

EC-Type Examination Certificate

No. M6A 020132 0213 Rev. 03

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

Felix-Wankel-Str. 2
73760 Ostfildern
GERMANY

Product: **Safety components**
Safety monitoring relay

Model(s): **Safety Monitoring Relay (SMR)**

Parameters: Power Supply: 24V ... 240V AC/DC
Protection class: IP20

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 PO88957T 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.: **PO88956C**

Valid until: 2028-11-01

Date, 2023-11-03



(Thomas Kreten)



Product Service

CERTIFICATE

No. Z10 020132 0212 Rev. 03

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

Felix-Wankel-Str. 2
73760 Ostfildern
GERMANY

Certification Mark:



Product: **Safety components
Safety monitoring relay**

Model(s): **Safety Monitoring Relay (SMR)**

Parameters: Power Supply: 24V ... 240V AC/DC
Protection class: IP20

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 PO88957T in the current valid revision.

Tested according to: EN ISO 13849-1:2015 (up to Cat.4 PL e)
EN IEC 62061:2021 (maximum SIL 3)
EN 60947-5-1:2017

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

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(Thomas Kreten)



Liste der Varianten der Sicherheitsschaltgeräte-Familie Safety Monitoring Relay (SMR)

List of variants of safety relay family Safety Monitoring Relay (SMR)

Hersteller / Manufacturer:

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

Bericht-Nr. / Report no: PO88957T

Revision 1.7

2025-09-05

Prüfstelle / Test body:

TÜV SÜD RAIL GmbH
Rail Automation

Zertifizierungsstelle / Certification body:

TÜV SÜD Product Service GmbH
Ridlerstraße 65
80686 München

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Änderungshistorie / Change history:

Version	Name	Datum / Date	Änderungen / Changes
1.0	Jens Luther	18.07.2016	Erste Ausgabe / First release
1.1	Jens Luther	30.08.2018	Korrekturen / Correction
1.2	Jens Luther	2021-07-13	Rezertifizierung / Re-certification
1.3	Wolfgang Mayer	2023-06-07	Protective impedance PSWZ
1.4	Jens Luther	2023-11-03	Rezertifizierung / Re-certification
1.5	Jens Luther	2023-11-06	Korrekturen / Correction
1.6	Natalia Paredes	2025-06-30	New modification PO105048T V1.0
1.7	Jens Luther	2025-09-05	New modification PO105525T V1.0

Änderungen zur Vorgängerversion / Changes to the previous version:

Kapitel Chapter	Type Device	Bemerkung / Remarks
	PSWZ	Versionen angepasst / Version updated Modifikationsbericht hinzugefügt / Modification report added

Typ / Type	Sach.-Nr. Order No.	Version	Internal Test-Report	Sicherheitsrelevante Strompfade Safety related circuits				Bemerkung Remark
				Kontakte Contacts	PFH _D	Max. SIL	PL	
1 Muting-Steuerung / Muting Controller								
PMUT X1P 24VDC	778010 788010	V1.3 V1.1	PO88956C V1.6 717509889 V1.1 PO 96731T V1.0 PO101662T V1.1 PO105048T V1.0	13 – 14 23 – 24 33 – 34	Muting not active 1,45·10 ⁻⁰⁸	3	e	--
					Muting active 8,35·10 ⁻⁰⁹	3	e	
2 Spannungsüberwachung / Voltage Monitoring								
PU3Z 24VDC	775510	V8.4	PO88956C V1.6 717509889 V1.1 PO 96731T V1.0	13 – 14 23 – 24 33 – 34	1,36·10 ⁻⁰⁸	3	e	--
PU3Z 120-240VAC	775505	V1.4	PO101662T V1.1 PO105048T V1.0					
3 Stillstandsüberwachung / Standstill monitoring								
PSWZ X1P 24-240VACDC 0,0075-0,5V	777951 787951	V2.0 V2.0	PO88956C V1.6 717509889 V1.1 PO 96731T V1.0 PO101014T V1.0 PO101662T V1.1 PO105048T V1.0 PO105525T V1.0	13 – 14 23 – 24	6,23·10 ⁻⁰⁹	3	e	--
PSWZ X1P 24-240VACDC 0,5V	777949 787949 777959	V2.0 V2.0 V2.0	PO88956C V1.6 717509889 V1.1 PO 96731T V1.0 PO101014T V1.0 PO101662T V1.1 PO105048T V1.0 PO105525T V1.0	13 – 14 23 – 24	6,23·10 ⁻⁰⁹	3	e	--
PSWZ X1P 24-240VACDC 3V	777950 787950	V2.0 V2.0	PO88956C V1.6 717509889 V1.1 PO 96731T V1.0 PO101014T V1.0 PO101662T V1.1 PO105048T V1.0 PO105525T V1.0	13 – 14 23 – 24	6,23·10 ⁻⁰⁹	3	e	--

4 Anmerkung / Comment

4.1 Sicherheitskennwerte / Safety characteristics:

T_{Mission}:	Für eine maximale Gebrauchsdauer von 20 Jahren gemäß 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 For a maximum Mission Time of 20 years according to EN ISO 13849-1.
Cat.:	Maximal erreichbarer Gebrauchskategorie nach EN ISO 13849-1. Maximum achievable usage Category according to EN ISO 13849-1.
PL:	Maximal erreichbarer Leistungsgrad entsprechend EN 13849-1 Maximum obtainable Performance Level according EN 13849-1.
Max. SIL:	Maximal erreichbarer Sicherheitsintegritätsstufe entsprechend EN / IEC 62061 Maximum obtainable 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 und IEC 61511
PFD:	Wahrscheinlichkeit eines gefährliche Versagens bei Anforderung der Sicherheitsfunktion Probability of Failure on Demand.
PFH_D:	Wahrscheinlichkeit eines gefährbringenden Ausfalls pro Stunde Probability of a dangerous Failure per Hour
B10d	Lebensdauer kennwert gemäß EN ISO 13849-1. Die maximale Anzahl von Schaltzyklen darf innerhalb der festgelegten Gebrauchsdauer T _{Mission} nicht überschritten werden. Service life characteristic according to EN ISO 13849-1. The maximum number of switching cycles should not be exceeded within the period of use T _{Mission} .

EN ISO 13849-1:2015	Sicherheit von Maschinen - Sicherheitsbezogene Teile von Steuerungen - Teil 1: Allgemeine Gestaltungsleitsätze Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design
EN IEC 62061:2021	Sicherheit von Maschinen - Funktionale Sicherheit sicherheitsbezogener elektrischer, elektronischer und programmierbarer elektronischer Steuerungssysteme Safety of machinery - Functional safety of safety-related electrical, electronic and programmable electronic control systems
EN60947-5-1:2017	Niederspannungsschaltgeräte Teil 5-1: Steuergeräte und Schaltelemente - Elektromechanische Steuergeräte Low-voltage switchgear and controlgear Part 5-1: Control circuit devices and switching elements - Electromechanical control circuit devices

	Freigabe Prüfstelle: Release by Test Body:	Freigabe Zertifizierstelle: Release by Certification Body:
Unterschrift: Signature:	 Jens Luther 2025-Sep-05	 Peter Weiß 2025.09.05 11:15:54 +02'00'