

Category 4, EN 954-1 PNOZ X8P



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

Features

- Dual-channel operation with or without detecting shorts across the input contacts
- Automatic or monitored manual reset can be selected
- Designed for operation using semiconductor outputs
- 2 semiconductor outputs (Fault, K1/K2)
- Plug-in connection terminals (Either screw terminals or cage clamp terminals)

Approvals

	PNOZ X8P
	●
	●
	●

Technical Details	PNOZ X8P
Electrical Data	
Supply voltage	AC: 24, 110, 115, 120, 230 V DC: 24 V
Tolerance	85 ... 110 %
Power consumption	≤ 5,5 VA/3.5 W
Voltage and current at the input, reset and feedback circuits	24 VDC, 50 mA
Switching capability in accordance with EN 60947-4-1, 01/00	AC1: 240 V/8 A/2000 VA DC1: 24 V/8 A/200 W
EN 60947-5-1, 08/00 (DC13: 6 cycles/min)	AC15: 230 V/5 A; DC13: 24 V/7A
Output contacts	3 safety contacts (N/O), 2 auxiliary contacts (N/C)
Contact fuse protection according to EN 60947-5-1, 08/00	10 A quick or 6 A slow
Times	
Switch-on delay	Max. 250 ms
Delay on de-energisation	Max. 25 ms
Recovery time	Approx. 0.3 s
Simultaneity channels 1/2	Max. 150 ms
Max. supply interruption before de-energisation	Approx. 35 ms
Mechanical Data: with cage clamp terminals	
Terminal blocks per connection	2
Maximum cross section of ext. conductors	Flexible, without crimp connectors: 0.2 ... 1.5 mm ²
Stripping length	8 mm
Dimensions (H x W x D)	101 x 45 x 121 mm
Weight	350 g
Mechanical Data: with screw terminals	
Maximum cross section of ext. conductor	Flexible, without crimp connectors: 0.2 ... 2.5 mm ²
Single-core	Flexible with crimp connectors: 0.25 ... 2.5 mm ²
Multiple-core	Flexible, with crimp connectors but without plastic sheath: 0.25 ... 1 mm ²
(2 conductors with same cross section)	Flexible, with TWIN-crimp connectors and plastic sheath: 0.5 ... 1.5 mm ²
Torque setting for screw terminals	0.5 ... 0.6 Nm
Dimensions (H x W x D)	94 x 45 x 121 mm
Weight	350 g

Description

- 45 mm P-99 housing, DIN-Rail mounting
- Positive-guided relay outputs:
 - 3 safety contacts (N/O)
 - 2 auxiliary contacts (N/C)
- Connections for
 - E-STOP button
 - safety gate limit switches
 - reset buttons
- LEDs for channel 1, channel 2 and power supply

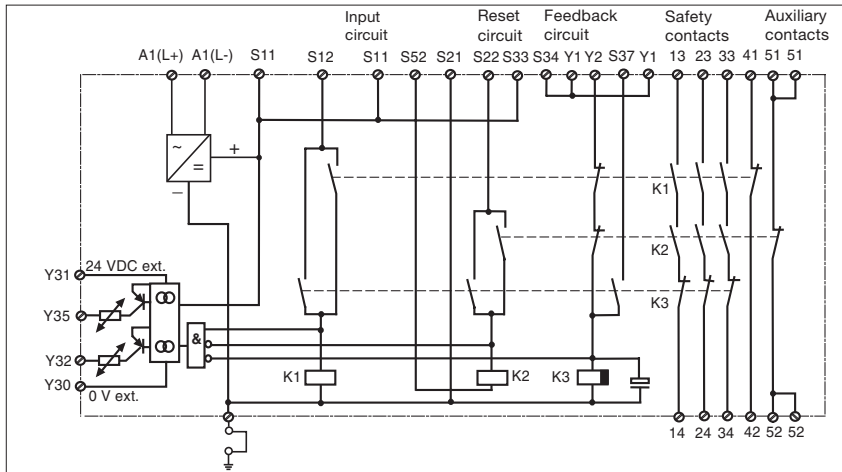
- Increase in the number of contacts available by connecting expander modules

Operating modes

- Single-channel
- Dual-channel
- Automatic reset
- Manual reset
- Monitored manual reset

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Internal wiring diagram



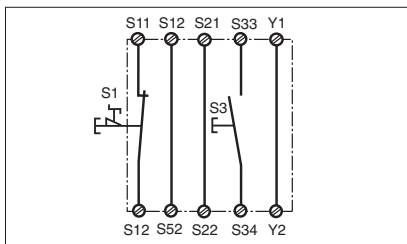
- Key

- S1/S2: E-STOP or safety gate switch
- S3: Reset button
- Switch operated
- Gate open
- Gate closed

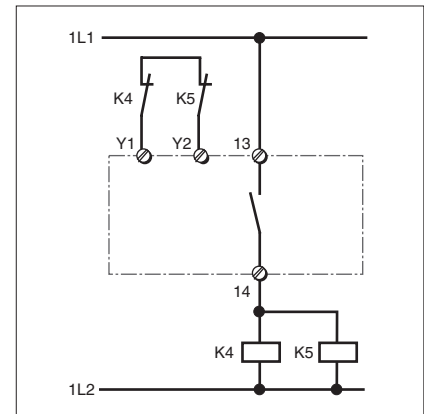
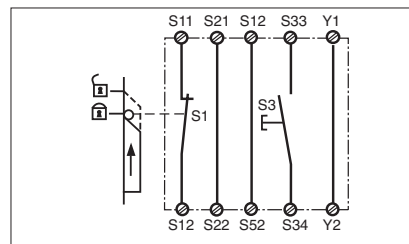
● Increase in safety contacts
The number of output contacts can be increased by using expander modules or contactors with positive-guided contacts.

External wiring

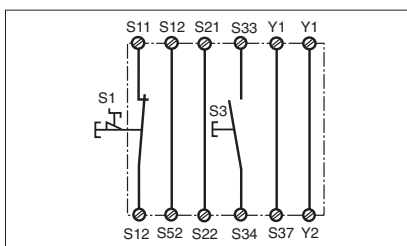
- Example 1
Single-channel E-STOP wiring with manual reset.



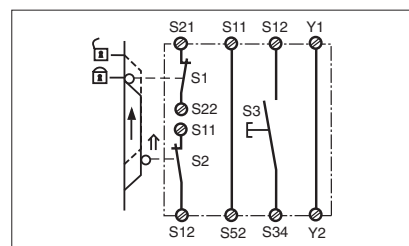
- Example 4
Single-channel safety gate control with manual reset.



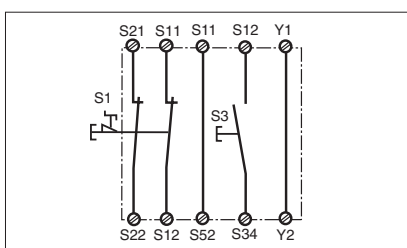
- Example 2
Single-channel E-STOP wiring with monitored manual reset.



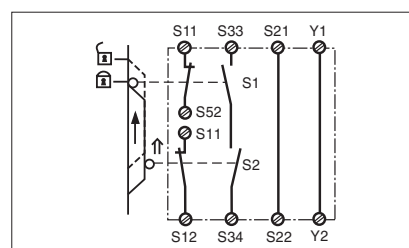
- Example 5
Dual-channel safety gate control with manual reset.



- Example 3
Dual-channel E-STOP wiring with manual reset.



- Example 6
Dual-channel safety gate control with automatic reset.



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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 50082-1, 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 X8P with cage clamp terminals	24 V AC	787 770
PNOZ X8P with screw terminals	24 V AC	777 770
PNOZ X8P with cage clamp terminals	110 V AC	787 764
PNOZ X8P with screw terminals	110 V AC	777 764
PNOZ X8P with cage clamp terminals	115 V AC	787 765
PNOZ X8P with screw terminals	115 V AC	777 765
PNOZ X8P with cage clamp terminals	120 V AC	787 766
PNOZ X8P with screw terminals	120 V AC	777 766
PNOZ X8P with cage clamp terminals	230 V AC	787 768
PNOZ X8P with screw terminals	230 V AC	777 768
PNOZ X8P with cage clamp terminals	24 V DC	787 760
PNOZ X8P with screw terminals	24 V DC	777 760