

Category 4, EN 954-1 PNOZ X2.8P

Farnell Code : 4439340




PNOZ X2.7P not shown

EMERGENCY STOP switchgear and safety gate monitor according to EN 60204-1 (VDE 0113-1), 11/98 and IEC 60204-1, 10/97

Features

- either manual start without monitoring or automatic start possible
- 1-channel or 2-channel wiring with or without shorts across contacts detection

Approvals

	PNOZ X2.8P
	Pending
	Pending
	Pending

Technical data	PNOZ X2.8P
Electrical data	
Power supply	AC: 24 V DC: 24 V
Tolerance	85 ... 110 %
Power consumption	Approx. AC: 2 VA, DC: 2 W
Voltage and current at input, start and feedback loop	24 V DC, 25 mA
Output contacts	3 safety contacts (NO) 1 auxiliary contact (NC)
Switching capability according to EN 60947-4-1, 02/01	AC1: 240 V/6 A/1500 VA DC1: 24 V/6 A/150 W
EN 60947-5-1, 11/97 (DC13:6 cycles/min)	AC15: 230 V/5 A; DC13: 24 V/4 A
Contact protection according to EN 60947-5-1, 11/97	Blow-out fuse: 6 A quick or 4 A slow Safety cut-out: 24 V DC: 4 A, Characteristic B/C
Times	
Pickup delay	monitored start: max. 100 ms auto./man. start: max. 0.35 s
Delay-on de-energisation	at EMERGENCY STOP: max. 30 ms at mains off: max. 150 ms
Recovery time	approx. 1 s
Simultaneity channel 1 and 2	∞
Power failure buffer	approx. 10 ms
Mechanical data	
Maximum cross section of ext. conductors	
Single-core	Flexible, without crimp connectors: 0.2 ... 2.5 mm ² Flexible with crimp connectors: 0.25 ... 2.5 mm ²
Multi-core (2 conductors with same cross-section)	Flexible, with crimp connectors but without plastic sheath: 0.25 ... 1 mm ² Flexible, with TWIN-crimp connectors and plastic sheath: 0.5 ... 1.5 mm ²
Torque setting for connection terminals	0.5 ... 0.6 Nm (screws)
Dimensions (H x W x D)	94 x 22.5x 121 mm
Weight	200 g

Description

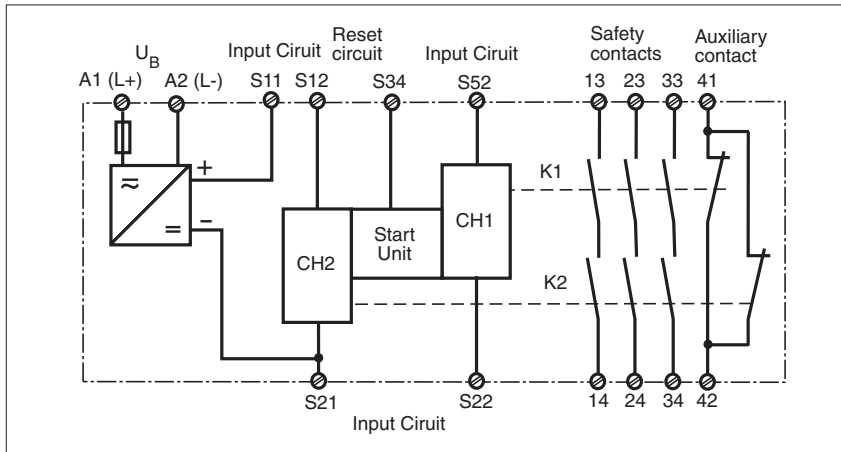
- 22,5 mm P-99 housing, on standard rail, snap-on
- Relay outputs, positive-guided:
 - 3 safety contacts (NO)
 - 1 auxiliary contact (NC)
- Connection possibilities for
 - EMERGENCY STOP switch
 - Safety gate limit switch
 - Light guard
 - Start switch
- LEDs for switching status Channel 1 and 2 and power supply
- Contact multiplication and Contact amplification possible by external contactors

Operating modes

- Single channel mode
- Dual channel mode without shorts across contacts detection
- Dual channel mode with shorts across contacts detection
Automatic start
- Manual start without monitoring

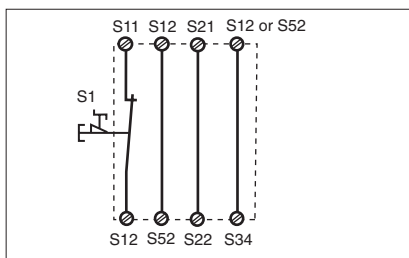
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Schematic interior diagram

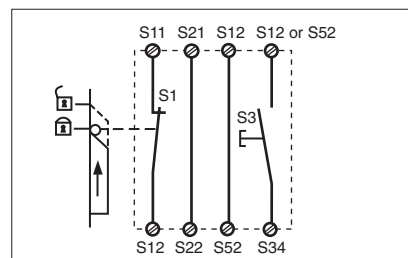


External wiring

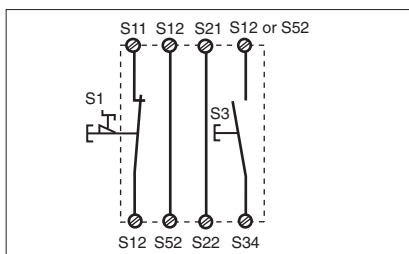
- Example 1
Single-channel EMERGENCY STOP wiring with automatic start



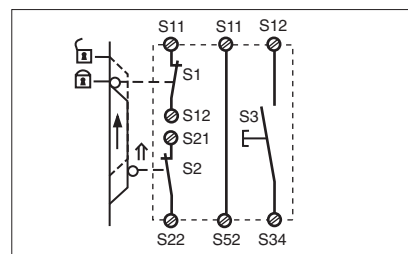
- Example 4
Single-channel safety gate control without monitored start



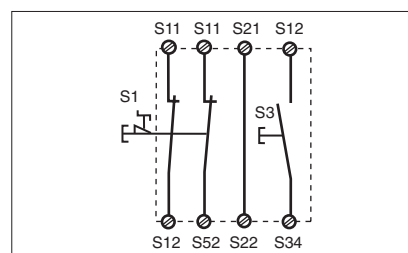
- Example 2
Single-channel EMERGENCY STOP wiring without monitored start



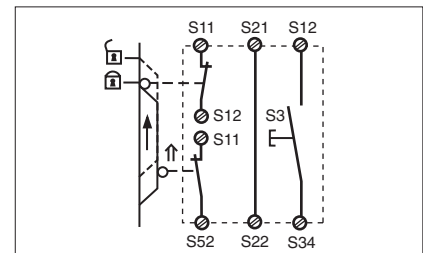
- Example 5
Dual-channel safety gate control with shorts across contacts detection, without monitored start



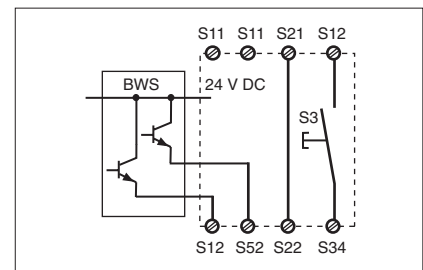
- Example 3
Dual-channel EMERGENCY STOP wiring without shorts across contacts detection without monitored start



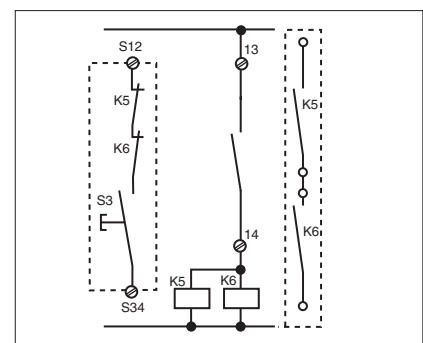
- Example 6
Dual-channel safety gate control without shorts across contacts detection, without monitored start



- Example 7
Dual channel light barrier control with shorts across contacts detection by BWS, without monitored start



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



- Legend

- S1/S2: EMERGENCY STOP or safety gate switch
- S3: Start switch
- ↑: actuated element
- ⊞: gate not closed
- ⊞: gate closed

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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 61000-6-3, 10/01 EN 61000-6-3, 10/01
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	Front: ABS UL 94 V0 Housing: PPO UL 94 V0
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.	Farnell Code
PNOZ X2.8P	24 V DC, 24 V AC	777 301	4439340