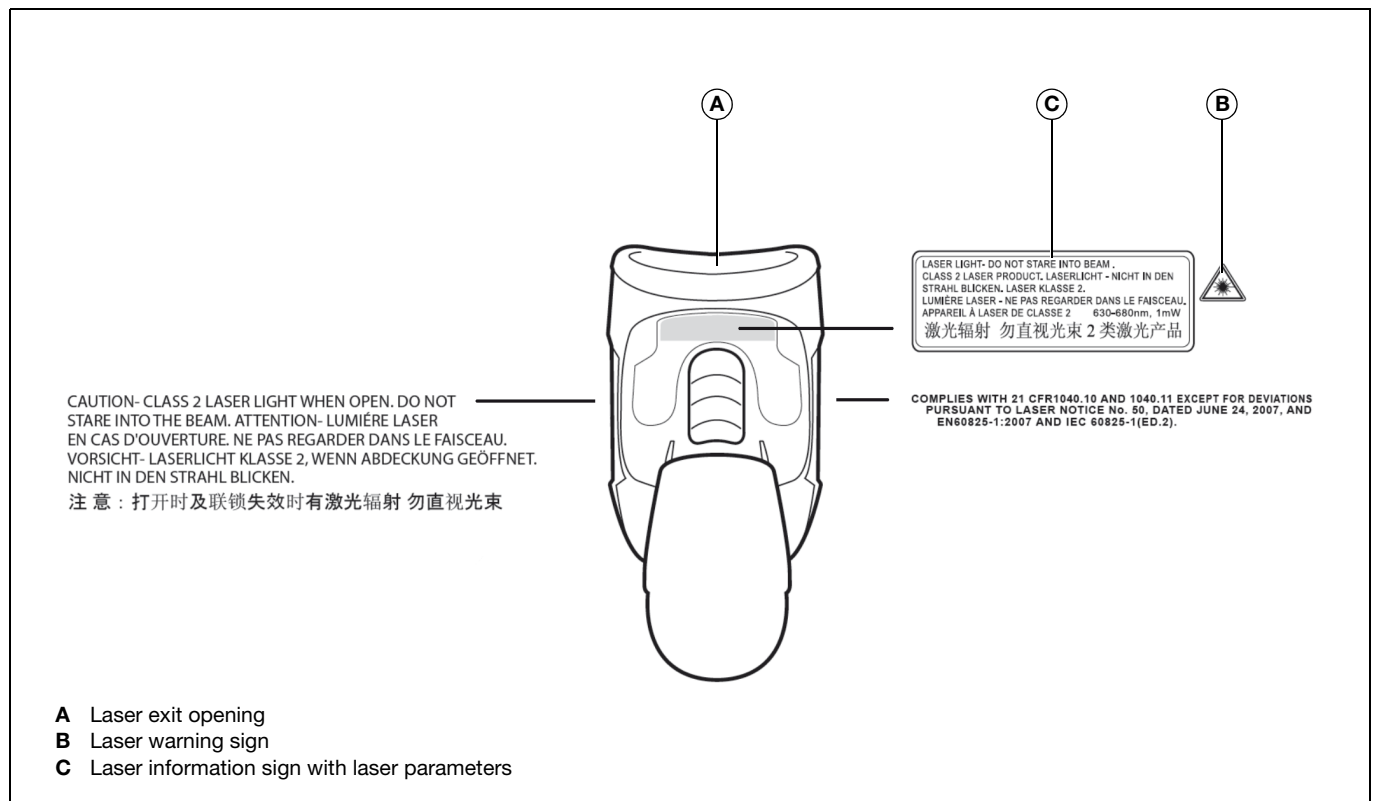
##### Never look directly into the beam!

The device fulfills the EN 60825-1:2008-05 (IEC 60825-1:2007) safety regulations for a product in **laser class 2** as well as the U.S. 21 CFR 1040.10 regulations with deviations corresponding to "Laser Notice No. 50" from June 24th, 2007.

- ⚠ Never look directly into the laser beam or in the direction of reflecting laser beams!  
If you look into the beam path over a longer time period, there is a risk of injury to the retina.
- ⚠ Do not point the laser beam of the device at persons!
- ⚠ Intercept the laser beam with an opaque, non-reflective object if the laser beam is accidentally directed towards a person.
- ⚠ When mounting and aligning the device, avoid reflections of the laser beam off reflective surfaces!
- ⚠ CAUTION! Use of controls or adjustments or performance of procedures other than specified herein may result in hazardous light exposure.  
The use of optical instruments or devices (e.g., magnifying glasses, binoculars) with the product will increase eye hazard.
- ⚠ Adhere to the applicable legal and local regulations regarding protection from laser beams acc. to EN 60825 (IEC 60825) in its latest version.
- ⚠ The device must not be tampered with and must not be changed in any way.  
There are no user-serviceable parts inside the device.  
Repairs must only be performed by Leuze electronic GmbH + Co. KG.

#### NOTICE

Laser information and warning signs are firmly attached to the device.



### HS 6578 DPM on serial PC interface

#### Required parts:

1x	50120440	HS 6578 DPM
1x	50120446	Base f. HS 6578
1x	50120430	NT Base 6578
1x	50120436	KB RS232-1 HS 65x8

Scanning the adjacent 2D-code sets the following interface parameters:

**RS 232 at 9600 baud, 8 data bits, 1 stop bit, no parity, no prefix, no postfix;  
Code 2/5 Interleaved with 10 places**

The adjacent 'PAIR' bar code, which is affixed to the base station, must absolutely be scanned!



### Configuration for the RS 232 Leuze standard protocol

Scanning the adjacent 2D-code sets the following interface parameters for the Leuze standard protocol:

**RS 232 at 9600 baud, 8 data bits, 1 stop bit, no parity, prefix STX and postfixes <CR><LF>;  
Code 2/5 Interleaved with 10 places**

The adjacent 'PAIR' bar code, which is affixed to the base station, must absolutely be scanned!



### HS 6578 DPM on MA 2xxi

#### Required parts:

1x	50120440	HS 6578 DPM
1x	50120446	Base f. HS 6578
1x	50120430	NT Base 6578
1x	50120436	KB RS232-1 HS 65x8
1x	50113397	KB JST-HS-300
1x	50112893	MA 204i Profibus gateway, <b>or</b>
	50112892	MA 208i Ethernet gateway, <b>or</b>
	50112891	MA 248i Profinet gateway

Scanning the adjacent 2D-code sets the following interface parameters for communication with the MA 2xxi gateway:

**RS 232 transmission at 9600 baud, 8 data bits, 1 stop bit, no parity, postfixes <CR><LF>;  
Code 2/5 Interleaved with 10 places**

The adjacent 'PAIR' bar code, which is affixed to the base station, must absolutely be scanned!



### HS 6578 DPM on MA 21

#### Required parts:

1x	50120440	HS 6578 DPM
1x	50120446	Base f. HS 6578
1x	50120430	NT Base 6578
1x	50120436	KB RS232-1 HS 65x8
1x	50035421	KB 021 Z
1x	50030481	MA 21 100

Scanning the adjacent 2D-code sets the following interface parameters for communication with the MA 21 connector unit:

**RS 232 transmission at 9600 baud, 7 data bits, 1 stop bit, even parity, postfixes <CR><LF>;  
Code 2/5 Interleaved with 10 places**

The adjacent 'PAIR' bar code, which is affixed to the base station, must absolutely be scanned!



### Pin assignments KB 021 Z

Core color:	Signal	Terminal in the MA 21:
brown	RXD	26
white	TXD	27
blue	GND	28
red	VCC	30
black	GND	31
bare (shield)	PE	21

## HS 6578 DPM

## DPM hand-held scanner with radio transmission

### HS 6578 DPM on PS/2 interface

#### Required parts:

1x	50120440	HS 6578 DPM
1x	50120446	Base f. HS 6578
1x	50120430	NT Base 6578
1x	50120438	KB PS2-1 HS 65x8

Scanning the adjacent 2D-code sets the following interface parameters for communication via the PS/2 interface:

**German PS/2 keyboard with <CR><LF>; Code 2/5 Interleaved with 10 places**

The adjacent 'PAIR' bar code, which is affixed to the base station, must absolutely be scanned!



### HS 6578 DPM on USB interface (keyboard emulation)

With this operating mode, a PC keyboard is emulated (Keyboard Wedge mode via USB). The read data are written directly into the currently activated program. The data can thereby be further processed in all standard programs.

#### Required parts:

1x	50120440	HS 6578 DPM
1x	50120446	Base f. HS 6578
1x	50120430	NT Base 6578
1x	50120432	KB USB-1 HS 65x8

Scanning the adjacent 2D-code sets the following interface parameters for keyboard emulation via USB interface:

**German USB keyboard emulation with <CR><LF>; Code 2/5 Interleaved with 10 places**

The adjacent 'PAIR' bar code, which is affixed to the base station, must absolutely be scanned!



### HS 6578 on USB interface (COM port emulation)

With this operating mode, a COM interface is emulated (COM Port Emulation via USB). The read data are sent to a new COM interface and can be further processed by programs that expect data via COM interfaces. The drivers with which this COM interface is emulated can be downloaded at [www.leuze.com](http://www.leuze.com).

#### Required parts:

1x	50120440	HS 6578 DPM
1x	50120446	Base f. HS 6578
1x	50120430	NT Base 6578
1x	50120432	KB USB-1 HS 65x8

#### Procedure:

1. Plug the USB cable into the base station and a free USB port. The scanner acknowledges this with a tone sequence.
2. Scan the adjacent 2D-code followed by the 'PAIR' bar code, which is affixed to the base station.
3. Scan the bar code shown below.
4. Install the USB serial driver **usbcdc.inf** when you are prompted to do so by Windows.
5. Open a terminal program or your program for the serial interface and select the new COM port.



