

PNOZsigma safety relays

– range overview

Pilz multi functional PNOZsigma range of compact safety relays are easy to install and expand with improved switching capacity – from as little as 12.5mm wide.

Ideal for machine builders and panel builders, these fourth generation safety relays incorporate a number of features and international approvals (important for export). They also offer significant cost savings because less units now cover a wider range of applications, reducing your stock holding.

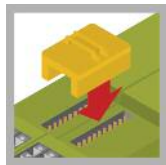
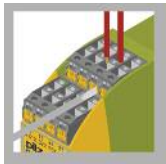
A combination of jumper connected expansion modules and spring loaded cage clamp terminals can also reduce your wiring time by up to 20%. To increase the number of safety outputs use the PNOZsigma expander modules.

The safety relays provide diagnostics in seconds using the LED indication panel, displaying:

- Power
- Input status
- Switch status
- Reset
- Fault

Key features and benefits of the PNOZsigma range

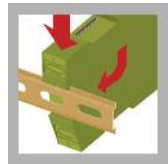
Rapid installations – innovative spring-loaded terminals, chambers operated individually



20% reduction in wiring. Contact expansion via connectors



Simple configuration, designation and position of the terminals is the same on all unit types

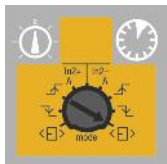


Rapid assembly via spring clips, no need for tools

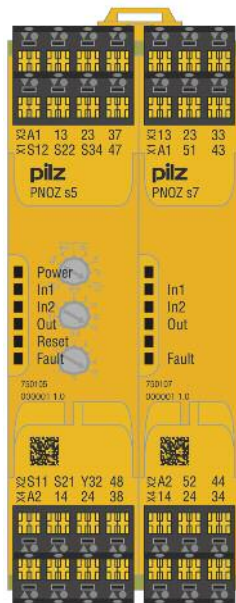
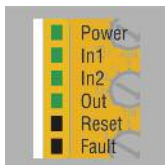


Safe from manipulation, setting elements have a lockable cover

Maximum flexibility. Operating modes and timer functions are selectable



Diagnostics in seconds via 6 LEDs – no external measuring devices required



PNOZsigma safety relays

Technical specification

	PNOZs1	PNOZs2	PNOZs3	PNOZs4	PNOZs5	PNOZs6
Input channels	1	1	1 and 2	2	2	2
Safety outputs	2 NO	3 NO	2 NO	3 NO	2 NO	3 NO
Safety outputs (timed)	—	—	—	—	2 NO	—
Time delay range	—	—	—	—	0-300 seconds	—
Auxiliary outputs	—	1 NC	—	1 NC	—	1 NC
Semi conductor outputs	1	1	1	1	1	1
Input options:						
Emergency stop	◆	◆	◆	◆	◆	—
Safety gate switch	◆	◆	◆	◆	◆	—
Light curtain	—	—	◆	◆	◆	—
Two-hand control	—	—	—	—	—	◆
Reset	Manual	Manual/monitored	Monitored	Manual/automatic	Manual/automatic	Manual
Start	Automatic	Automatic	Start-up test	Start-up test	Start-up test	—
Supply voltage	24V d.c.	24V d.c.	24V d.c.	24V d.c.	24V d.c.	24V d.c.
Universal power supply	—	—	—	48-240V a.c./d.c.	48-240V a.c./d.c.	—
External fast fuse rating	4A	4A	4A	6/10A	6A	6A
Connections	Plug-in	Plug-in	Plug-in	Plug-in	Plug-in	Plug-in
Housing width (mm)	12.5	17.5	17.5	22.5	22.5	22.5
PFH_b	2 x 10⁻⁷	2.5 x 10⁻⁹	2.31 x 10⁻⁹	2.31 x 10⁻⁹	2.31 x 10⁻⁹	2.62 x 10⁻⁹
PFH_b (delayed)	—	—	—	—	2.14 x 10⁻⁹	—
Safety category	Cat 2	Cat 2	Cat 4	Cat 4	Cat 4	EN574, Typ IIIC
Performance Level	PLd	PLd	PLe	PLe	PLe	PLe
SIL claim	SIL CL2	SIL CL3	SIL CL3	SIL CL3	SIL CL3	SIL CL3

◆ Can be connected

PNOZsigma contact expander modules

Technical specification

	PNOZs7	PNOZs7.1	PNOZs7.2	PNOZs8	PNOZs9	PNOZs10	PNOZs11	PNOZs22
Safety outputs	4 NO	3 NO	4 NO	2 NO	3 NO	4 NO	8 NO	2 x 3 NO
Safety outputs (timed)	—	—	—	—	◆	—	—	—
Time delay range	—	—	—	—	0-300 seconds	—	—	—
Auxiliary outputs	1 NC	—	1 NC	—	1 NC	1 NC	1 NC	2 NC
Semi conductor outputs	1	1	1	1	—	—	—	—
Compatible relays:								
PNOZelog	◆	◆	◆	◆	◆	◆	◆	—
PNOZmulti	—	—	—	—	◆	—	—	—
PNOZsigma	◆	◆	◆	◆	◆	◆	◆	◆
PNOZmm0.1p	—	—	—	—	—	—	—	◆
PNOZmm0.2p	—	—	—	—	—	—	—	◆
PNOZ X	◆	◆	◆	◆	◆	◆	◆	◆
Supply voltage	24V d.c.	24V d.c.	24V d.c.	24V d.c.	24V d.c.	24V d.c.	24V d.c.	24V d.c.
External fast fuse rating	6A	6A	6A	4A	6A	10A	10A	6A
Connections	Plug-in	Plug-in	Plug-in	Plug-in	Plug-in	Plug-in	Plug-in	Plug-in
Housing width (mm)	17.5	17.5	17.5	12.5	17.5	45	45	22.5
PFH_b	2.31 x 10⁻⁹	2.31 x 10⁻⁹	2.31 x 10⁻⁹	2 x 10⁻⁷	2.34 x 10⁻⁹	2.31 x 10⁻⁹	2.31 x 10⁻⁹	2.31 x 10⁻⁹
Safety category*	Cat 4	Cat 4	Cat 4	Cat 2	Cat 4	Cat 4	Cat 4	Cat 4
Performance Level*	PLe	PLe	PLe	PLd	PLe	PLe	PLe	PLe
SIL claim*	SIL CL3	SIL CL3	SIL CL3	SIL CL2	SIL CL3	SIL CL3	SIL CL3	SIL CL3

*The category that can be achieved depends on the category of the base unit. The contact expander module may not exceed this.