



## PIT js2/PIT js2 bc

**PILZ**  
THE SPIRIT OF SAFETY

- ▶ Control and signal devices

This document is the original document.

All rights to this documentation are reserved by Pilz GmbH & Co. KG. Copies may be made for the user's internal purposes. Suggestions and comments for improving this documentation will be gratefully received.

Source code from third-party manufacturers or open source software has been used for some components. The relevant licence information is available on the Internet on the Pilz homepage.

Pilz®, PIT®, PMI®, PNOZ®, Primo®, PSEN®, PSS®, PVIS®, SafetyBUS p®, SafetyEYE®, SafetyNET p®, the spirit of safety® are registered and protected trademarks of Pilz GmbH & Co. KG in some countries.



SD means Secure Digital

<b>Introduction</b> .....	<b>4</b>
Validity of documentation .....	4
Retaining the documentation .....	4
Definition of symbols .....	4
<b>For your safety</b> .....	<b>5</b>
<b>Intended use</b> .....	<b>5</b>
<b>Device description</b> .....	<b>6</b>
<b>Function description</b> .....	<b>6</b>
<b>Wiring</b> .....	<b>6</b>
Assignment .....	6
Connection to evaluation device .....	7
<b>Dimensions in mm</b> .....	<b>8</b>
PIT js2/PIT js2 bc .....	8
PIT js holder .....	9
<b>Technical Details</b> .....	<b>9</b>
Safety characteristic data .....	10
<b>Order reference</b> .....	<b>11</b>
Product .....	11
Accessories .....	11

## Introduction

### Validity of documentation

This documentation is valid for the product PIT js2/PIT js2 bc. It is valid until new documentation is published.

This operating manual explains the function and operation, describes the installation and provides guidelines on how to connect the product.

This documentation is valid for PIT js2/PIT js2 bc from the date of manufacture 2019-03.

### Retaining the documentation

This documentation is intended for instruction and should be retained for future reference.

### Definition of symbols

Information that is particularly important is identified as follows:



#### **DANGER!**

This warning must be heeded! It warns of a hazardous situation that poses an immediate threat of serious injury and death and indicates preventive measures that can be taken.



#### **WARNING!**

This warning must be heeded! It warns of a hazardous situation that could lead to serious injury and death and indicates preventive measures that can be taken.



#### **CAUTION!**

This refers to a hazard that can lead to a less serious or minor injury plus material damage, and also provides information on preventive measures that can be taken.



#### **NOTICE**

This describes a situation in which the product or devices could be damaged and also provides information on preventive measures that can be taken. It also highlights areas within the text that are of particular importance.

**INFORMATION**

This gives advice on applications and provides information on special features.

**For your safety**

- ▶ The unit may only be installed and commissioned by personnel who are familiar with both these instructions and the current regulations for health and safety at work and accident prevention. Ensure VDE and local regulations are met, especially those relating to protective measures.
- ▶ Any guarantee is rendered invalid if the housing is opened or unauthorised modifications are carried out.
- ▶ Check the function of the pushbutton before commissioning for the first time and then at regular intervals (at least annually).

**Intended use**

The PIT js2/PIT js2 bc is a manually operated command device that can be used as an enabling device. It allows authorised personnel to monitor processes in the danger zone of automated manufacturing facilities when movable guards are open.

Depending on the result of the risk analysis, additional protective measures (e.g. reduced speed) may be required.

Use the following units as an evaluation device:

- ▶ Programmable safety system of the PSS 4000 automation system with the FS control block for two-hand control
- ▶ PNOZmulti modular safety system with the two-hand module
- ▶ Two-hand control relays
  - P2HZ X1
  - P2HZ X1P
  - P2HZ X1.10P
  - P2HZ X2
  - P2HZ X3
  - P2HZ X4P
- ▶ Safety relay PNOZelog
  - PNOZ e2.1p
- ▶ Safety relay PNOZsigma
  - PNOZ s6
  - PNOZ s6.1

## Device description

The PIT js2/PIT js2 bc command device consists of a plastic housing with 3 pushbuttons and/or 2 pushbuttons and a blind plug.

Features:

- ▶ 2 pushbuttons (ACT1 and ACT2) for the two-hand function (N/C / N/O contact, respectively)
- ▶ PIT js2: 1 pushbutton (RESET) for the reset function (N/O)
- ▶ PIT js2 bc: 1 blind plug
- ▶ The contacts are connected by a coiled cable with an open end.

## Function description

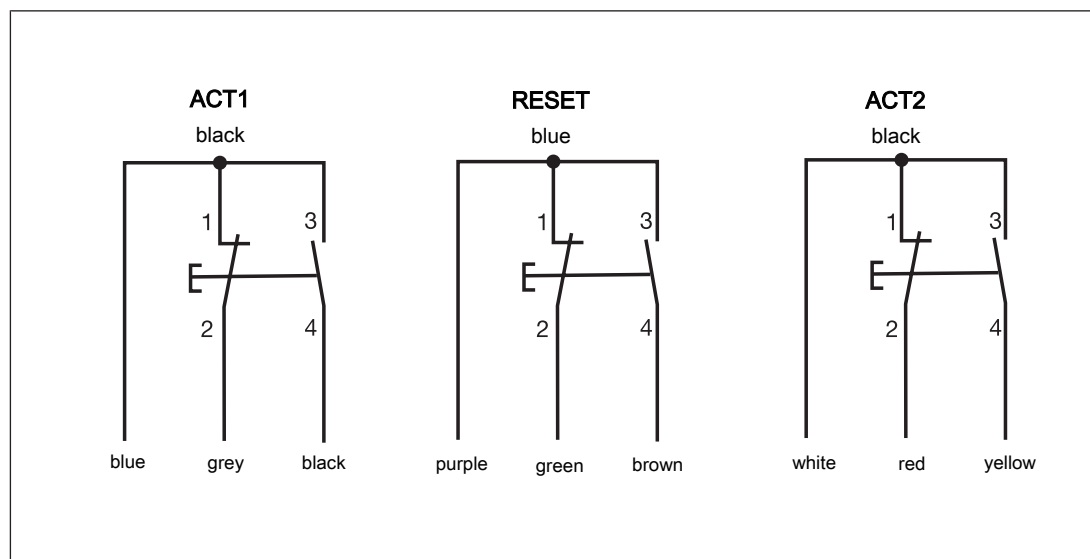
An enabling signal is generated in conjunction with a two-hand monitoring module by simultaneously pressing the ACT1 and ACT2 pushbuttons. This overrides the safety function of the movable guards. Authorised operating personnel then can enter the danger zone to monitor work processes.

Releasing one or both pushbuttons ACT1 and ACT2 will interrupt the enabling signal. A subsequent enabling signal can only be generated once both pushbuttons have been released. On PIT js2, the Reset pushbutton can additionally be incorporated into the control system to generate a subsequent enabling signal.

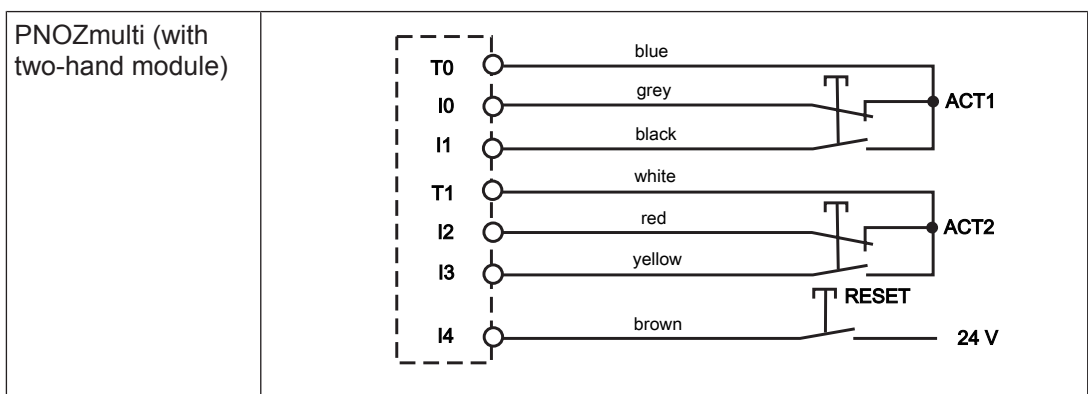
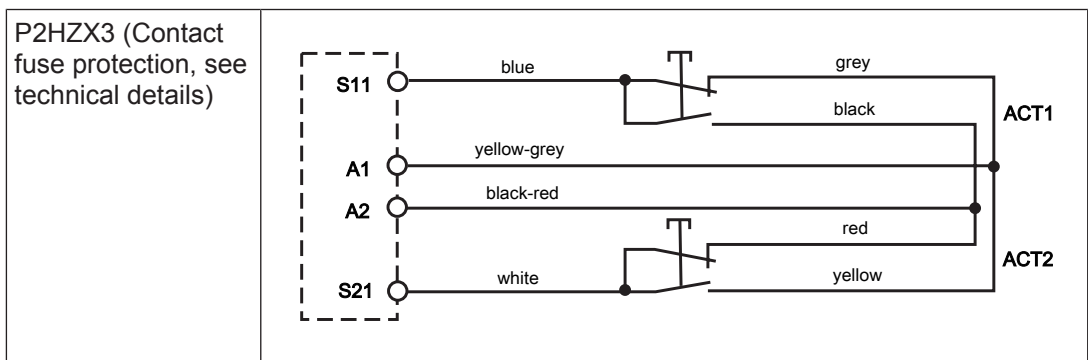
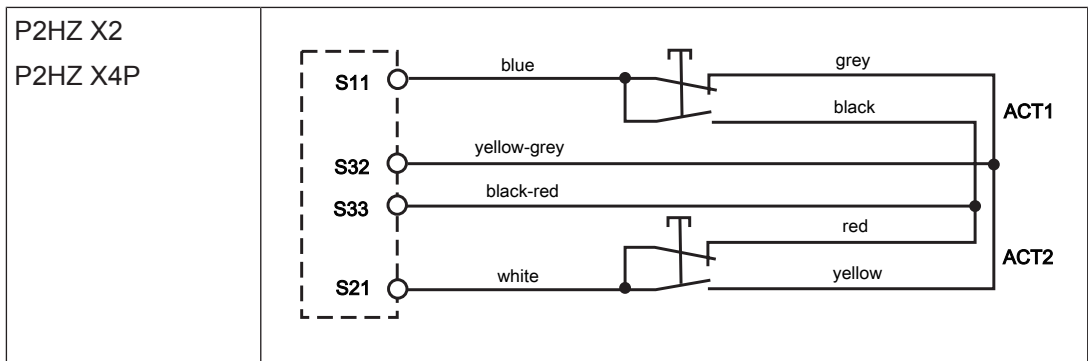
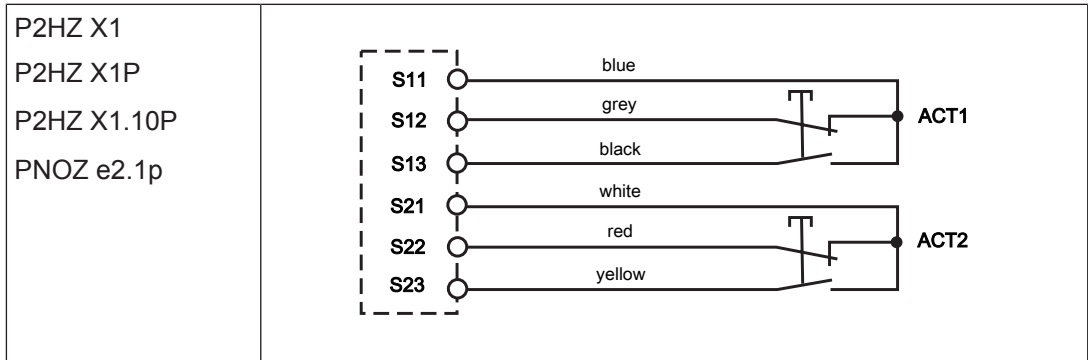
## Wiring

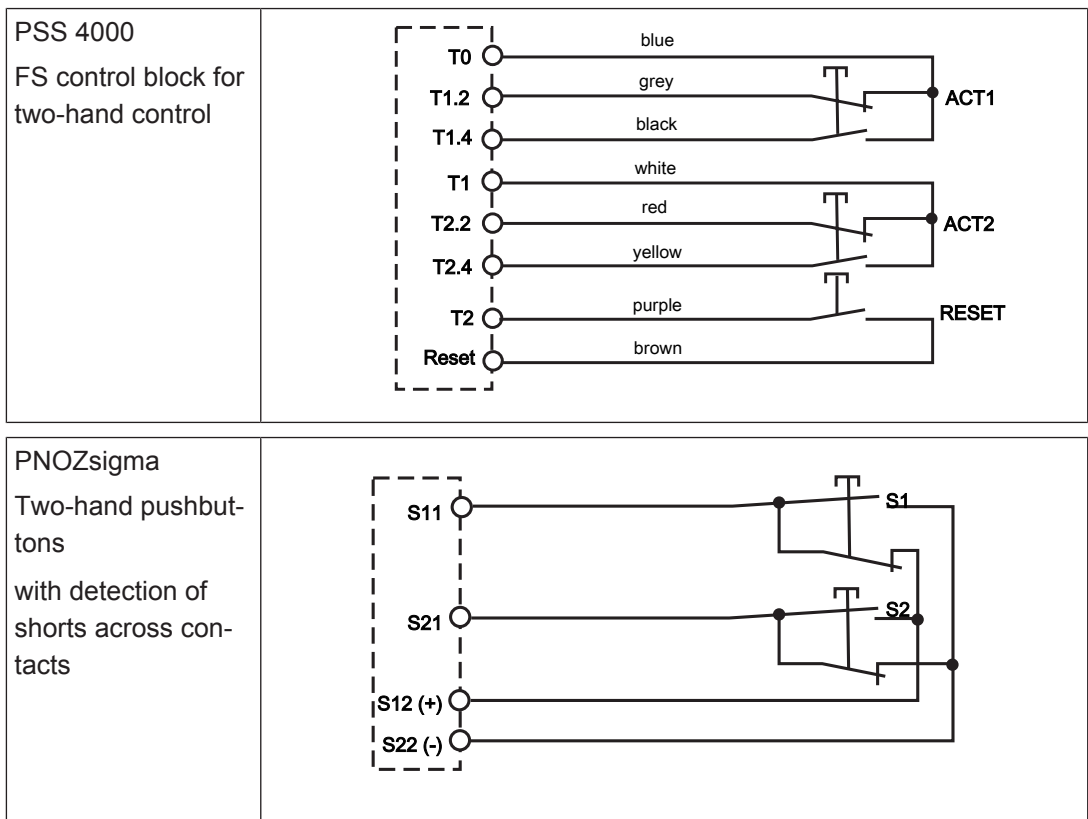
- ▶ Connect the ACT1 and ACT2 buttons to the control system in such a way that both pushbuttons must be actuated in order to generate an enabling signal.
- ▶ PIT js2: You can connect the Reset button to the control system such that, after releasing one or both pushbuttons ACT1 and ACT2, a subsequent enabling signal can only be generated once the Reset pushbutton has been actuated.

## Assignment



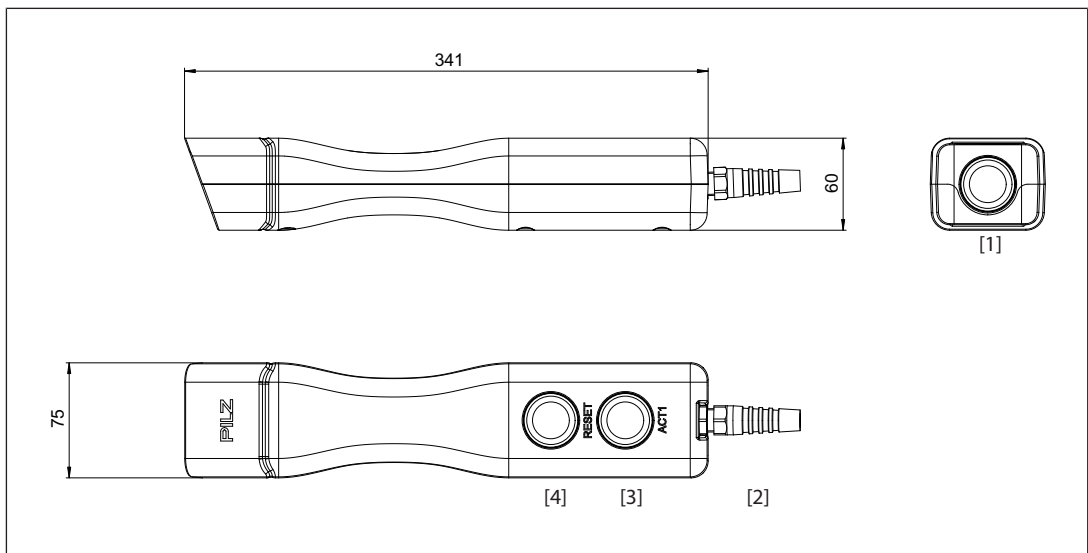
**Connection to evaluation device**





### Dimensions in mm

#### PIT js2/PIT js2 bc

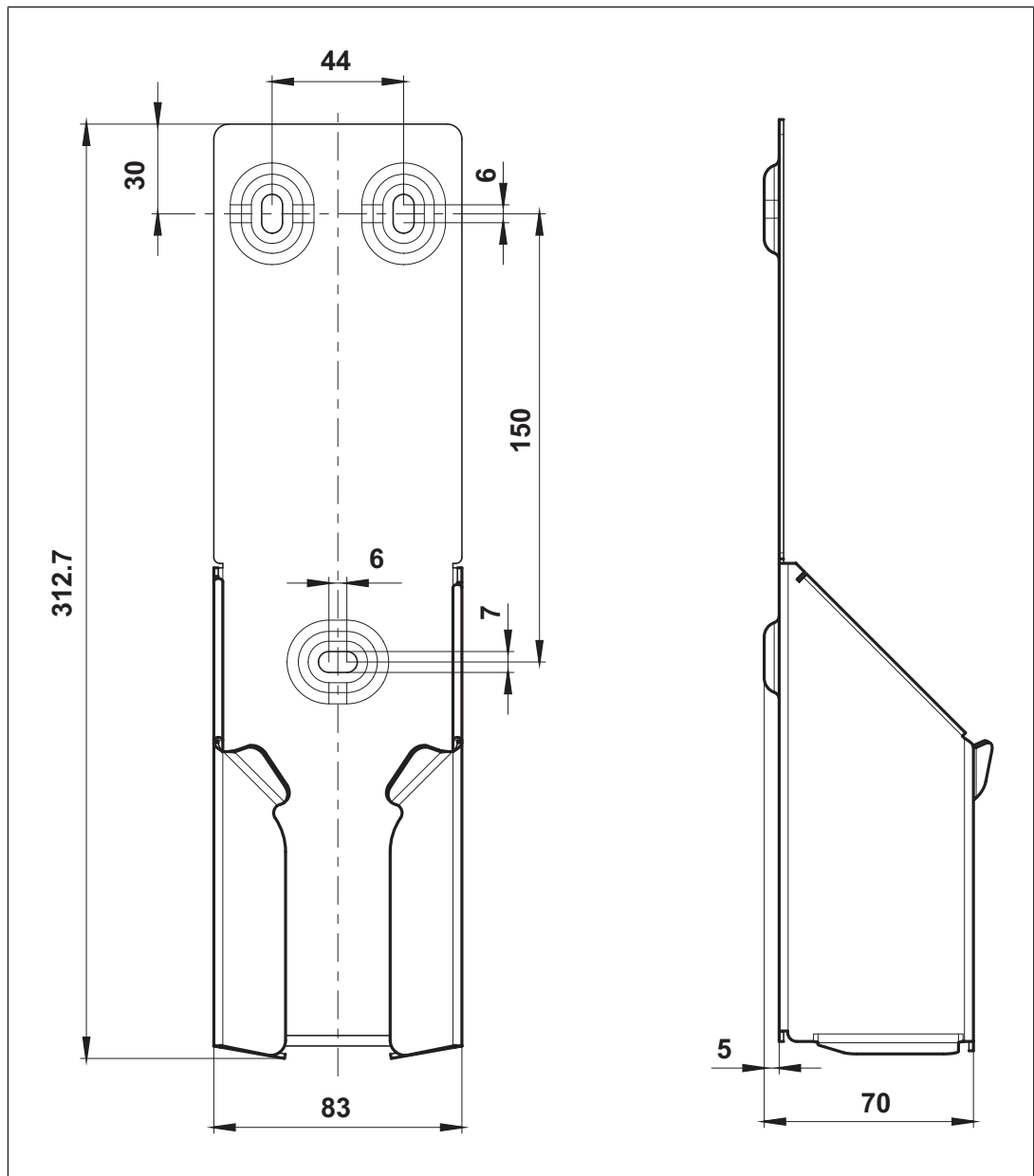


#### Legend

- [1] Pushbutton ACT2
- [2] Cable bend protection
- [3] Pushbutton ACT1
- [4] Reset pushbutton (only with 401 100)



**PIT js holder**



**Technical Details**

<b>General</b>	<b>401100</b>	<b>401101</b>
Certifications	CE	CE
Self-monitored	No	No
<b>Electrical data</b>	<b>401100</b>	<b>401101</b>
Supply voltage		
Voltage	24 V	24 V
Kind	AC/DC	AC/DC
Max. switching current, safety contacts	0,75 A	0,75 A

<b>Pushbutton</b>	<b>401100</b>	<b>401101</b>
Quantity	3	2
<b>Relay outputs</b>	<b>401100</b>	<b>401101</b>
Utilisation category of safety contacts		
DC1 at	24 V	24 V
<b>Environmental data</b>	<b>401100</b>	<b>401101</b>
Ambient temperature		
Temperature range	-10 - 55 °C	-10 - 55 °C
Protection type		
Housing	IP65	IP65
<b>Mechanical data</b>	<b>401100</b>	<b>401101</b>
Cable length L1	5 m	5 m
Cable insulation material K1	PUR	PUR
Conductor cross section K1	0,14 mm <sup>2</sup>	0,14 mm <sup>2</sup>
Material		
Housing	PC-ABS-Blend UL 94V0	PC-ABS-Blend UL 94V0
Dimensions		
Height	341 mm	341 mm
Width	75 mm	75 mm
Depth	60 mm	60 mm
Weight	837 g	823 g

#### Safety characteristic data

Safety characteristic data	
B10d in accordance with EN ISO 13849-1:2015 and EN 62061	20.000.000
Lambda <sub>d</sub> /Lambda in accordance with EN 62061	0,10

## Order reference

### Product

Type	Features	Order no.
PIT js2	Manually operated command device	401 100
PIT js2 bc	Manually operated command device (without Reset pushbutton)	401 101

### Accessories

#### Bracket

Type	Features	Order no.
PIT js holder	Wall bracket for PIT js2/PIT js2 bc	401 200