

SCS 24VDC P1SIL3DS M**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

This safety relay is used in areas of process automation that require a functionally safe switch-off. The module meets the requirements for SIL3 according to EN 61508.

- Variant with monitoring circuit
- TUV certified and with "Approved Safety Function"
- cULus certified
- Multi-voltage input (24 - 230 V UC) in the monitoring circuit
- Available with G3 paint according to EN 60068-2-60
- Externally accessible fuse

General ordering data

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
Order No.	1303760000
Type	SCS 24VDC P1SIL3DS M
GTIN (EAN)	4050118102703
Qty.	1 pc(s).

Creation date March 23, 2021 3:03:09 PM CET

Catalogue status 12.03.2021 / We reserve the right to make technical changes.

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Technical data

Dimensions and weights

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

Temperatures

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

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	1 x de-energised to safe (NO contact)
Max. permitted switching voltage	250 V AC / 30 V DC	Max. permitted switching current	5 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	1250 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		

Control side

Status indicator	LED yellow
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Safety-related basic specifications

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

Load side

Short-circuit-proof	No
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General data

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

Insulation coordination

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

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	Stripping length, rated connection	8 mm
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	Blade size	size PH0

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	ECLASS 11.0	27-37-18-19

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Approvals



ROHS	Conform
UL File Number Search	E223474

Downloads

Approval/Certificate/Document of Conformity	TÜV Safety Approved certificate EU Konformitätserklärung / EU Declaration of Conformity
Engineering Data	STEP
Engineering Data	EPLAN, WSCAD
User Documentation	Beipackzettel / Package Insert - multilingual Safety manual - English Sicherheitshandbuch - Deutsch

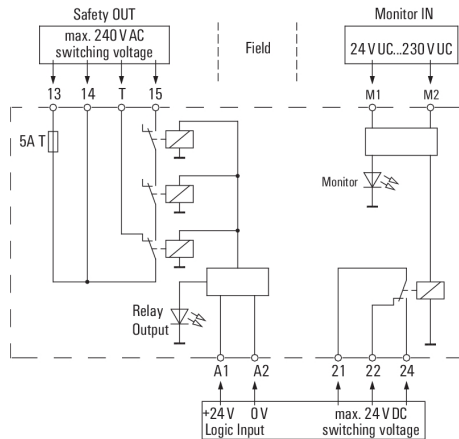
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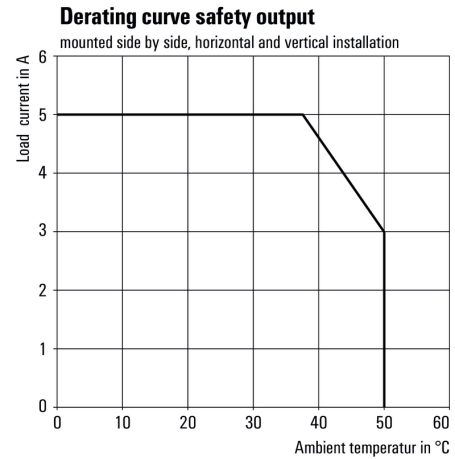
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Drawings

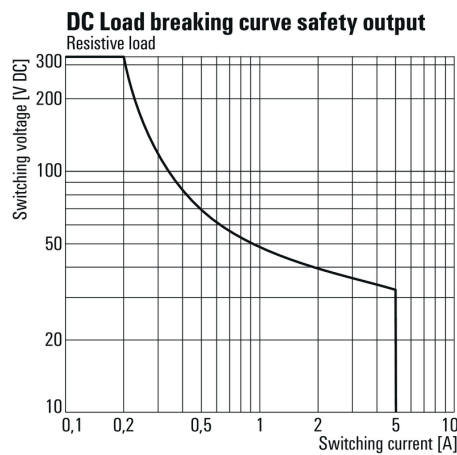
Wiring diagram



Derating curve



DC load limit curve



Dimensioned drawing

