

SCS 24VDC P2SIL3ES

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

www.weidmueller.com



Especially for areas of process automation in which the functionally safe shutdown of the fuel supply to combustion plants is necessary. The relay complies with SIL3 and meets the requirements of EN ISO 13849-1 (PLe).

- TUV certified "Approved Safety Function"
- Forcibly guided contacts according to EN 61810-3 Type B
- 2-channel design suitable for protection of human and machine
- Can be used for electrical equipment of combustion plants according to EN 50156

General ordering data

Version	SAFESERIES, Safety relay, 24 V DC $\pm 15\%$, 24 VDC +15% / -10% during auto-start, 35 mA, 5, SIL 3, DIN EN 61508, EN ISO 13849-1 (PLe)
Order No.	1319280000
Type	SCS 24VDC P2SIL3ES
GTIN (EAN)	4050118125078
Qty.	1 items

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Technical data

Approvals

Approvals



ROHS Conform

Dimensions and weights

Depth	114.1 mm	Depth (inches)	4.4921 inch
Height	119.6 mm	Height (inches)	4.7087 inch
Width	22.5 mm	Width (inches)	0.8858 inch
Net weight	292 g		

Temperatures

Storage temperature	-40 °C...85 °C	Ambient temperature	-25 °C...55 °C
Operating temperature		Humidity	40 °C / 93 % rel. humidity, no condensation

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	7a, 7cl
REACH SVHC	Lead 7439-92-1, 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol 119-47-1
SCIP	332bc555-bc84-431d-ba7a-563be05e80bd

Input (power supply)

Connection designation	A1, A2, C1, C2	Rated control voltage	24 V DC \pm 15 %, 24 VDC +15% / -10% during auto- start
Current consumption	55 mA (release circuit enabled), 6 mA (release circuit not enabled)	Guaranteed current consumption at 24 V DC -10%	35 mA
Inrush current	750 mA / 5 ms (for starting with S33/S34 (start circuit)), 2 A / 20 ms (for starting with A1/A2 (autostart))	Response time	with bridge via C1/C2: typ. 50 ms, without bridge via C1/C2: typ. 20 ms
Status display	LED green: supply, Yellow LED: signal	Protective circuit	Reverse polarity protection, Free-wheeling diode
Short-circuit detection	Yes, max. 4 s up to disconnection (thermistor)		

Starting circuit

Anschlussbezeichnung	S33, S34, S35	Operating voltage	22 V DC, from internal power supply
Function	falling edge (button via S33/S34), rising edge (permanent bridge via S33/S35)		

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Monitoring circuit

Connection designation	S11, S12, S21, S22	Input	2, each externally bridgeable
Operating voltage	22 V DC, from internal power supply		

Output (release circuit)

Connection designation	13, 14, 23, 24	Contact design	2 NO positively-driven (EN 50205 type B)
Contact base material	AgSnO	Switching voltage AC, max.	250.00 V
Max. permissible switching current	5 A	Max. switching current, external fuse	5 A
Max. switching capacity	1250 VA	External back-up fuse	5 A time-lag
Turn-on time	55 ms (C1/C2 bridged, switched via A1/A2), 30 ms (opening/closing of monitoring circuit)	Turn-off time	55 ms (C1/C2 bridged, switched via A1/A2), 15 ms (opening/closing of monitoring circuit)
Min. switching capacity	10 mA @ 12 V		

Feedback output

Connection designation	31, 32	Contact design	1 NC positively-driven (EN 50205 type B)
Switching voltage AC, max.	250 V	Max. switching current.	1 A

Safety-related basic specifications

Tproof	12 a	Device type	A
Hardware fault tolerance (HFT)	1	Safety category	SIL 3
Safety standard	DIN EN 61508, EN ISO 13849-1 (PLe)		

General data

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

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 kVeff / 1 min	Dielectric strength to mounting rail	4 kVeff / 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, EN ISO 13849-1 (PLe)	Equipment for furnaces	EN 50156
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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

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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 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		

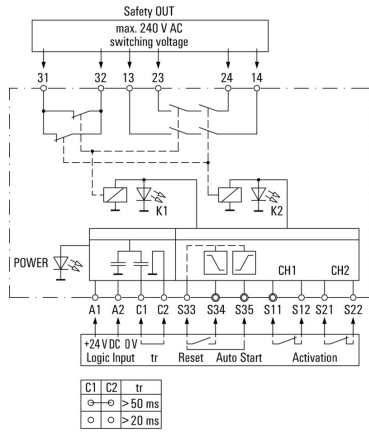
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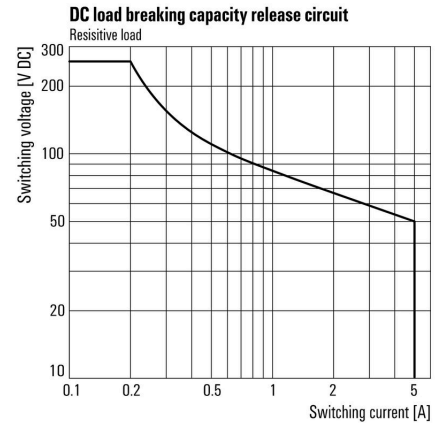
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Drawings

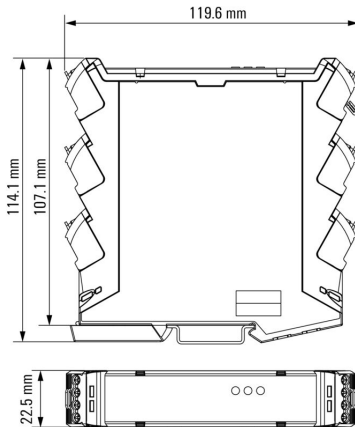
Wiring diagram



DC load limit curve



Dimensioned drawing



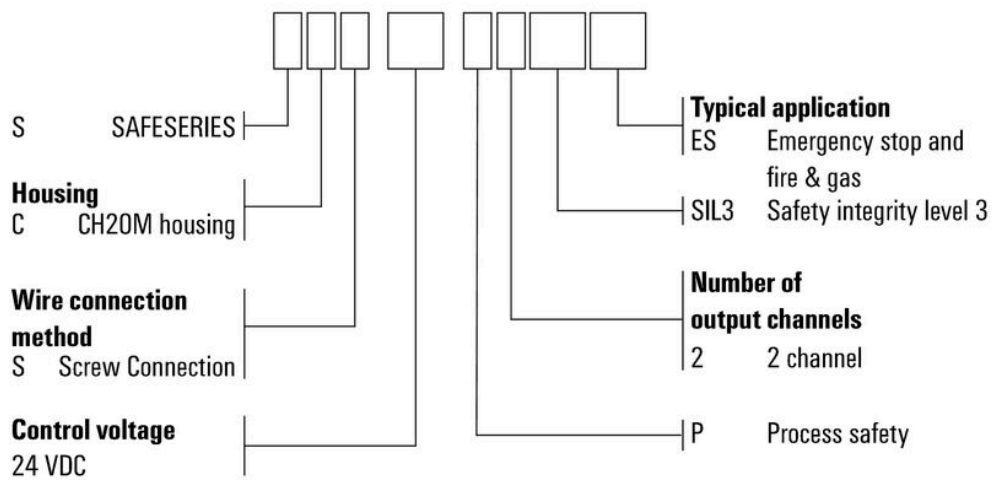
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Miscellaneous



Type codes