

## Category 4, EN 954-1 PNOZ XV2



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

- Input wiring compatible with the PNOZ X3
- Dual-channel wiring with detection of shorts across the input contacts
- Monitored manual or automatic reset can be selected
- 2 delay-off safety contacts
- Supply voltage: 24 VDC

### Approvals

	PNOZ XV2
	●
	●
	●

Technical Details	PNOZ XV2
<b>Electrical Data</b>	
Supply Voltage	24 VDC
Tolerance	85 ... 110 %
Power Consumption $U_B$	Approx. 4.5 W
Voltage and Current at the Input and Reset Circuits and Feedback Control Loop	24 VDC, 50 mA
Switching Capability in accordance with EN 60947-4-1, 10/91	AC1: 240 V/8 A/2000 VA DC1: 24 V/8 A/200 W AC15: 230 V/5 A; DC13: 24 V/7 A
EN 60947-5-1, 10/91 (DC13: 6 cycles/min.)	
Output Contacts	2 delayed safety contacts (N/O) 2 instantaneous safety contacts (N/O)
Contact Fuse Protection (EN 60947-5-1, 10/91)	10 A quick or 6 A slow
<b>Times</b>	
Delay-on-De-Energisation 37-38, 47-48	Adjustable: 0,1-3 s: 0.1/0.2/0.3/0.4/0.5/0.6/0.7/0.8/1/1.5/2/3 s 0-30 s: 0/0.5/1/2/4/6/8/10/15/20/25/30 s 0-300: 0/5/10/20/40/60/80/100/150/200/250/300 s Fixed: 0.5 s, 3 s, 10 s
Delay-on Energisation	Max. 50 ms
Delay-on De-energisation	Max. 50 ms
Recovery Time	Approx. 1 s
Simultaneity channel1/2	∞
Max. Supply Interruption before De-energisation	Approx. 25 ms
<b>Mechanical Data</b>	
Max. Cross Section of External Conductors	1 x 2.5 mm <sup>2</sup> Single-core or multi-core with crimp connectors
Dimensions (H x W x D)	87 x 45 x 121 mm
Weight	370 g

### Description

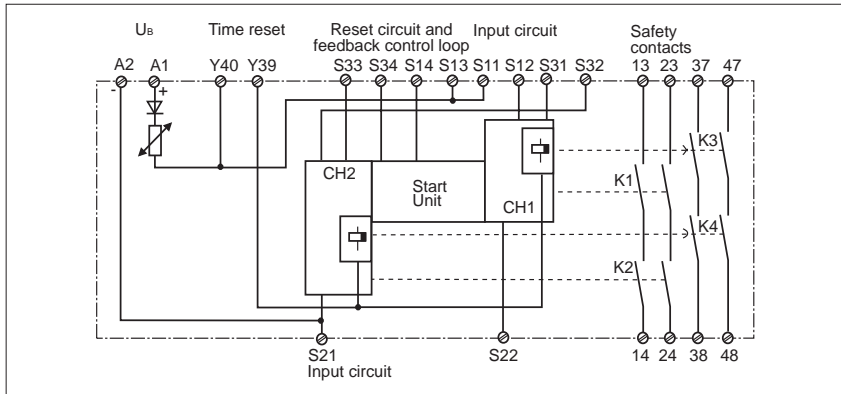
- 45 mm P-97 housing, DIN Rail mounting
- Positive-guided relay outputs:
  - 2 instantaneous safety contacts (N/O)
  - 2 delayed safety contacts (N/O)
- Connections for
  - E-STOP button
  - safety gate limit switch
  - reset button
- LEDs for power, channel 1, channel 2, reset circuit
- Increase in the number of safety contacts available by connecting expander modules.

### Operating Modes

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

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### Internal Wiring Diagram

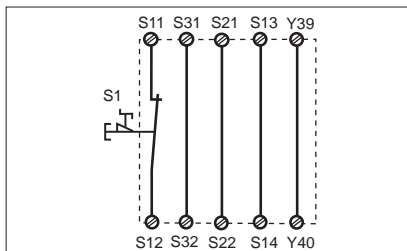


- Key

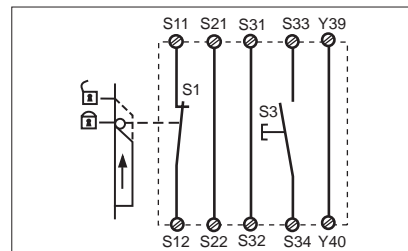
S1/2:	E-STOP or safety gate switch
S3:	Reset button
	Switch operated
	Gate open
	Gate closed

### External Wiring

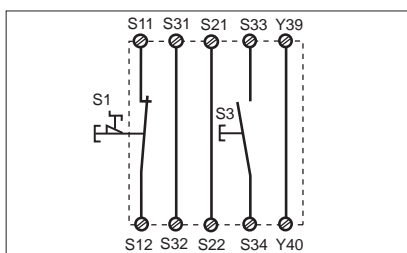
● Example 1  
Single-channel E-STOP wiring with automatic reset.



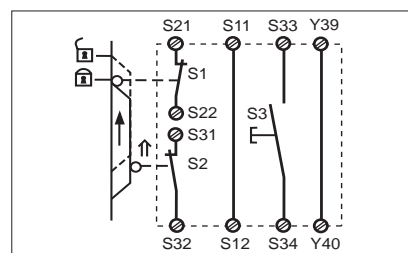
● Example 4  
Single-channel safety gate control with monitored manual reset.



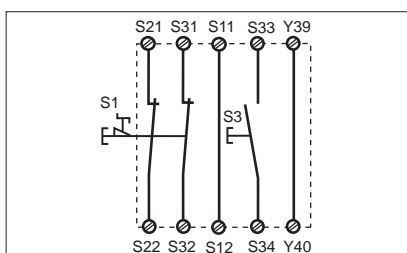
● Example 2  
Single-channel E-STOP wiring with monitored manual reset.



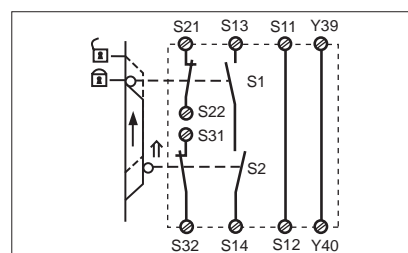
● Example 5  
Dual-channel safety gate control with monitored manual reset.



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

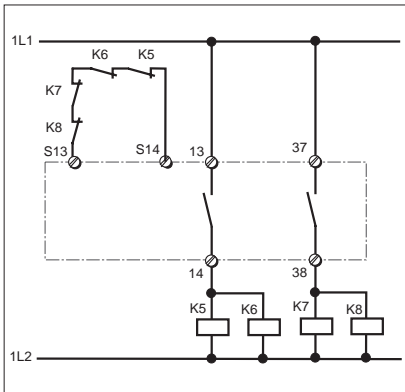


● Example 6  
Dual-channel safety gate control with automatic reset.

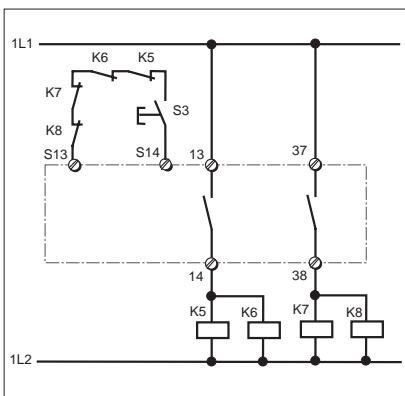


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- Increase in safety contacts  
The number of output contacts can be increased by using expander modules or relays/contactors with positive-guided contacts.
- Operation with automatic reset.



- Operation with monitored manual 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 <sub>2</sub>
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	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	t	U <sub>B</sub>	Order No.
PNOZ XV2	0,5 s fest	24 V DC	774 504
PNOZ XV2	10 s fest	24 V DC	774 506
PNOZ XV2	3 s	24 V DC	774 502
PNOZ XV2	3 s fest	24 V DC	774 505
PNOZ XV2	30 s	24 V DC	774 500