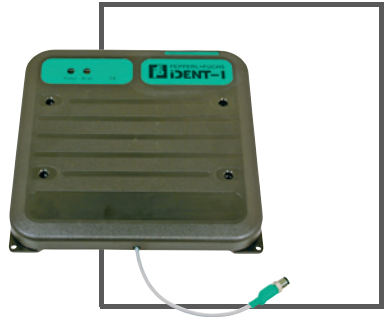


## QUICK START GUIDE

### IQH-F100-V1

READ/WRITE UNIT (13.56 MHz)





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"

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# 1 Introduction

## Congratulations

You have chosen a device manufactured by Pepperl+Fuchs. Pepperl+Fuchs develops, produces and distributes electronic sensors and interface modules for the market of automation technology on a worldwide scale.

## Contact

If you have any questions regarding the device, accessories or further functions, please contact:

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## 2 Product description IQH-F100-V1

### 2.1 Use and application

The reading/writing head IQH-F100-V1 is used for reading and writing to transponders from varying distances. The read/write unit is easy to install, has a flat, compact design with integrated antenna and can be used in applications such as item lending procedures or document tracking. Advantages over other reading/writing heads include an extended range and the capability to adapt to the ambient conditions.



### 2.2 Scope of supply

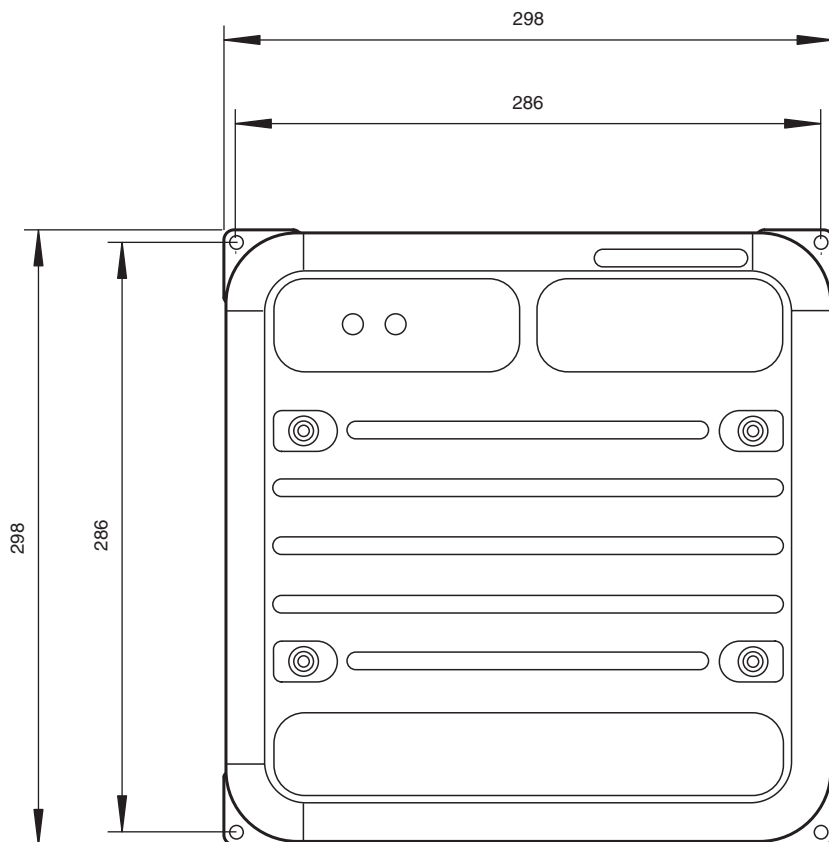
The scope of supply includes:

- Reading/writing head IQH-F100-V1
- Set of screws and + protective caps
- Quick Start Guide for reading/writing head

## 2.3

### Device dimensions

All dimensions are specified in mm.



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2.4

Control and indicator panel



Overview of different LEDs

Designation	LED	LED characteristics
Power	Green	LED lights up permanently when power is supplied to the device. The LED switches off momentarily during a reading operation.
Read	Yellow	The LED lights up for 50 ms during a reading or writing operation.
Status	Red	After a transmission error, the LED lights up continuously for approx. 200 ms.

Overview of different operating elements

Designation	Description
Initialize Trimming	Starts and stops the calibration process.
Trimming	Adapts the device to the ambient conditions.
Environment	Adjustment between the device and metal depending on the installation distance.

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## 3 Installation and Commissioning

### 3.1 Installation instructions



**Warning!**

Device may become permeable

**Always** install the reading/writing head on a flat surface to prevent the mounting plate from distorting and leaving the device permeable. Moisture or dust may enter the housing as a result and protection class IP54 can no longer be guaranteed.



**Caution!**

Observe the minimum distance!

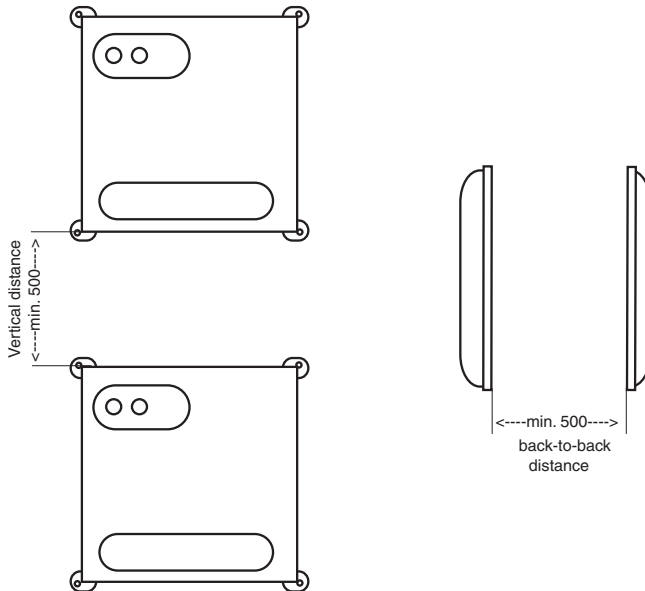
If you select a short minimum distance, two devices may read or write to a data carrier simultaneously, which will cause interference.

Therefore during installation, maintain a **minimum distance of 500 mm** between several adjacent devices to avoid interference.



**Note!**

If you install a metal plate between two devices, the minimum distance of 500 mm can be ignored but the range is reduced to approx. 240 mm.





### 3.2 Adjusting the device

You can adapt the read/write head perfectly to the ambient conditions with just a few hand movements.



**Note!**

**Mount first, then adapt!**

The device must be mounted securely before any adjustments are made otherwise the adjustments will be no longer valid.



**Remove the housing cover**

To access the control and indicator panel, remove the housing cover as follows:

1. Remove the protective caps covering the screws on the housing cover.
2. Remove the screws that secure the housing cover to the housing.
3. Remove carefully the housing cover from the housing.



**Adapt the device to the ambient conditions**

1. To start the calibration press the **Initialize Trimming** pushbutton  
One of the top LEDs flashes.
2. If the installation distance between the device and metal is more than 20 mm, move the **Environment** sliding switch up.
3. If the installation distance between the device and metal is less than 20 mm, move the **Environment** sliding switch down.
4. Depending on which LED is flashing, proceed as follows:

**Power LED** (green): turn the **Trimming** knob counterclockwise until the **Read LED** flashes.

**Status LED** (red): Turn the **Trimming** knob clockwise until the **Read LED** flashes.

**Read LED** (yellow): The device is adapted perfectly to the ambient conditions.

Two different knob positions may cause the **Read LED** to flash. Therefore, select the knob position **before** the **Power LED** starts to flash.

5. Press the **Initialize Trimming** pushbutton to finish calibration.

If you forget to press the **Initialize Trimming** pushbutton after making adjustments, calibration finishes automatically after 6 minutes and the settings are accepted.



**Note!**

**Finishing calibration**

Remember that the read/write head will not be ready to use until calibration has finished. Otherwise an error message is issued. See chapter 4



**Note!**

**Close the device again!**

Secure the housing cover to the housing and cover the screws with the protective caps provided. This will ensure that the device is sealed correctly.

## 4 Troubleshooting

Problem	Possible cause	Remedy
The <b>Power</b> LED does not light up, even though the connection cable is attached.	A read operation is in progress. It is normal for the LED to switch off momentarily.	--
	Cable is not connected correctly.	Check whether the connection cable is attached correctly. Only use connection cables supplied by Pepperl+Fuchs.
The IDENT Control reports a hardware error "Reading/writing head defective"	Calibration is not yet complete.	The read/write head cannot read or write data until the calibration process finishes. Press the <b>Initialize Trimming</b> pushbutton after the calibration process.
The reading and writing range is significantly less than specified.	The reading and writing range is influenced by electromagnetic waves from other equipment.	Remove any potential sources of interference such as monitors, switched-mode power supplies or power cables that run parallel with data cables, from the area around the device.
	The read/write head is mounted on metal or metal is located within a radius of 20 mm.	Slide up the <b>Environment</b> switch on the controls for the read/write head and adjust the device again.
Impossible to read or write to a data carrier.	There are several data carriers in the reading and writing area.	Remove all other data carriers from the reading and writing range of the read/write head and try again.



### **Note!**

If problems with the read/write head persist, please contact Pepperl+Fuchs.

# FACTORY AUTOMATION – SENSING YOUR NEEDS



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