Category 4, EN 954-1

PNOZ 10

Emergency stop relay and safety gate monitor in accordance with VDE 0113, EN 60 204-1 and IEC 204-1.

Features

- Dual-channel wiring with or witout detection of shorts across the input contacts
- 4 auxiliary contacts (N/C)

Approvals

	PNOZ 10
c UL us LISTED	●
TÜV SÜDDEUTSCHLAND	●
CCC	●

Technical Details	PNOZ 10
Electrical Data	
Supply Voltage	AC: 24, 42, 48, 110, 115, 120, 230, 240 V DC: 24 V
Tolerance	85 ... 110 %
Power Consumption	4.5 W/10 VA
Voltage and Current at the Input and Reset Circuits and Feedback Control Loop	24 VDC, 50 mA
Switching Capability in accordance with EN 60 947-4-1	AC1: 240 V/8 A/2000 VA, 400 V/5 A/2000 VA DC1: 24 V/8 A/200 W
EN 60 947-5-1 (DC13: 6 cycles/min.)	AC15: 230 V/5 A; DC13: 24 V/7A
Output Contacts	6 safety contacts (N/O) 4 auxiliary contacts (N/C)
Contact Fuse Protection (EN 60 947-5-1)	10 A quick or 6 A slow
Maximum Total Output Current	24 A
Times	
Delay-on Energisation	Approx. 150 ms
Delay-on De-energisation	Approx. 50 ms
Recovery Time	Approx. 1 s
Simultaneity channel 1/2	Approx. 90 ms
Max. Supply Interruption before De-energisation	10 ms
Mechanical Data	
Maximum Cross Section of External Conductors	2 x 1.5 mm^2 or 1 x 2.5 mm^2 Single-core or multi-core with crimp connectors
Dimensions (H x W x D)	87 x 90 x 121 mm
Weight	AC: 920 g, DC: 750 g

Description

- 90 mm, P-93 housing, DIN-Rail mounting
- Positive-guided relay outputs:
  - 6 safety contacts (N/O)
  - 4 auxiliary contacts (N/C)
- Connections for
  - E-STOP button
  - safety gate limit switch
  - reset button
- LEDs for channel 1, channel 2 and power
- Increase in the number of safety contacts available by connecting expander modules.

Operating Modes

- Single-channel operation
- Dual-channel operation
- Automatic reset
- Manual reset

Pilz GmbH & Co. KG, Felix-Wankel-Straße 2, 73760 Ostfildern, Germany
Telephone +49 711 3409-0, Telefax +49 711 3409-133, E-Mail: pilz.gmbh@pilz.de

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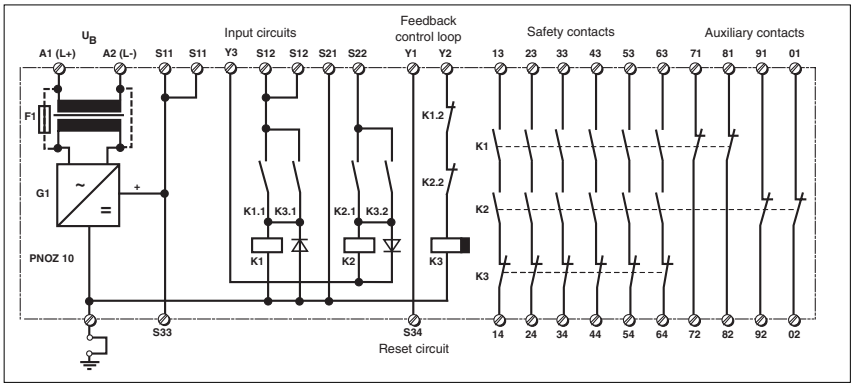
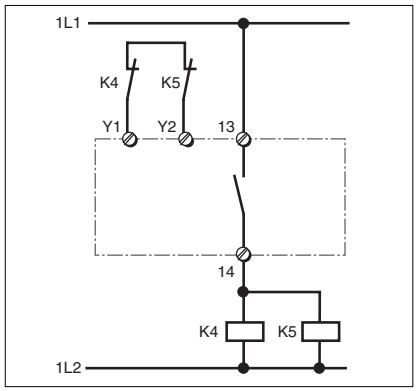
Internal Wiring Diagram



– Key

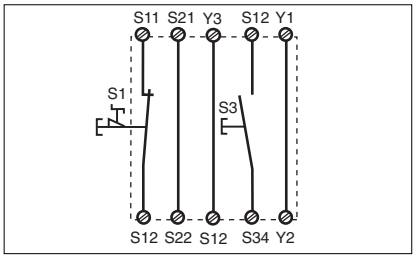
S1/2:	E-STOP or safety gate switch
S3:	Reset button
	Switch operated
	Gate open
	Gate closed

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

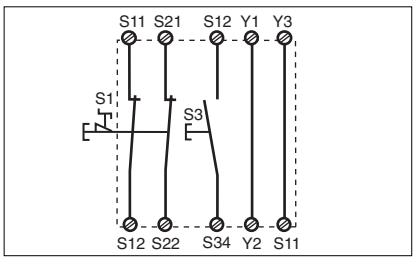


External Wiring

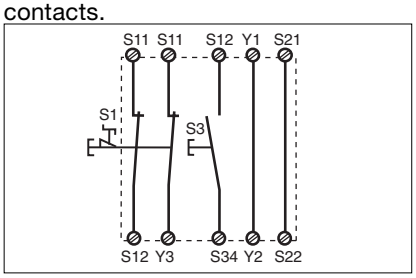
● Example 1
Single-channel E-STOP wiring with manual reset.



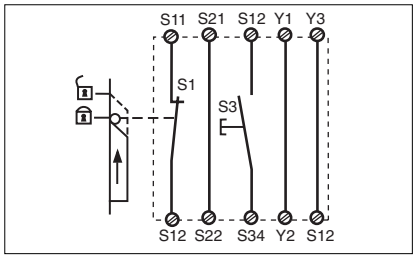
● Example 2
Dual-channel E-STOP wiring with manual reset.



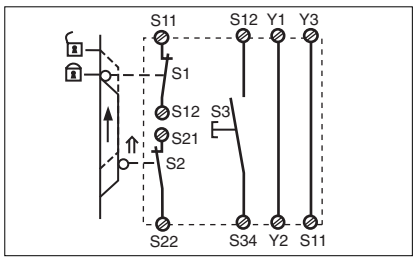
● Example 3
Dual-channel E-STOP wiring without detection of shorts across the input contacts.



● Example 4
Single-channel safety gate control with manual reset.



● Example 5
Dual-channel safety gate control with manual reset.



Pilz GmbH & Co. KG, Felix-Wankel-Straße 2, 73760 Ostfildern, Germany
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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 50082-2, 03/95
Vibration in accordance with EN 60068-2-6, 04/95	Frequency:10 ... 55 Hz, Amplitude: 0.35 mm
Climatic Suitability	IEC 60068-2-3, 1969
Airgap Creepage	DIN VDE 0110 part1, 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

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