# Safety relays PNOZelog



#### Safety relays PNOZelog – Solid-state safety!

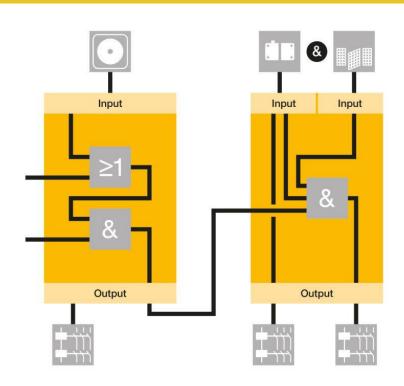




- ▶ The innovative PNOZelog product range combines the experience of electromechanical safety relays with the advantages of modern electronics
- ▶ The right PNOZelog for every safety function
  - One to four safety functions can be monitored reliably
  - Save on wiring
  - Easy to link via logic operations such as AND/OR
  - Expanded diagnostics increase your machine's availability
  - Power-up tests, self-checking and runtime tests guarantee maximum safety

#### PNOZelog – An overview of the features





- Long service life
- Expanded diagnostics
- Non-wearing
- AND/OR connections
- Compact
- Plug-in terminals (spring-loaded terminals, screw terminals)

Monitor two safety functions simultaneously with just a single unit.

Interconnect PNOZelog to form linked safety functions. Logic connections are available for this purpose. These logic AND/OR connections remove the need for additional wiring on the output. Both outputs on the PNOZelog units are free to use.

#### Application areas for PNOZelog



#### Mobile applications

- Recycling machinery such as sieves, assembly lines and vibration plants
- Shredding plants

The PNOZelog combines several classic hard-wired functions within one elog solution, for example:

- Safety gate
- ▶ E-STOP
- ▶ Enabling switch
- etc.











### PNOZ e1p – Multifunctional PNOZelog











- One unit that can be applied universally; covers all safety applications from E-STOP through to light beam devices in all categories in accordance with EN ISO 13849-1 and EN 954-1
- Lower logistics costs thanks to a multifunctional product, which can be applied universally
- Simple product selection

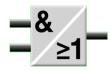
#### PNOZ e1.1p – PNOZelog with logic link function













- Functions are the same as the PNOZ e1p
- Additional logic AND/OR function

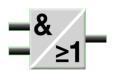
#### PNOZ e1vp – PNOZelog with delay













- Functions are the same as the PNOZ e1.1p
- 2 types: Time range up to 10 s and up to 300 s
- Safe delay time, for which parameters can be set
- ▶ Safe instantaneous or delayed output with PI e (in accordance with EN ISO 13849-1) and Cat. 4 (in accordance with EN 954-1)
- 9 selectable times
- With logic AND/OR function

#### PNOZ e2.1p – PNOZelog for two-hand









- Two-hand pushbuttons connected directly
- Requirement class IIIC EN 574
- Test pulse outputs
- Detection of shorts across contacts
- Simultaneity monitoring in accordance with EN 574
- With logic AND/OR function

#### PNOZ e2.2p – PNOZelog for two-hand







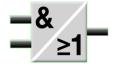


- Two-hand pushbuttons connected directly
- Requirement class IIIA EN 574
- Test pulse outputs
- Detection of shorts across contacts
- Simultaneity monitoring in accordance with EN 574
- With logic AND/OR function

#### PNOZ e3.1p – PNOZelog for safety gate monitoring







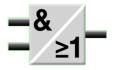


- Evaluation device for non-contact magnetic safety switches from the PSEN 2.x range
- In accordance with the standard EN 60947-5-3, the unit comprising PNOZ e3.1p and PSEN 2.x is classified as PDF-M with self monitoring for increased safety requirements
- With logic AND/OR function

### PNOZ e3vp –PNOZelog for safety gate monitoring with delay







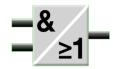


- Functions are the same as the PNOZ e3.1p
- 2 types: Time range up to 10 s and up to 300 s
- Safe delay time, for which parameters can be set
  - Safe instantaneous or delayed output with Ple (in accordance with EN ISO 13849-1) and Cat. 4 (in accordance with EN 954-1)
- 9 selectable times
- With logic AND / OR function

### PNOZ e4.1p – PNOZelog for monitoring pressure sensitive mats









- Evaluation device for connection to Mayser SM/BK type safety mats
- Suitable as an evaluation device for connection to PSS/DIO/PNOZmulti
- For Category 4 in accordance with EN ISO 13849-1 and Category 3 in accordance with EN 954-1
- With logic AND/OR function

## PNOZ e4vp, 10 s – PNOZelog for monitoring pressure sensitive mats with delay









- Functions are the same as the PNOZ e4.1p.
- Delay time range up to 10 s
- With logic AND / OR function

#### PNOZ e5.11— The bi-functional PNOZelog









- Monitors 2 logically connected safety functions in one housing
- 2 N/C contacts per safety function
- Logic AND connection between the 2 safety functions
- One logic AND input to connect several PNOZelogs
- Each safety function has a separate signal output
- Less wiring needed, so less space is required in the control cabinet

#### PNOZ e5.13p – The bifunctional PNOZelog









- Monitors 2 logically connected safety functions in one housing
- Safety functions N/C / N/O and N/C / N/C
- Logic AND connection between the 2 safety functions
- One logic AND input to connect several PNOZelogs
- Each safety function has a separate signal output
- Less wiring needed, so less space required in the control cabinet

## PNOZ e7p- PNOZelog for monitoring single light beam devices











- Connection option for E-STOP pushbuttons, safety gate limit switches, reset buttons
- Proximity switch evaluation devices, available with monitored or automatic reset
- One logic AND input
- Ability to connect up to 2 Pilz single light beam devices

### Safe power-up in conjuction with the safe line inspection device PLIDdys





- ▶ Line inspection device PLIDdys in combination with the evaluation device PNOZ e8.1p
- The safe line inspection device PLIDdys provides safe power-up on two-wire connections, providing maximum safety on long cable routes



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