Category 2, EN 954-1

PNOZ 5, PNOZ 5.1

Emergency stop relay in accordance with VDE 0113-1, 11/98, EN 60204-1, 12/97 and IEC 204-1, 11/98.

Features

- Single-channel operation
- Supply voltage applied at the E-STOP button

Approvals

	PNOZ 5/5.1
BG	●
UL LISTED	●
c UL LISTED	●

Technical Details	PNOZ 5	PNOZ 5.1
Electrical Data		
Supply Voltage	AC: 24, 42, 48, 110, 115/120, 230/240 V	
	DC: 24 V	DC: 24 V
Tolerance	85 ... 110 %	(55 °C): 90 ... 110 %
Supply Voltage	24 VDC	24 VDC
Residual Ripple	DC: 20%	DC: 10%
Power Consumption U_B	Approx. 4 VA/2.5 W	Approx. 4 VA/2.5 W
Voltage and Current at the Reset Circuit and Feedback Control Loop	24 VDC, 50 mA	24 VDC, 50 mA
Switching Capability in accordance with EN 60947-4-1, 02/01		
DC units	AC1: 240 V/6 A/1500 VA	
	DC1: 24 V/6 A/150 W	
AC units	AC1: 240 V/5 A/1200 VA	
	DC1: 24 V/5 A/120 W	
EN 60947-5-1, 11/97 (DC13: 6 cycles/min.)	AC15: 230 V/4 A; DC13: 24 V/3A	
Output Contacts	2 safety contacts (S)	
Contact fuse protection according to EN 60947-5-1, 08/00	Blow-out fuse: 6 A quick or 4 A slow Safety cut-out: 24 V AC/DC: 6 A, Characteristic B/C	
Times		
Switch-on Delay	Automatic reset: max. 400 ms Manual reset: max. 105 ms	
Delay-on De-energisation	AC: Max. 200 ms	Max. 200 ms
	DC: Max. 200 ms	
Recovery Time	Approx. 100 ms	Approx. 100 ms
Max. Supply Interruption before De-energisation	Approx. 10 ms	Approx. 10 ms
Mechanical Data		
Torque Setting on Connection Terminals	1.2 Nm (screws)	
Max. Cross Section of External Conductors	2 x 2.5 mm^2 Single-core or multi-core with crimp connectors	
Dimensions (H x W x D)	75 x 45 x 110 mm	
Weight	AC: 290 g, DC: 230 g	

Description

- 45 mm, P-75 housing, DIN Rail mounting
- Positive-guided relay outputs:
  - 2 safety contacts (N/O)
- Connections for
  - E-STOP button
  - reset button
- 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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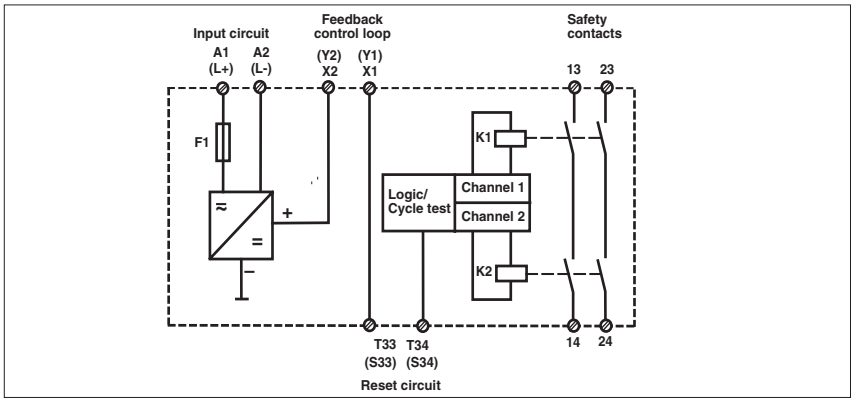
Category 2, EN 954-1

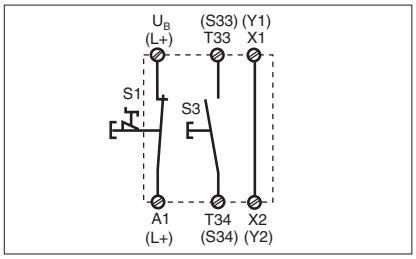
PNOZ 5, PNOZ 5.1

Internal Wiring Diagram



External Wiring

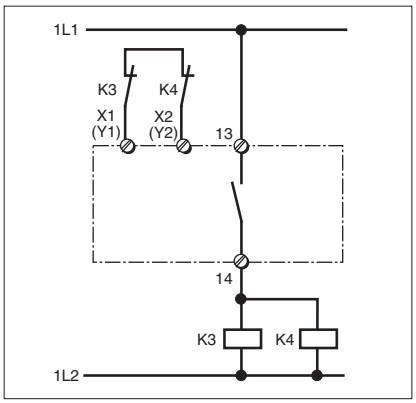
● Example 1
Single-channel E-STOP with manual reset.



– Key

S1:	E-STOP or safety gate switch
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.



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Category 2, EN 954-1

PNOZ 5, PNOZ 5.1

General Technical Data

Unless stated otherwise in the technical details for the specific unit

Electrical Data	
Frequency Range AC	50 ... 60 Hz
Residual Ripple DC	160 %
Contact Material	$AgSnO_2$
Continuous Duty	100 %
Environmental Data	
EMC	EN 50081-1, 01/92, EN 61000-6-2, 03/00
Vibration in accordance with EN 60068-2-6, 01/00	Frequency: 10 ... 55 Hz, Amplitude: 0.35 mm
Climatic Suitability	DIN IEC 60068-2-3, 12/86
Airgap Creepage	DIN VDE 0110 part 1, 04/97
Ambient Temperature	-10 ... +55 °C
Storage Temperature	-40 ... +85 °C
Mechanical Data	
Torque Setting on Connection Terminals	0.6 Nm (screws)
Mounting Position	Any
Housing Material	Thermoplast Noryl SE 100
Protection	Mounting: IP 54 Housing: IP 40 Terminal Range: IP 20

The units were tested in accordance with the relevant standards current at the time of development.

Order References

Type	U_B	Order No.
PNOZ 5	24 V DC	474 590
PNOZ 5	24 V AC	474 591
PNOZ 5	42 V AC	474 592
PNOZ 5	48 V AC	474 593
PNOZ 5	110 V AC	474 594
PNOZ 5	115/120 V AC	474 595
PNOZ 5	230/240 V AC	474 597
PNOZ 5.1	24 V DC	474 605

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