

## QUICK START GUIDE

### IC-KP2-<sup>\*</sup> IDENTControl Compact control interfaces



CE

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"

<b>1</b>	<b>Introduction.....</b>	<b>4</b>
1.1	Purpose of this quick start guide .....	4
1.2	Product documentation on the internet.....	4
<b>2</b>	<b>Product Description .....</b>	<b>5</b>
2.1	Product family .....	5
2.2	Connection accessories.....	5
2.2.1	Connection cable for R/W heads and trigger sensors .....	5
2.2.2	Cable connectors for the power supply .....	6
2.2.3	Connection cable to the Ethernet interface.....	6
2.2.4	Connection cable to the PROFIBUS DP interface .....	7
2.2.5	Connection cable to the CC-Link interface .....	8
2.2.6	Connection cable to the EtherCAT interface.....	8
<b>3</b>	<b>Installation.....</b>	<b>9</b>
3.1	Contact protection.....	9
3.2	Interface connections.....	9
3.2.1	Serial interfaces.....	9
3.2.2	PROFIBUS interface .....	10
3.2.3	Ethernet interface .....	10
3.2.4	CC-Link interface.....	11
3.2.5	EtherCAT interface .....	12
3.3	Power supply .....	12
3.4	R/W heads and trigger sensors.....	13
3.5	Ground connection .....	13
<b>4</b>	<b>Commissioning.....</b>	<b>14</b>
4.1	Connection .....	14
4.2	Setting the IP address.....	14
<b>5</b>	<b>Technical specifications .....</b>	<b>16</b>
5.1	Dimensions.....	16

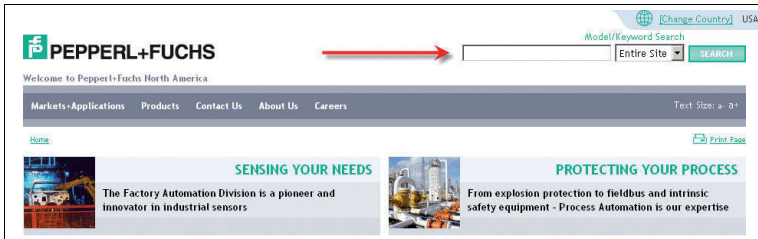
# 1 Introduction

## 1.1 Purpose of this quick start guide

This quick start guide contains basic instructions for operating the device. However, the manual takes priority over the quick start guide.

## 1.2 Product documentation on the internet

You can view all the relevant documentation and additional information on your product at <http://www.pepperl-fuchs.com>. Simply enter the product name or model number in the **Product/Key word search** box and click **Search**.



Select your product from the list of search results. Click on the information you require in the product information list, e.g., **Technical documents**.



A list of all available documents is displayed.

## 2 Product Description

### 2.1 Product family

The brand name, *IDENTControl*, represents a complete identification system. The system consists of an *IDENTControl Compact* unit with serial interface, inductive R / W heads (125 kHz and 13.56 MHz), R / W heads with electromagnetic coupling (UHF with 868 MHz) and accompanying transponders in many different designs. The *IDENTControl* can be connected to other identification systems.

### 2.2 Connection accessories

#### 2.2.1 Connection cable for R/W heads and trigger sensors

Compatible connection cables with shielding are available for connecting the R/W heads and trigger sensors.



Figure 2.1

Accessories	Description
2 m long (straight female, angled male)	V1-G-2M-PUR-ABG-V1-W
5 m long (straight female, angled male)	V1-G-5M-PUR-ABG-V1-W
10 m long (straight female, angled male)	V1-G-10M-PUR-ABG-V1-W
20 m long (straight female, angled male)	V1-G-20M-PUR-ABG-V1-W
Field attachable female connector, straight, shielded	V1-G-ABG-PG9
Field attachable male connector, straight, shielded	V1S-G-ABG-PG9
Field attachable female connector, angled, shielded	V1-W-ABG-PG9
Field attachable male connector, angled, shielded	V1S-W-ABG-PG9
Dummy plug M12x1	VAZ-V1-B

### 2.2.2 Cable connectors for the power supply

Compatible M12 sockets with an open cable end for connecting the IDENTControl Compact to a power supply are available in different lengths.

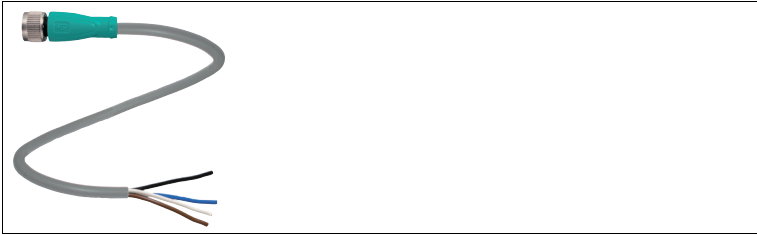


Figure 2.2

Accessories	Model number
Length 2 m (straight socket)	V1-G-2M-PUR
Length 5 m (straight socket)	V1-G-5M-PUR
Length 10 m (straight socket)	V1-G-10M-PUR

### 2.2.3 Connection cable to the Ethernet interface

The IDENTControl Compact has a D-coded, M12 socket and is connected to the network using a suitable cable.

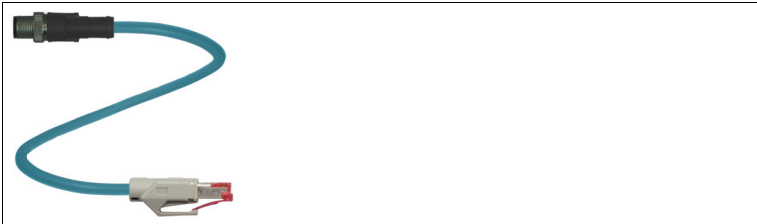


Figure 2.3

Accessories	Designation
5 m connection cable	V1SD-G-5M-PUR-ABG-V45-G

## 2.2.4 Connection cable to the PROFIBUS DP interface

The IDENTControl Compact has a B-coded M12 socket and is connected to the network using a suitable cable.

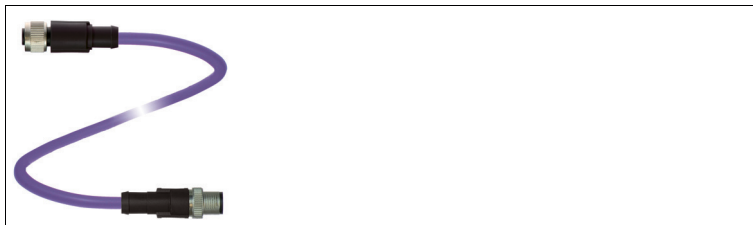


Figure 2.4

Accessories	Model number
Terminator	ICZ-TR-V15B
T distributor	ICZ-3T-V15B
Y cable	ICZ-3T-0.2M-PUR ABG-V15B-G
Cable with terminator	ICZ-2T/TR-0.2M-PUR ABG-V15B-G
1 m cable <sup>1)</sup>	V15B-G-1M-PUR ABG-V15B-G
Socket, field attachable	V15B-G
Cable connector, field attachable	V15SB-G

Table 2.1 1) Cables are available in the following lengths: 1 m, 2 m, 5 m, 7 m, 12 m, 15 m.



### **Note!**

The T-distributor is designed for general applications in the PROFIBUS network and is not compatible with the IDENTControl Compact. Always use the Y cable with the IDENTControl Compact.

### 2.2.5 Connection cable to the CC-Link interface

The IDENTControl Compact has two M12 connectors. It is connected to the bus via standard CC-Link cable with M12 connectors. If you want to exchange the control unit without affecting the bus during operation (hot-plug capability), connect the control unit via a Y-cable to **CC-Link IN**.



Figure 2.5

Accessories	Model number
Terminator	ICZ-TR-V1-110R ICZ-TR-V1-130R
Y-cable	ICZ-3T-0.2M-PVC-CCL-V1-G
Socket M12, field attachable	V1S-G-ABG-PG9
Cable connector M12, field attachable	V1-G-ABG-PG9

### 2.2.6 Connection cable to the EtherCAT interface

The IDENTControl Compact has a D-coded M12 socket and is connected to the network with a suitable cable.

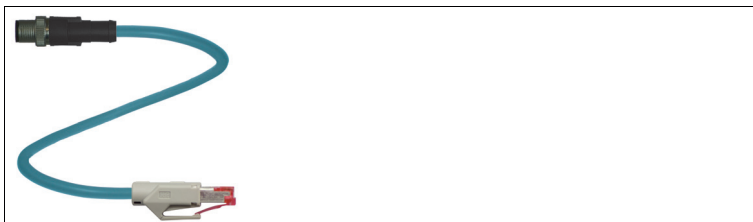


Figure 2.6

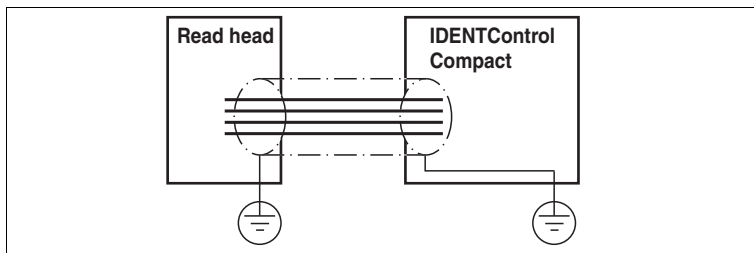
Accessories	Model number
Connection cable 5 m	V1SD-G-5M-PUR-ABG-V45-G



### 3 Installation

#### 3.1 Contact protection

Our housings are manufactured using components made partly or completely from metal to improve noise immunity.



#### **Danger!**

Electric shock

The metallic housing components are connected to ground to protect against dangerous voltages that may occur in the event of a fault in the SELV power supply!

See chapter 3.5

#### 3.2 Interface connections

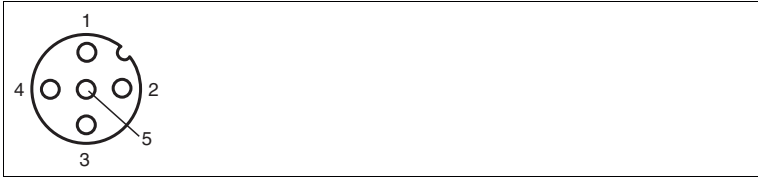
##### 3.2.1 Serial interfaces

Connect the **RS 232** and **RS 485** interfaces with the M12 socket. You must place the cable shield on the thread in the connector plug.



Pin assignment of the M12 socket for RS 232

- 1 NC
- 2 RxD
- 3 GND
- 4 TxD
- 5 NC

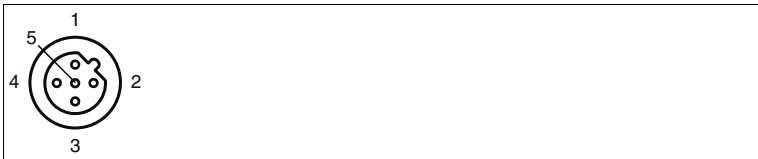


Pin assignment of the M12 socket for RS 485

- 1 NC
- 2 A
- 3 DGND
- 4 B
- 5 NC

### 3.2.2 PROFIBUS interface

Use the B-coded M12 socket and Y Cable ICZ-3T-0.2M-PUR ABG-V15B-G to connect the IDENTControl Compact unit to the PROFIBUS DP.



- 1 VP
- 2 RxD/TxD-N
- 3 DGND
- 4 RxD/TxD-P
- 5 NC

### 3.2.3 Ethernet interface

Use the D-coded M12 socket and the V1SD-G-5M-PUR-ABG-V45-G cable to connect the IDENTControl Compact unit to an Ethernet network.

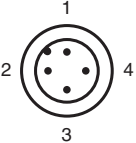


- 1 Tx+
- 2 Rx+
- 3 Tx-
- 4 Rx-

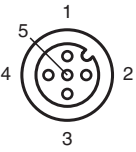
### 3.2.4 CC-Link interface

The control interface IC-KP2-2HB18-2V1 occupies 4 stations according to CC-Link.

#### CC-Link IN: M12 connector, A-coded

Pin assignment	Pin	Signal	Description
	1	SLD	Shield
	2	DB (white)	Data B
	3	DG (yellow)	Grounding
	4	DA (blue)	Data A

#### CC-Link OUT: M12 socket, A-coded

Pin assignment	Pin	Signal	Description
	1	SLD	Shield
	2	DB (white)	Data B
	3	DG (yellow)	Grounding
	4	DA (blue)	Data A
	5	NC	not connected

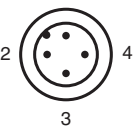


#### Caution!

Damage to the control interface and connected slaves

It is possible to switch the power socket and the CC-Link IN socket as well as the channel and the CC-Link OUT connector. If the power supply is connected to the CC-Link IN socket, the control interface IC-KP2-2HB18-2V1 and all other slaves connected to CC-Link OUT could be damaged.

#### Terminal resistor

Pin assignment	Pin	Signal	Description
	1	NC	not connected
	2	DB	Data B
	3	NC	not connected
	4	DA	Data A

### 3.2.5 EtherCAT interface

For the connection of the IDENT*Control* Compact control interface to an EtherCAT network use the D-coded M12 socket and the cable V1SD-G-5M-PUR-ABG-V45-G.



- 1 Tx+
- 2 Rx+
- 3 Tx-
- 4 Rx-

### 3.3 Power supply

Connect the power supply using an M12 connector. A plug with the following pin assignment is located on the housing:



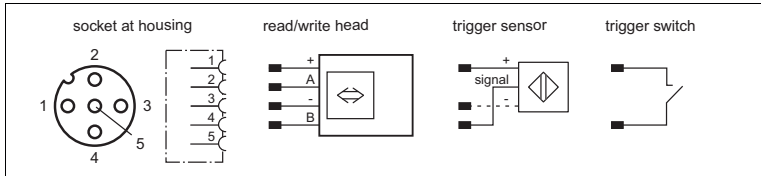
- 1 +24 V
- 2 NC
- 3 GND
- 4 NC

Compatible connecting cable see chapter 2.2.2

### 3.4 R/W heads and trigger sensors

You can connect a maximum of two R/W heads (125 kHz or 13.56 MHz) or R/W heads with electromagnetic coupling (UHF with 868 MHz) to the IDENTControl Compact.

On the two-channel unit, you can connect a trigger sensor to sockets 1 and 2 instead of a R/W head. You can assign the trigger sensor to the R/W head. The trigger sensor must be PNP.



### 3.5 Ground connection

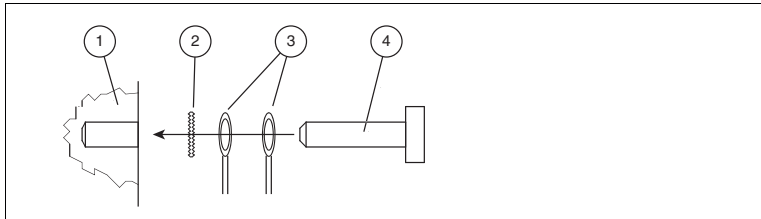
Connect the IDENTControl Compact unit to ground via a screw on the right under the housing.



**Note!**

In order to guarantee safe grounding, mount the serrated washer between the crimp connector and the housing.

Use a ground conductor lead with a cross-section of at least 4 mm<sup>2</sup>.



- 1 Housing
- 2 Serrated lock washer
- 3 Crimp connector
- 4 Lock screw



#### Connecting the IDENTControl Compact to ground

Screw the ground conductor to the housing with a crimp connector.

## 4 Commissioning

### 4.1 Connection

This section contains information on how to commission the IDENTControl Compact.

The example commissioning procedure described relates to the IDENTControl Compact with Ethernet interface.



#### **Caution!**

Uncontrollable triggered processes

The plant where the device is installed may be damaged.

Before commissioning, make sure that all processes run in a controlled manner.



#### **Warning!**

Incorrect electrical connection

Damage to the device or system caused by incorrect electrical connection

Check all connections in the plant before commissioning the device.

When the supply voltage is connected, the PWR/ERR LED on the device lights up green. If the LED on the device doesn't light up, either the power supply is connected incorrectly or there is a device fault.

### 4.2 Setting the IP address

The IP address of the IDENTControl Compact is preset to 169.254.10.12. The way in which the IP address is modified depends on if you are using a DHCP server.

If you are **not using a DHCP server**, the IP address is manually assigned: Either select the IP address using the rotary switch **or** start the device with the preset IP address and specify the new IP address on the device website.

If you are **using a DHCP server**, the server assigns the IP address to the IDENTControl Compact.



#### **Note!**

We recommend using a fixed preset IP address in order to avoid system malfunctions.



#### **Note!**

The rotary switch used to select the device address is located on the underside of the IDENTControl Compact. This rotary switch is no longer accessible once the IDENTControl Compact is installed.



### Setting the IP address using the rotary switch

1. Select an IP address. Insert leading zeros so that all the numbers have three digits and then remove the periods. Example: Write the IP address 172.16.10.15 like this: 172016010015.
2. Set the rotary switch to position "F".
3. Restart the IDENTControl Compact by resetting the power supply.  
↳ The "ADDR STATE" LED will flash green.
4. Select the first digit of the IP address using the rotary switch and wait until the "ADDR STATE" LED permanently lights up.
5. Select the next digit using the rotary switch and wait until the "ADDR STATE" LED permanently lights up.
6. Repeat this procedure until you have entered all the digits of the IP address.
7. Set the rotary switch to position "0".
8. Configure other network settings in the **Network** window on the device website ().



### Entering the IP address on the website

The IP address of the PC connected to the IDENTControl Compact must come from the address area 169.254.X.X.

1. Set the rotary switch to position "A".
2. Connect the IDENTControl Compact to a PC via the Ethernet interface.
3. Restart the IDENTControl Compact by resetting the power supply.
4. Open the IDENTControl Compact website by entering the preset IP address (169.254.10.12) in a browser.
5. Open the **Network** window. Enter the user name and password (default on delivery: "identcontrol"). Enter the new IP address and configure other settings as required.
6. Set the rotary switch to position "0".
7. Click **save**.

↳ The IDENTControl Compact restarts with the new IP address.

For a description of other web functions .



### Obtaining an IP address from the DHCP server

Set the rotary switch to "D" and start the device.

↳ The IDENTControl Compact retrieves the network settings from the DHCP server during startup: IP address, subnet mask and gateway address.

## 5 Technical specifications

### 5.1 Dimensions

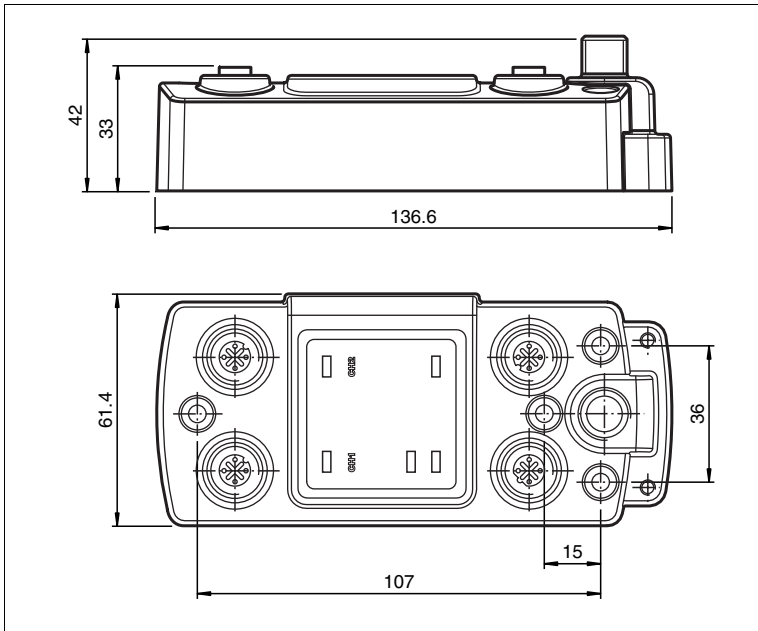


Figure 5.1 Dimensions:

- IC-KP2-1HB6-V15B
- IC-KP2-1HB6-2V15B
- IC-KP2-2HB6-V15B
- IC-KP2-1HRX-2V1
- IC-KP2-2HRX-2V1
- IC-KP2-1HB17-2V1D
- IC-KP2-2HB17-2V1D



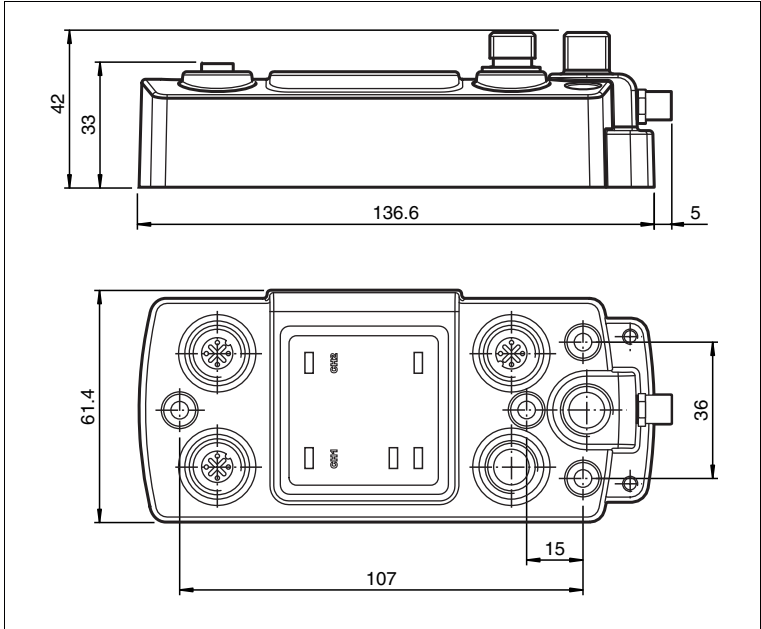


Figure 5.2 Dimensions:

- IC-KP2-2HB18-2V1
- IC-KP2-2HB21-2V1D

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