



Product Service

EC-Type Examination Certificate

No. M6A 020132 0223 Rev. 01

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

Product: **Safety components**
Safety Switch

Model(s): **PSENmag-Series**

Parameters: Power supply: 24 V DC
Protection class: IP65, IP67, IP69 depending on model
(see report)

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 report PO82879T 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. See also notes overleaf.

Test report no.: **PO82878T**

Valid until: 2024-10-09

Date, 2019-10-10 (Peter Weiß)

Page 1 of 1

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ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ CERTIFICADO ◆ CERTIFICAT



Product Service

CERTIFICATE

No. Z10 020132 0222 Rev. 01

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

Factory(ies): 020132

Certification Mark:



Product: **Safety components**
Safety Switch

Model(s): **PSENmag-Series**

Parameters: Power Supply: 24 V DC
Protection Class: IP65, IP67, IP69 depending on model
(see report)

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 report PO82879T in the current valid revision.

Tested according to: EN ISO 13849-1:2015 (up to Cat.4 PL e)
EN ISO 13849-2:2012
EN 62061:2005/A2:2015 (SILCL 3)
EN 60947-5-3:2013
EN ISO 14119:2013
EN 60529:1991/A2:2013

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. See also notes overleaf.

Test report no.: **PO82878T**
Valid until: 2024-10-09

Date, 2019-10-10 (Peter Weiß)



**Liste der Varianten
der Sicherheitsschalter-Familie
PSENmag**

**List of variants
of safety switch family
PSENmag**

Hersteller / Manufacturer:

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

Bericht-Nr. / Report no: PO89875T

Revision 1.7
2023-03-23

Prüfstelle/Test body:

TÜV SÜD Rail GmbH
Barthstr. 16
D-80339 Munich

Zertifizierungsstelle / Certification body:

TÜV SÜD Product Service GmbH
Ridlerstraße 65
D-80339 Munich



Änderungshistorie / Change history:

Version	Name	Datum / Date	Änderungen / Changes
1.0	M. Melzer	25.08.2016	Basierend auf Liste zum Zertifikat PO82879T PSENmag Revision 1.8; Re-Zertifizierung
1.1	W. Mayer	07.07.2017	PSENma1.4-59 V1.1
1.2	W. Mayer	03.08.2017	Korrektur / correction: 506301 – V1.1 -> 506301 – V1.0
1.3	W. Mayer	03.05.2018	PSEN ma1.3VA
1.4	W. Mayer	10.10.2019	Neue Betätiger / new actuators Klarstellung IP Schutzart / clarification IP protection
1.5	W. Mayer	31.07.2020	Neuer Lieferant für Kabel und Stecker / New supplier for cables and connectors
1.6	W. Mayer	28.01.2021	H-2156 B10d Werte / B10d values H-3216 PSENma1.4-10 Temperaturbereich / Temperature range
1.7	W. Mayer	2023-03-23	H-3320 Betätiger/Actuator

Änderungen zur Vorgängerversion / Changes to the previous version:

Kapitel Chapter	Type Device			Bemerkung / Remarks
1.1	514110 PSEN 1.1.10/1 actuator	1.1	1.2	Review Protocoll H-3320
1.2	514110 PSEN 1.1.10/1 actuator	1.1	1.2	Review Protocoll H-3320
1.7	512110 PSEN 2.1.10/1 actuator	1.1	1.2	Review Protocoll H-3320
	526122 PSEN ma1.3b-20/1switch	1.1	1.2	
	526123 PSEN ma1.3b-22/1switch	1.1	1.2	
	526124 PSEN ma1.3b-23 1switch ATEX	1.2	1.3	
	526125 PSEN ma1.3b-25 1switch ATEX	1.2	1.3	
	526126 PSEN ma1.3p-20/1switch	1.1	1.2	
	526127 PSEN ma1.3p-22/1switch	1.1	1.2	
	526128 PSEN ma1.3n-20/1switch	1.1	1.2	
	526129 PSEN ma1.3-20 M12/8-0.15m 1switch	1.1	1.2	
	526219 PSEN ma1.3b-29/1 switch	1.1	1.2	
1.8	512110 PSEN 2.1.10/1 actuator	1.1	1.2	Review Protocoll H-3320
	506302 PSEN ma1.4a-50/ 1switch	1.0	1.1	
	506303 PSEN ma1.4a-52/ 1switch	1.0	1.1	
	506304 PSEN ma1.4a-51/ 1switch	1.0	1.1	
	506305 PSEN ma1.4a-57/ 1switch	1.0	1.1	
	506306 PSEN ma1.4a-54/ATEX/1switch	1.0	1.1	
	506307 PSEN ma1.4a-58/ATEX/ix1 1switch	1.0	1.1	
	506308 PSEN ma1.4p-50/ 1switch	1.1	1.2	
	506309 PSEN ma1.4p-52/ 1switch	1.1	1.2	
	506310 PSEN ma1.4p-51/ 1switch	1.0	1.1	
	506311 PSEN ma1.4p-57/ 1switch	1.0	1.1	
	506312 PSEN ma1.4n-50/ 1switch	1.1	1.2	
	506313 PSEN ma1.4n-51/ 1switch	1.0	1.1	
	506314 PSEN ma1.4-51 M12/8-0.15m 1switch	1.0	1.1	
	506318 PSEN ma1.4p-59 1switch	1.1	1.2	



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1 Sicherheitssensor / Safety switch

1.1 PSEN 1.1

<i>Sensor-Einheit</i> <i>Sensor unit</i>	<i>Sicherheitsschalter</i> <i>Safety switch</i>	<i>Betätiger/Magnet</i> <i>Actuator/Magnet</i>	<i>Interner Prüfbericht</i> <i>Internal test report</i>	<i>Bemerkung</i> <i>Remark</i>
PSEN 1.1a-20/PSEN 1.1-20 /8mm/5m (504226)	PSEN 1.1a-20 (524126 - V2.0)	PSEN 1.1-20 (514120 – V1.1)	PO82878T V1.5 PO94497T V1.0	IP67 IP69
PSEN 1.1a-22/PSEN1.1-20 /8mm/5m/ix1 (504228)	PSEN 1.1a-22 (524128 - V2.0)	PSEN 1.1-20 (514120 – V1.1)	PO82878T V1.5 PO94497T V1.0	IP67 IP69
PSEN 1.1b-20/PSEN 1.1-20/8mm/10m (504227)	PSEN 1.1b-20 (524127 - V2.0)	PSEN 1.1-20 (514120 – V1.1)	PO82878T V1.5 PO94497T V1.0	IP67 IP69
PSEN 1.1b-22/PSEN1.1-2/8mm/10m/ix1 (504229)	PSEN 1.1b-22 (524129 - V2.0)	PSEN 1.1-20 (514120 – V1.1)	PO82878T V1.5 PO94497T V1.0	IP67 IP69
PSEN 1.1b-23/PSEN1.1-20/8mm/10m/EX (504250)	PSEN 1.1b-23 (ATEX) (524150 - V2.1)	PSEN 1.1-20 (514120 – V1.1)	PO82878T V1.5 PO94497T V1.0	IP67 IP69
PSEN 1.1b-25/PSEN1.1-20/8mm/10m/EX (504251)	PSEN 1.1b-25 (ATEX) (524151 - V2.1)	PSEN 1.1-20 (514120 – V1.1)	PO82878T V1.5 PO94497T V1.0	IP67 IP69
PSEN 1.1p-10/PSEN 1.1-10/3mm (504210)	PSEN 1.1p-10 (524110 - V1.1)	PSEN 1.1-10 (514110 – V1.2)	PO82878T V1.5 PO94497T V1.0 H-3320	IP65 IP67
PSEN 1.1p-12/PSEN 1.1-10/3mm/ix1 (504212)	PSEN 1.1p-12 (524112 - V1.1)	PSEN 1.1-10 (514110 – V1.2)	PO82878T V1.5 PO94497T V1.0 H-3320	IP65 IP67
PSEN 1.1p-20/PSEN 1.1-20/8mm (504220)	PSEN 1.1p-20 (524120 - V1.1)	PSEN 1.1-20 (514120 – V1.1)	PO82878T V1.5 PO94497T V1.0	IP65 IP67
PSEN 1.1p-22/PSEN 1.1-20/8mm/ix1 (504222)	PSEN 1.1p-22 (524122 - V1.1)	PSEN 1.1-20 (514120 – V1.1)	PO82878T V1.5 PO94497T V1.0	IP65 IP67
PSEN 1.1p-23/PSEN 1.1-20/8mm/ATEX (504223)	PSEN 1.1p-23 (ATEX) (524123 - V1.2)	PSEN 1.1-20 (514120 – V1.1)	PO82878T V1.5 PO94497T V1.0	IP65 IP67
PSEN 1.1p-25/PSEN 1.1-20/8mm/ATEX/ix1 (504225)	PSEN 1.1p-25 (ATEX) (524125 - V1.2)	PSEN 1.1-20 (514120 – V1.1)	PO82878T V1.5 PO94497T V1.0	IP65 IP67
PSEN 1.1p-29/PSEN 1.1-20/7mm/ix1 (504224)	PSEN 1.1p-29 (524124 - V1.0)	PSEN 1.1-20 (514120 – V1.1)	PO82878T V1.5 PO94497T V1.0	IP65 IP67



<i>Sensor-Einheit</i> <i>Sensor unit</i>	<i>Sicherheitsschalter</i> <i>Safety switch</i>	<i>Betätiger/Magnet</i> <i>Actuator/Magnet</i>	<i>Interner Prüfbericht</i> <i>Internal test report</i>	<i>Bemerkung</i> <i>Remark</i>
--	PSEN 1.1p-30 (524130 - V1.0)	PSEN 1.1-20 (514120 – V1.1)	PO82878T V1.5 PO94497T V1.0	IP65 IP67
--	PSEN 1.1p-32 (524132 - V1.0)	PSEN 1.1-20 (514120 – V1.1)	PO82878T V1.5 PO94497T V1.0	IP65 IP67
Zugehörige Auswertegeräte + Zubehör (siehe Kapitel 3.1/3.2) Associated evaluation devices + Accessories (see chapter 3.1/3.2) A1, A2, A3, A4, A6, A7, A8, B1, B2, B3, B4, Z1				

1.2 PSEN ma1.1

<i>Sensor-Einheit</i> <i>Sensor unit</i>	<i>Sicherheitsschalter</i> <i>Safety switch</i>	<i>Betätiger/Magnet</i> <i>Actuator/Magnet</i>	<i>Prüfbericht</i> <i>Test report</i>	<i>Bemerkung</i> <i>Remark</i>
PSEN ma1.1p-10/PSEN1.1-10/3mm (506411)	PSEN ma1.1p-10 (506409 - V1.0)	PSEN 1.1-10 (514110 – V1.2)	PO82878T V1.5 PO94497T V1.0 H-3320	IP65 IP67
PSEN ma1.1p-12/PSEN1.1-10/3mm/ix1 (506412)	PSEN ma1.1p-12 (506410 - V1.0)	PSEN 1.1-10 (514110 – V1.2)	PO82878T V1.5 PO94497T V1.0 H-3320	IP65 IP67
Zugehörige Auswertegeräte + Zubehör (siehe Kapitel 3.1/3.2): Associated evaluation devices + Accessories (see chapter 3.1/3.2): A1 (ohne PNOZ 11), A2 (ohne PNOZ X2P, PNOZ X2.1, PNOZ X2.1C, PNOZ X2.3P, PNOZ X6, PNOZ X8P, PNOZ X10.11P, PNOZ X11P, PNOZ X13, PMUT X1P), A3, A4, A6, A7, A8, B1, B2, B3, B4, Z1				

1.3 PSEN 1.2

<i>Sensor-Einheit</i> <i>Sensor unit</i>	<i>Sicherheitsschalter</i> <i>Safety switch</i>	<i>Betätiger/Magnet</i> <i>Actuator/Magnet</i>	<i>Interner Prüfbericht</i> <i>Internal test report</i>	<i>Bemerkung</i> <i>Remark</i>
PSEN 1.2p-20/PSEN 1.2-20/8mm (505220)	PSEN 1.2p-20 (525120 - V1.1)	PSEN 1.2-20 (515120 – V1.0)	PO82878T V1.5 717511833 V1.0	IP65 IP67



<i>Sensor-Einheit</i> <i>Sensor unit</i>	<i>Sicherheitsschalter</i> <i>Safety switch</i>	<i>Betätiger/Magnet</i> <i>Actuator/Magnet</i>	<i>Interner Prüfbericht</i> <i>Internal test report</i>	<i>Bemerkung</i> <i>Remark</i>
PSEN 1.2p-22/PSEN 1.2-20/8mm/ix1 (505222)	PSEN 1.2p-22 (525122 - V1.1)	PSEN 1.2-20 (515120 – V1.0)	PO82878T V1.5 717511833 V1.0	IP65 IP67
PSEN 1.2p-23/PSEN 1.2-20/8mm/ATEX (505223)	PSEN 1.2p-23 (ATEX) (525123 - V1.1)	PSEN 1.2-20 (515120 – V1.0)	PO82878T V1.5 717511833 V1.0	IP65 IP67
PSEN 1.2p-25/PSEN 1.2-20/8mm/ATEX/ix1 (505225)	PSEN 1.2p-25 (ATEX) (525125 - V1.1)	PSEN 1.2-20 (515120 – V1.0)	PO82878T V1.5 717511833 V1.0	IP65 IP67
Zugehörige Auswertegeräte + Zubehör (siehe Kapitel 3.1/3.2): Associated evaluation devices + Accessories (see chapter 3.1/3.2): A1, A2, A3, A4, A6, A7, A8, B1, B2, B3, B4, Z1				

1.4 PSEN ma1.3

<i>Sensor-Einheit</i> <i>Sensor unit</i>	<i>Sicherheitsschalter</i> <i>Safety switch</i>	<i>Betätiger/Magnet</i> <i>Actuator/Magnet</i>	<i>Interner Prüfbericht</i> <i>Internal test report</i>	<i>Bemerkung</i> <i>Remark</i>
PSEN ma1.3-20M12/8-0.15m/PSENma1.3-08 (506229)	PSEN ma1.3-20 M12/8-0.15m (526129 - V1.2)	PSEN ma1.3-08 (516120 - V1.0)	PO82878T V1.6 717511833 V1.0 PO95476T V1.0 PO96191T V1.0	IP65
PSEN ma1.3-20M12/8-0.15m/PSENma1.3-12 (506239)	PSEN ma1.3-20 M12/8-0.15m (526129 - V1.2)	PSEN ma1.3-12 (516130 – V1.0)	PO82878T V1.6 717511833 V1.0 PO95476T V1.0 PO96191T V1.0	IP65
PSEN ma1.3a-20/PSEN ma1.3-08/8mm (506220)	PSEN ma1.3a-20 (526120 - V1.2)	PSEN ma1.3-08 (516120 - V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP65
PSEN ma1.3a-20/PSEN ma1.3-12/12mm (506230)	PSEN ma1.3a-20 (526120 - V1.2)	PSEN ma1.3-12 (516130 - V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP65
PSEN ma1.3a-22/PSEN ma1.3-08/8mm (506221)	PSEN ma1.3a-22 (526121 - V1.2)	PSEN ma1.3-08 (516120 - V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP65



<i>Sensor-Einheit</i> <i>Sensor unit</i>	<i>Sicherheitsschalter</i> <i>Safety switch</i>	<i>Betätiger/Magnet</i> <i>Actuator/Magnet</i>	<i>Interner Prüfbericht</i> <i>Internal test report</i>	<i>Bemerkung</i> <i>Remark</i>
PSEN ma1.3a-22/PSEN ma1.3-12/12mm/ix1 (506231)	PSEN ma1.3a-22 (526121 - V1.2)	PSEN ma1.3-12 (516130 - V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP65
PSEN ma1.3b-20/PSEN ma1.3-08/8mm (506222)	PSEN ma1.3b-20 (526122 - V1.2)	PSEN ma1.3-08 (516120 - V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP65
PSEN ma1.3b-20/PSEN ma1.3-12/12mm (506232)	PSEN ma1.3b-20 (526122 - V1.2)	PSEN ma1.3-12 (516130 - V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP65
PSEN ma1.3b-22/PSEN ma1.3-08/8mm (506223)	PSEN ma1.3b-22 (526123 - V1.2)	PSEN ma1.3-08 (516120 - V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP65
PSEN ma1.3b-22/PSEN ma1.3-12/12mm/ix1/1u (506233)	PSEN ma1.3b-22 (526123 - V1.2)	PSEN ma1.3-12 (516130 - V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP65
PSEN ma1.3b-23/PSEN ma1.3-08/8mm (506224)	PSEN ma1.3b-23 (ATEX) (526124 - V1.3)	PSEN ma1.3-08 (516120 - V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP65
PSEN ma1.3b-23/PSEN ma1.3-12/12mm (506234)	PSEN ma1.3b-23 (ATEX) (526124 - V1.3)	PSEN ma1.3-12 (516130 - V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP65
PSEN ma1.3b-25/PSEN ma1.3-08/8mm (506225)	PSEN ma1.3b-25 (ATEX) (526125 - V1.3)	PSEN ma1.3-08 (516120 - V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP65
PSEN ma1.3b-25/PSEN ma1.3-12/12mm/ix1 (506235)	PSEN ma1.3b-25 (ATEX) (526125 - V1.3)	PSEN ma1.3-12 (516130 - V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP65
PSEN ma1.3b-29/PSEN ma1.3-08/8mm (506219)	PSEN ma1.3b-29 (526219 - V1.2)	PSEN ma1.3-08 (516120 - V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP65



<i>Sensor-Einheit</i> <i>Sensor unit</i>	<i>Sicherheitsschalter</i> <i>Safety switch</i>	<i>Betätiger/Magnet</i> <i>Actuator/Magnet</i>	<i>Interner Prüfbericht</i> <i>Internal test report</i>	<i>Bemerkung</i> <i>Remark</i>
PSEN ma1.3n-20/PSEN ma1.3-08/8mm (506228)	PSEN ma1.3n-20 (526128 - V1.2)	PSEN ma1.3-08 (516120 - V1.0)	PO82878T V1.6 717511833 V1.0 PO95476T V1.0 PO96191T V1.0	IP65
PSEN ma1.3n-20/PSEN ma1.3-12/12mm (506238)	PSEN ma1.3n-20 (526128 - V1.2)	PSEN ma1.3-12 (516130 - V1.0)	PO82878T V1.5 717511833 V1.0 PO95476T V1.0 PO96191T V1.0	IP65
PSEN ma1.3p-20/PSEN ma1.3-08/8mm (506226)	PSEN ma1.3p-20 (526126 - V1.2)	PSEN ma1.3-08 (516120 - V1.0)	PO82878T V1.6 717511833 V1.0 PO95476T V1.0 PO96191T V1.0	IP65
PSEN ma1.3p-20/PSEN ma1.3-12/12mm (506236)	PSEN ma1.3p-20 (526126 - V1.2)	PSEN ma1.3-12 (516130 - V1.0)	PO82878T V1.6 717511833 V1.0 PO95476T V1.0 PO96191T V1.0	IP65
PSEN ma1.3p-22/PSEN ma1.3-08/8mm/ix1 (506227)	PSEN ma1.3p-22 (526127 - V1.2)	PSEN ma1.3-08 (516120 - V1.0)	PO82878T V1.6 717511833 V1.0 PO95476T V1.0 PO96191T V1.0	IP65
PSEN ma1.3p-22/PSEN ma1.3-12/12mm/ix1 (506237)	PSEN ma1.3p-22 (526127 - V1.2)	PSEN ma1.3-12 (516130 - V1.0)	PO82878T V1.6 717511833 V1.0 PO95476T V1.0 PO96191T V1.0	IP65
Zugehörige Auswertegeräte + Zubehör (siehe Kapitel 3.1/3.2): Associated evaluation devices + Accessories (see chapter 3.1/3.2): A1, A2, A3, A4, A6, A7, A8, B1, B2, B3, B4, Z1				



1.5 PSEN ma1.3VA

<i>Sensor-Einheit</i> <i>Sensor unit</i>	<i>Sicherheitsschalter</i> <i>Safety switch</i>	<i>Betätiger/Magnet</i> <i>Actuator/Magnet</i>	<i>Interner Prüfbericht</i> <i>Internal test report</i>	<i>Bemerkung</i> <i>Remark</i>
PSEN ma1.3b-21/PSEN ma1.3-8 VA (506242)	PSEN ma1.3b-21 VA (526242 - V1.0)	PSEN ma1.3-8 VA (516140 - V1.0)	PO82878T V1.5 717513500 V1.0	IP67 IP69 Einsatz bis zu einer Höhe von 4000 m über NN / <i>For use up to 4000 m above sea level.</i>
PSEN ma1.3b-27/PSEN ma1.3-8 IX VA (506243)	PSEN ma1.3b-27 IX VA (526243 - V1.0)	PSEN ma1.3-8 VA (516140 - V1.0)	PO82878T V1.5 717513500 V1.0	IP67 IP69 Einsatz bis zu einer Höhe von 4000 m über NN / <i>For use up to 4000 m above sea level.</i>
PSEN ma1.3a-21 / PSEN ma1.3-8 VA (506240)	PSEN ma1.3a-21 VA (526240 - V1.0)	PSEN ma1.3-8 VA (516140 - V1.0)	PO82878T V1.5 717513500 V1.0	IP67 IP69 Einsatz bis zu einer Höhe von 4000 m über NN / <i>For use up to 4000 m above sea level.</i>
PSEN ma1.3a-27/PSEN ma1.3-8 IX VA (506241)	PSEN ma1.3a-27 IX VA (526241 - V1.0)	PSEN ma1.3-8 VA (516140 - V1.0)	PO82878T V1.5 717513500 V1.0	IP67 IP69 Einsatz bis zu einer Höhe von 4000 m über NN / <i>For use up to 4000 m above sea level.</i>
PSEN ma1.3b-24/PSEN ma1.3-8 EX VA (506254)	PSEN ma1.3b-24 EX VA (526254 - V1.0)	PSEN ma1.3-8 EX VA (516145 - V1.0)	PO82878T V1.5 717513500 V1.0	IP67 IP69 Einsatz bis zu einer Höhe von 4000 m über NN / <i>For use up to 4000 m above sea level.</i>
PSEN ma1.3b-28/PSEN ma1.3-8 IX EX VA (506255)	PSEN ma1.3b-28 IX EX VA (526255 - V1.0)	PSEN ma1.3-8 EX VA (516145 - V1.0)	PO82878T V1.5 717513500 V1.0	IP67 IP69 Einsatz bis zu einer Höhe von 4000 m über NN / <i>For use up to 4000 m above sea level.</i>
PSEN ma1.3n-20/PSEN ma1.3-8 VA (506246)	PSEN ma1.3n-20 VA (526246 - V1.0)	PSEN ma1.3-8 VA (516140 - V1.0)	PO82878T V1.5 717513500 V1.0	IP67 IP69 Einsatz bis zu einer Höhe von 4000 m über NN / <i>For use up to 4000 m above sea level.</i>



Sensor-Einheit Sensor unit	Sicherheitsschalter Safety switch	Betätiger/Magnet Actuator/Magnet	Interner Prüfbericht Internal test report	Bemerkung Remark
PSEN ma1.3-20 M12/8 /PSEN ma1.3-8 VA (506249)	PSEN ma1.3-20 M12/8 VA (526249 - V1.0)	PSEN ma1.3-8 VA (516140 - V1.0)	PO82878T V1.5 717513500 V1.0	IP67 IP69 Einsatz bis zu einer Höhe von 4000 m über NN / For use up to 4000 m above sea level.
PSEN ma1.3-22 M12/8 /PSEN ma1.3-8 IX VA (506247)	PSEN ma1.3-22 M12/8 IX VA (526247 - V1.0)	PSEN ma1.3-8 VA (516140 - V1.0)	PO82878T V1.5 717513500 V1.0	IP67 IP69 Einsatz bis zu einer Höhe von 4000 m über NN / For use up to 4000 m above sea level.
Zugehörige Auswertegeräte + Zubehör (siehe Kapitel 3.1/3.2): Associated evaluation devices + Accessories (see chapter 3.1/3.2): A1, A2, A3, A4, A6, A7, A8, B1, B2, B3, B4, Z1				

1.6 PSEN ma1.4

Sensor-Einheit Sensor unit	Sicherheitsschalter Safety switch	Betätiger/Magnet Actuator/Magnet	Interner Prüfbericht Internal test report	Bemerkung Remark
PSEN ma1.4-51M12/8-0.15m/PSENma1.4-03 (506344)	PSEN ma1.4-51 M12/8-0.15m (506314 - V1.1)	PSEN ma1.4-03 (506300 - V1.0)	PO82878T V1.6 717511833 V1.0 PO95476T V1.0 PO96191T V1.0	IP65 IP67
PSEN ma1.4-51M12/8-0.15m/PSENma1.4-10 (506345)	PSEN ma1.4-51 M12/8-0.15m (506314 - V1.1)	PSEN ma1.4-10 (506301- V1.0)	PO82878T V1.6 717511833 V1.0 PO95476T V1.0 PO96191T V1.0	IP65 IP67
PSEN ma1.4a-50/PSEN ma1.4-03mm (506320)	PSEN ma1.4a-50 (506302 - V1.1)	PSEN ma1.4-03 (506300 - V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP67 IP69
PSEN ma1.4a-50/PSEN ma1.4-10mm (506322)	PSEN ma1.4a-50 (506302 - V1.1)	PSEN ma1.4-10 (506301- V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP67 IP69



<i>Sensor-Einheit</i> <i>Sensor unit</i>	<i>Sicherheitsschalter</i> <i>Safety switch</i>	<i>Betätiger/Magnet</i> <i>Actuator/Magnet</i>	<i>Interner Prüfbericht</i> <i>Internal test report</i>	<i>Bemerkung</i> <i>Remark</i>
PSEN ma1.4a-51/PSEN ma1.4-03mm (506324)	PSEN ma1.4a-51 (506304 - V1.1)	PSEN ma1.4-03 (506300 - V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP67 IP69
PSEN ma1.4a-51/PSEN ma1.4-10mm (506326)	PSEN ma1.4a-51 (506304 - V1.1)	PSEN ma1.4-10 (506301- V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP67 IP69
PSEN ma1.4a-52/PSEN ma1.4-03mm (506321)	PSEN ma1.4a-52 (506303 - V1.1)	PSEN ma1.4-03 (506300 - V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP67 IP69
PSEN ma1.4a-52/PSEN ma1.4-10mm (506323)	PSEN ma1.4a-52 (506303 - V1.1)	PSEN ma1.4-10 (506301- V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP67 IP69
PSEN ma1.4a-54/PSEN ma1.4-03mm/ATEX (506328)	PSEN ma1.4a-54 (ATEX) (506306 - V1.1)	PSEN ma1.4-03 (506300 - V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP67 IP69
PSEN ma1.4a-54/PSEN ma1.4-10mm/ATEX (506330)	PSEN ma1.4a-54 (ATEX) (506306 - V1.1)	PSEN ma1.4-10 (506301- V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP67 IP69
PSEN ma1.4a-57/PSEN ma1.4-03mm (506325)	PSEN ma1.4a-57 (506305 - V1.1)	PSEN ma1.4-03 (506300 - V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP67 IP69
PSEN ma1.4a-57/PSEN ma1.4-10mm (506327)	PSEN ma1.4a-57 (506305 - V1.1)	PSEN ma1.4-10 (506301- V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP67 IP69
PSEN ma1.4a-58/PSEN ma1.4-10mm/ATEX (506331)	PSEN ma1.4a-58 (ATEX) (506307 - V1.1)	PSEN ma1.4-10 (506301- V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP67 IP69
PSEN ma1.4p-50/PSEN ma1.4-03mm (506332)	PSEN ma1.4p-50 (506308 - V1.2)	PSEN ma1.4-03 (506300 - V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP65 IP67



<i>Sensor-Einheit</i> <i>Sensor unit</i>	<i>Sicherheitsschalter</i> <i>Safety switch</i>	<i>Betätiger/Magnet</i> <i>Actuator/Magnet</i>	<i>Interner Prüfbericht</i> <i>Internal test report</i>	<i>Bemerkung</i> <i>Remark</i>
PSEN ma1.4p-50/PSEN ma1.4-10mm (506334)	PSEN ma1.4p-50 (506308 - V1.2)	PSEN ma1.4-10 (506301- V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP65 IP67
PSEN ma1.4p-51/PSEN ma1.4-03mm (506336)	PSEN ma1.4p-51 (506310 - V1.1)	PSEN ma1.4-03 (506300 - V1.0)	PO82878T V1.6 717511833 V1.0 PO95476T V1.0 PO96191T V1.0	IP65 IP67
PSEN ma1.4p-51/PSEN ma1.4-10mm (506338)	PSEN ma1.4p-51 (506310 - V1.1)	PSEN ma1.4-10 (506301- V1.0)	PO82878T V1.6 717511833 V1.0 PO95476T V1.0 PO96191T V1.0	IP65 IP67
PSEN ma1.4p-52/PSEN ma1.4-03mm (506333)	PSEN ma1.4p-52 (506309 - V1.2)	PSEN ma1.4-03 (506300 - V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP65 IP67
PSEN ma1.4p-52/PSEN ma1.4-10mm (506335)	PSEN ma1.4p-52 (506309 - V1.2)	PSEN ma1.4-10 (506301- V1.0)	PO82878T V1.6 717511833 V1.0 PO96191T V1.0	IP65 IP67
PSEN ma1.4p-57/PSEN ma1.4-03mm (506337)	PSEN ma1.4p-57 (506311 - V1.1)	PSEN ma1.4-03 (506300 - V1.0)	PO82878T V1.6 717511833 V1.0 PO95476T V1.0 PO96191T V1.0	IP65 IP67
PSEN ma1.4p-57/PSEN ma1.4-10mm (506339)	PSEN ma1.4p-57 (506311 - V1.1)	PSEN ma1.4-10 (506301- V1.0)	PO82878T V1.6 717511833 V1.0 PO95476T V1.0 PO96191T V1.0	IP65 IP67
PSEN ma1.4p-59/PSEN ma1.4-10mm (506348)	PSEN ma1.4p-59 (506318 - V1.2)	PSEN ma1.4-10 (506301- V1.0)	PO82878T V1.6 717510615 V1.0 PO94497T V1.0 PO96191T V1.0	IP65 IP67
PSEN ma1.4n-50/PSEN ma1.4-03mm (506340)	PSEN ma1.4n-50 (506312 - V1.2)	PSEN ma1.4-03 (506300 - V1.0)	PO82878T V1.6 PO94497T V1.0 PO96191T V1.0	IP65 IP67



<i>Sensor-Einheit</i> <i>Sensor unit</i>	<i>Sicherheitsschalter</i> <i>Safety switch</i>	<i>Betätiger/Magnet</i> <i>Actuator/Magnet</i>	<i>Interner Prüfbericht</i> <i>Internal test report</i>	<i>Bemerkung</i> <i>Remark</i>
PSEN ma1.4n-50/PSEN ma1.4-10mm (506342)	PSEN ma1.4n-50 (506312 - V1.2)	PSEN ma1.4-10 (506301- V1.0)	PO82878T V1.6 PO94497T V1.0 PO96191T V1.0	IP65 IP67
PSEN ma1.4n-51/PSEN ma1.4-03mm (506341)	PSEN ma1.4n-51 (506313 - V1.1)	PSEN ma1.4-03 (506300 - V1.0)	PO82878T V1.6 717511833 V1.0 PO95476T V1.0 PO96191T V1.0	IP65 IP67
PSEN ma1.4n-51/PSEN ma1.4-10mm (506343)	PSEN ma1.4n-51 (506313 - V1.1)	PSEN ma1.4-10 (506301- V1.0)	PO82878T V1.6 717511833 V1.0 PO95476T V1.0 PO96191T V1.0	IP65 IP67
Zugehörige Auswertegeräte + Zubehör (siehe Kapitel 3.1/3.2): Associated evaluation devices + Accessories (see chapter 3.1/3.2): A1, A2, A3, A4, A6, A7, A8, B1, B2, B3, B4, Z1				



1.7 PSEN 2.1

<i>Sensor-Einheit</i> <i>Sensor unit</i>	<i>Sicherheitsschalter</i> <i>Safety switch</i>	<i>Betätiger/Magnet</i> <i>Actuator/Magnet</i>	<i>Interner Prüfbericht</i> <i>Internal test report</i>	<i>Bemerkung</i> <i>Remark</i>
PSEN 2.1a-20/PSEN 2.1-20/8mm /5m (502226)	PSEN 2.1a-20 (522126 - V2.0)	PSEN 2.1-20 (512120 - V1.1)	PO82878T V1.5 PO94497T V1.0	IP67 IP69
PSEN 2.1b-20/PSEN 2.1-20 /8mm/10m (502227)	PSEN 2.1b-20 (522127 - V2.0)	PSEN 2.1-20 (512120 - V1.1)	PO82878T V1.5 PO94497T V1.0	IP67 IP69
PSEN 2.1b-26/PSEN2.1-20/8mm/10m/EX (502250)	PSEN 2.1b-26 (ATEX) (522150 - V2.1)	PSEN 2.1-20 (512120 - V1.1)	PO82878T V1.5 PO94497T V1.0	IP67 IP69
PSEN 2.1p-10/PSEN2.1-10/3mm (502210)	PSEN 2.1p-10 (522110 - V1.1)	PSEN 2.1-10 (512110 - V1.2)	PO82878T V1.5 PO94497T V1.0 H-3320	IP65 IP67
PSEN 2.1p-11/PSEN2.1-10/LED/3mm (502211)	PSEN 2.1p-11 (522111 - V1.1)	PSEN 2.1-10 (512110 - V1.2)	PO82878T V1.5 PO94497T V1.0 H-3320	IP65 IP67
PSEN 2.1p-20/PSEN 2.1-20 /8mm (502220)	PSEN 2.1p-20 (522120 - V1.0)	PSEN 2.1-20 (512120 - V1.1)	PO82878T V1.5 PO94497T V1.0	IP65 IP67
PSEN 2.1p-21/PSEN 2.1-20 /8mm/LED (502221)	PSEN 2.1p-21 (522121 - V1.0)	PSEN 2.1-20 (512120 - V1.1)	PO82878T V1.5 PO94497T V1.0	IP65 IP67
PSEN 2.1p-24/PSEN2.1-20/8mm/LED/EX (502224)	PSEN 2.1p-24 (ATEX) (522124 - V1.1)	PSEN 2.1-20 (512120 - V1.1)	PO82878T V1.5 PO94497T V1.0	IP65 IP67
PSEN 2.1p-30/PSEN2.1-10/6mm 1unit (502230)	PSEN 2.1p-30 (522130 - V1.1)	PSEN 2.1-10 (512110 - V1.2)	PO82878T V1.5 PO94497T V1.0 H-3320	IP65 IP67
PSEN 2.1p-31/PSEN2.1-10/LED/6mm (502231)	PSEN 2.1p-31 (522131 - V1.1)	PSEN 2.1-10 (512110 - V1.2)	PO82878T V1.5 PO94497T V1.0 H-3320	IP65 IP67
PSEN 2.1p-41/PSEN 2.1-20 /8mm/LED (502241)	PSEN 2.1p-41 (522141 - V1.0)	PSEN 2.1-20 (512120 - V1.1)	PO82878T V1.5 PO94497T V1.0	IP65 IP67
PSEN 2.1p-34/PSEN 2.1-10/6mm/LED/ATEX (502234)	PSEN 2.1p-34 (ATEX) (522134 - V1.1)	PSEN 2.1-10 (512110 - V1.2)	PO82878T V1.5 PO94497T V1.0 H-3320	IP65 IP67



<i>Sensor-Einheit</i> <i>Sensor unit</i>	<i>Sicherheitsschalter</i> <i>Safety switch</i>	<i>Betätiger/Magnet</i> <i>Actuator/Magnet</i>	<i>Interner Prüfbericht</i> <i>Internal test report</i>	<i>Bemerkung</i> <i>Remark</i>
--	PSEN 2.1p-40 (522140 - V1.1)	PSEN 2.1-10 (512110 - V1.2)	PO82878T V1.5 PO94497T V1.0 H-3320	IP65 IP67
Zugehörige Auswertegeräte + Zubehör (siehe Kapitel 2): Associated evaluation devices + Accessories (see chapter 3.1/3.2): A5, B1, B2, B3, B4, Z2				

1.8 PSEN ma2.1

<i>Sensor-Einheit</i> <i>Sensor unit</i>	<i>Sicherheitsschalter</i> <i>Safety switch</i>	<i>Betätiger/Magnet</i> <i>Actuator/Magnet</i>	<i>Prüfbericht</i> <i>Test report</i>	<i>Bemerkung</i> <i>Remark</i>
PSEN ma2.1p-10/PSEN2.1-10/3mm (506405)	PSEN ma2.1p-10 (506400 - V1.0)	PSEN 2.1-10 (512110 - V1.2)	PO82878T V1.5 PO94497T V1.0 H-3320	IP65 IP67
PSEN ma2.1p-11/PSEN2.1-10/LED/3mm (506406)	PSEN ma2.1p-11 (506401 - V1.0)	PSEN 2.1-10 (512110 - V1.2)	PO82878T V1.5 PO94497T V1.0 H-3320	IP65 IP67
PSEN ma2.1p-30/PSEN2.1-10/6mm (506407)	PSEN ma2.1p-30 (506402 - V1.0)	PSEN 2.1-10 (512110 - V1.2)	PO82878T V1.5 PO94497T V1.0 H-3320	IP65 IP67
PSEN ma2.1p-31/PSEN2.1-10/LED/6mm (506408)	PSEN ma2.1p-31 (506403 - V1.0)	PSEN 2.1-10 (512110 - V1.2)	PO82878T V1.5 PO94497T V1.0 H-3320	IP65 IP67
PSEN ma2.1p-34/PSEN2.1-10-06/LED/ATEX (506413)	PSEN ma2.1p-34 (506404 - V1.0)	PSEN 2.1-10 (512110 - V1.2)	PO82878T V1.5 PO94497T V1.0 H-3320	IP65 IP67
Zugehörige Auswertegeräte + Zubehör (siehe Kapitel 3.1/3.2): Associated evaluation devices + Accessories (see chapter 3.1/3.2): A5, B1, B2, B3, B4, Z2				





1.9 PSEN 2.2

<i>Sensor-Einheit</i> <i>Sensor unit</i>	Sicherheitsschalter Safety switch	Betätiger/Magnet Actuator/Magnet	<i>Interner Prüfbericht</i> <i>Internal test report</i>	<i>Bemerkung</i> <i>Remark</i>
PSEN 2.2p-20/PSEN2.2-20/8mm (503220)	PSEN 2.2p-20 (523120 - V1.1)	PSEN 2.2-20 (513120 - V1.0)	PO82878T V1.5 717511833 V1.0	IP65 IP67
PSEN 2.2p-21/PSEN2.2-20/LED/8mm (503221)	PSEN 2.2p-21 (523121 - V1.1)	PSEN 2.2-20 (513120 - V1.0)	PO82878T V1.5 717511833 V1.0	IP65 IP67
PSEN 2.2p-24/PSEN2.2-20/LED/8mm/ATEX (503224)	PSEN 2.2p-24 (ATEX) (523124 - V1.1)	PSEN 2.2-20 (513120 - V1.0)	PO82878T V1.5 717511833 V1.0	IP65 IP67
Zugehörige Auswertegeräte + Zubehör (siehe Kapitel 3.1/3.2): Associated evaluation devices + Accessories (see chapter 3.1/3.2): A5, B1, B2, B3, B4, Z2				



2 **Zubehör** / Accessories

2.3 **Type "Z1" (PSEN ix1)**

Der Einsatz des PSEN ix1 verringert die Klassifizierung nach EN ISO 13849-1 von Kat. 4/PL e auf Kat. 3/PL d und nach EN 62061 SIL cl 3 auf SIL cl 2

Use of the PSEN ix1 reduces the classification according to EN ISO 13849-1 from Cat. 4/PL e to Cat. 3/PL d and according to EN 62061 from SIL cl 3 to SIL cl 2.

2.4 **Type "Z2" (PSEN i1)**

Der Einsatz des PSEN ix1 verringert die Klassifizierung nach EN ISO 13849-1 von Kat. 4/PL e auf Kat. 3/PL d und nach EN 62061 SIL cl 3 auf SIL cl 2

Use of the PSEN ix1 reduces the classification according to EN ISO 13849-1 from Cat. 4/PL e to Cat. 3/PL d and according to EN 62061 from SIL cl 3 to SIL cl 2.

3 Auswertegeräte / Evaluation devices

Hinweis: Die tatsächlich erreichte Sicherheitsstufe ist von der jeweiligen Applikation abhängig in welche der Sicherheits-Schalter eingesetzt wird! Die in den Tabellen angegebene Klassifizierung der Kategorie sowie des PL nach EN13849-1 sowie des SIL nach EN 62061 wird nur erreicht, wenn der Sicherheits-schalter zweikanalig ausgewertet wird. Um Verdrahtungsfehler oder Fehler im Anschlusskabel zu erkennen, empfehlen wir die Nutzung der Querschlusserkennung oder eine geschützte Verlegung der Anschlussleitungen.

Remark: The actual achieved safety level depends on the application where the safety switch is used! The classification for the Category and PL according to EN13849-1 and the SIL according to EN 62061 indicated in the tables will be only reached, if the safety switch is dual channel evaluated. For the detection of wiring or cable errors, we recommend the use of the cross fault detection or an damage protected wire installation.

3.1 Sicherheitsschaltgerät / Safety Relay

3.1.1 Type „A1“ (PNOZ classic)

Model	Kategorie Category	SIL CL	PL
PNOZ 11, PNOZ 16, PNOZ Ex	4	3	e

3.1.2 Type „A2“ (PNOZ X)

Model	Kategorie Category	SIL CL	PL
PNOZ X2, PNOZ X2C; PNOZ X2P, PNOZ X2.2, PNOZ X2.1, PNOZ X2.1C, PNOZ X2.3P, PNOZ X2.5P, PNOZ X2.7P, PNOZ X2.8P, PNOZ X2.9P, PNOZ X3, PNOZ X3P, PNOZ X3.1, PNOZ X3.10P, PNOZ X4 PNOZ X5, PNOZ X5J, PNOZ X6, PNOZ X8P, PNOZ X9, PNOZ X10, PNOZ X10.1, PNOZ X10.11P, PNOZ X11P, PNOZ X13, PMUT X1P	4	3	e

3.1.3 Type „A3“ (PNOZ XV)

Model	Kontakte Contacts	Kategorie Category	SIL CL	PL
PNOZ XV2, PNOZ XV2P, PNOZ XV3, PNOZ XV3P	Unverzögert Undelayed	4	3	e
PNOZ XV2, PNOZ XV2P, PNOZ XV3, PNOZ XV3P	Verzögert <30s Delayed <30s	3	3	d
PNOZ XV2, PNOZ XV2P, PNOZ XV3, PNOZ XV3P	Verzögert >=30s Delayed >=30s	1	1	c

3.1.4 Type „A4“ (PNOZ elog (1))

Model	Kategorie Category	SIL CL	PL
PNOZ e1p, PNOZ e1.1p, PNOZ e1vp, PNOZ e5.11p, PNOZ e6.1p, PNOZ e6vp	4	3	e

3.1.5 Type „A5“ (PNOZ elog (2))

Model	Category	SIL CL	PL
PNOZ e3.1p, PNOZ e3.1vp 10s, PNOZ e3.1vp 300s	4	3	e
PNOZ e5.13p	3	3	d

3.1.6 Type „A6“ (PNOZ sigma)

Model	Kategorie Category	SIL CL	PL
PNOZ s3, PNOZ s4, PNOZ s5	4	3	e

3.1.7 Type „A7“ (PNOZ power)

Model	Kontakte Contacts	Kategorie Category	SIL CL	PL
PNOZ p1p, PNOZ p1vp	Unverzögert Undelayed	4	3	e
PNOZ p1vp	Verzögert <30s Delayed <30s	3	3	d
PNOZ p1vp	Verzögert >=30s Delayed >=30s	1	1	c

3.1.8 Type „A8“ (PDP)

Model	Kontakte Contacts	Kategorie Category	SIL CL	PL
PDP 20 F 4 mag	O0-O1	4	3	e

3.2 Sicherheitssteuerung / Safety Control

3.2.1 Type „B1“ (PNOZ multi)

Die als Auswertegerät verwendbaren Baugruppen sind in Bericht PO80773 aufgelistet.

The modules that can be used as evaluation device are listed in report PO80773.

3.2.2 Type „B2“ (PNOZ multi 2)

Die als Auswertegerät verwendbaren Baugruppen sind in Bericht PO84344T aufgelistet.

The modules that can be used as evaluation device are listed in report PO84344T.

3.2.3 Type „B3“ (PSS und/and PSS mit/with SafetyBUSp)

Die als Auswertegerät verwendbaren Baugruppen sind in Bericht PO61070 aufgelistet.

Zur Auswertung ist der Funktionsbaustein SB064 oder SB066 zu verwenden.

The modules that can be used as evaluation device are listed in report PO61070.

The function blocks SB064 or SB066 are to be used for evaluation.



3.2.4 Type „B4“ (PSS 4000 / PSSu mit/with SafetyNETp)

Die als Auswertegerät verwendbaren Baugruppen sind in Bericht PO82865T aufgelistet.
The modules that can be used as evaluation device are listed in report PO82830T.



3.3 Andere geeignete Auswerteeinheiten / Other suitable evaluation units

Folgende Eigenschaften müssen von einer zugehörigen Auswerteeinheit unbedingt erfüllt werden:

- 2-kanalige Auswertung des Sicherheitsschalters mit Plausibilitätsüberwachung.
- Querschussüberwachung des Sicherheitsschalters.
- Die sicherheitsgerichteten Ausgänge des Auswertegerät dürfen sich erst wieder einschalten, wenn beide Kontakte am Sicherheitsschalter zuvor geöffnet und wieder geschlossen worden sind (Teilbetätigungssperre)
- Ein- und Ausgänge des Auswertegerätes müssen die Anforderungen der IEC 61131 erfüllen.
- Die Technischen Daten des Auswertegerätes müssen die Anforderungen in den Technischen Daten jeweiligen Sicherheitsschalters erfüllen.
- Der max. zulässige Schaltstrom des Sicherheitsschalters darf niemals überschritten werden.
- Der korrekte Anschluss am jeweiligen Auswertegerät ist in der Bedienungsanleitung zum Auswertegerät beschrieben. Stellen Sie sicher, dass der Anschluss nach den Vorgaben in der Bedienungsanleitung des ausgewählten Auswertegerätes durchgeführt ist.

The following characteristics has to be necessarily fulfilled by the related evaluation unit:

- 2-channel evaluation of the safety switch with plausibility monitoring.
- Detection of shorts across contacts for the safety switch.
- The safety-related outputs of the evaluation unit may only be turned on again, if both contacts of the safety switch goes open before and been closed again (Partial operation lock)
- Inputs and outputs of the evaluation unit must fulfil the requirements of IEC 61131.
- The technical data of the evaluation unit must fulfil the requirements specified in the technical specifications of the safety switch.
- Never be exceeded the max. allowed switching current of the safety switch.
- The correct connection on the evaluation unit is described in the manual of the evaluation unit. Make sure that the connection is performed according to the specifications in the user manual of the selected evaluation unit.

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