

► Selection guide – PNOZ X

Safety relays PNOZ X

Type	Application						Performance Level (PL) – EN ISO 13849-1
							
PNOZ X1P	◆	◆					e
PNOZ X2P	◆	◆					e
PNOZ X2.7P	◆	◆	◆				e
PNOZ X2.8P	◆	◆	◆				e
PNOZ X3P	◆	◆	◆				e
PNOZ X7P	◆	◆					e
PNOZ X8P	◆	◆	◆				e
PNOZ X9P	◆	◆	◆				e
PNOZ X10.11P	◆	◆	◆				e
PNOZ X11P	◆	◆	◆				e
PNOZ XV1P	◆	◆	◆				e (d) ²⁾
PNOZ XV3P	◆	◆	◆				e (d) ²⁾
PNOZ XV3.1P	◆	◆	◆				e (d) ²⁾
PMUT X1P	◆		◆	◆			e
P2HZ X1P					◆	EN 574, Type IIIC	e
P2HZ X4P					◆	EN 574, Type IIIC	e
PSWZ X1P						◆	e
PZE X4P	Contact expansion						e

Safety Integrity Level (SIL) CL claim limit in accordance with EN/IEC 62061	Output contacts				Supply voltage (U _B)	Dimensions (H x W x D) in mm
	Safe		Non-safe			
						
3	3	-	1	-	24 VDC	101/94 ¹⁾ x 22.5 x 121
3	2	-	-	-	► 24 VAC/DC ► 48 ... 240 VAC/DC	101/94 ¹⁾ x 22.5 x 121
3	3	-	1	-	► 24 VAC/DC ► 24 ... 240 VAC/DC	101/94 ¹⁾ x 22.5 x 121
3	3	-	1	-	► 24 VAC/DC ► 24 ... 240 VAC/DC	101/94 ¹⁾ x 22.5 x 121
3	3	-	1	1	► 24 VAC/DC ► 24 ... 240 VAC/DC	101/94 ¹⁾ x 45 x 121
3	2	-	-	-	► 24 VAC/DC ► 110 ... 120, 230 ... 240 VAC	101/94 ¹⁾ x 22.5 x 121
3	3	-	2	2	► 24 VDC ► 24, 110, 230 VAC	101/94 ¹⁾ x 45 x 121
3	7	-	2	2	► 12 VDC ► 24 VDC, 100 ... 240 VAC	101/94 ¹⁾ x 90 x 121
3	6	-	4	-	24 VDC	101/94 ¹⁾ x 90 x 121
3	7	-	1	2	► 24 VDC, 24 VAC ► 110 ... 120, 230 ... 240 VAC	101/94 ¹⁾ x 90 x 121
3	2	1	-	-	24 VDC	101/94 ¹⁾ x 22.5 x 121
3	3	2	-	-	24 VDC	101/94 ¹⁾ x 45 x 121
3	3	2	1	-	► 24 VDC ► 24 ... 240 VAC/DC	101/94 ¹⁾ x 90 x 121
3	3	-	1	5	24 VDC	101/94 ¹⁾ x 90 x 121
3	3	-	1	2	► 24 VDC ► 24, 42, 110, 115, 230, 240 VAC	101/94 ¹⁾ x 45 x 121
3	3	-	1	-	24 VAC/DC	101/94 ¹⁾ x 22.5 x 121
3	2	-	1	1	24 ... 240 VAC/DC	101/94 ¹⁾ x 45 x 121
3	4	-	-	-	24 VDC	101/94 ¹⁾ x 22.5 x 121

¹⁾ Height incl. spring-loaded terminals/plug-in screw terminals²⁾ Value applies to instantaneous (delayed) safety contacts

Technical
documentation
on safety relays
PNOZ X:

 Webcode:
web150635

Online information
at www.pilz.com

► Technical details – PNOZ X

Safety relays PNOZ X



PNOZ X1P



PNOZ X2P



PNOZ X2.7P



PNOZ X2.8P



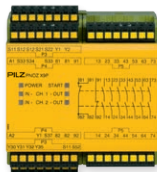
PNOZ X3P



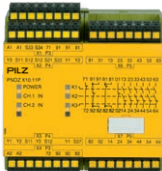
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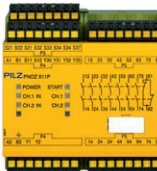
PNOZ X8P



PNOZ X9P



PNOZ X10.11P



PNOZ X11P

Type	Features
PNOZ X1P	1-channel operation
PNOZ X2P	► 2-channel operation with detection of shorts across contacts ► Automatic or monitored start can be selected
PNOZ X2.7P	► 2-channel operation with or without detection of shorts across contacts ► Monitored start
PNOZ X2.8P	► 2-channel operation with or without detection of shorts across contacts ► Automatic start
PNOZ X3P	► Dual-channel wiring, with or without detection of shorts across contacts ► Monitored or automatic start can be selected ► 1 semiconductor output
PNOZ X7P	1-channel operation
PNOZ X8P	► 2-channel operation with or without detection of shorts across contacts ► Monitored or automatic start can be selected ► 2 semiconductor outputs
PNOZ X9P	► Dual-channel wiring, with or without detection of shorts across contacts ► Monitored or automatic start can be selected ► 2 semiconductor outputs
PNOZ X10.11P	► Dual-channel wiring, with or without detection of shorts across contacts ► Monitored or automatic start can be selected
PNOZ X11P	► Dual-channel wiring, with or without detection of shorts across contacts ► Monitored or automatic start can be selected ► 2 semiconductor outputs

Outputs: Voltage/current/rating	Certification	Order number	
		Spring-loaded terminals	Plug-in screw terminals
DC1: 24 V/6 A/150 W	CE, cULus Listed, EAC (Eurasian), TÜV, CCC	787 100	777 100
DC1: 24 V/6 A/150 W	CE, cULus Listed, EAC (Eurasian), TÜV, CCC	▶ 24 VAC/DC _____ 787 303 ▶ 48 ... 240 VAC/DC _____ 787 307	▶ 24 VAC/DC _____ 777 303 ▶ 48 ... 240 VAC/DC _____ 777 307
DC1: 24 V/6 A/150 W	CE, cULus Listed, EAC (Eurasian), TÜV, CCC	▶ 24 VAC/DC _____ 787 305 ▶ 24 ... 240 VAC/DC _____ 787 306	▶ 24 VAC/DC _____ 777 305 ▶ 24 ... 240 VAC/DC _____ 777 306
DC1: 24 V/6 A/150 W	CE, cULus Listed, EAC (Eurasian), TÜV, KOSHA, CCC	▶ 24 VAC/DC _____ 787 301 ▶ 24 ... 240 VAC/DC _____ 787 302	▶ 24 VAC/DC _____ 777 301 ▶ 24 ... 240 VAC/DC _____ 777 302
DC1: 24 V/8 A/200 W	CE, cULus Listed, EAC (Eurasian), TÜV, KOSHA, CCC	▶ 24 VAC/DC _____ 787 310 ▶ 24 ... 240 VAC/DC _____ 787 313	▶ 24 VAC/DC _____ 777 310 ▶ 24 ... 240 VAC/DC _____ 777 313
DC1: 24 V/6 A/150 W	CE, cULus Listed, EAC (Eurasian), TÜV, CCC	▶ 24 VAC/DC _____ 787 059 ▶ Others available on request	▶ 24 VAC/DC _____ 777 059 ▶ Others available on request
DC1: 24 V/8 A/200 W	CE, cULus Listed, EAC (Eurasian), TÜV, CCC	▶ 24 VDC _____ 787 760 ▶ Others available on request	▶ 24 VDC _____ 777 760 ▶ Others available on request
DC1: 24 V/8 A/200 W	CE, cULus Listed, EAC (Eurasian), TÜV, CCC	▶ 24 VDC _____ 787 609 ▶ 24 VDC, 100 ... 240 VAC _____ 787 606	▶ 12 VDC _____ 777 607 ▶ 24 VDC _____ 777 609 ▶ 24 VDC, 100 ... 240 VAC _____ 777 606
DC1: 24 V/8 A/200 W	CE, cULus Listed, EAC (Eurasian), TÜV, CCC	787 750	777 750
DC1: 24 V/8 A/200 W	CE, cULus Listed, EAC (Eurasian), TÜV, CCC	▶ 24 VDC, 24 VAC _____ 787 080 ▶ 110 ... 120 VAC _____ 787 083 ▶ 230 ... 240 VAC _____ 787 086	▶ 24 VDC, 24 VAC _____ 777 080 ▶ 110 ... 120 VAC, 24 VDC _____ 777 083 ▶ 230 ... 240 VAC, 24 VDC _____ 777 086

Technical documentation on safety relays PNOZ X:

 Webcode: web150635

Online information at www.pilz.com

► Technical details – PNOZ X

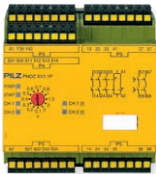
Safety relays PNOZ X



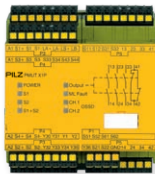
PNOZ XV1P



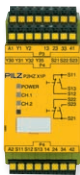
PNOZ XV3P



PNOZ XV3.1P



PMUT X1P



P2HZ X1P



P2HZ X4P



PSWZ X1P

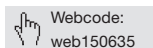


PZE X4P

Type	Features
PNOZ XV1P	► Dual-channel wiring, with or without detection of shorts across contacts ► Monitored or automatic start can be selected
PNOZ XV3P	► Dual-channel wiring, with or without detection of shorts across contacts ► Monitored or automatic start can be selected
PNOZ XV3.1P	► Dual-channel wiring, with or without detection of shorts across contacts ► Monitored or automatic start can be selected ► Universal power supply 24 ... 240 VAC/DC
PMUT X1P	► Up to 4 muting sensors ► Monitoring and switching muting lamps ► Parallel and sequential muting ► Simultaneity monitoring ► 5 semiconductor outputs ► Reset input ► Override function via key switch in the case of a fault ► LED status indicators
P2HZ X1P	2 semiconductor outputs
P2HZ X4P	22.5 mm width
PSWZ X1P	► Safe standstill monitoring ► 1 or 2-channel operation ► No external components required ► Fault signal if simultaneity time is exceeded ► Reset input ► Detects open circuits
PZE X4P	1-channel operation

Outputs: Voltage/current/rating	Certification	Order number	
		Spring-loaded terminals	Plug-in screw terminals
DC1: 24 V/5 A/125 W	CE, cULus Listed, EAC (Eurasian), TÜV, CCC	▶ 0.1 ... 3 s _____ 787 601 ▶ 1 ... 30 s _____ 787 602	▶ 0.1 ... 3 s _____ 777 601 ▶ 1 ... 30 s _____ 777 602
DC1: 24 V/8 A/200 W	CE, cULus Listed, EAC (Eurasian), TÜV, CCC	▶ 3 s _____ 787 512 ▶ 30 s _____ 787 510 ▶ Others available on request	▶ 3 s _____ 777 512 ▶ 30 s _____ 777 510 ▶ Others available on request
DC1: 24 V/8 A/200 W	CE, cULus Listed, EAC (Eurasian), TÜV, CCC	▶ 3 s selectable, 24 ... 240 VAC/DC _____ 787 532 ▶ 30 s selectable, 24 ... 240 VAC/DC _____ 787 530 ▶ Others available on request	▶ 3 s selectable, 24 ... 240 VAC/DC _____ 777 532 ▶ 30 s selectable, 24 ... 240 VAC/DC _____ 777 530 ▶ Others available on request
DC1: 24 V/8 A/200 W	CE, cULus Listed, EAC (Eurasian), TÜV, CCC	788 010	778 010
DC1: 24 V/5 A/125 W	CE, cULus Listed, EAC (Eurasian), BG, CCC	▶ 24 VDC _____ 787 340 ▶ Others available on request	▶ 24 VDC _____ 777 340 ▶ Others available on request
DC1: 24 V/5 A/125 W	CE, cULus Listed, EAC (Eurasian), BG, KOSHA, CCC	▶ 24 VAC _____ 787 354 ▶ 24 VDC _____ 787 355	▶ 24 VAC _____ 777 354 ▶ 24 VDC _____ 777 355
DC1: 24 V/6 A/150 W	CE, cULus Listed, EAC (Eurasian), TÜV, CCC	▶ U _M : 0.5 V _____ 787 949 ▶ U _M : 3 V _____ 787 950 ▶ U _M : 0.0075 ... 0.5 V _____ 787 951	▶ U _M : 0.5 V _____ 777 949 ▶ U _M : 0.5 V, coated version _____ 777 959 ▶ U _M : 3 V _____ 777 950 ▶ U _M : 0.0075 ... 0.5 V _____ 777 951
DC1: 24 V/6 A/150 W	CE, cULus Listed, EAC (Eurasian), TÜV, CCC	787 585	777 585

Technical documentation on safety relays PNOZ X:



Online information at www.pilz.com

► Safety relay PNOZcompact

The safety relay is optimised for functionality and can be used in all areas of engineering. In series machine production in particular, the use of the PNOZcompact has many advantages thanks to its concentrated functionality: This allows high-volume projects with a high degree of standardisation to be implemented economically. Choose a PNOZ safety relay – the original and a byword for safety relays.



Square, simple, yellow

You want to safely monitor an E-STOP device, safety gate or light beam device? Is it important to you to save time through simple installation and maintenance? Then we have the right solution for you – the safety relay PNOZcompact.

PNOZ c1 is ideal for monitoring E-STOP devices or safety gates. A block diagram with connection example is printed on the side of the unit and is a great help. PNOZ c2 is predestined for the safe monitoring of type 4 light beam devices, e.g. PSENOpt from Pilz, or sensors with OSSD outputs in accordance with EN 61496-1 with a guaranteed maximum reaction time of 12 ms. You save time through simple installation because the transmitter and receiver are supplied with voltage directly via the evaluation device.

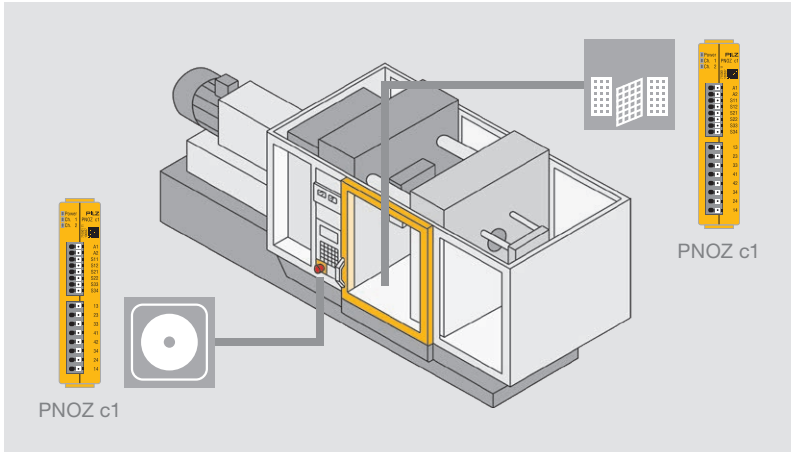


Safety relay PNOZcompact

Common features

- PL e of EN ISO 13849-1, Safety Integrity Level (SIL) CL 3 of EN/IEC 62061
- Supply voltage (U_a): 24 VDC
- LEDs to display operating voltage and switch status
- Spring-loaded terminals fixed on the device

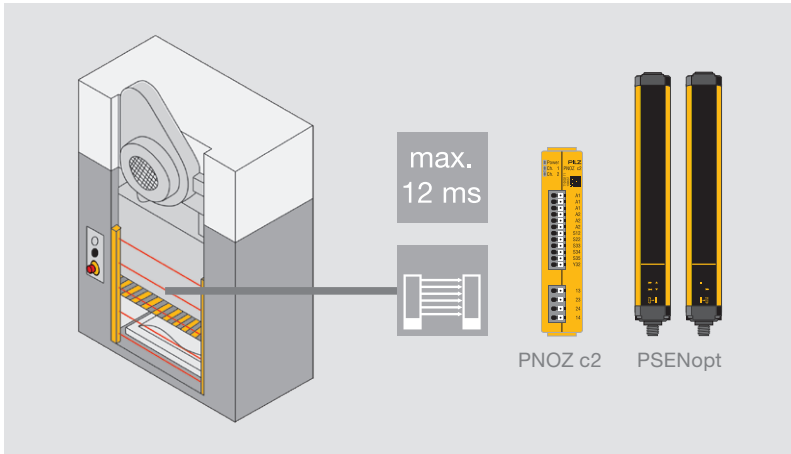
Type	Application area	Dimensions (H x W x D) in mm
PNOZ c1	E-STOP relay and safety gate monitor	105 ¹⁾ x 22.5 x 100
PNOZ c2	For monitoring type 4 light beam devices or sensors with OSSD outputs in accordance with EN 61496-1	105 ¹⁾ x 22.5 x 100



Monitor an E-STOP device or safety gate – in any application – safe, simple, compact. Use one safety relay per safety function.

Your benefits at a glance

- ▶ Save space in the control cabinet thanks to the compact design
- ▶ Simple installation and maintenance saves you time: push-in spring-loaded terminals fixed on the device, can be connected without the need for tools
- ▶ Tool-free assembly: simply attach the device to the top hat rail



Monitor light beam devices, e.g. PSENopt from Pilz, or sensors with OSSD outputs safely, simply and in a compact form. All common light beam devices can also be connected.

Keep up-to-date
on safety relays
PNOZcompact:



Webcode:
web150086

Online information
at www.pilz.com

Features	Certification	Order number
▶ 3 safety contacts/1 auxiliary contact (3 N/O/1 N/C) ▶ 2-channel wiring with detection of shorts across contacts ▶ Manual or automatic start ▶ STOP category: 0	CE, cULus Listed, EAC (Eurasian), TÜV, CCC	710001
▶ 2 safety contacts (N/O)/1 semiconductor output ▶ 2-channel wiring without detection of shorts across contacts ▶ Monitored or automatic start ▶ Guaranteed maximum reaction time: 12 ms	CE, cULus Listed, EAC (Eurasian), TÜV, CCC	710002

¹⁾ Height incl. spring clip