

Safety product portfolio

From safety switches to safe controllers





Configuration software



i PSRmodular



i SAFECONF



Programming software

i PLCnext Engineer



Signal processing

i Safety relay modules
PSRmini, PSRclassic,
PSRmotion and PSRmultifunction

PSRmotion



i Configurable safety system
PSRmodular



Safe I/O's
Axioline and Inline



i Performance controllers
RFC



Sensors

Signal conditioning

Actuators

Power

i Safety switches
PSRswitch



Safe signal conditioners
MACX Safety



Safe motor starters
CONTACTRON



Safe power supplies
QUINT POWER

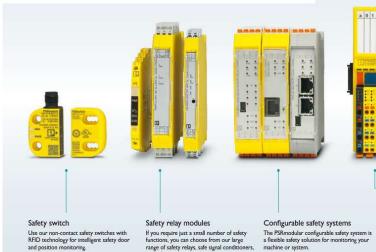


Product portfolio

We make functional safety easy. From non-contact safety switches through to complex controllers, all safety products from Phoenix Contact are SIL-certified. You can install and configure the modules easily.

Benefit from the comprehensive service offered by our certified safety experts. With our comprehensive services, we can help you to meet all machine safety requirements.

i Web code: #0299



The PSRmodular configurable safety system is a flexible safety solution for monitoring your machine or system.

Safe I/Os

Integrate functional safety into your existing network, whether in the control cabinet or in the field. With SafetyBridge Technology, the safety function is processed directly in the I/O

Safe control technology

With our safe high-performance controllers, you can integrate reliable functional safety into PROFIsafe networks for applications with special demands on safety and availability.

PLCnext Technology (S)

Safe power supplies

Our high-performance QUINT POWER power supplies ensure superior availability of your system and satisfy all functional safety

000

00000

P

8 PHOENIX CONTACT

PHOENIX CONTACT 9



Safety relays

With the PSRmini and PSRclassic safety relays from Phoenix Contact, you can implement all safety functions for applications where the motto is one function, one device. The safety relays are compatible with many signal generators such as emergency stop units, safety door switches, and light grids. The modules are available in various sizes, with various connection technologies and a wide range input.

i Web code: #1944



Relay Technology[™] Designed by PHOENIX CONTACT

Your advantages

- Space savings of up to 70% with the compact design
- Relay technology developed in-house features proven safety thanks to force-guided relay contacts
- High level of scalability, starting at just one enable
- Compatibility with many safety signal generators

Safety relays for machine building

Highly compact PSRmini safety relays

PSRmini safety relays are the narrowest on the market. With overall widths of just 6 and 12 mm, we provide you with proven safety thanks to relay technology developed in-house with force-guided contacts.

Thanks to an innovative DIP switch concept, you can implement selected settings directly on the module. The needs-based structure starting at one enable path also ensures increased flexibility of your application without limiting performance.

Main features

- · Overall width 6 mm and 12 mm · Proven safety, thanks to force-guided relay
- contacts TÜV-certified
- · Approvals for all global markets
- PL e in accordance with ISO 13849 and SILCL 3 in accordance with IEC 62061
- · High level of scalability, starting at just one enabling path



PSRclassic conventional safety relays

The PSRclassic safety relays have a long proven track record. Thanks to the 2-channel wiring and force-guided contacts, you can reliably switch functions such as two-hand controllers or light grids. Screw or spring connection technology and status LEDs ensure fast wiring of contacts and easy diagnostics.

- Main features

 Overall width starting at 17.5 mm.
- · Large selection of versions
- · Proven safety, thanks to force-guided relay contacts
- TÜV-certified
- Approvals for all global markets
 PL e in accordance with ISO 13849 and
- SILCL 3 in accordance with IEC 62061



Modular safety relay system

Design your safety system exactly as required. Our modular safety relays can be extended easily and flexibly based on the modular principle. The PSR-TBUS DIN rail connector combines the master safety relay with up to ten extension modules directly on the DIN rail. This eliminates the need for the usual cross-wiring and configuration.

Main features

- Overall width 22.5 mm
- Can be extended to up to 42 contacts
- · Proven safety, thanks to force-guided relay contacts
- TÜV-certified
- Approvals for all global markets
- PL e in accordance with ISO 13849 and SILCL 3 in accordance with IEC 62061



12 PHOENIX CONTACT

6

PHOENIX CONTACT 13





Safety relays for machine building

Highly compact PSRmini safety relays

PSRmini safety relays are the narrowest on the market. With overall widths of just 6 and 12 mm, we provide you with proven safety thanks to relay technology developed in-house with force-guided contacts.

Thanks to an innovative DIP switch concept, you can implement selected settings directly on the module. The needs-based structure starting at one enable path also ensures increased flexibility of your application without limiting performance.

- · Overall width 6 mm and 12 mm
- Proven safety, thanks to force-guided relay contacts
- TÜV-certified
- · Approvals for all global markets
- PL e in accordance with ISO 13849 and SILCL 3 in accordance with IEC 62061
- High level of scalability, starting at just one enabling path





PSRclassic conventional safety relays

The PSRclassic safety relays have a long proven track record. Thanks to the 2-channel wiring and force-guided contacts, you can reliably switch functions such as two-hand controllers or light grids. Screw or spring connection technology and status LEDs ensure fast wiring of contacts and easy diagnostics.

- · Overall width starting at 17.5 mm
- · Large selection of versions
- Proven safety, thanks to force-guided relay contacts
- TÜV-certified
- · Approvals for all global markets
- PL e in accordance with ISO 13849 and SILCL 3 in accordance with IEC 62061





Modular safety relay system

Design your safety system exactly as required. Our modular safety relays can be extended easily and flexibly based on the modular principle. The PSR-TBUS DIN rail connector combines the master safety relay with up to ten extension modules directly on the DIN rail. This eliminates the need for the usual cross-wiring and configuration.

- · Overall width 22.5 mm
- · Can be extended to up to 42 contacts
- Proven safety, thanks to force-guided relay contacts
- TÜV-certified
- · Approvals for all global markets
- PL e in accordance with ISO 13849 and SILCL 3 in accordance with IEC 62061







PSRmini



Туре				Applic	ations				ĺ	Output	contact	s	Sat appr	ety ovals	Over- all width	Conne techn	
	=	41			2			Four	1	⊕ ≫/	7	K	PL in accordance with EN ISO 13849-1	SILCL in accordance with EN 62061	ln mm	Screw connection	Push-in connection
PSR-MS20 ¹⁾ 24 V DC	•		(4)	•	<u></u>	N=	-	А	1	-	=	1	C ⁴⁾	14)	6.8	2904950	-
PSR-MS21 24 V DC	(Coupling	module 1	for safe o	ontrolle	ers	-	А	1	9 7 7	-	1	e	3	6.8	2702192	=
PSR-MS25 ¹⁾ 24 V DC	•	•	(ш	•	<u></u> :	84	323	м	1	12	=	1	C ⁴⁾	1 ⁴⁾	6.8	2904951	-
PSR-MS30 24 V DC	•	3.0	2 2	•	==	ě	=	А	1	5 55	=		e	3	6.8	2904952	=
PSR-MS35 24 V DC				•	-	•	-	м	1	-	=	20	e	3	6.8	2904953	S



Туре				Applic	ations)	Output (contact	s	Sat appr	ety ovals	Over- all width	Conne techno	
	=					[()	ui <mark>k</mark> a	Nu i	1	(B)	7	K	PL in accordance with EN ISO 13849-1	SILCL in accordance with EN 62061	e u	Screw connection	Push-in connection
PSR-MS40 ³⁾ 24 V DC	•	•	5 2	-	===	•	=30	А	1	=0	<u>.=</u>	1	e	3	6.8	2904954	, s -
PSR-MS45 ³⁾ 24 V DC	٠	•	-	9-	3-	•		м	1	_	0=	1	e	3	6.8	2904955	03-
PSR-MS50 ²⁾ 24 V DC	•	•	532	•	:55	=	=3	A	1	=4	25	1	e	3	6.8	2904956	387
PSR-MS55 ²⁾ 24 V DC	٠	•	-	•	-	_		м	1	_	0=	1	e	3	6.8	2904957	0-
PSR-MS60 ³⁾ 24 V DC	•	•	•	•	=	● ¹⁰⁾	-	А	2	==A	2=	5 -	e	3	6.8	2904958	32-



Туре				Applic	ations				(Output	contact	s	Saf appr	ety ovals	Over- all width	SEC. 411.000.000.000	ection nology
	=			Taman Gaman	7-5	[()]	ui,	i i i	4	(B)	7	K	PL in accordance with EN ISO 13849-1	SILCL in accordance with EN 62061	e u	Screw connection	Push-in connection
PSR-MC20 ¹⁾ 24 V DC	•	•	-	•	 	-	\$ 	A/M	3	\(\sigma = \)	(27 2	1	C ⁴⁾	14)	12.5	2700466	270046
PSR-MC30 24 V DC	•	•	-	•	=:	•	-	A/M	2	:s-) =	1	e	3	12.5	2700498	270049
PSR-MC31 24 V DC	•	•	•	•	. 	•	•	A/M	2 (pnp)	o .=	(3)	1	e	3	12.5	1015520	101550
PSR-MC32 24230 V DC		•	•	•	-	● ¹⁰⁾	-	A/M	3		1	_	e	3	22.5	2700524	270052

^{1) 1-}channel sensor circuit 2) Antivalent sensor circuit 3) Without cross-circuit detection 4) Up to PL e / SILCL 3 possible depending on the application

A = autostart, M = manual, monitored start



³⁾ EN 81 approval ⁶⁾ In conjunction with suitable evaluation device ⁷⁾ Non-delayed contacts: Cat. 4 / PL e, SILCL 3; contacts with dropout delay: Cat. 3 / PL d, SILCL 2 ⁸⁾ Type IIIA in accordance with EN 574 ⁹⁾ Type IIIC in accordance with EN 574 ¹⁰⁾ Also compatible with PSRswitch ¹¹⁾ IO-Link device ¹²⁾ Safety relay for CONTACTRON pro

PSRmini:																	
Туре				Applic	ations					Output	contact	s		ety ovals	Over- all width		ection iology
	=	4 🗓					man.	Tour .	1	© эч	7	K	PL in accordance with EN ISO 13849-1	SILCL in accordance with EN 62061	ln mm	Screw connection	Push-in connection
PSR-MC34 24 V DC	٠	•)	2	•	2	•	_	A/M	3	0_	(<u>a</u>)	1	e	3	12.5	2700540	2700548
PSR-MC37 ⁵⁾ 24 V DC	•	•	8-	•			-	A	3	:a <u>-</u>	1	1	e	3	22.5	2702411	270241
PSR-M38 ¹²⁾ 24 V DC	•	(10	•		● ¹⁰⁾	22	A/M	2	0_	9 <u>2</u> 0	1	e	3	22.5	1009831	1009832
PSR-MC40 ³⁾ 24 V DC	•	•		•	-	● ¹⁰⁾	-	A/M	3	:a -	:=	1	e	3	12.5	2700569	270057
PSR-MC42 ¹¹⁾ 24 V DC		•		•	-	● 10)	12	A/M	2	-	(<u>m</u>)	1	e	3	17.5	2702801	270290



Туре				Applic	ations				c	Output	contact	s	Saf appr	ety ovals	Over- all width		ection ology
		4 1				()	uia.		\	(B)	7	K	PL in accordance with EN ISO 13849-1	SILCL in accordance with EN 62061	ln mm	Screw connection	Push-in connection
PSR-MC43 ¹¹⁾ 24 V DC	•	•	•	•	75/2	● 10)	5 5.5 7	A/M	2 (pnp)		_	1	e	3	17.5	1087561	108756
PSR-MC45 24 V DC	•	•	•	•	-3	•	-	A/M	3	1=	-	1	e	3	22.5	1082024	108202
PSR-MC50 ²⁾ 24 V DC	•	•		•	= .	31 .7 1	=	A/M	3	s a	=	1	e	3	12.5	2700553	270056
PSR-MC60 ⁸⁾ 24 V DC	=	122	-	٥	•	84	121	Α	2	92	(1	c	1	12.5	2700571	270057
PSR-MC62 ⁹⁾ 24 V DC	=4	5	-	=	•	92 7 1	<i>a</i>	А	2	s a	=	1	e	3	12.5	2700574	270057



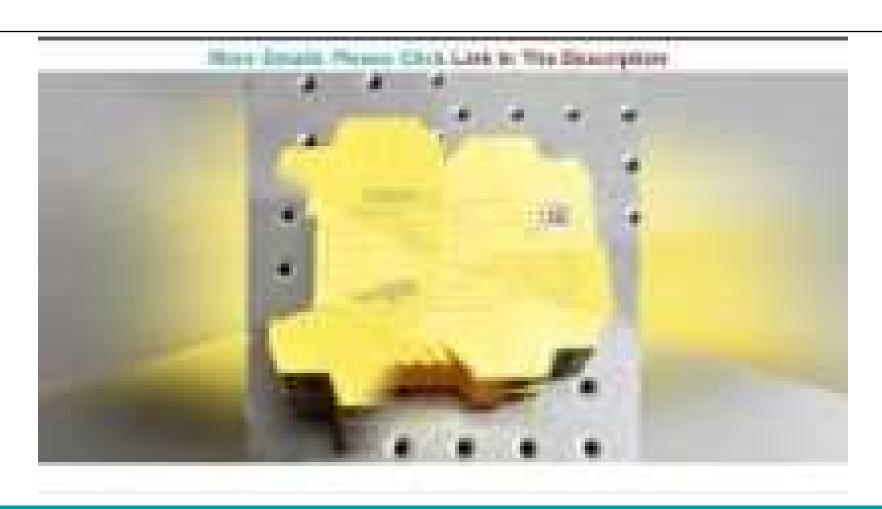
Туре				Applic	ations					Output	contact	s	Saf appr	ety ovals	Over- all width	Conne	ection ology
	=	41		-0 II				Feat .	1	(B)	7	K	PL in accordance with EN ISO 13849-1	SILCL in accordance with EN 62061	ln mm	Screw connection	Push-in connection
PSR-MC70 24 V DC	•	•	•	•	_	●10)	×2	A/M	1	1	-	1	C ⁴⁾	19	12.5	2702094	270209
PSR-MC72 24 V DC	•	•	•	•	7-0	● 10)	ke.	A/M	1	1	-	1	e	3	12.5	2702096	270209
PSR-MC73 24 V DC	•	•	•	•	_	●10}	(5 <u>2</u> 2	A/M	3	2	<u>~</u>	1	e	2	22.5	1015533	101552
PSR-MC82 24 V DC			Contact	extension		1	12-	=	5	=	1	1	e ⁶⁾	36)	17.5	2702382	270238

A = autostart, M = manual, monitored start



^{1) 1-}channel sensor circuit 2) Antivalent sensor circuit 3) Without cross-circuit detection 4) Up to PL e / SILCL 3 possible depending on the application 5) EN 81 approval 6) In conjunction with suitable evaluation device 7) Non-delayed contacts: Cat. 4 / PL e, SILCL 3; contacts with dropout delay: Cat. 3 / PL d, SILCL 2 8) Type IIIA in accordance with EN 574 9) Type IIIC in accordance with EN 574 10) Also compatible with PSRswitch 11) IO-Link device 12) Safety relay for

CONTACTRON pro



PSRclassic



Туре			A	pplicatio	ns				Output	contact	s		fety ovals	Conne	ection ology
	=			700001	7-5			1	(C) >	7	K	PL in accordance with EN ISO 13849-1	SILCL in accordance with EN 62061	Screw connection	Push-in connection
PSR-ESA2-B 24 V AC/DC	•	•	-	-	-	-	А	4	-	1	-	c ²⁾	1 ²⁾	2963802	296395
PSR-ESAM2/3X1-B 230 V AC/DC	•	•	-		_	-	A/M	3	-	1	1,000	C ²⁾	1 ²⁾	2901430	290143
PSR-ESAM4/2X1 24 V AC/DC	•	•	-	<u>=</u> 5	221	2	A/M	2	<u>a</u> y	1	92	e	3	2900525	290052
PSR-ESAM4/3X1-B Voltage variants	•	•	12	<u> 20</u> 25	<u>~</u> 25	2 <u>78</u>	A/M	3	<u> 24</u> 89	1	12	e	3		alog for



Туре			A	pplicatio	ns				Output	contact	s		fety rovals		ection ology
	=			Times:	2.5			1	[b>√]	7	K	PL in accordance with EN ISO 13849-1	SILCL in accordance with EN 62061	Screw connection	Push-in connection
PSR-ESAM4/8X1 24 V AC/DC	•	•	-		_	~	A/M	8	-	1	-	e	3	2963912	296399
PSR-ESD-30 24 V DC	•	•		•		•	A/M	2	2	-	-	e	3	2981800	298181
PSR-ESD-300 24 V DC	•	•		20	-	•	A/M	3	2	1	-	e ⁴⁾	34)	2981428	298143
PSR-ESL4 ¹⁾ 24 V AC/DC	•	•	•	-	570	•	A/M	3	22	1	127	e	3	2981059	298106



Туре			A	plicatio	ns			,	Output	contact	s		fety ovals	Conne	
	2	A PI		Time?	2.5		٥	1	(D)+(7	K	PL in accordance with EN ISO 13849-1	SILCL in accordance with EN 62061	Screw connection	Push-in connection
PSR-THC4 ³⁾ 24 V AC/DC	-	•	-	_	•	-	А	2	_	1	-	e	3	2963721	2963983
PSR-URML4 ¹⁾ 24 V DC		Con	tact exte	nsion for	OSSD s	ignals		3	_	1	(<u>444</u> 2)	e	3	2903583	2903584
PSR-URM4 42 230 V AC/DC			Con	tact exte	nsion			4	_	2	12	e ³⁾	33)	2702924	2702925
PSR-URM4 24 V AC/DC			Con	tact exte	nsion			5	<u>a</u>	2	12	e ³⁾	33)	2963734	2964005
PSR-URM4-B 24 V AC/DC			Con	tact exte	nsion			5	=	2	-	e ³⁾	33)	2981033	2981046



¹⁾ Without cross-circuit detection 2) Up to PL e / SILCL 3 possible depending on the application 3) In conjunction with suitable evaluating device 4) Non-delayed contacts: Cat. 4 / PL e, SILCL 3, contacts with dropout delay: Cat. 3 / PL d, SILCL 2 3) Type IIIC in accordance with EN 574

A = autostart, M = manual, monitored start



Modular safety relay Safety Relay - Phoenix Contact



Туре			A	pplicatio	ons				Output	contact	s		fety rovals		ection iology
	=	41		-Passant Commits	7-5		Total State of the	1	(P) 3-4	7	K	PL in accordance with EN ISO 13849-1	SILCL in accordance with EN 62061	Screw connection	Push-in connection
PSR-SDC4 24 V DC	•	•	•	•		•	A/M	2	-		1	e	3	2981486	298149
PSR-URM4/B 24 V DC			Con	tact exte	nsion			4	7	2	-	e	3	2981677	298168
PSR-URD3/3 24 V DC			Con	tact exte	nsion			855	4	2 ¹⁾	=	e	3	2981732	298174
PSR-URD3/30 24 V DC			Con	tact exte	nsion			122	4	21)	123	e	3	2981512	298152



Туре	Applications		Output	contact	s		fety rovals		ection iology
		1	(b) 34			PL in accordance with EN ISO 13849-1	SILCL in accordance with EN 62061	Screw connection	Push-in connection
PSR-URD3/T2 24 V DC	Contact extension	- 2	4	21)	-	e	3	2981703	2981729
PSR-SIM4	IP20 input extension – interface modul	e for up	to four sa	afety sen	sors			2981936	2981949
DOD 64-6D	IP65 / IP67 input extension – sensor bo	x for up	to four sa	afety sen	sors,			5 m	2981871
PSR-SACB	available with 5 m and 10	m cable	e lengths					10 m	2981884

¹⁾ Delayed, A = autostart, M = manual, monitored start

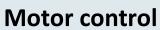


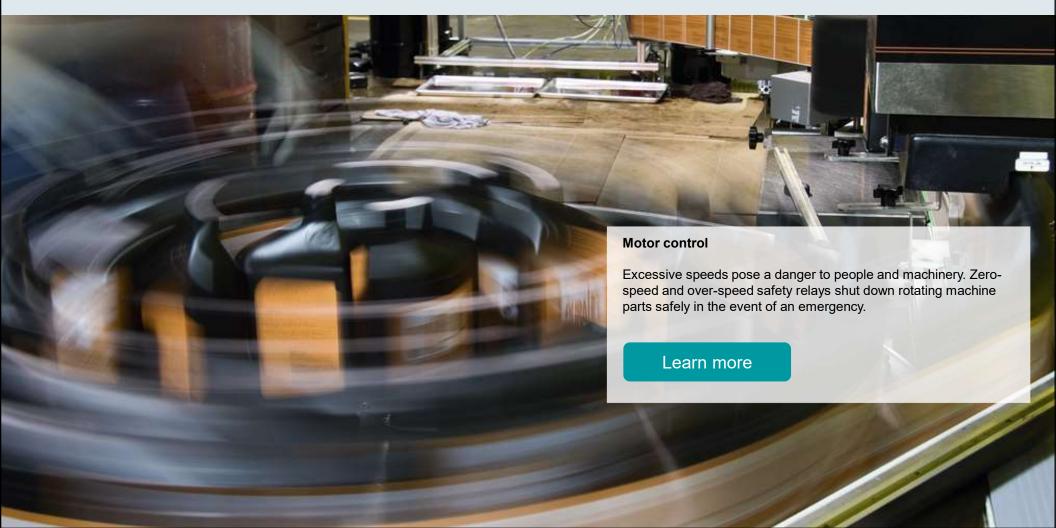
Smart safety solutions











Smart safety solutions **Safe motion monitoring of motors**



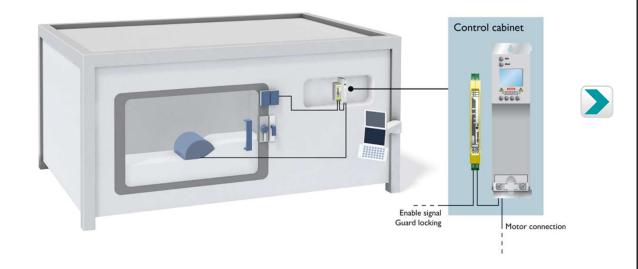




Monitoring single-phase and three-phase AC motors

Sensorless measurement is suitable for connection to controlled and uncontrolled motors. Usually, the user connects the measuring leads on the output side to the motor contactors or the frequency inverter. The sensors required for motion monitoring can be dispensed with here.

Vibrations during standstill often lead to malfunctions in sensor-supported measuring systems. PSRmotion uses a measurement method based on remanence voltage that remains available even under external influences.





Smart safety solutions **Safe motion monitoring of motors**











Over-speed and zero-speed safet relays PSRmotion





Safe hybrid motor starters
CONTACTRON pro



Products

Zero-speed and over-speed safety relays













Safe motion monitoring of motors

The PSR-MM30 zero-speed and over-speed safety relay also monitors the speed and disconnects safely in the event of danger.

Combined with a safety door unit, the PSR-MM25 zero-speed safety relay without sensor ensures that the door remains locked until the dangerous motion stops.

- Highly compact design
- Easy setup for fast commissioning
- Innovative measurement methods for highest system availability
- Easy configuration via buttons on the product or with the <u>PSRmotion software</u>, including live monitoring



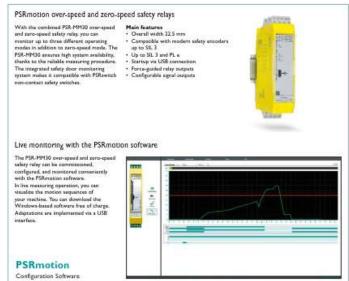
Over-speed and zero-speed safety relays

Excessive speeds pose a danger to people and machinery. The compact PSRmotion over-speed and zero-speed safety relays shut down rotating machine parts safely in the event of an emergency. Combined with a safety door unit, the PSR-MM25 zero-speed safety relay without sensor ensures that the door remains locked until the dangerous motion stops. The PSR-MM30 over-speed and zero-speed safety relay also monitors the speed and disconnects safely in the event of danger.

i Web code: #1546.



Over-speed and zero-speed safety relays for motion monitoring



PSRmotion zero-speed safety relays

The highly compact PSR-MM25 safety relay module monitors the downtime of single and three-phase AC and DC motors without additional sensor technology.

The residual voltage induced by the motor windings is analyzed in order to detect zero . Force-guided relay outputs

Main features • Overall width 12.5 mm

 Easy startup via configuration button
 Can be used for machines with or without frequency converters

Two signal outputs



PHOENIX CONTACT 19



Over-speed and zero-speed safety relays

Excessive speeds pose a danger to people and machinery. The compact PSRmotion over-speed and zero-speed safety relays shut down rotating machine parts safely in the event of an emergency. Combined with a safety door unit, the PSR-MM25 zero-speed safety relay without sensor ensures that the door remains locked until the dangerous motion stops. The PSR-MM30 over-speed and zero-speed safety relay also monitors the speed and disconnects safely in the event of danger.

i Web code: #1546





Live monitoring with the PSRmotion software

The PSR-MM30 over-speed and zero-speed safety relay can be commissioned, configured, and monitored conveniently with the PSRmotion software. In live measuring operation, you can visualize the motion sequences of your machine. You can download the Windows-based software free of charge. Adaptations are implemented via a USB interface.

Carrettand 19 15 to 10 15 to 1

PSRmotion

Configuration Software



PSRmotion zero-speed safety relays

The highly compact PSR-MM25 safety relay module monitors the downtime of single and three-phase AC and DC motors without additional sensor technology. The residual voltage induced by the motor windings is analyzed in order to detect zero speed.

- · Overall width 12.5 mm
- · Easy startup via configuration button
- Can be used for machines with or without frequency converters
- · Force-guided relay outputs
- · Two signal outputs





Products

Hybrid motor starters











CONTACTRON Hybrid Technology

Designed by PHOENIX CONTACT

Push-in Technology

Designed by PHOENIX CONTACT

Hybrid motor starters CONTACTRON

The safe hybrid motor starters combine up to four functions in one device: emergency stop, motor starter, reversing function, and motor protection against overload.

- ✓ Integrated safety function up to SIL 3 and Category 3 / PL e
- Narrow design with an overall width of 22.5 mm
- Adjustable motor protection with bimetal function up to 9 A
- ✓ Integrated locking circuit and load wiring
- Smooth switching with CONTACTRON hybrid motor starter technology





Hybrid motor starters

Safe and low-wear motor switching







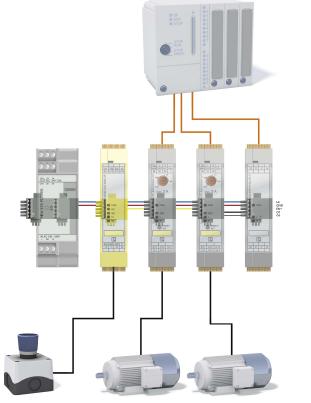


Safe and low-wear motor switching



The PSRmini safety relay (PSR-MC38) ensures the safety-related shutdown of a motor via the CONTACTRON pro hybrid motor starter.

You can connect the switchgear simply, quickly and modularly via the TBUS connector.



Controller

Safety relay and hybrid motor starter with TBUS connector







Hybrid motor starters

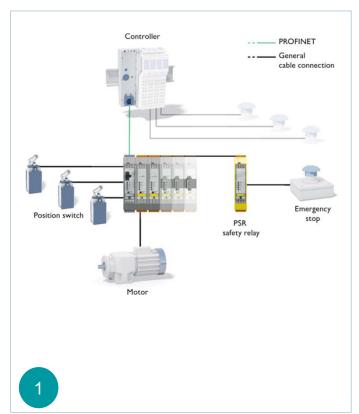
Consistent networking via the interface system IO-Link

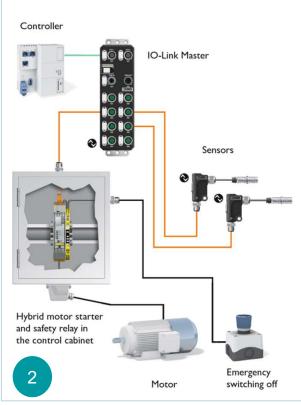












Network-capable motor starters

In addition to standard devices for parallel wiring, network-capable versions are also available.

The network-capable versions enable consistent communication between the field and control level. The integration into all common fieldbus systems is realized via the interface system or IO-Link.

- 1. Fieldbus connection via interface system (IFS)
- 2. Hybrid motor starters for networking with IO-Link



Smart safety solutions Signal coupling and switching

















i

i

Safety relays PSRmini and PSRclassic Multifunctional safety relays **PSRmultifunction**

Safe coupling relays PSRmini and PSRclassic





Products

Highly-compact safety relays











Highly-compact safety relay PSRmini - one function, one device

PSRmini safety relays are the narrowest on the market. Thanks to an innovative DIP switch concept, you can implement selected settings directly on the module. The needs-based structure starting at one enable path also ensures increased flexibility of your application without limiting performance.

- ✓ Overall width 6 mm and 12 mm
- ✓ Proven safety, thanks to force-guided relay contacts
- ✓ TÜV-certified and approvals for all global markets
- ✓ PL e in accordance with ISO 13849 and SILCL 3 in accordance with IEC 62061

Product list





Products

Conventional safety relays











Conventional safety relay PSRclassic - one function, one device

The PSRclassic safety relays have a long proven track record. Thanks to the 2-channel wiring and force-guided contacts, you can reliably switch functions such as two-hand control devices or light grids. Screw or spring connection technology ensure fast wiring of contacts.

- ✓ Overall width from 17.5 mm
- ✓ Large selection of variants
- ✓ Status LEDs ensure easy diagnostics
- ✓ Proven safety, thanks to force-guided relay
- ✓ TÜV-certified and approvals for all global markets
- ✓ PL e in accordance with ISO 13849 and SILCL 3 in accordance with IEC 62061



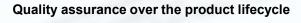
Quality assurance **Certified products and processes**



For (130 13849-1.2008









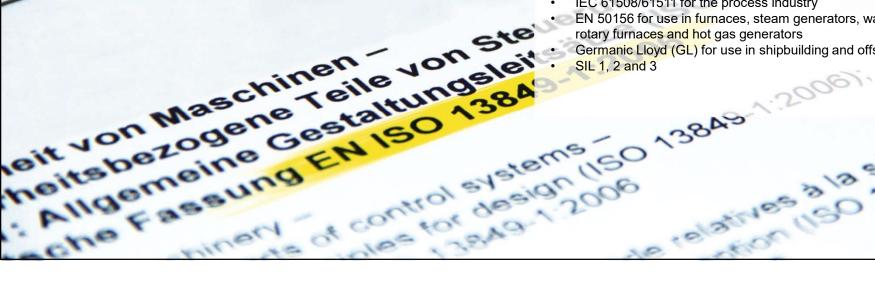
- Certified Functional Safety Management (FSM)
- Independent product certifications
- Qualified personnel (FS Engineers)
- Application oriented services and support
- Qualified training programs

Certified and tested for your application

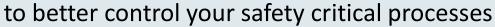
- EN 50205 force-guided contacts
- EN ISO 13849-1 and EN 62061 for machine building
- IEC 61508/61511 for the process industry
- EN 50156 for use in furnaces, steam generators, waste heat boilers, rotary furnaces and hot gas generators

to elatives à la securité

- Germanic Lloyd (GL) for use in shipbuilding and offshore systems



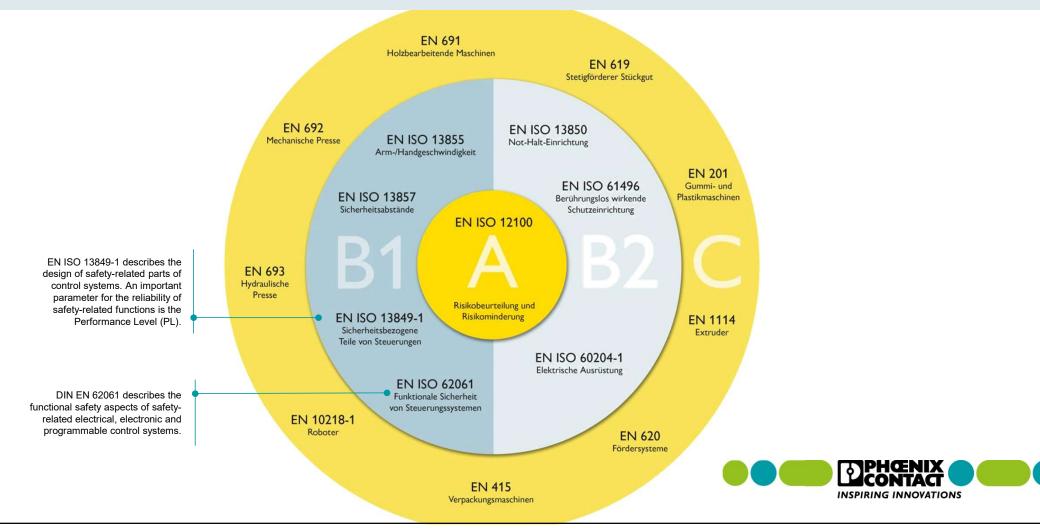
Safety standards and regulations









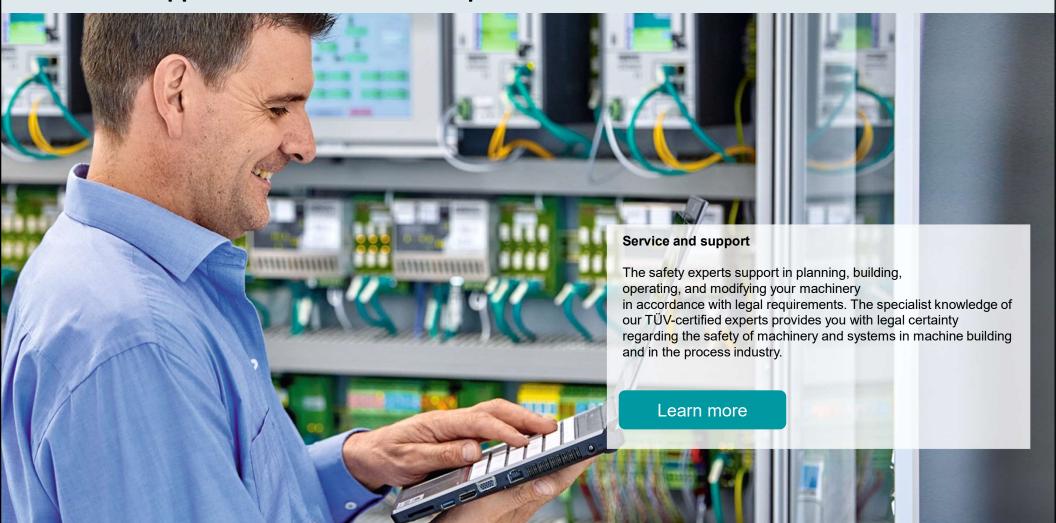


Safety service and support Worldwide support from TÜV certified experts









Safety service and support Services for machine and system safety

















Consulting

We provide advice on various subjects in the planning and implementation of your system:

- Design of the safety lifecycle: standards and their implementation
- Machinery Directive
- Changes to machinery and systems

Engineering

To assess the safety integrity, we determine the SIL of the safety functions with the help of your technical documentation. These must be sufficiently robust to withstand random errors. In the case of Machinery Directive requirements, we implement the entire safety lifecycle process.

Product support

We provide support regarding any Phoenix Contact safety hardware and software questions. You can contact our support team regarding anything – from the preliminary technical clarification, through planning and implementation, right through to operation

Seminars and trainings

We offer instruction and practical training that is tailored to your individual requirements, e.g. safety application software:

- Demands on safety-related software
- Specification of safety requirements and software
- Realization of safety functions





Safety service and support

Services for safety in the process industry









Demands on safety in the process industry

Design guidelines relating to functional safety are in place for the requirements on the safe operation of systems in the process industry. The internationally harmonized procedure is described in IEC 61511.

A significant component of this is the safety lifecycle in conjunction with functional safety management.

Seminars for functional safety in the process industry in accordance with EN 61511:

- Risk analysis
- Safety lifecycle
- Creation of process control technology

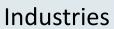


Successful in use











IndustriesMachine building











- ✓ Wide product portfolio with compatibility to a large number of sensors
- ✓ In-house mechanical engineering supports all business fields of Phoenix Contact as well as the developing and producing sites worldwide
- ✓ Approvals for markets around the world such as EN ISO 13849-1 and EN 62061





- ✓ Reliable automation developed specially for high-end applications with efficient PROFIsafe safety controllers
- ✓ EN ISO 13849-1 and EN 62061
- ✓ Labs-free components to prevent defects on the end product (substances which interfere the lacquering process)



Progressive through innovative technologies **Relay Technology**







Relay Technology from Phoenix Contact

Phoenix Contact has developed a narrow force-guided elementary relay which features full performance with an overall width of just 6 mm.

The miniaturization of mechatronic functions enables modular safety concepts, as required for IIoT. With a switching capacity of 6 ampere, the relay ensures superior availability, thanks to a redundant diagnostic contact, and enabled us to develop the PSRmini safety relay in a 6 mm housing.

Watch movie



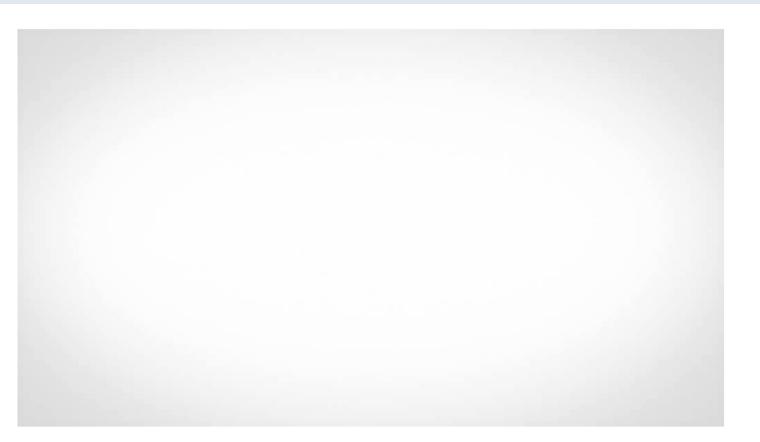
Progressive through innovative technologies **Relay Technology**



















Thank you

Ing. Antonio Gordillo <u>agordillo@phoenixcontact.com.mx</u>

Celular 55 3233 6518

