

Extension module - PSR-M-E2-DO16-SC - 1105134

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Extension module with 16 signal outputs, TBUS interface, plug-in screw 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 extension module provides the system with additional signal outputs.

Your advantages

- ✓ Economical safety solution with a high level of adaptability to individual requirements
- ✓ Fast startup, thanks to easy hardware and software configuration
- ✓ Machine downtime minimized with comprehensive, easy-to-understand diagnostics
- ✓ Low housing width of only 22.5mm



Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 973395
GTIN	4055626973395

Technical data

Dimensions

Width	22.5 mm
Height	112.2 mm
Depth	114.5 mm

Ambient conditions

Ambient temperature (operation)	-10 °C ... 55 °C (observe derating)
Ambient temperature (storage/transport)	-20 °C ... 85 °C
Max. permissible relative humidity (operation)	95 % (non-condensing)
Max. permissible humidity (storage/transport)	95 % (non-condensing)
Maximum altitude	≤ 2000 m (Above sea level)

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Technical data

Power supply

Designation	A1/A2
Rated control circuit supply voltage U_s	24 V DC -20 % / +20 % (provide external protection, typically 5 A)
Rated control supply current I_s	typ. 30 mA
Power consumption at U_s	typ. 0.72 W
Inrush current	2 A ($\Delta t = 1$ 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
	Suppressor diode
Designation	24V/A2
Description	Supply of outputs MO1 ... MO8 via terminal point 5 Supply of outputs MO9 ... MO16 via terminal point 6
Rated control circuit supply voltage U_s	24 V DC -20 % / +20 % (provide external protection, typically 5 A)
Rated control supply current I_s	typ. 20 mA (Outputs active, without load)
Current consumption	max. 0.82 A (at terminal point 5/A2 at U_s and full load)
	max. 0.82 A (at terminal point 6/A2 at U_s and full load)
Inrush current	10 A (at both terminal points 5 and 6, $\Delta t = 1$ ms at U_s)
Filter time	typ. 1 ms (in the event of voltage dips)
Protective circuit	Suppressor diode

Alarm outputs

Designation	MO1 ... MO16
Output description	PNP, IEC 61131-2 Typ 0,1
	non-safety-related
	Reference ground A2
Number of outputs	16
Voltage	24 V DC (via 24 V)
Output voltage range	18.2 V DC ... 27.8 V DC ($U_s - 1$ V)
Output voltage when switched off	max. 0.1 V
Maximum inrush current	1.1 A ($\Delta t = 3$ s at U_s)
Switching frequency	max. $1/4 \times t_{\text{cycle}}$ [Hz]
Limiting continuous current	100 mA (per channel)
	1.6 A (Total current of all digital signal outputs)
Leakage current	max. 100 μ A
Protective circuit/component	Suppressor diode
Short-circuit protection	Yes (self-limitation at 1.1 A)
Cable length	max. 100 m (per output)

Times

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

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Technical data

General

Nominal operating mode	100% operating factor
Net weight	154 g
Mounting position	vertical or horizontal
Mounting type	DIN rail mounting
Assembly instructions	Observe derating
Degree of protection	IP20
Min. degree of protection of inst. location	IP54
Protection class	III (EN 50178)
Housing material	Polyamide PA non-reinforced
Housing color	yellow
Operating voltage display	1 x green LED
Status display	1 x LED (green), 2 x LED (orange)
	16 x LED (yellow)
Indication	2 x LED (red)

Connection data

Connection method	Screw connection
pluggable	Yes
Conductor cross section solid	0.2 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross-section AWG	24 ... 12
Stripping length	7 mm
Screw thread	M3
Torque	0.5 Nm ... 0.6 Nm

Standards and Regulations

Designation	Air clearances and creepage distances between the power circuits
Standards/regulations	EN 50178
Rated insulation voltage	250 V AC
Rated surge voltage/insulation	Basic insulation 4 kV between all current paths and housing
Degree of pollution	2
Overvoltage category	II
Shock	10g for $\Delta t = 16$ ms (continuous shock, 1000 shocks in each space direction)
Vibration (operation)	10 Hz ... 150 Hz, 2g

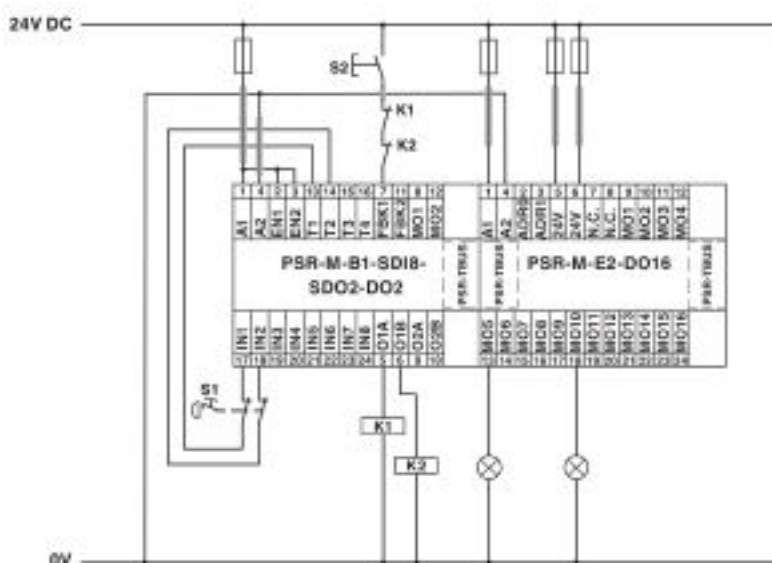
Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

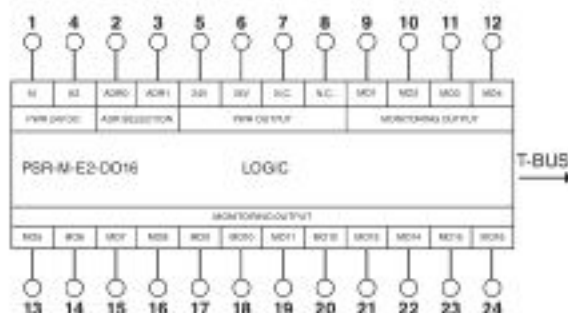
Drawings

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Application drawing



Block diagram



Classifications

eCl@ss

eCl@ss 10.0.1	27371819
eCl@ss 8.0	27371819
eCl@ss 9.0	27371819

ETIM

ETIM 5.0	EC001449
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Approvals

Approvals

Approvals

UL Listed / cUL Listed / cULus Listed

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Approvals

Ex Approvals

Approval details

UL Listed



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

FILE E 238705

cUL Listed



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

FILE E 238705

cULus Listed



Accessories

Accessories

Coding element

Coding profile - CP-MSTB - 1734634



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

Coding section - CR-MSTB - 1734401



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

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