PSR-M-EF6-SDOR4-PI - Extension module

1104983

https://www.phoenixcontact.com/us/products/1104983

Safe extension module with 4 safe relay outputs, 4 reset inputs, TBUS interface, up to SIL 3, Cat. 4/PL e, pluggable Push-in terminal block, TBUS connector included

Product description

The configurable and individually scalable PSRmodular safety system is a flexible safety solution for monitoring your machine or system. The safe extension module provides the system with additional safe relay outputs.

Your advantages

- Cost-effective safety solution with a high level of adaptability to individual requirements
- Fast startup, thanks to easy hardware and software configuration
- Machine downtimes minimized with comprehensive, easy-to-understand diagnostics
- Tool-free and time-saving installation thanks to Push-in technology
- Narrow housing width of just 22.6 mm
- Up to Cat. 4/PL e in accordance with ISO 13849-1, SIL 3 in accordance with EN IEC 62061, SIL 3 in accordance with IEC 61508
- Suitable for elevator applications in accordance with EN 81-20

Commercial data

Item number	1104983
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DN02
Product key	DNA362
GTIN	4055626973425
Weight per piece (including packing)	226 g
Weight per piece (excluding packing)	192 g
Customs tariff number	85371098
Country of origin	IT

Technical data

Product properties

Product type	Safety device
Application	Safe shutdown

Insulation characteristics

Protection class	III

Times

Response time	see user manual
Restart time	min. 5 s (Boot time)
	max. 10 s (Boot time)

Electrical properties

Maximum power dissipation for nominal condition	7.07 W
Nominal operating mode	100% operating factor
Interfaces	DIN rail TBUS for connection to the master module, supplied as standard

Air clearances and creepage distances

Rated insulation voltage	250 V AC
Rated surge voltage/insulation	Basic insulation 4 kV between all current paths and housing

Supply

Designation	A1/A2
Rated control circuit supply voltage U_S	19.2 V DC ... 28.8 V DC
Rated control circuit supply voltage U_S	24 V DC -20 % / +20 % (external fuse, typically 4 A)
Rated control supply current I_S	typ. 120 mA
Power consumption at U_S	typ. 2.88 W
Inrush current	2 A (Δt = 1 ms at U_s)
Filter time	typ. 5 ms (at A1 in the event of voltage dips at U_s)
Protective circuit	Serial protection against polarity reversal

Input data

Digital: Reset inputs (FBK1, FBK2, FBK3, FBK4)

Description of the input	IEC 61131-2 type 3
Number of inputs	4
Input voltage range "0" signal	0 V DC ... 5 V DC
Input voltage range "1" signal	11 V DC ... 28.8 V DC
Input current range "0" signal	< 1 mA
Filter time	250 ms ±2 ms (Test pulse rate > 500 ms)
Cable length	max. 100 m (per input)
Max. permissible overall conductor resistance	1.2 kΩ (Input and reset circuit at U_S)
Current consumption	typ. 10 mA (typically with U_S)

	max. 13 mA (at a control voltage of 28.8 V DC)

Output data

Relay: Enabling current paths (13_NO1/14_NO1, 23_NO2/24_NO2, 33_NO3/34_NO3, 43_NO4/44_NO4)

Output description	safety-related N/O contacts
Number of outputs	4 (1 NO per output)
Contact switching type	4 safe outputs
Switching voltage	min. 10 V AC/DC
	max. 250 V AC/DC (Observe the load curve)
Switching capacity	min. 200 mW
Inrush current	min. 20 mA
	max. 6 A
Switching capacity in accordance with IEC 60947-5-1	3 A (250 V (AC15))
	2 A (24 V (DC13))
Limiting continuous current	4 A (observe derating)
Sq. Total current	64 A^2 (for 4x single-channel, observe derating)
	32 A^2 (for 2x two-channel, observe derating)
Switching frequency	0.5 Hz
Mechanical service life	40x 10^6 switching cycles
Output fuse	4 A gL/gG

Connection data

Connection technology

pluggable	yes

Conductor connection

Connection method	Push-in connection
Conductor cross section rigid	0.2 mm² ... 2.5 mm²
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Conductor cross-section AWG	24 ... 14
Stripping length	10 mm

Signaling

Status display	4 x LED (yellow)
	4 x LED (green, yellow, red)
	1 x LED (green), 2 x LED (orange)
Operating voltage display	1 x green LED
Error indication	2 x LED (red)

Dimensions

Width	22.61 mm
Height	107.74 mm
Depth	113.6 mm

Material specifications

Color	yellow
Housing material	Polyamide PA non-reinforced

Characteristics

Safety data

Stop category	0

Safety data: EN ISO 13849

Performance level (PL)	e (2-channel wiring)
	c (1-channel wiring)

Safety data: IEC 61508 - High-demand for 2-channel wiring

Safety Integrity Level (SIL)	3

Safety data: IEC 61508 - High-demand for 1-channel wiring

Safety Integrity Level (SIL)	1

Safety data: EN IEC 62061

Safety Integrity Level (SIL)	3 (2-channel wiring)
	1 (1-channel wiring)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Min. degree of protection of inst. location	IP54
Ambient temperature (operation)	-10 °C ... 55 °C (observe derating)
Ambient temperature (storage/transport)	-20 °C ... 85 °C
Maximum altitude	≤ 2000 m (Above sea level)
Max. permissible humidity (storage/transport)	95 % (non-condensing)
Max. permissible relative humidity (operation)	95 % (non-condensing)
Shock	10g for Δt = 16 ms (continuous shock, 1000 shocks in each space direction)
Vibration (operation)	10 Hz ... 150 Hz, amplitude 0.15 mm, 2g

Approvals

CE

Identification	CE-compliant

Mounting

Mounting type	DIN rail mounting
Assembly note	Observe derating
Mounting position	vertical or horizontal

Drawings

Application drawing
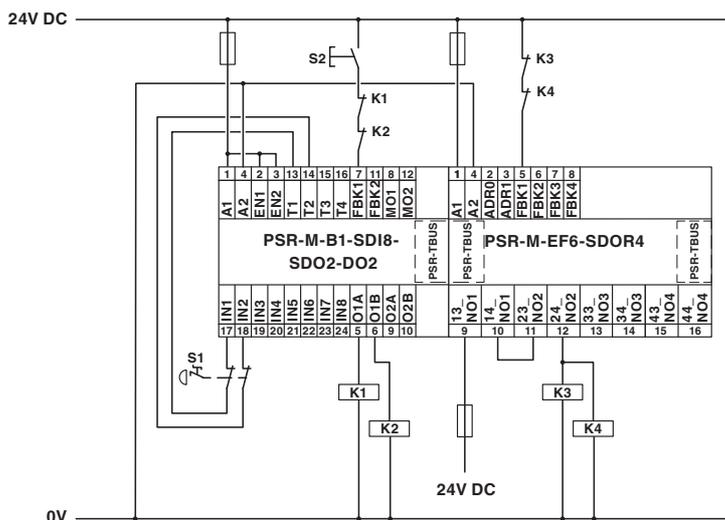
Example application

Block diagram
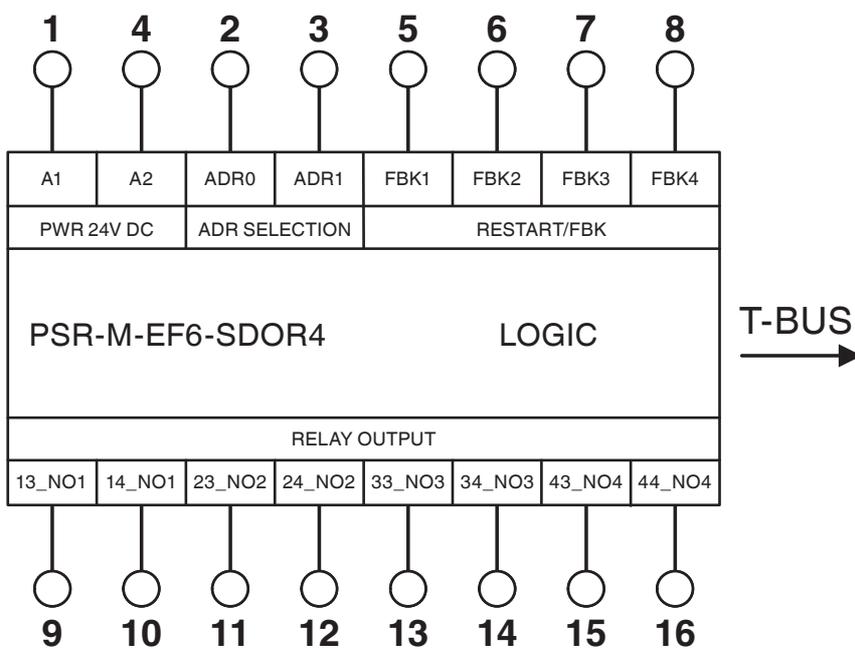
Block diagram

Approvals

💡 To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1104983

UL Listed
Approval ID: FILE E 238705

cUL Listed
Approval ID: FILE E 238705

EAC
Approval ID: RU*-DE*B.00606/20

Functional Safety
Approval ID: Z10 029429 0013

cULus Listed

Classifications

ECLASS

ECLASS-11.0	27371819
ECLASS-13.0	27371819
ECLASS-12.0	27371819

ETIM

ETIM 9.0	EC001449

UNSPSC

UNSPSC 21.0	39122200

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%

PSR-M-EF6-SDOR4-PI - Extension module

Accessories

CP-MSTB - Coding profile

Coding profile, is inserted into the slot on the plug or inverted header, red insulating material

CR-MSTB - Coding section

Coding section, inserted into the recess in the header or the inverted plug, red insulating material

CRIMPFOX 6 - Crimping pliers

1212034

https://www.phoenixcontact.com/us/products/1212034

Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm^2 ... 6.0 mm^2, lateral entry, trapezoidal crimp

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