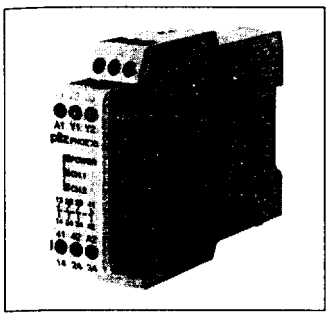
599-736

PNOZ X1

Standard Unit



PICONTROL
Emergency Stop Unit and Safety Gate Monitor to VDE 0113 Pt.1 (06.93) and EN 60204-1: 1992.

Order Reference

Voltage	Part Number
24 VDC/AC	774 300

Special Features

- Circuit is redundant with built-in self monitoring
- The safety function remains effective in the case of a component failure
- The correct opening and closing of the safety function relays is tested automatically in each on-off cycle
- **NO** galvanic separation.

Unit Classification

A-ET 96227

Description

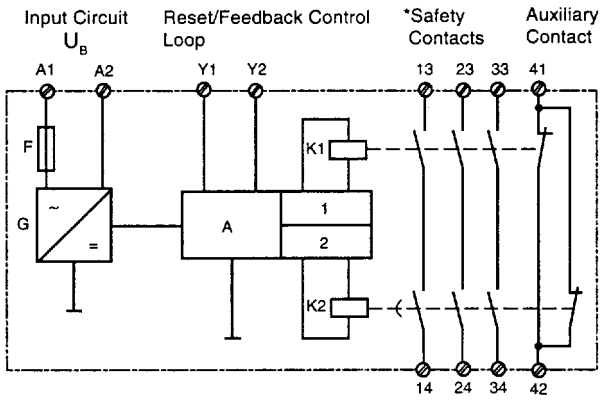
- 22.5 mm S-95 Housing, DIN-Rail Mounting
- Relay outputs, positive-guided:
  - 3 safety contacts (N/O)
  - 1 auxiliary contact (N/C), not suitable for safety circuits
- Connections:
  - emergency stop button or safety gate limit switches
  - reset button
- One channel operation only
- Increase in the number of contacts possible via external relays/contactors
- LEDs for channel status and operating voltage.

Electronic Fuse

In the event of an earth fault or an internal short-circuit, an electronic fuse causes the output relay to de-energise and protects the unit from damage. The safety release comes into effect with fault currents of ≥ 300 mA.

* To avoid contact welding, a fuse (max. 6.3 A quick or 4 A slow) must be connected externally.

Internal Wiring Diagram



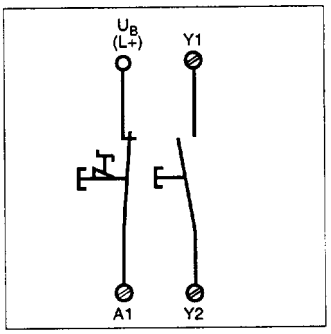
A: Switch logic, cyclical test
1: Channel 1
2: Channel 2

Technical Details, PNOZ X1 (for general technical details see appendix)

Operating Voltage U_B	24 V AC/DC
Power Consumption at U_B	Approx. 2 W/2 VA
Relay Contacts	3 safety contacts (N/O), 1 auxiliary contact (N/C); $AgSnO_2$
Switching Capability to	
DIN EN 60 947-4-1	AC1: 250 V/5 A/1250 VA, DC1: 24 V/4 A/100 W
DIN EN 60 947-5-1	AC15: 230 V/5 A; DC13: 24 V/1.5 A
Delay-on Energisation	Max. 150 ms
Delay-on De-energisation	Max. 100 ms
Recovery Time	≥1 s
Start Inrush at Y1-Y2	2.5 A/approx. 1.5 ms
Switch Inrush	Max. 2 A
Voltage/Current at A1, A2, Y1, Y2	24 V DC/20 mA
Max. Supply Interruption	
before De-energisation	Max. 10 ms
Operating Temperature	-10 to +55 °C
Airgap Creepage	DIN VDE 0110 part 2 para. 8, 4 kV/3
Contact Fuse Protection	6.3 A quick or 4 A slow (VDE 0660 Pt.200, DIN EN 60947)
Protection	Mounting IP 54, Housing IP 40, Terminals IP 20
Max. cross section of external	2 x 1.5 mm² or 1 x 2.5 mm²
conductors	Single or multi-core with crimp connectors
Dimensions (H x W x D)	87 x 22.5 x 121 mm
Weight	220 g

External Wiring

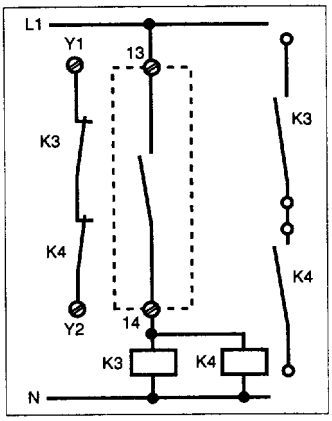
Example 1
Emergency stop wired through 1 channel with manual reset meets the requirements of EN 60204, but does not have safe operation redundancy in the emergency stop circuit. Earth faults in the emergency stop circuit are detected.



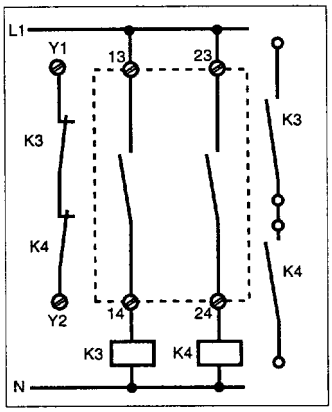
Feedback Control Loop

If required, the number of output contacts on the PNOZ X1 can be increased by using external relays with positive-guided contacts (>5 A).
The function of the external relays may be monitored by connecting N/C contacts in series to the feedback control loop, which is factory equipped with a link.

1 channel, automatic reset



2 channel, automatic reset



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