



Product Service

EC-Type Examination Certificate

No. M6A 020132 0243 Rev. 02

Holder of Certificate: **Pilz GmbH & Co. KG**
Felix-Wankel-Str. 2
73760 Ostfildern
GERMANY

Product: **Safety components**
Safety relay

Model(s): **PNOZ X**

Parameters: Protection class: IP20 (terminals)
IP40 (housing)

The report and the user documentation in the current valid revision are mandatory part of this certificate. The product complies with the following safety requirements only if the specifications documented in the currently valid revision of this report are met. The certified components are listed in the report PO91244T in the current valid revision.

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. For details see: www.tuvsud.com/ps-cert

Test report no.: **PO91243C**

Valid until: 2028-06-27

Date, 2023-06-29

(Peter Weiß)

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TÜV SÜD Product Service GmbH • Certification Body • Ridlerstraße 65 • 80339 Munich • Germany

TÜV®



Product Service

CERTIFICATE

No. Z10 020132 0242 Rev. 02

Holder of Certificate: **Pilz GmbH & Co. KG**

Felix-Wankel-Str. 2
73760 Ostfildern
GERMANY

Certification Mark:



Product: **Safety components**

Safety relay

Model(s): **PNOZ X**

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Tested according to: EN ISO 13849-1:2015 (up to Cat.4 PL e)
EN IEC 62061:2021
EN 60947-5-1:2017
EN ISO 14119:2013
IEC 61508-1:2010
IEC 61508-2:2010
IEC 61511-1:2016

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. This certificate is valid until the listed date, unless it is cancelled earlier. All applicable requirements of the testing and certification regulations of TÜV SÜD Group have to be complied. For details see: www.tuvsud.com/ps-cert

Test report no.: **PO91243C**
Valid until: 2028-06-27

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(Peter Weiß)



**Liste der Varianten
der Sicherheitsschaltgeräte-Familie
PNOZ X**

**List of variants
of safety relay family**

PNOZ X

Hersteller / Manufacturer:

Pilz GmbH Co. KG
Felix-Wankel-Straße 2
D-73760 Ostfildern
Germany

Bericht-Nr. / Report no: PO91244T

Revision 1.5

2023-06-28

Prüfstelle / Test body:

TÜV SÜD RAIL GmbH
Rail Automation

Zertifizierungsstelle / Certification body:

TÜV SÜD Product Service GmbH
Ridlerstraße 65
D-80339 München



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Änderungshistorie / Change history:

Version	Name	Datum / Date	Änderungen / Changes
1.5	Jens Luther	2023-06-28	Rezertifizierung / Re-certification Add. new standards (IEC 61508/ IEC 61511/ EN IEC 62061:2021)

Änderungen zur Vorgängerversion / Changes to the previous version:

Kapitel Chapter	Type Device	Bemerkung / Remarks
All		Modifikationsbericht hinzugefügt / Modification report added' Sicherheitkennwerte ergänzt / Safety parameters added



1 PNOZ X

Typ Type	Sach-Nr. Order No.	Version	Internal Test-Report	Sicherheitsrelevante Strompfade (TM = 20) Safety related circuits (TM = 20)						Bemerkung Remark
				Kontakte Contacts	PL	Cat.	max. SIL	PFH _d	PFD	
PNOZ X1 24VAC/DC	774300 774901	7.2 1.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
PNOZ X1P 24VDC	777100 787100	1.0 1.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
PNOZ X2 24VAC/DC	774303	8.3	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24	e	4	3	2,31E-09	2,03E-06	--
PNOZ X2P 24VAC/DC	777303 787303	3.2 1.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24	e	4	3	2,31E-09	2,03E-06	--
PNOZ X2P 48-240VAC/DC	777307 787307	3.2 1.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24	e	4	3	2,31E-09	2,03E-06	--
PNOZ X2C 24VAC/DC	774304	4.4	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24	e	4	3	2,31E-09	2,03E-06	--
PNOZ X2.1C 24VAC/DC	774305	4.4	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24	e	4	3	2,31E-09	2,03E-06	--
PNOZ X2.1 24VAC/DC	774306	8.3	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24	e	4	3	2,31E-09	2,03E-06	--
PNOZ X2.2 24VAC/DC	774607	8.3	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24	e	4	3	2,31E-09	2,03E-06	--
PNOZ X2.3P 24VAC/DC	777304 787304	1.0 1.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
PNOZ X2.5P 24VDC	777308 787308	1.1 1.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24	e	4	3	2,31E-09	2,03E-06	--



1 PNOZ X

Typ Type	Sach-Nr. Order No.	Version	Internal Test-Report	Sicherheitsrelevante Strompfade (TM = 20) Safety related circuits (TM = 20)						Bemerkung Remark
				Kontakte Contacts	PL	Cat.	max. SIL	PFH _d	PFD	
PNOZ X2.7P 24VAC/DC	777305 787305	2.3 2.3	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
PNOZ X2.7P 24-240VAC/DC	777306 787306	1.3 1.3	PO91243C V1.4 717515038 V1.2 PO100588T V1.0	13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
PNOZ X2.8P 24VAC/DC	777301 787301	2.3 2.3	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
PNOZ X2.8P 24-240VAC/DC	777302 787302	1.3 1.3	PO91243C V1.4 717515038 V1.2 PO100588T V1.0	13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
PNOZ X2.9P 24VDC	777300 787300	1.1 1.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
PNOZ X3 24VAC 24VDC	774310	6.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
PNOZ X3 42VAC 24VDC	774311	6.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
PNOZ X3 48VAC 24VDC	774312	6.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
PNOZ X3 110VAC 24VDC	774314	6.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
PNOZ X3 115VAC 24VDC	774315	6.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
PNOZ X3 120VAC 24VDC	774316	6.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--



1 PNOZ X

Typ Type	Sach-Nr. Order No.	Version	Internal Test-Report	Sicherheitsrelevante Strompfade (TM = 20) Safety related circuits (TM = 20)						Bemerkung Remark
				Kontakte Contacts	PL	Cat.	max. SIL	PFH _d	PFD	
PNOZ X3 230VAC 24VDC	774318	6.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
PNOZ X3 240VAC 24VDC	774319	6.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
PNOZ X3.1 230VAC 24VDC	774321	2.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
PNOZ X3.1 240VAC 24VDC	774322	2.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
PNOZ X3.2 230VAC 24VDC	774309	1.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--



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				Kontakte Contacts	PL	Cat.	max. SIL	PFH _d	PFD	
PNOZ X3.10P 24VAC/DC	777314	3.3	PO91243C V1.4	13-14	e	4	3	2,31E-09	2,03E-06	--
	787314	1.3	717515038 V1.1 PO100588T V1.0	23-24 33-34						
PNOZ X3P 24VDC 24VAC	777310	5.3	PO91243C V1.4	13-14	e	4	3	2,31E-09	2,03E-06	--
	787310	1.3	717515038 V1.1 PO100588T V1.0	23-24 33-34						
PNOZ X3P 24-240VAC/DC	777313	2.0	PO91243C V1.4	13-14	e	4	3	2,31E-09	2,03E-06	--
	787313	1.0	717515038 V1.1 PO100588T V1.0	23-24 33-34						
PNOZ X4 24VDC	774730	4.0	PO91243C V1.4	13-14	e	4	3	2,31E-09	2,03E-06	--
	774732		717515038 V1.2 PO100588T V1.0	23-24 33-34						
PNOZ X4 24VAC	774731	4.0	PO91243C V1.4	13-14	e	4	3	2,31E-09	2,03E-06	--
			717515038 V1.1 PO100588T V1.0	23-24 33-34						
PNOZ X4 110VAC	774734	4.0	PO91243C V1.4	13-14	e	4	3	2,31E-09	2,03E-06	--
			717515038 V1.1 PO100588T V1.0	23-24 33-34						
PNOZ X4 115VAC	774735	4.0	PO91243C V1.4	13-14	e	4	3	2,31E-09	2,03E-06	--
			717515038 V1.1 PO100588T V1.0	23-24 33-34						
PNOZ X4 120VAC	774736	4.0	PO91243C V1.4	13-14	e	4	3	2,31E-09	2,03E-06	--
			717515038 V1.1 PO100588T V1.0	23-24 33-34						
PNOZ X4 230VAC	774738	4.0	PO91243C V1.4	13-14	e	4	3	2,31E-09	2,03E-06	--
			717515038 V1.1 PO100588T V1.0	23-24 33-34						



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				Kontakte Contacts	PL	Cat.	max. SIL	PFH _d	PFD	
PNOZ X4 240VAC	774739	4.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
PNOZ X5 12VDC	774326	2.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24	e	4	3	2,31E-09	2,03E-06	--
PNOZ X5 24VAC/DC	774325	4.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24	e	4	3	2,31E-09	2,03E-06	--
PNOZ X5.1 24VDC	774324	3.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24	e	4	3	2,31E-09	2,03E-06	--
PNOZ X5J 24VDC	774323	3.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24	e	4	3	2,31E-09	2,03E-06	--
PNOZ X6 24VAC 24VDC	774729	1.4	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
PNOZ X6 42VAC	774721	1.4	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
PNOZ X6 110-120VAC	774725	1.4	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
PNOZ X6 230-240VAC	774726	1.4	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--



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PNOZ X7 24VAC/DC	774059	3.4	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24	e	4	3	2,31E-09	2,03E-06	--
PNOZ X7 42VAC	774058	3.2	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24	e	4	3	2,31E-09	2,03E-06	--
PNOZ X7 48VAC	774049	1.2	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24	e	4	3	2,31E-09	2,03E-06	--
PNOZ X7 110VAC	774053	3.2	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24	e	4	3	2,31E-09	2,03E-06	--
PNOZ X7 115VAC	774054	3.2	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24	e	4	3	2,31E-09	2,03E-06	--
PNOZ X7 120VAC	774055	3.2	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24	e	4	3	2,31E-09	2,03E-06	--
PNOZ X7 230VAC	774056	3.2	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24	e	4	3	2,31E-09	2,03E-06	--
PNOZ X7 240VAC	774057	3.2	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24	e	4	3	2,31E-09	2,03E-06	--
PNOZ X7.1 24VAC/DC	774051	1.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24	e	4	3	2,31E-09	2,03E-06	--



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				Kontakte Contacts	PL	Cat.	max. SIL	PFH _d	PFD	
PNOZ X7P 24VAC/DC	777059 787059	1.0 1.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24	e	4	3	2,31E-09	2,03E-06	--
PNOZ X7P 110-120VAC	777053 787053	1.0 1.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24	e	4	3	2,31E-09	2,03E-06	--
PNOZ X7P 230-240VAC	777056 787056	1.0 1.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24	e	4	3	2,31E-09	2,03E-06	--
PNOZ X8P 24VDC	777760 787760	4.0 1.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	3	4	3	2,31E-09	2,03E-06	--
PNOZ X8P 24VAC	777770 787770	1.0 4.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	3	4	3	2,31E-09	2,03E-06	--
PNOZ X8P 110VAC	777764 787764	4.0 1.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	3	4	3	2,31E-09	2,03E-06	--
PNOZ X8P 115VAC	777765 787765	4.0 1.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	3	4	3	2,31E-09	2,03E-06	--
PNOZ X8P 120VAC	777766 787766	4.0 1.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	3	4	3	2,31E-09	2,03E-06	--
PNOZ X8P 230VAC	777768 787768	4.0 1.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	3	4	3	2,31E-09	2,03E-06	--



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				Kontakte Contacts	PL	Cat.	max. SIL	PFH _d	PFD	
PNOZ X9 24VAC 24VDC	774609	3.2	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34 43-44 53-54 63-64 73-74	3	4	3	2,31E-09	2,03E-06	--
PNOZ X9 42VAC 24VDC	774601	3.2	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34 43-44 53-54 63-64 73-74	3	4	3	2,31E-09	2,03E-06	--
PNOZ X9 100-120VAC 24VDC	774605	3.2	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34 43-44 53-54 63-64 73-74	3	4	3	2,31E-09	2,03E-06	--
PNOZ X9 200-230VAC 24VDC	774606	3.2	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34 43-44 53-54 63-64 73-74	3	4	3	2,31E-09	2,03E-06	--



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				Kontakte Contacts	PL	Cat.	max. SIL	PFH _d	PFD	
PNOZ X9P 12VDC	777607	1.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34 43-44 53-54 63-64 73-74	3	4	3	2,31E-09	2,03E-06	--
PNOZ X9P 24VDC	777609 787609	7.0 1.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34 43-44 53-54 63-64 73-74	3	4	3	2,31E-09	2,03E-06	--
PNOZ X9P 24-240VAC/DC 24VDC	777606 787606	8.0 2.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34 43-44 53-54 63-64 73-74	e	4	3	2,31E-09	2,03E-06	--
PNOZ X10 24VDC	774709	4.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34 43-44 53-54 63-64 73-74	e	4	3	2,31E-09	2,03E-06	--
PNOZ X10 24VAC	774700	4.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34 43-44 53-54 63-64 73-74	e	4	3	2,31E-09	2,03E-06	--



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				Kontakte Contacts	PL	Cat.	max. SIL	PFH _d	PFD	
PNOZ X10 42VAC	774701	4.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34 43-44 53-54 63-64	e	4	3	2,31E-09	2,03E-06	--
PNOZ X10 110-120VAC	774703	4.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34 43-44 53-54 63-64	e	4	3	2,31E-09	2,03E-06	--
PNOZ X10 230-240VAC	774706	4.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34 43-44 53-54 63-64	e	4	3	2,31E-09	2,03E-06	--
PNOZ X10.1 24VDC	774749	2.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34 43-44 53-54 63-64	e	4	3	2,31E-09	2,03E-06	--
PNOZ X10.1 24VAC	774740	2.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34 43-44 53-54 63-64	e	4	3	2,31E-09	2,03E-06	--



1 PNOZ X

Typ Type	Sach-Nr. Order No.	Version	Internal Test-Report	Sicherheitsrelevante Strompfade (TM = 20) Safety related circuits (TM = 20)						Bemerkung Remark
				Kontakte Contacts	PL	Cat.	max. SIL	PFH _d	PFD	
PNOZ X10.1 42VAC	774741	2.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34 43-44 53-54 63-64	e	4	3	2,31E-09	2,03E-06	--
PNOZ X10.1 110-120VAC	774745	2.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34 43-44 53-54 63-64	e	4	3	2,31E-09	2,03E-06	--
PNOZ X10.1 230-240VAC	774746	2.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34 43-44 53-54 63-64	e	4	3	2,31E-09	2,03E-06	--
PNOZ X10.11P 24VDC	777750 787750	1.3 1.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34 43-44 53-54 63-64	e	4	3	2,31E-09	2,03E-06	--
PNOZ X11P 24VAC 24VDC	777080 787080	1.0 1.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34 43-44 53-54 63-64 73-74	e	4	3	2,31E-09	2,03E-06	--



1 PNOZ X

Typ Type	Sach-Nr. Order No.	Version	Internal Test-Report	Sicherheitsrelevante Strompfade (TM = 20) Safety related circuits (TM = 20)						Bemerkung Remark
				Kontakte Contacts	PL	Cat.	max. SIL	PFH _d	PFD	
PNOZ X11P 110-120VAC 24VDC	777083 787083	1.0 1.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34 43-44 53-54 63-64 73-74	e	4	3	2,31E-09	2,03E-06	--
PNOZ X11P 230-240VAC 24VDC	777086 787086	1.0 1.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34 43-44 53-54 63-64 73-74	e	4	3	2,31E-09	2,03E-06	--
PNOZ X13 24VDC	774549	1.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34 43-44 53-54	e	4	3	2,31E-09	2,03E-06	--



2 PNOZ Ex

Typ Type	Sach-Nr. Order No.	Version	Internal Test-Report	Sicherheitsrelevante Strompfade (TM = 20) Safety related circuits (TM = 20)						Bemerkung Remark
				Kontakte Contacts	PL	Cat.	max. SIL	PFHD	PFD	
PNOZ Ex 115VAC	774104 774106	4.0 1.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	e	4	3	3,50E-09	1,23E-05	--
PNOZ Ex 120VAC	774105 774107	4.0 1.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	e	4	3	3,50E-09	1,23E-05	--
PNOZ Ex 230VAC	774100 774108	4.0 1.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	e	4	3	3,50E-09	1,23E-05	--
PNOZ Ex-R 230VAC	774099	1.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	13-14 23-24 33-34	e	4	3	3,50E-09	1,23E-05	--



3 PNOZ XV

Typ Type	Sach-Nr. Order No.	Version	Internal Test-Report	Sicherheitsrelevante Strompfade (T _M = 20) Safety related circuits (T _M = 20) (tv = Kontaktverzögerung / tv = Contact delay)						Bemerkung Remark
				Kontakte Contacts	PL	Cat.	max. SIL	PFH _D	PFD	
PNOZ XHCV 24VDC	774560	1.5	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	(tv < 30s) 37-38 47-48	d	4	3	2,64E-09	2,03E-06	--
PNOZ XV1P 24VDC	777601 (3 s) 777602 (30 s) 787601 (3 s) 787602 (30 s)	2.1 2.1 2.1 2.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	(tv = 0s) 13-14 23-24	e	4	3	2,31E-09	2,03E-06	--
				(tv < 30s) 37-38	d	3	3	2,64E-09	1,26E-05	--
				(tv ≥ 30s) 37-38	c	1	1	2,87E-09	4,64E-05	--
PNOZ XV2 24VDC	774500 (30 s) 774502 (3 s) 774504 (0,5 s) 774505 (3 s) 774506 (10 s) 774508 (300 s)	4.3 4.3 4.3 4.3 4.3 4.3	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	(tv = 0s) 13-14 23-24	e	4	3	2,31E-09	2,03E-06	--
				(tv < 30s) 37-38 47-48	d	3	3	2,64E-09	1,26E-05	--
				(tv ≥ 30s) 37-38 47-48	c	1	1	2,87E-09	4,64E-05	--
PNOZ XV2.1 24-240VAC/DC	774550 (30 s) 774552 (3 s) 774554 (0,5 s) 774558 (300 s)	2.2 2.2 2.2 2.2	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	(tv = 0s) 13-14 23-24	e	4	3	2,31E-09	2,03E-06	--
				(tv < 30s) 37-38 47-48	d	3	3	2,64E-09	1,26E-05	--
				(tv ≥ 30s) 37-38 47-48	c	1	1	2,87E-09	4,64E-05	--



3 PNOZ XV

Typ Type	Sach-Nr. Order No.	Version	Internal Test-Report	Sicherheitsrelevante Strompfade (T _M = 20) Safety related circuits (T _M = 20) (tv = Kontaktverzögerung / tv = Contact delay)						Bemerkung Remark		
				Kontakte Contacts	PL	Cat.	max. SIL	PFH _D	PFD			
PNOZ XV2.1P 24-240VAC/DC	777540 (30 s)	2.2	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	(tv = 0s) 13-14 23-24	e	4	3	2,31E-09	2,03E-06	--		
	777542 (3 s)	2.2		(tv < 30s) 37-38 47-48	d	3	3	2,64E-09	1,26E-05	--		
	777544 (0,5 s)	2.2			(tv ≥ 30s) 37-38 47-48	c	1	1	2,87E-09	4,64E-05	--	
	777545 (3 s)	2.2		(tv = 0s) 13-14 23-24		e	4	3	2,31E-09	2,03E-06	--	
	777547 (10 s)	2.2			(tv < 30s) 37-38 47-48	d	3	3	2,64E-09	1,26E-05	--	
	777548 (300 s)	2.2				(tv ≥ 30s) 37-38 47-48	c	1	1	2,87E-09	4,64E-05	--
	787540 (30 s)	1.1			(tv = 0s) 13-14 23-24		e	4	3	2,31E-09	2,03E-06	--
	787542 (3 s)	1.1				(tv < 30s) 37-38 47-48	d	3	3	2,64E-09	1,26E-05	--
787548 (300 s)	1.1	(tv ≥ 30s) 37-38 47-48	c				1	1	2,87E-09	4,64E-05	--	
PNOZ XV2P 24VDC	777500 (30 s)		2.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0		(tv = 0s) 13-14 23-24	e	4	3	2,31E-09	2,03E-06	--
	777502 (3 s)	2.1	(tv < 30s) 37-38 47-48		d	3	3	2,64E-09	1,26E-05	--		
	777503 (1 s)	2.1			(tv ≥ 30s) 37-38 47-48	c	1	1	2,87E-09	4,64E-05	--	
	777504 (0,5 s)	2.1	(tv < 30s) 27-28 37-38			d	3	3	2,64E-09	1,26E-05	--	
	787500 (30 s)	2.1			(tv < 30s) 27-28 37-38	d	3	3	2,64E-09	1,26E-05	--	
	787502 (3 s)	2.1				(tv < 30s) 27-28 37-38	d	3	3	2,64E-09	1,26E-05	--
	787503 (1 s)	2.1					(tv < 30s) 27-28 37-38	d	3	3	2,64E-09	1,26E-05
787504 (0,5 s)	2.1	(tv < 30s) 27-28 37-38		d				3	3	2,64E-09	1,26E-05	--
PNOZ X2.1VP 24VDC	777600 (0,75 s)	2.2	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	(tv < 30s) 27-28 37-38	d	3	3	2,64E-09	1,26E-05	--		
	787600 (0,75 s)	1.1		(tv < 30s) 27-28 37-38	d	3	3	2,64E-09	1,26E-05	--		
PNOZ X2.4V 24VDC	774517 (1s)	1.2	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	(tv < 30s) 27-28 37-38 47-48 57-58	d	3	2	3,98E-09	1,32E-04	--		



3 PNOZ XV

Typ Type	Sach-Nr. Order No.	Version	Internal Test-Report	Sicherheitsrelevante Strompfade (T _M = 20) Safety related circuits (T _M = 20) (tv = Kontaktverzögerung / tv = Contact delay)						Bemerkung Remark
				Kontakte Contacts	PL	Cat.	max. SIL	PFH _D	PFD	
PNOZ XV3 24VDC	774540 (30 s) 774542 (3 s) 774544 (0,5 s) 774545 (3 s) 774547 (10 s) 774548 (300 s)	2.3 2.3 2.3 2.3 2.3 2.3	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	(tv = 0s) 13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
				(tv < 30s) 47-48 57-58	d	3	3	2,64E-09	1,26E-05	--
				(tv ≥ 30s) 47-48 57-58	c	1	1	2,87E-09	4,64E-05	--
PNOZ XV3 24VAC	774541 (300 s)	1.3	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	(tv = 0s) 13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
				(tv < 30s) 47-48 57-58	d	3	3	2,64E-09	1,26E-05	--
				(tv ≥ 30s) 47-48 57-58	c	1	1	2,87E-09	4,64E-05	--
PNOZ XV3P 24VDC	777510 (30 s) 777512 (3 s) 777514 (0,5 s) 777515 (3 s) 777517 (10 s) 777518 (300 s) 787510 (30 s) 787512 (3 s) 787518 (300 s)	2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	(tv = 0s) 13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
				(tv < 30s) 47-48 57-58	d	3	3	2,64E-09	1,26E-05	--
				(tv ≥ 30s) 47-48 57-58	c	1	1	2,87E-09	4,64E-05	--



3 PNOZ XV

Typ Type	Sach-Nr. Order No.	Version	Internal Test-Report	Sicherheitsrelevante Strompfade (T _M = 20) Safety related circuits (T _M = 20) (tv = Kontaktverzögerung / tv = Contact delay)						Bemerkung Remark
				Kontakte Contacts	PL	Cat.	max. SIL	PFH _D	PFD	
PNOZ XV3.1 24VDC	774530 (30 s) 774532 (3 s) 774534 (0,5 s) 774538 (300 s)	2.1 2.1 2.1 2.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	(tv = 0s) 13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
				(tv < 30s) 57-58 67-68	d	3	3	2,64E-09	1,26E-05	--
				(tv ≥ 30s) 57-58 67-68	c	1	1	2,87E-09	4,64E-05	--
PNOZ XV3.1 24-240VAC/DC	774610 (30 s) 774612 (3 s) 774618 (300 s)	2.2 2.2 2.2	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	(tv = 0s) 13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
				(tv < 30s) 57-58 67-68	d	3	3	2,64E-09	1,26E-05	--
				(tv ≥ 30s) 57-58 67-68	c	1	1	2,87E-09	4,64E-05	--
PNOZ XV3.1P 24VDC	777520 (30 s) 777522 (3 s) 777525 (3 s) 787520 (30 s) 787522 (3 s)	2.1 2.1 2.1 1.0 1.0	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	(tv = 0s) 13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
				(tv < 30s) 57-58 67-68	d	3	3	2,64E-09	1,26E-05	--
				(tv ≥ 30s) 57-58 67-68	c	1	1	2,87E-09	4,64E-05	--



3 PNOZ XV

Typ Type	Sach-Nr. Order No.	Version	Internal Test-Report	Sicherheitsrelevante Strompfade (T _M = 20) Safety related circuits (T _M = 20) (tv = Kontaktverzögerung / tv = Contact delay)						Bemerkung Remark
				Kontakte Contacts	PL	Cat.	max. SIL	PFH _D	PFD	
PNOZ XV3.1P 24-240VAC/DC	777530 (30 s)	2.2	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	(tv = 0s) 13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
	777532 (3 s)	2.2		(tv < 30s) 57-58 67-68	d	3	3	2,64E-09	1,26E-05	--
	777538 (300 s)	2.2		(tv ≥ 30s) 57-58 67-68	c	1	1	2,87E-09	4,64E-05	--
PNOZ XV3.3P 24VDC	777511 (30 s)	2.1	PO91243C V1.4 717515038 V1.1 PO100588T V1.0	(tv = 0s) 13-14 23-24 33-34	e	4	3	2,31E-09	2,03E-06	--
	787530 (30 s)	1.1		(tv < 30s) 47-48 57-58	d	3	3	2,64E-09	1,26E-05	--
	787532 (3 s)	1.1		(tv ≥ 30s) 47-48 57-58	c	1	1	2,87E-09	4,64E-05	--
787538 (300 s)	1.1									





4 Anmerkung / Comment

4.1 Sachnummer / Order No

<p>Kann durch Kombinationen von Zahlen und/oder Buchstaben im Bereich 00... ZZ ergänzt sein. Can be supplemented by a combination of numbers and/or letters character in a range of 00... ZZ</p>
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4.2 Sicherheitskennwerte / Safety characteristics:

TM :	Gebrauchsdauer für 20 Jahre nach EN ISO 13849-1. Der Wert gilt auch als Intervall der Wiederholungsprüfungen entsprechend EN 61508-6 und IEC 61511 und als Intervall für den Proof-Test und die Gebrauchsdauer nach EN 62061. Mission Time for 20 years according to EN ISO 13849-1. The value is also valid as the interval of the proof test according to EN 61508-6 and IEC 61511 and as the interval for the proof test and the service life according to EN 62061.
Cat. :	Maximal erreichbare Gebrauchskategorie nach EN ISO 13849-1. Maximum achievable usage Category according to EN ISO 13849-1.
PL:	Performance Level entsprechend EN ISO 13849-1 / Performance Level according EN ISO 13849-1.
max. SIL:	Safety Integrity Level entsprechend EN IEC 62061 / Safety Integrity Level according EN IEC 62061
SIL :	Maximal erreichbarer Sicherheitsintegritätsstufe entsprechend EN 61508-6 und IEC 61511. Maximum obtainable Safety Integrity Level according EN 61508-6 and IEC 61511.
PFD :	Wahrscheinlichkeit eines gefährliche Versagens bei Anforderung der Sicherheitsfunktion. Probability of Failure on Demand.
PFH_D :	Wahrscheinlichkeit eines gefahrbringenden Ausfalls pro Stunde. Probability of a Dangerous Failure per Hour.

	Freigabe Prüfstelle: Release by Test Body:	Freigabe Zertifizierstelle: Release by Certification Body:
Datum: Date:	2023-06-28	2023-06-28
Unterschrift: Signature:	 <p>Digitally signed by Jens Luther Date: 2023.06.28 17:29:38 +02'00'</p>	 <p>Digital unterschrieben von Peter Weiß Datum: 2023.06.28 17:31:02 +02'00'</p>