

SCS 24VDC P1SIL3DS I
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 Tricon™, 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 (16...36 V DC), , Max. switching current, internal fuse : 5 A, SIL 3, EN 61508:2010
Order No.	2500980000
Type	SCS 24VDC P1SIL3DS I
GTIN (EAN)	4050118514322
Qty.	1 items

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Technical data

Approvals

Approvals



ROHS Conform

UL File Number Search [UL Website](#)

Certificate no. (cULus) E141197

Dimensions and weights

Depth	114.1 mm	Depth (inches)	4.4921 inch
Height	117.3 mm	Height (inches)	4.6181 inch
Width	22.5 mm	Width (inches)	0.8858 inch
Net weight	180 g		

Temperatures

Storage temperature	-40 °C...85 °C	Ambient temperature	-25 °C...50 °C
Operating temperature		Humidity	95 %, no condensation

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	7a, 7cl
REACH SVHC	Lead 7439-92-1
SCIP	807f1906-ce90-4f93-8801-4b128b343e6b

Input (safety circuit)

Connection designation (safety circuit)	A1, A2	Rated control voltage	24 V DC (16...36 V DC)
Current consumption	50 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	Max. permitted switching voltage	250 V AC / 30 V DC
Max. permitted switching current	5 A	Max. switching current, internal fuse	5 A
Max. switching current, external fuse	5 A	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	≤ 25 ms
Switch-off time	≤ 30 ms	Min. switching capacity	10 mA @ 12 V

Safety-related basic specifications

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

General data

Operating altitude	≤ 2000 m, above sea level	Mounting rail	TS 35
Colour	black, yellow	Resistance to vibration	DNVGL-CG-0339, class A

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Insulation coordination

Insulation coordination according to	EN 61010-2-201:2013 + AC:2013	Rated voltage	300 V
Pollution severity	2	Surge voltage category	III
Clearance and creepage distances for control side - load side	≥ 6 mm	Dielectric strength for control side - load side	3.51 kVeff/5 s
Type of isolation at input and output	reinforced insulation	Impulse withstand voltage	6 kV (1.2/50 µs)
Protection degree	IP20		

Further details of approvals / standards

Standards	EN 61010-2-201:2013 + AC:2013, EN 61326-1, EN 61326-3-1, EN 61326-3-2	Certificate no. (cULus)	E141197
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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 with wire end ferrule (DIN 46228-1), min.	0.2 mm ²
Conductor cross-section, flexible with wire end ferrule (DIN 46228-1), max.	2.5 mm ²	Blade size	size PHO

Classifications

ETIM 8.0	EC001449	ETIM 9.0	EC001449
ETIM 10.0	EC001449	ECLASS 14.0	27-37-18-19
ECLASS 15.0	27-37-18-19		

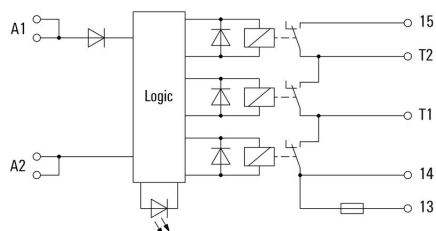
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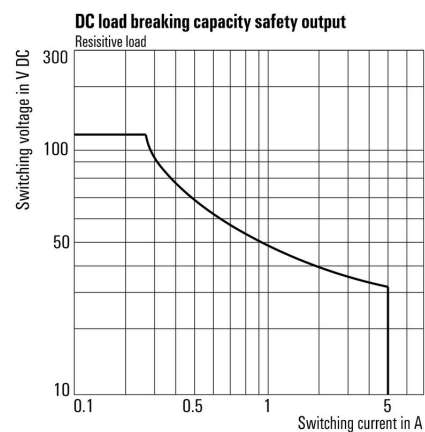
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Drawings

Wiring diagram

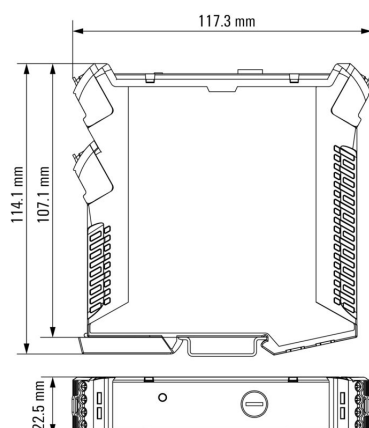


Graph



DC load limit curve

Dimensional drawing



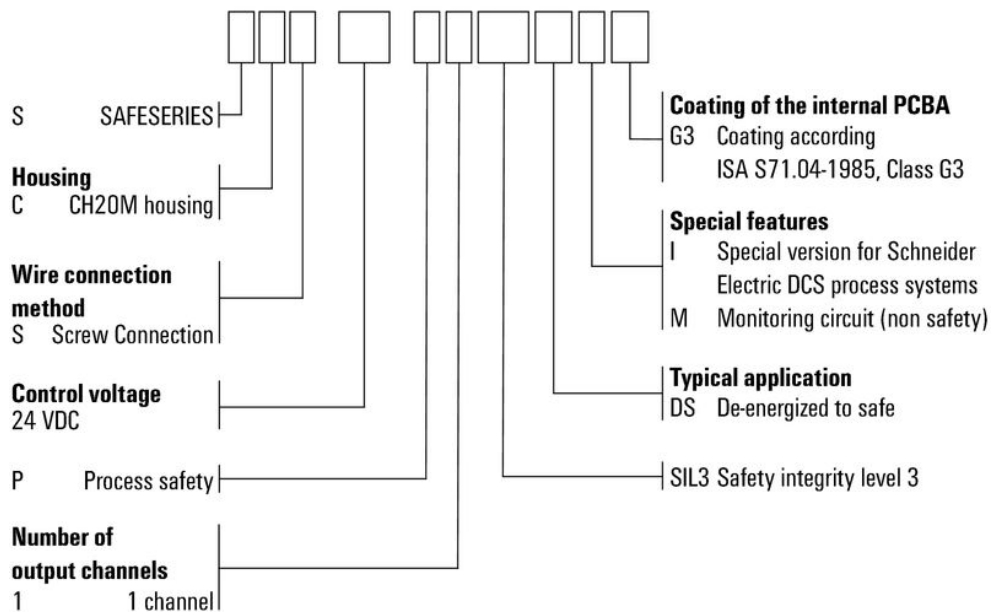
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Drawings

Miscellaneous



Type codes