



## Operating Instructions

**Multifunctional System**  
**(30745, 30746, 30747, 30748, 30750, 30751,**  
**30760, 30779, 30842, 30946, 30938, 30947)**



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**Note!**

In order to ensure the correct operation of the battery testing and charging system, it is necessary to have a continuous 4-pole cable connecting the charging system, the wiring as well as the plug-in connection to the battery.

When connecting the battery testing and charging system to the battery, make sure that the negative connection on the vehicle must be routed directly to the negative pole of the battery and NOT via the chassis; otherwise, measurement errors can occur.

You can find connection diagrams to download on our website: [www.poelz.at](http://www.poelz.at)

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# 1 Introduction

## 1.1 Scope of Supply

Multifunctional socket air, up to 400 V, data cable (30745)



Multifunctional plug air, up to 400 V, data cable

- 7 m cable (30747)
- 5 m cable (30746) – on request
- 10 m cable (30748) – on request



### 1.1.1 Responsibility of the Operator

- Ensure that this document is kept in legible form and stored together with the multifunctional system at all times.
- Read the operating instructions carefully before using the system and observe the safety and warning instructions to ensure perfect operation of your multifunctional system.
- Use the multifunctional system only in accordance with its intended use (see also Chapter **2.1 INTENDED USE**).
- Keep the packaging materials (plastics, polystyrene, etc.) out of the reach of children as it represents a potential source of danger.
- The device must be installed in accordance with applicable regulations.
- The manufacturer accepts no liability whatsoever for damage resulting from improper use of the system or use of the system for purposes other than those intended.

## 1.2 Customer Service

If you need technical information or have any queries or need to order spare parts, please contact your local dealer or e-mail our customer service: [office@poelz.at](mailto:office@poelz.at)

## 1.3 About these Operating Instructions

These operating instructions are a component of the scope of supply; you must always keep them at the location of the multifunctional system.

### 1.3.1 Explanation of Symbols and Instructions



This device must not be disposed of with normal domestic refuse. In accordance with official regulations, this device must be disposed of in an appropriate recycling process, European Directive WEEE 2002/96/CE Waste Electrical & Electronic Equipment.



The CE label certifies that your device satisfies the safety requirements of the Low Voltage Directive 2014/35/EU and EMC Directive 2014/30/EU.

This symbol warns you of a hazardous location. This signal word describes the severity of the imminent danger.



#### **Danger!**

Personal injury can occur in the case of incorrect handling.

#### **Caution!**

Damage to equipment or property can occur in the case of incorrect handling.

#### **Danger, electrical hazard!**



This symbol warns you of an electrical hazard.

Touching live parts can lead to injury or even be fatal.



#### **Fire hazard!**

This symbol warns you of a fire hazard.



#### **Note!**

This symbol indicates tips and useful information on handling the multifunctional system in the best possible way.

## 2 Safety Information

The multifunctional system has been manufactured and inspected in accordance with valid standards and guidelines and recognized technical regulations. However, incorrect use can lead to physical harm to users or damage to the multifunctional system.

Always comply to the letter with the safety information and warnings given in these operating instructions

### 2.1 Intended Use

The multifunctional system is intended for use in the areas of application below.

#### 2.1.1 Areas of Application

- As a power supply for charging emergency vehicles (rescue, paramedics, disaster relief organisations, fire brigade, etc.)
- As a compressed air supply for trucks
- As a self-releasing plug connector
- As power supply for locomotive pre-heating
- As a power supply to the heater mat (silo heater) of tankers

#### 2.1.2 Demands on the Personnel

- The multifunctional system must be installed by qualified specialist personnel.

- Maintenance work on the multifunctional system must only be carried out by qualified specialist personnel.
- Industrieelektronik Pözl GmbH assumes no liability in the event of unqualified installation or maintenance.

#### 2.1.3 Safety-relevant Ambient Conditions

- Operating temperature range from -30 °C to +75 °C
- Permanently stable subsurface commensurate with the expected loads
- Express reference is made here to the information in the installation instructions
- Degree of protection: Loose multifunctional plug IP20
- Multifunctional socket when closed IP65 / when connected IP54

#### 2.1.4 Safety-relevant Information

##### Caution!

When the vehicle is started up, the supply cable is ejected. This means that you should keep at an appropriate distance away from the vehicle.



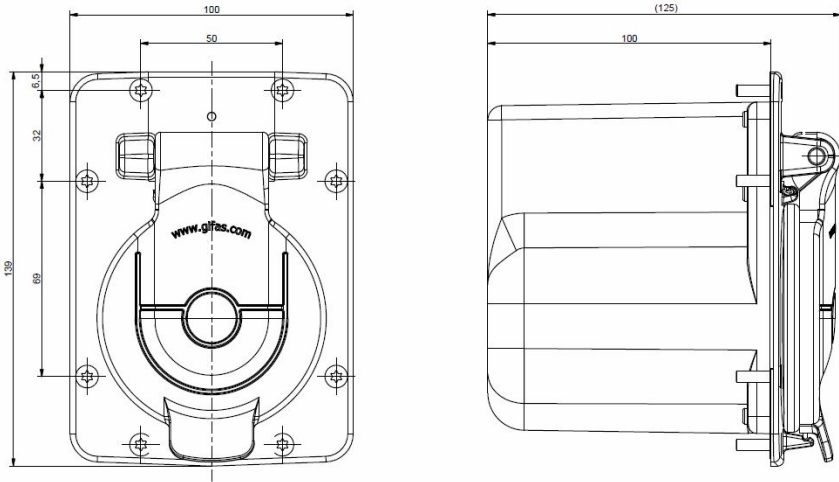
Ejection of the multifunctional plug can result in slight oscillation of the supply unit (coupler and cable).

## 3 Technical Data

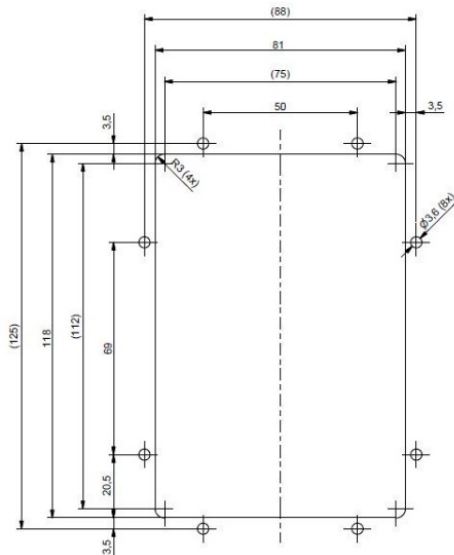
### 3.1 General Specifications

Supply voltages	400 V (230 V) 32 A 4-pin + PE 24 V 16 A 4-pin
Compressed air	12 bar – 4 mm
Cross-sections	400 V and 230 V – 5 × 2.5 or 4 mm <sup>2</sup> 24 V – 4 × 2.5 or 4 mm <sup>2</sup> Pilot contacts – 4 × 1.0 mm <sup>2</sup> Data cable – 4 × 0.34 mm <sup>2</sup> Compressed air – 1 × 6 mm (internal diameter 4 mm)
Standard cable	400 V and 230 V – 5 × 2.5 mm <sup>2</sup> 24 V – 4 × 2.5 mm <sup>2</sup> 1 × 2.5 mm <sup>2</sup> (reserve) Pilot contacts – 4 × 1.0 mm <sup>2</sup> Data cable – 4 × 0.34 mm <sup>2</sup> Compressed air – 1 × 6 mm (internal diameter 4 mm)
Trigger mechanism	12 V / 24 V 2-pin
Charge indicator light	12 V / 24 V 2-pin
Material	Plastic
Degree of protection	Multifunctional socket IP65 Multifunctional plug IP20 (when connected, IP54)
Protection class	II
Dimensions (W × H × D)	See sections 3.3 to 3.5
Temperature range	-30°C to +75°C
Cable clamp on plug	9.0 – 14.0 mm / 12.0 – 20.0 mm
Overall weight	Multifunctional plug 0.27 kg Multifunctional socket 0.95 kg
Degree of contamination	Class 2

### 3.2 Dimensions of Multifunctional Socket

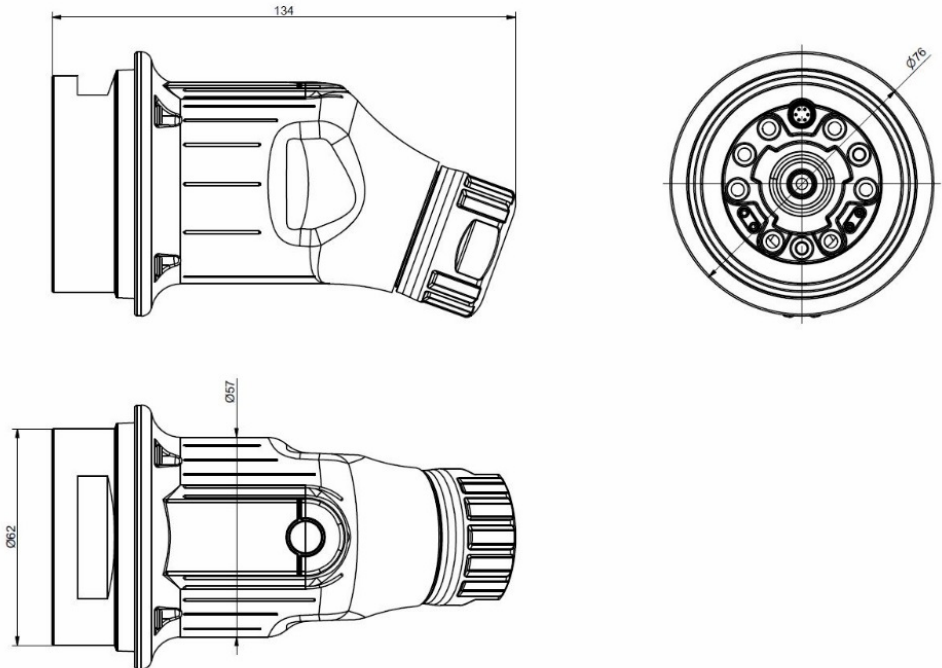


### 3.3 Section of Multifunctional Socket





## 3.4 Dimensions of Multifunctional Plug



## 4 Installation



### Danger!

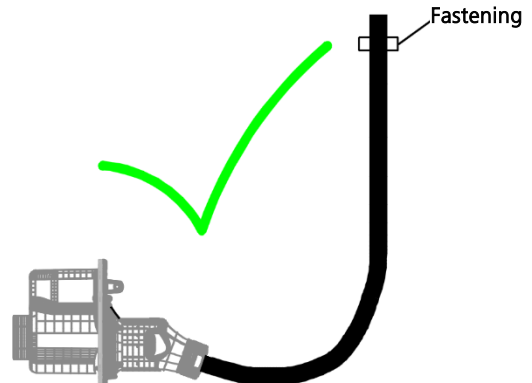
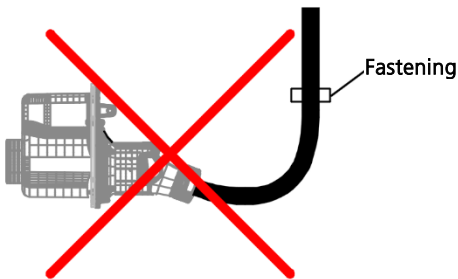
Installation work may only be carried out by qualified persons who have been assigned to carry out this work.

The steps and instructions below must be followed to the letter to ensure proper installation. This is the only way you can be sure that the multifunctional system functions to your complete satisfaction.

### 4.1 Installing the Multifunctional Plug

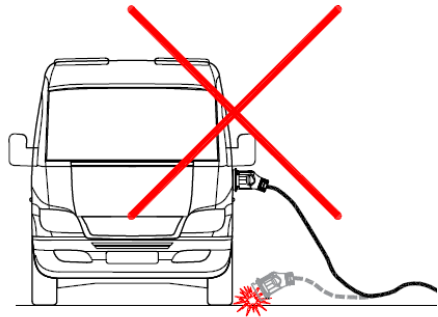
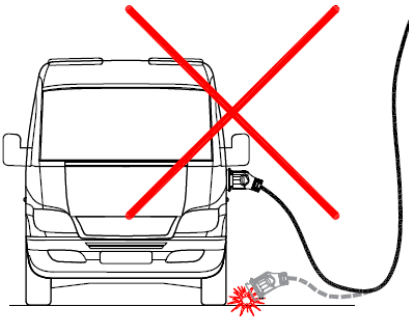
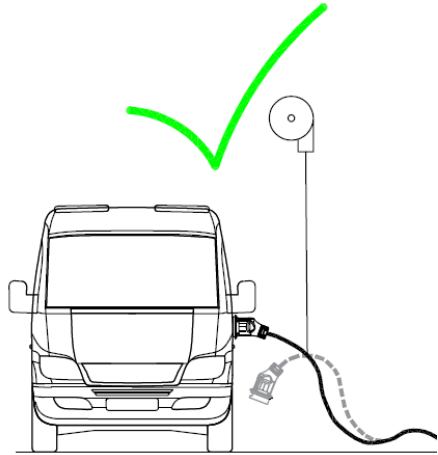
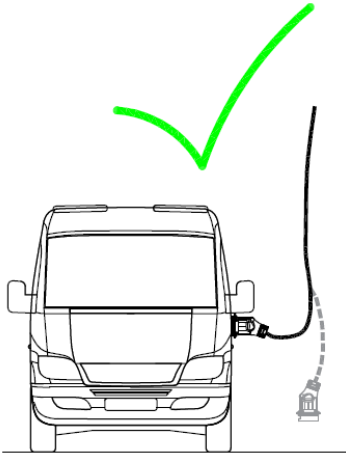
Separate installation instructions are supplied for the multifunctional plug (see the **Multifunctional Plug Installation Instructions**).

You must fasten the multifunctional plug such it is possible to freely eject it.

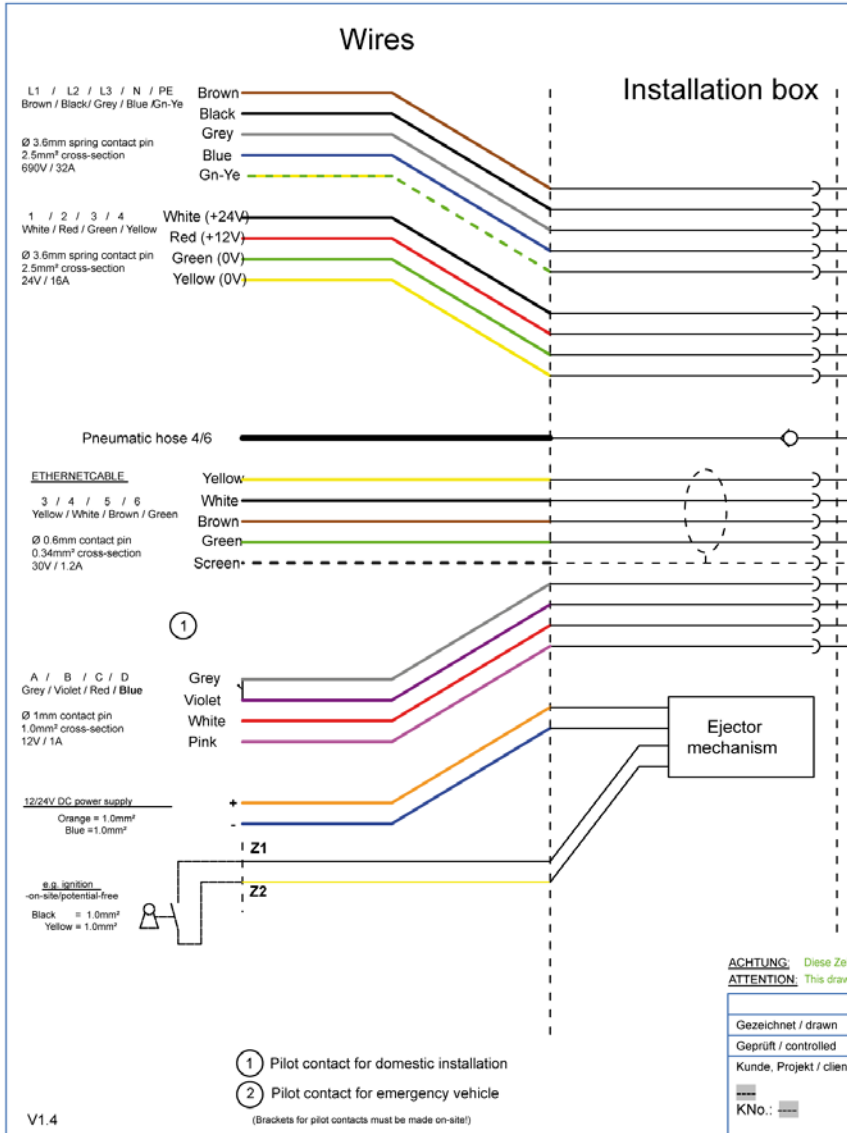


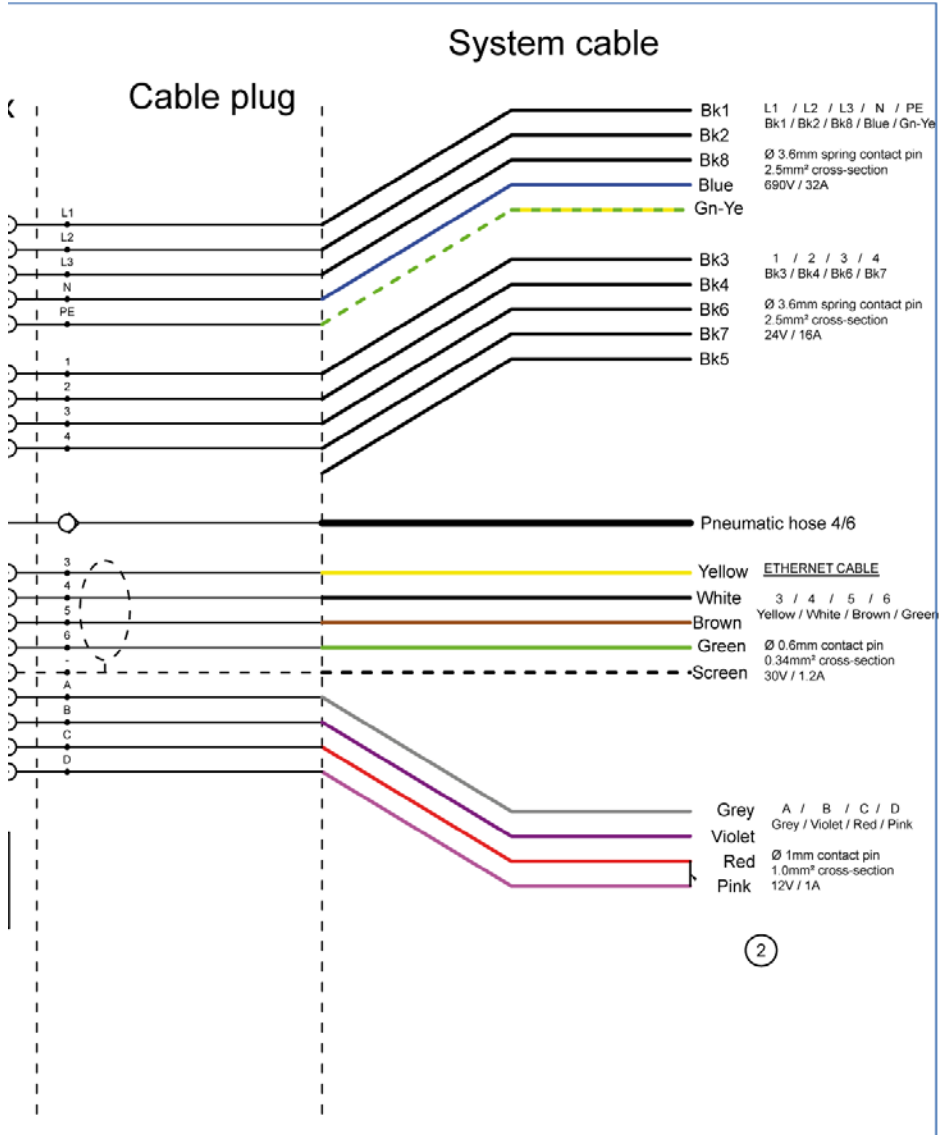
Uncontrolled ejection must not take place to ensure that damage to the multifunc-

tional system or other objects (vehicles, furniture, etc.) is avoided.



## 4.2 Connection Diagram





### 4.3 Pole Pattern of Multifunctional Socket

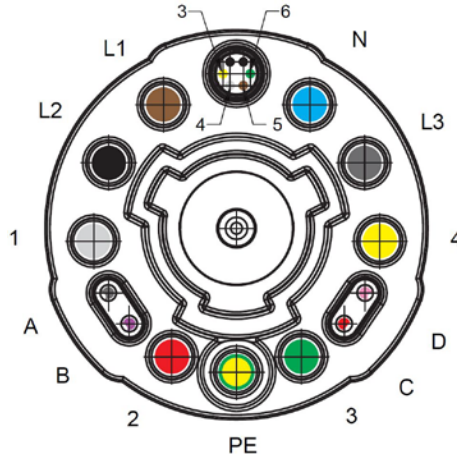


Illustration of multifunctional socket: View of mating side

### 4.4 Pole Pattern of Multifunctional Plug

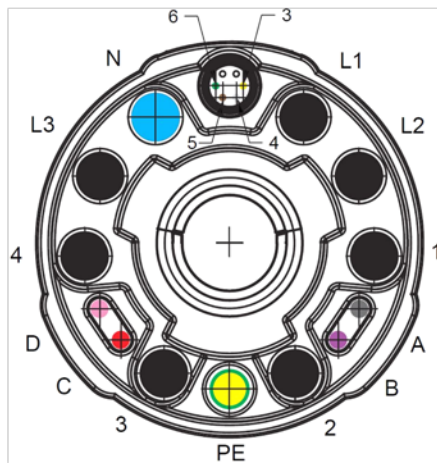


Illustration of multifunctional plug: View of mating side

## 4.5 Drilling Pattern

The drilling pattern is used for installing the multifunctional socket (separately attached).

- Tolerance +/- 0.5 mm
- Scale 1:1



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### Note!

Check the dimensions again **before** carrying out installation!

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