

## Up to PL e of EN ISO 13849-1 PNOZ 2



Emergency stop relay in accordance with EN 60947-5-1, EN 60204-1 and VDE 0113-1.

### Features

- Single-channel operation
- AC supply voltage
- Supply voltage supplied at the E-STOP button

### Approvals

	PNOZ 2
	●
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### Technical Details PNOZ 2

#### Electrical Data

Supply Voltage	AC: 24 V, 42 V, 110 V, 230 V
Tolerance	-15 % ... +10 %
Power Consumption $U_B$	Approx. 5 VA
Frequency Range AC	50 ... 60 Hz
Voltage and Current at the Input and Reset Circuits and Feedback Control Loop	24 VDC, 50 mA
Output Contacts	3 safety contacts (N/O) 1 auxiliary contact (N/C)
Utilisation category in accordance with EN 60947-4-1	AC1: 240 V/8 A/2000 VA DC1: 24 V/8 A/200 W
EN 60947-5-1 (DC13: 6 cycles/min.)	AC15: 230 V/5 A; DC13: 24 V/7A
Conventional thermal current	8 A
Contact Material	AgSnO <sub>2</sub> + 0,2 µm Au
Contact Fuse Protection in accordance with EN 60 947-5-1	10 A quick or 6 A slow

#### Times

Switch-on delay	typ. 150 ms, max. 250 ms
Delay-on De-Energisation	typ. 50 ms, max. 100 ms
Recovery Time after E-STOP	250 ms
after power failure	250 ms

#### Mechanical Data

Torque Setting on Connection Terminals	0.6 Nm (screws)
Cable cross section	
1 core, flexible	0,20 - 4,00 mm <sup>2</sup> , 24 - 10 AWG
2 core, same cross section flexible: with crimp connectors, without insulating sleeve	0,20 - 2,50 mm <sup>2</sup> , 24 - 14 AWG
without crimp connectors or with TWIN crimp connectors	0,20 - 2,50 mm <sup>2</sup> , 24 - 14 AWG
Dimensions (H x W x D)	87 x 90 x 121 mm
Weight	500 g

### Description

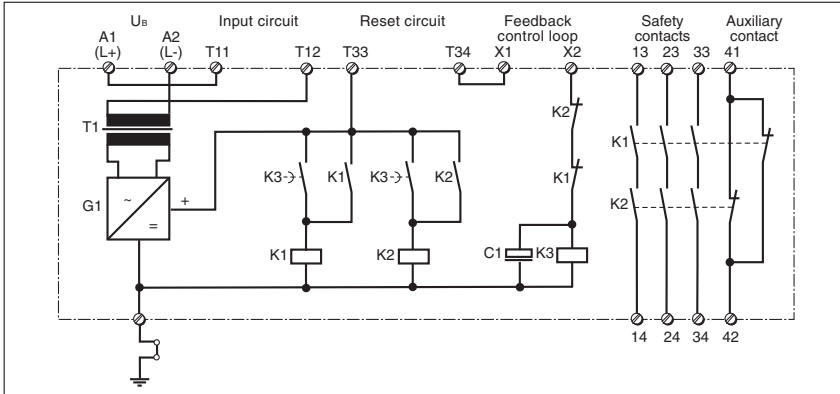
- 90 mm, P-97 housing, DIN-Rail mounting
- Positive-guided relay outputs:
  - 3 safety contacts (N/O)
  - 1 auxiliary contact (N/C)
- Connections for
  - E-STOP button
  - reset button
- LEDs for power and switch status
- Increase in the number of safety contacts available by connecting expander modules.

### Operating Modes

- Single-channel operation
- Automatic reset
- Manual reset

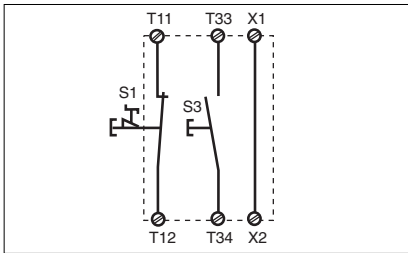
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### Internal Wiring Diagram



### External Wiring

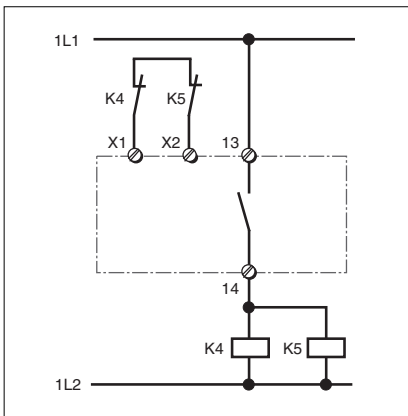
- Example 1  
Single-channel E-STOP wiring with manual reset.



– Key

S1: E-STOP button  
S3: Reset button

- Increase in safety contacts  
The number of output contacts can be increased by using expander modules or relays/contactors with positive-guided contacts.



## Up to PL e of EN ISO 13849-1

### PNOZ 2

#### General Technical Data

Unless stated otherwise in the technical details for the specific unit

#### Safety-related characteristic data

PL in accordance with EN ISO 13849-1	PL e (Cat. 4)
Category in accordance with EN 954-1	Cat. 4
SIL CL in accordance with EN IEC 62061	SIL CL 3
PFH in accordance with EN IEC 62061	2,31E-09
SIL in accordance with IEC 61511	SIL 3
PFD in accordance with IEC 61511	2,03E-06
$t_M$ in years	20

#### Environmental Data

EMC	EN 50081-1, EN 50081-2, EN 60947-5-1, EN 61000-6-2
Vibration in accordance with EN 60068-2-6	Frequency: 10 ... 55 Hz, Amplitude: 0.35 mm
Climatic Suitability	EN 60068-2-78
Airgap Creepage in accordance with EN 60947-1	
Pollution degree	2
Overvoltage category	III/II
Rated insulation voltage	250 V
Rated impulse withstand voltage	4 kV
Ambient Temperature	-10 ... +55 °C
Storage Temperature	-40 ... +85 °C

#### Mechanical Data

Mounting Position	Any
Housing Material	Housing: PPO UL 94 V0 Front panel: ABS UL 94 V0
Protection	Mounting: IP54 Housing: IP40 Terminal Range: IP20

The version of the standards current at 2010-07 shall apply.

#### Order References

Type	$U_B$	Order No.
PNOZ 2	24 V AC	775 800
PNOZ 2	42 V AC	775 810
PNOZ 2	110 V AC	775 830
PNOZ 2	230 V AC	775 850