

SAFESERIES SCS 24VDC P1SIL3DS M

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The SCS 24 V DC P1SIL3DS M / MG3 safety relay should be used in areas where a functionally safe switch-off is required. The requirements of EN 61508, SIL 3 can be satisfied with this module.

- With monitoring circuit
- Wide-range input voltage in the monitoring circuit
- Externally accessible fuse
- TÜV certified "Safety Approved"
- Optionally with G3 painting acc. to EN 60068-2-60

General ordering data

Type	SCS 24VDC P1SIL3DS M
Order No.	1303760000
Version	SAFESERIES, Safety relay, 24 V DC \pm 20%, 35 mA, Max. switching current, internal fuse : 5 A (refer to derating curve), SIL 3, DIN EN 61508
GTIN (EAN)	4050118102703
Qty.	1 pc(s).

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Technical data**Dimensions and weights**

Width	22.5 mm	Width (inches)	0.886 inch
Height	117.3 mm	Height (inches)	4.618 inch
Depth	114.1 mm	Depth (inches)	4.492 inch
Net weight	200 g		

Temperatures

Humidity	40 °C / 93 % rel. humidity, no condensation	Operating temperature, max.	50 °C
Operating temperature, min.	-25 °C	Storage temperature, max.	85 °C
Storage temperature, min.	-40 °C	Operating temperature	-25 °C...50 °C
Storage temperature	-40 °C...85 °C		

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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Input (safety circuit)

Rated control voltage	24 V DC \pm 20%	Current consumption	42 mA
Guaranteed current consumption of 24 VDC -10%	35 mA	Inrush current	< 250 mA / < 5 ms
Status indicator	LED yellow	Protective circuit	Reverse polarity protection, Free-wheeling diode

Input (monitoring)

Rated control voltage	24 V UC...230 V UC \pm 10 %	Current consumption	23 mA @ 24 V DC, 4,4 mA @ 230 V AC
Status indicator	LED yellow	Protective circuit	Rectifier

Output (safety circuit)

Contact base material	AgNi 0.15 gold flashed	Contact design	NO contact
Max. permitted switching voltage	250 V AC / 30 V DC	Max. permitted switching current	8 A
Max. switching current, internal fuse	5 A (refer to derating curve)	Max. switching current, external fuse	5 A (refer to derating curve)
Max. switching capacity	2000 VA	Internal fuse	5 A time-lag
External back-up fuse	5 A time lag	Short circuit resistance	No
Switch-on time	typ. 7 ms	Switch-off time	typ. 14 ms
Min. switching capacity	10 mA @ 12 V		

Output (monitoring)

Contact design	CO contact	Contact base material	AgNi 5µm Au
Max. permitted switching voltage	24 V DC	Max. allowed switching current	30 mA
Switch-on time	typ. 17 ms	Short circuit resistant	No
Min. switching capacity	1 mA @ 1 V		

Safety-related basic specifications

Device type	A	Hardware fault tolerance (HFT)	2
T _{proof}	12 Years	Safety category	SIL 3
Safety standard	DIN EN 61508		

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Rail	TS 35	Colour	black, yellow
Noxious gas resistance to EN 60068-2-60	Yes (art. No.: 1304040000 only)		

Insulation coordination

Rated voltage	300 V	Surge voltage category	III
Pollution severity	2	Protection degree	IP20
Dielectric strength, Input/Output	4 kV _{eff} / 1 min	Creepage and clearance distance input – output	≥ 5.5 mm
Dielectric strength output – output	4 kV _{eff} / 1 min	Creepage and clearance distance output – output	≥ 5.5 mm
Dielectric strength to mounting rail	4 kV _{eff} / 1 Min.	Impulse withstand voltage	6 kV (1.2/50 µs)

Further details of approvals / standards

Standards	EN 50178, EN 61000, EN 61326-3-2	Certificate no. (cULus)	E223474
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Connection data

Wire connection method	Screw connection	Tightening torque, min.	0.4 Nm
Tightening torque, max.	0.6 Nm	Clamping range, rated connection	1.5 mm ²
Clamping range, min.	0.13 mm ²	Clamping range, max.	2.5 mm ²
Wire connection cross section AWG, min.	AWG 26	Wire connection cross section AWG, max.	AWG 12
Wire cross-section, solid, min.	0.2 mm ²	Wire cross-section, solid, max.	2.5 mm ²
Wire connection cross-section, finely stranded, min.	0.2 mm ²	Wire connection cross section, finely stranded, max.	2.5 mm ²
Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min.	0.2 mm ²	Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max.	2.5 mm ²
Conductor cross-section, flexible, AEH (DIN 46228-1), min.	0.2 mm ²	Conductor cross-section, flexible, AEH (DIN 46228-1), max.	2.5 mm ²
Twin wire-end ferrules, min.	0.5 mm ²	Twin wire-end ferrules, max.	1.5 mm ²
Blade size	size PH0		

Ratings IECEx/ATEX/cUL

Certificate no. (cULus)	E223474
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Classifications

ETIM 6.0	EC001449	ETIM 7.0	EC001449
eClass 9.0	27-37-18-19	eClass 9.1	27-37-18-19
eClass 10.0	27-37-18-19		

Approvals

Approvals



ROHS Conform

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Catalogue status 08.11.2019 / We reserve the right to make technical changes.

Data sheet**SAFESERIES
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Technical data**Downloads**

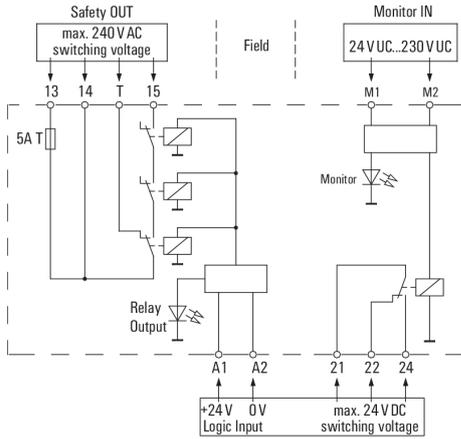
Approval/Certificate/Document of Conformity	TÜV Safety Approved certificate EU Konformitätserklärung / EU Declaration of Conformity
Brochure/Catalogue	CAT 4.2 ELECTR 18/19 EN
Engineering Data	EPLAN, WSCAD
Engineering Data	STEP
User Documentation	Beipackzettel / Package Insert - multilingual Safety manual - English Sicherheitshandbuch - Deutsch

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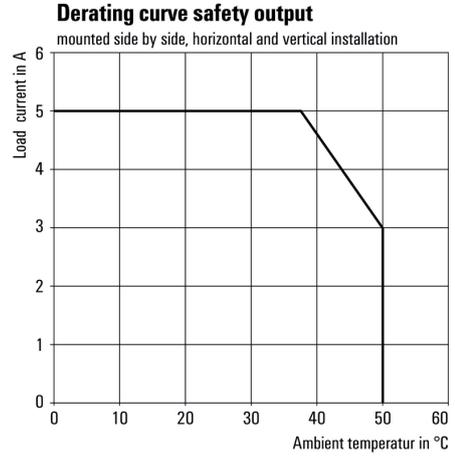
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Drawings

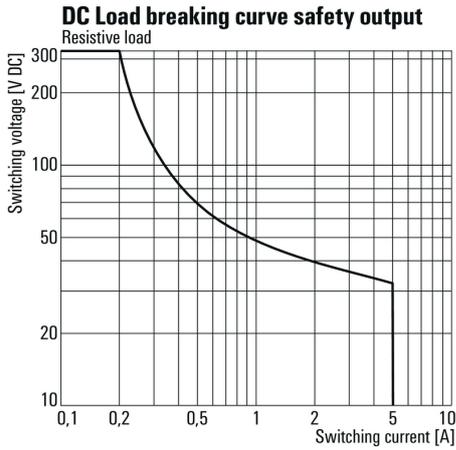
Wiring diagram



Derating curve



DC load limit curve



Dimensioned drawing

