Data sheet

SCS 24VDC P2SIL3DSES

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

For areas of process automation that require a functionally safe switch-off or switch-on. The module complies with SIL3 and meets the requirements of EN 61508.

- TUV certified and with “Approved Safety Function"
- Designed for “energized to safe” and “de-energized to safe” functions
- All-pole switch-off possible
- Test inputs for testing the relay contacts
- Externally accessible fuse

General ordering data

Version	SAFESERIES, Safety relay,24 V DC -15 / +20%, 35 mA , Max. switching current, internal fuse : 5 A (refer to derating curve), SIL 3, DIN EN 61508
Order No.	1319270000
Type	SCS 24VDC P2SIL3DSES
GTIN (EAN)	4050118125115
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	200 g		

Temperatures

Storage temperature	-40 °C...85 °C	Operating temperature	-25 °C...50 °C
Operating temperature, min.	-25 °C	Operating temperature, max.	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 -15 / +20%
Current consumption	45 mA	Guaranteed current consumption of 24 VDC -10%	35 mA
Inrush current	≤ 80 mA / 40 ms	Pull-in/drop-out voltage DC coil	17 V / 12.5 V (DTS)
Status indicator	LED yellow	Protective circuit	Rectifier

Test inputs (safety circuit)

Connection designation (safety test)	X1, X2, X3	Rated control voltage	24 V DC
Number of test inputs	2	Status indicator	LED red flashing: test input is triggered

Output (safety circuit)

Connection designation (safety output)	F, 13, 14, 23, 24	Contact design	1 x de-energised to safe (NO contact), 1 x energised to safe (NO contact)
Contact base material	AgNi 0.15 gold flashed	Max. permitted switching voltage	250 V AC
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	< 5.5 ms (DTS), < 5 ms (ETS)
Switch-off time	< 4 ms (DTS), < 4 ms (ETS)	Min. switching capacity	10 mA @ 12 V

Safety-related basic specifications

Device type	A	Hardware fault tolerance (HFT)	1
Safety category	SIL 3	Safety standard	DIN EN 61508

General data

Operating altitude	≤ 2000 m, above sea level	Rail	TS 35
Colour	black, yellow		

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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

Further details of approvals / standards

Standards	EN 61000, EN 61326-3-2

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

Environmental Product Compliance

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

Approvals

Approvals	
ROHS	Conform

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Technical data

Downloads

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

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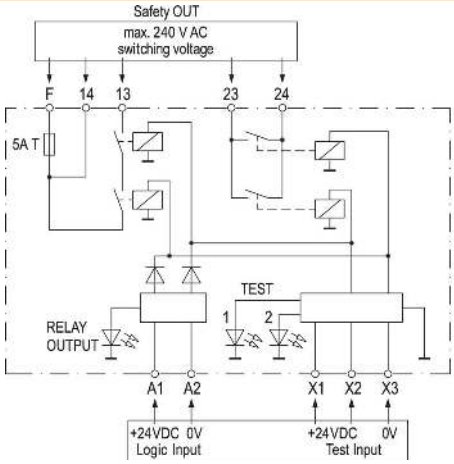
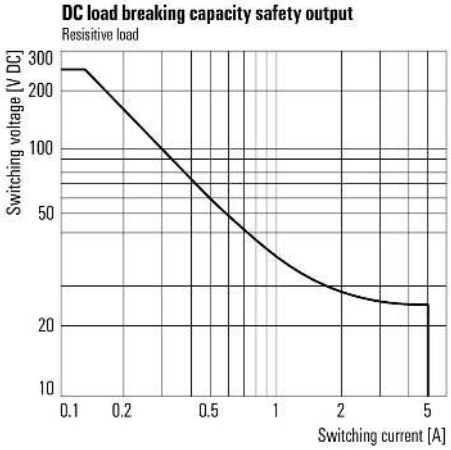
Drawings

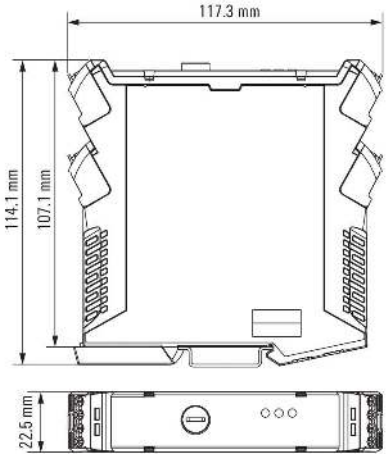
Wiring diagram



DC load limit curve



Dimensioned drawing



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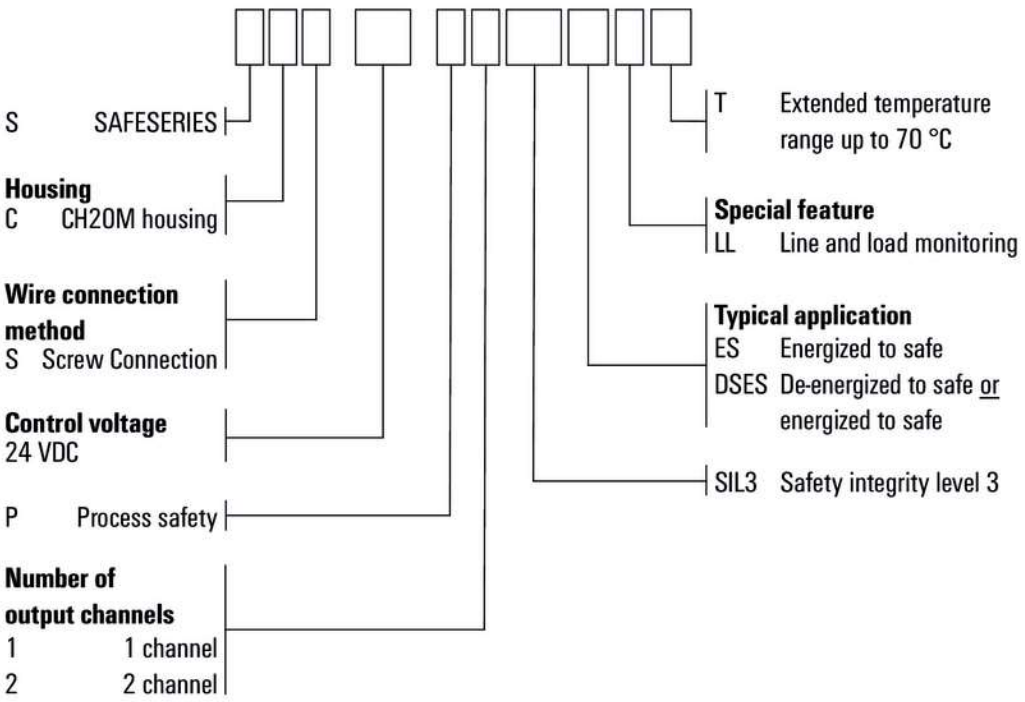
Drawings

Miscellaneous



Type codes