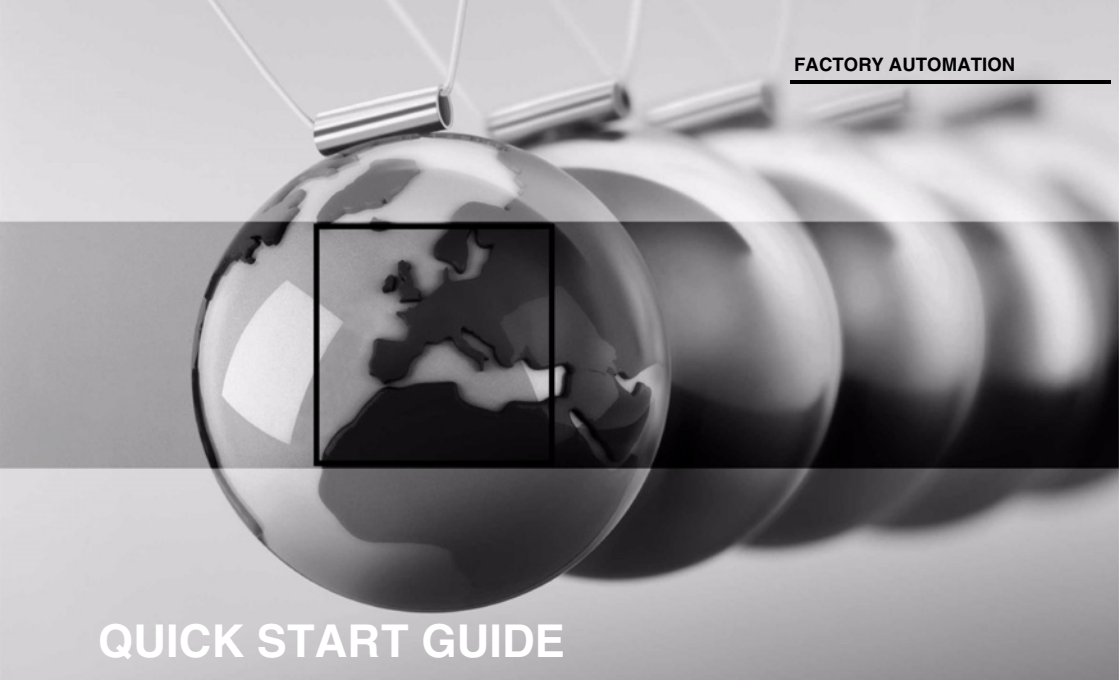


# QUICK START GUIDE

## ODT-HH-MAH120
### HANDHELD

PEPPERL+FUCHS
SENSING YOUR NEEDS

With regard to the supply of products, the current issue of the following document is applicable: The General Terms of Delivery for Products and Services of the Electrical Industry, published by the Central Association of the Electrical Industry (Zentralverband Elektrotechnik und Elektroindustrie (ZVEI) e.V.) in its most recent version as well as the supplementary clause: "Expanded reservation of proprietorship"

# 1 Installation and Commissioning

## 1.1 Connection

You have the opportunity to connect the handheld to the following PC interfaces:

- USB
- RS232
- PS/2

The handheld is ready for immediate use once you have connected it to the computer.

### Attaching the connecting cable to the handheld

1. Slide the protective cap over the 8-pin DIN plug.

2. Attach the spacer disk to the 8-pin DIN plug.

When the spacer disk snaps onto the DIN plug, it is attached correctly.

3. Align the 8-pin plug so that it fits into the socket on the handheld.

910483 2007-12

4. Press the 8-pin DIN plug, including spacer disk and protective cap, onto the socket.

5. Use a srewdriver and the screws provided to fasten the protective cap onto the bottom of the handle.

### 1.1.1 Connection via USB

#### Connecting USB connecting cable to computer

1. Insert the USB plug of the connecting cable in a free USB port on your computer. This can be done during operation.

   The handheld turns itself on automatically once you have connected it to the computer.

2. Scan the code **USB Keyboard Mode**:


M134_02

3. Scan the code **Save Settings**:


M188_02

910483 2007-12

Further USB configuration options, see chapter 1.2.1.

## 1.1.2 Connection via RS 232

### Connecting RS 232 connecting cable to computer

1. Turn the computer off.
2. Connect the RS 232 plug of the connecting cable to the RS 232 port of the computer.
3. Connect the low-voltage plug of the power-supply unit to the low-voltage jack of the RS 232 connecting cable.
4. Connect the mains power plug of the power-supply unit to the mains power supply.
5. Turn the computer on.

   The handheld turns itself on automatically once you have turned the computer on.
6. Scan the code **RS232 1 Way Mode**:


M131_01

7. Scan the code **Save Settings**:


M188_02

The handheld uses the following RS 232 factory settings:

- RS232 1 Way Mode
- 57600 baud
- 2 stop bits
- 8 data bits
- No parity

Further RS232 configuration options, see chapter 1.2.2.

910483 2007-12

## 1.1.3 Connection via PS/2

### Connecting PS/2 connecting cable to computer

1. Turn the computer off.
2. Disconnect the connection to the computer if an external keyboard is connected to the computer.
3. If you are using a USB keyboard, connect the keyboard with an appropriate adapter to the PS/2 connecting jack of the connecting cable. If you are using a keyboard with PS/2 plug, connect the plug directly to the PS/2 connecting jack of the connecting cable.
4. Connect the PS/2 plug of the connecting cable to the computer's PS/2 port for keyboards.
5. Turn the computer on.

   The handheld turns itself on automatically once you have turn the computer on.
6. Scan the code **PS/2 Mode**:

M126_01

7. Scan the code **Save Settings**:

M188_02

910483 2007-12

## 1.2 Operating modes

### 1.2.1 USB operating modes

#### Changing USB operating modes

There are 3 operating modes for USB operation of the handheld.

To change the USB operating mode, scan the relevant code in the following table.

| | |
|---|---|
| **USB Keyboard Mode** | |
| Scan this code to transmit all the scanned data from the handheld to the computer.<br>The data transmitted by the handheld are handled by the computer as data which have been input via a USB keyboard. | M134_02 |
| **USB Downloader** | |
| Scan this code to transmit unformatted, unpacked data via the USB interface to the handheld. | M133_01 |
| **USB Virtual COM 1 Way Mode** | |
| Scan this code to port USB keyboard data to a serial application. You will also need a Virtual Com driver, which can be found at www.pepperl-fuchs.com. | M668_01 |
| **Reset to USB Factory Defaults** | |
| Scan this code to reset the handheld to the USB factory settings. | M049_03 |

910483 2007-12

## 1.2.2 RS232 operating modes

### Changing RS232 communication parameters

Scan the respective code to change the individual RS 232 connection settings (view table "RS232 communication settings" on page 9).

RS232 communication settings

| | | | |
|---|---|---|---|
| **Setting data bit** | | | |
| 7 data bits<br>M100_01 | 8 data bits (default)<br>M101_01 | | |
| **Setting stop bit** | | | |
| 2 stop bits (default)<br>M106_01 | | | |
| **Setting baud rate** | | | |
| 1200<br>M092_01 | 2400<br>M093_01 | 4800<br>M094_01 | 9600<br>M095_01 |
| 19200<br>M096_01 | 38400<br>M097_01 | 57600 (default)<br>M098_01 | 115200<br>M099_01 |

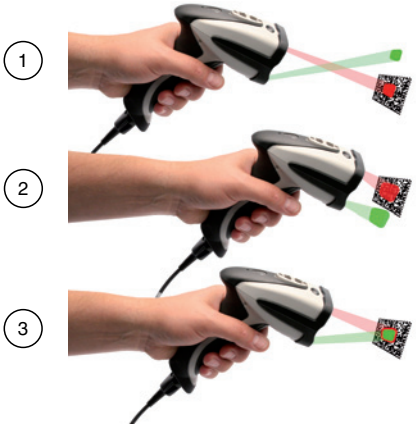
910483 2007-12

| **Setting parity** | | | |
|---|---|---|---|
| Even<br>M102_01 | Odd<br>M104_01 | None<br>M103_01 | |
| Scan this code to reset the handheld to the RS232 default settings: | M418_02 | | |

## 1.3 Positioning and reading techniques

This handheld uses digital camera technology to record an image of the code to be read. After an image has been recorded, the handheld uses highly developed evaluation procedures to evaluate the data contained in the recording.

This handheld supports you with target projections in the form of two squares distinguished by color when codes are sighted and focused. This projection is realized by one red and one green LED on the handheld. Precise positioning becomes increasingly important in the case of small codes or codes with a high information density.




**1** Handheld too far away from the code

**2** Handheld positioned too close to the code

**3** Handheld optimally positioned (optimum distance: 9.7 cm)

### Sighting and reading 1D and 2D codes

1. With the trigger button pressed, aim the red square at the code to be read.
2. Alter the distance between the handheld and the code, depending on the position of the green square: the code is optimally sighted as soon as the two squares overlap.

   The code is read automatically. In the event of successful decoding, the acoustic and tactile signal sounds and the status LED flashes green once (depending on the configuration of the handheld).

910483 2007-12

## 1.4 Optimizing reading performance

With this handheld, you can improve the reading performance by specifying the size and information density of the codes that are to be scanned.

1. If you typically tend to read a wide variety of codes, scan the **Wide-Field DOT (Default)** code.
2. If you typically tend to read small, 2D codes with high information density, scan the **SXGA Mode** code.
3. If you typically tend to read medium-sized, 1D and 2D codes with low information density, scan the **VGA Mode** code.
4. To save your settings, scan the **Save Settings** code.

Wide-Field DOT (Default)


SXGA Mode


VGA Mode


Save Settings


910483 2007-12

## 1.5 Factory defaults

### Resetting the handheld to factory defaults

To reset the handheld to the factory defaults of the operating mode, scan the appropriate code.

| Operating mode | Code |
|---|---|
| USB |  M049_03 |
| RS232 |  M418_02 |
| PS/2 |  M060_03 |

910483 2007-12

# FACTORY AUTOMATION – SENSING YOUR NEEDS


**Worldwide Headquarters**
Pepperl+Fuchs GmbH
68307 Mannheim · Germany
Tel. +49 621 776-0
E-mail: info@de.pepperl-fuchs.com

**USA Headquarters**
Pepperl+Fuchs Inc.
Twinsburg, Ohio 44087 · USA
Tel. +1 330 4253555
E-mail: sales@us.pepperl-fuchs.com

**Asia Pacific Headquarters**
Pepperl+Fuchs Pte Ltd.
Company Registration No. 199003130E
Singapore 139942
Tel. +65 67799091
E-mail: sales@sg.pepperl-fuchs.com


**www.pepperl-fuchs.com**

PEPPERL+FUCHS
SENSING YOUR NEEDS




910483 / TDOCT-1203_ENG
12/2007