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 pc(s).

Creation date October 25, 2022 6:22:35 AM CEST

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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	180 g		

Temperatures

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

Environmental Product Compliance

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

Device type	A	T_{proof}	12 Years
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	Resistance to vibration	DNVGL-CG-0339, class A

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 kV_{eff}/5 s
Type of isolation at input and output	reinforced insulation	Impulse withstand voltage	6 kV (1.2/50 µs)
Protection degree	IP20		

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Further details of approvals / standards

Standards	EN 61010-2-201:2013 + AC:2013, EN 61326-1:2013, EN 61326-3-1:2008, EN 61326-3-2:2008	Certificate no. (cULus)	E141197

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	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

Approvals

Approvals

ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E141197

Downloads

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

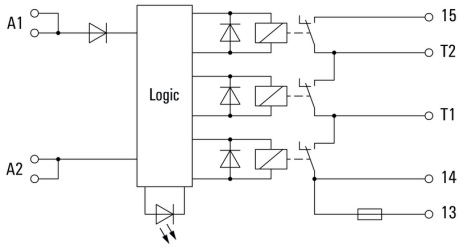
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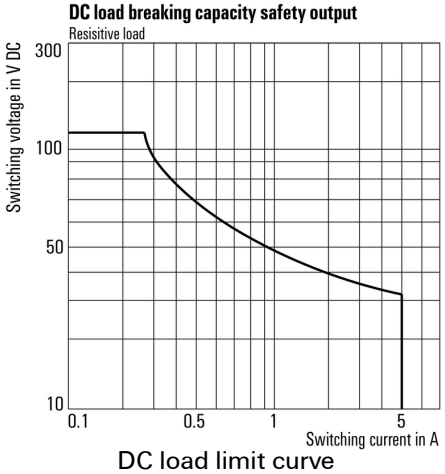
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Drawings

Wiring diagram

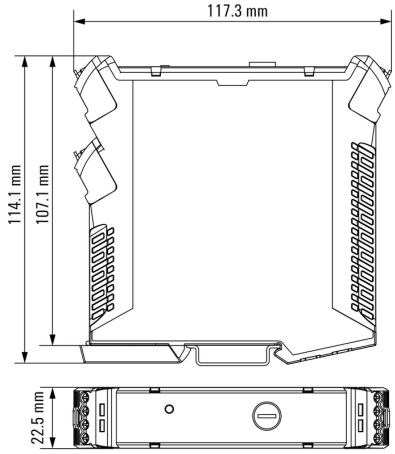


Graph



DC load limit curve

Dimensional drawing



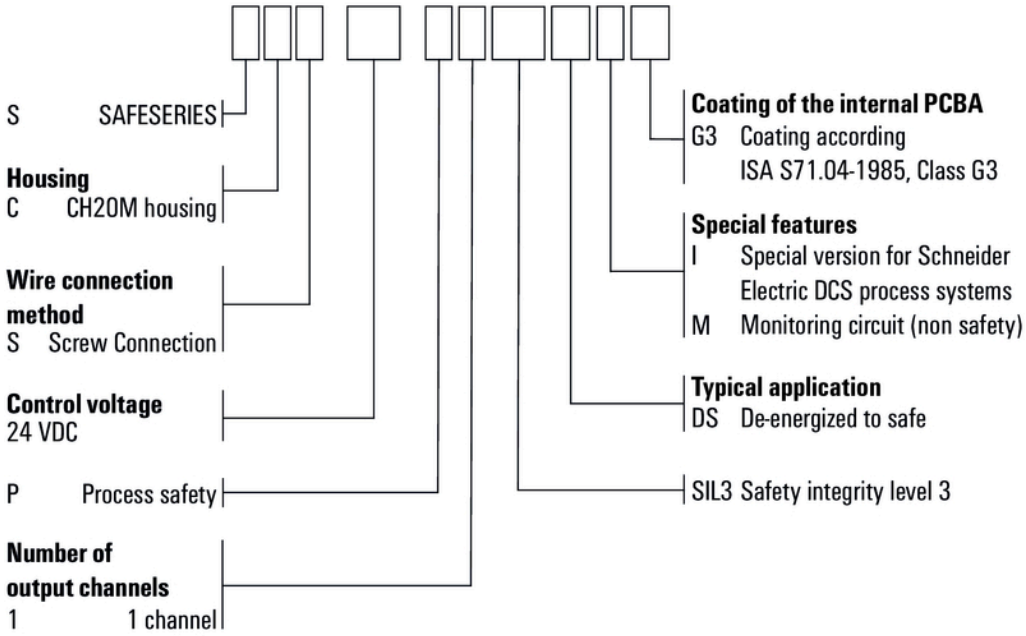
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Drawings

Miscellaneous



Type codes