SCS 24VDC P1SIL3DS

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 without monitoring circuit
- TUV certified and with “Approved Safety Function”
- cULus certified
- Optional compatible with Triconex® output modules Tri-con™, Trident™, and Tri-GP™
- Multi-voltage input (24 - 230 V UC) in the monitoring circuit
- Externally accessible fuse

General ordering data

Version	SAFESERIES, Safety relay,24 V DC ± 20%, 35 mA , Max. switching current, internal fuse : 5 A (refer to derating curve), SIL 3, EN 61508:2010
Order No.	1303890000
Type	SCS 24VDC P1SIL3DS
GTIN (EAN)	4050118102697
Qty.	1 pc(s).

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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
Width	22.5 mm	Width (inches)	0.886 inch
Net weight	177 g		

Temperatures

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

Input (safety circuit)

Connection designation (safety circuit)	A1, A2	Rated control voltage	24 V DC ± 20%
Current consumption	42 mA	Guaranteed current consumption of 24 VDC -10%	35 mA
Inrush current	≤170 mA	Status indicator	LED yellow
Protective circuit	Reverse polarity protection, Free-wheeling diode		

Output (safety circuit)

Connection designation (safety output)	13, 14, 15	Contact design	1 x de-energised to safe (NO contact)
Contact base material	AgNi 0.15 gold flashed	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

Safety-related basic specifications

Device type	A	T_{proof}	12 a
Hardware fault tolerance (HFT)	2	Safety category	SIL 3
Safety standard	EN 61508:2010		

General data

Operating altitude	≤ 2000 m, above sea level	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	Pollution severity	2
Surge voltage category	III	Clearance and creepage distances for control side - load side	≥ 5.5 mm
Dielectric strength for control side - load side	4 kV_{eff} / 1 min	Dielectric strength to mounting rail	4 kV_{eff} / 1 Min.
Impulse withstand voltage	6 kV (1.2/50 µs)	Protection degree	IP20

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Further details of approvals / standards

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

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 mm²	Clamping range, min.	0.13 mm²
Clamping range, max.	2.5 mm²	Wire connection cross section AWG, min.	AWG 26
Wire connection cross section AWG, max.	AWG 12	Wire cross-section, solid, min.	0.2 mm²
Wire cross-section, solid, max.	2.5 mm²	Wire connection cross section, finely stranded, min.	0.2 mm²
Wire connection cross section, finely stranded, max.	2.5 mm²	Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min.	0.2 mm²
Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max.	2.5 mm²	Conductor cross-section, flexible, AEH (DIN 46228-1), min.	0.2 mm²
Conductor cross-section, flexible, AEH (DIN 46228-1), max.	2.5 mm²	Blade size	size PH0

Classifications

ETIM 6.0	EC001449	ETIM 7.0	EC001449
ETIM 8.0	EC001449	ETIM 9.0	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
ECLASS 12.0	27-37-18-19	ECLASS 13.0	27-37-18-19

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
SCIP	807f1906-ce90-4f93-8801-4b128b343e6b

Approvals

Approvals	
ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E223474

Downloads

Approval/Certificate/Document of Conformity	TÜV Safety Approved certificate EU Konformitätserklärung / EU Declaration of Conformity
Engineering Data	CAD data – STEP
User Documentation	Beipackzettel / Package Insert - multilingual Safety manual - English Sicherheitshandbuch - Deutsch
Catalogues	Catalogues in PDF-format
Brochures	

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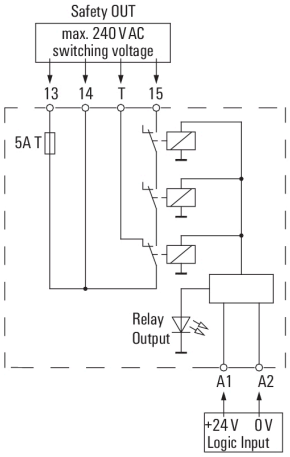
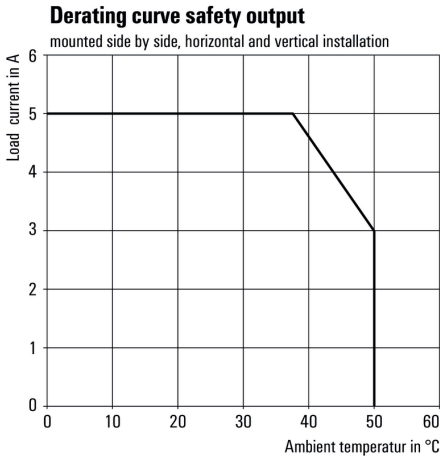
Drawings

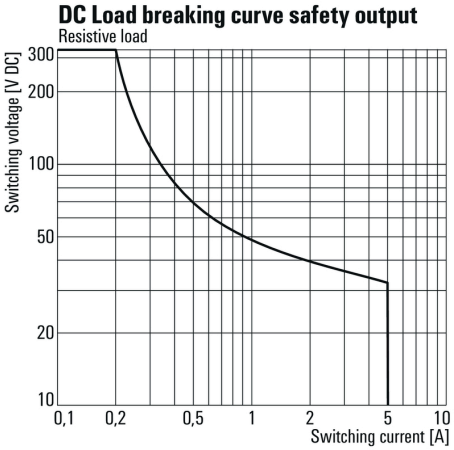
Wiring diagram



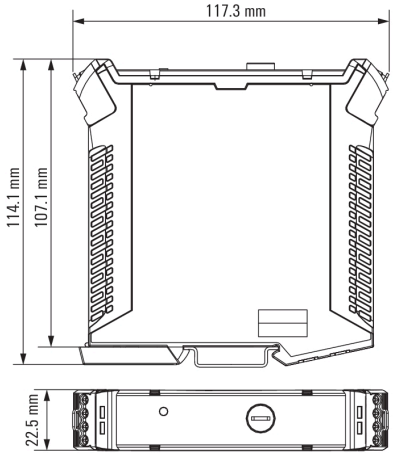
Derating curve



DC load limit curve



Dimensioned drawing



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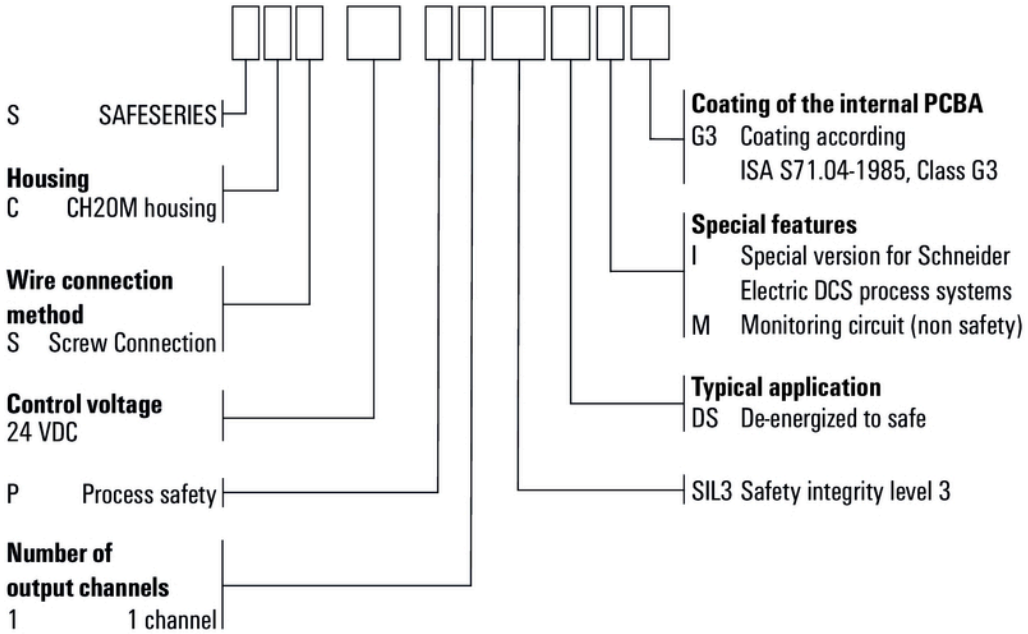
Drawings

Miscellaneous



Type codes