SCS 24VDC P1SIL3DS M

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 with monitoring circuit
- TUV certified and with “Approved Safety Function”
- cULus certified
- Multi-voltage input (24 - 230 V UC) in the monitoring circuit
- Available with G3 paint according to EN 60068-2-60
- 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.	1303760000
Type	SCS 24VDC P1SIL3DS M
GTIN (EAN)	4050118102703
Qty.	1 pc(s).

Creation date January 22, 2022 11:36:56 AM CET

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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
Humidity	40 °C / 93 % rel. humidity, no condensation		

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1

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	< 250 mA / < 5 ms	Status indicator	LED yellow
Protective circuit	Reverse polarity protection, Free-wheeling diode		

Input (monitoring)

Rated control voltage	24 V UC...230 V UC ±10 %	Current consumption	23 mA @ 24 V DC, 4,4 mA @ 230 V AC
Status indicator	LED yellow	Protective circuit	Rectifier

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

Output (monitoring)

Contact design	CO contact	Contact base material	AgNi 5µm Au
Max. permitted switching voltage	24 V DC	Max. allowed switching current	30 mA
Switch-on time	typ. 17 ms	Short circuit resistant	No
Min. switching capacity	1 mA @ 1 V		

Control side

Status indicator	LED yellow

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Technical data

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	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

Further details of approvals / standards

Standards	EN 50178, 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 mm^2
Conductor cross-section, flexible, AEH (DIN 46228-1), max.	2.5 mm^2	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		

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Technical data

Approvals

Approvals	
ROHS	Conform
UL File Number Search	E223474

Downloads

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

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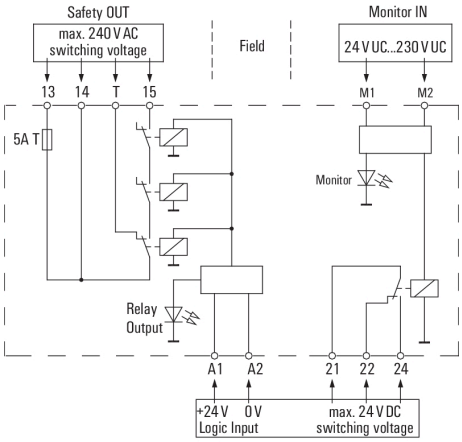
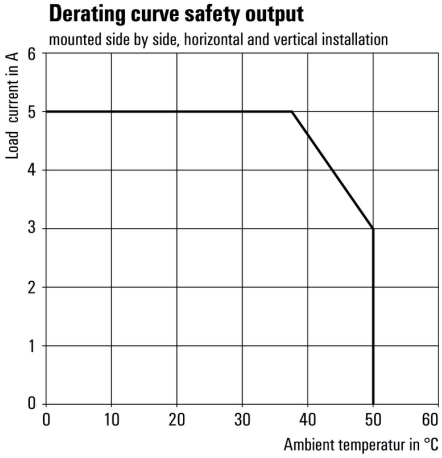
Drawings

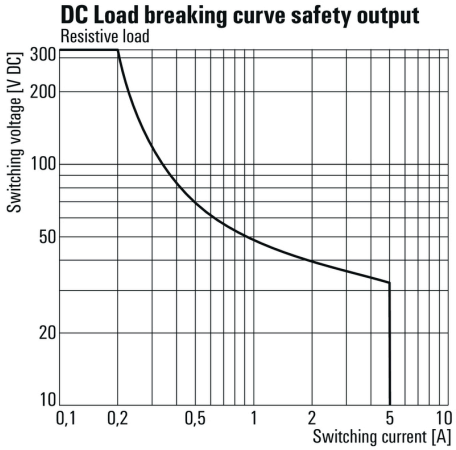
Wiring diagram



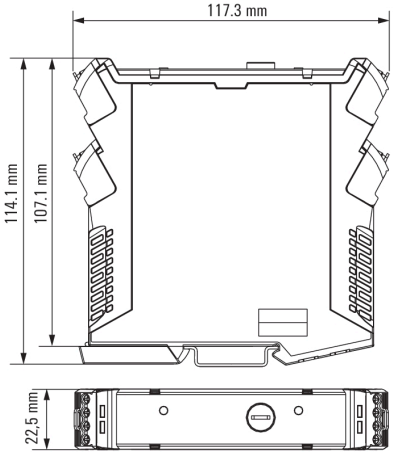
Derating curve



DC load limit curve



Dimensioned drawing



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Accessories

White

THM GEW woven-fabric labels are made from a very flexible cotton fabric. Delivery on reels for use with thermal transfer printers enables an adhesive layer which is thicker than that of A4 sheets for office laser printers. Together, this flexibility and the thick adhesive layer ensure higher adhesive strength and enable use on angular or round objects such as e.g. cables or hoses.

General ordering data

Type	THM GEW 15/6 WS	Version
Order No.	1059780000	THM, Device markers, 6 x 15 mm, white
GTIN (EAN)	4032248808175	
Qty.	1 pc(s).	

Crosshead screwdriver Phillips

Crosshead screwdriver, Phillips, SDK PH DIN 5262, ISO 8764/2-PH, output to ISO 8764-PH, ChromTop tip, SoftFinish grip

General ordering data

Type	SDK PH0 X 60	Version
Order No.	2749400000	Screwdriver, Blade length: 60 mm
GTIN (EAN)	4050118895629	
Qty.	1 pc(s).	

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Accessories

Blank

ESG is the tried-and-tested marker in MultiCard format for use on many well-known electrical devices. The result is high-quality device marking with a high-contrast appearance.
Various types are available for devices from manufacturers like Siemens, ABB, Beckhoff etc.
Advantages at a glance:
- Tags for universal usage, self-adhesive or clip-on tags, depending on type
- For aligned equipment, e.g. circuit breakers, we supply ESG markers for clipping onto tag rails
- Individual laser-quality printing according to specifications

For custom printing: Please send us a file of our labeling software M-Print PRO or M-Print PRO Online (without installation) for your labeling specifications.

General ordering data

Type	ESG 6.6/20 BHZ 5.00/04	Version
Order No.	1082540000	ESG, Device markers x 20 mm, PA 66, Colour: white
GTIN (EAN)	4032248845439	
Qty.	200 pc(s).	

Blank, adhesive backing

SM is a MultiCard marker for labelling control and signalling devices. The tags are clipped into the carriers or attached by means of the adhesive film already fitted to them. Customised tags can be created with the PrintJet CONNECT or Plotter marking systems.
- Users can quickly produce tags to suit their needs
- No need to stock expensive standard tags
- Highly resistant printing quality when using the PrintJet as a substitute for engraving
- For extreme demands, we recommend the ETO SM protective film
- Holders can be used for the 22-mm or 30-mm-diameter push-buttons from Siemens, ABB, Moeller and Télémécanique

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General ordering data

Type	SM 18/9.5 K MC NE GR	Version
Order No.	1248610000	SwitchMark, Device markers, 9.5 x 18 mm, grey
GTIN (EAN)	4050118038675	
Qty.	200 pc(s).	

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Accessories

Type	SM 18/9.5 K MC NE WS	Version
Order No.	1248580000	SwitchMark, Device markers, 9.5 x 18 mm, white
GTIN (EAN)	4050118038965	
Qty.	200 pc(s).	

Type	SM 18/9.5 K MC NE GE	Version
Order No.	1248590000	SwitchMark, Device markers, 9.5 x 18 mm, Siemens 3 SB, yellow
GTIN (EAN)	4050118038958	
Qty.	200 pc(s).	

Blank

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General ordering data

Type	ESG 6/17 K MC NE WS	Version
Order No.	1880120000	ESG, Device markers x 17 mm, PA 66, Colour: white, Self-adhesive
GTIN (EAN)	4032248478804	
Qty.	200 pc(s).	

Type	ESG 6/17 K MC NE GE	Version
Order No.	1880110000	ESG, Device markers x 17 mm, PA 66, Colour: yellow, Self-adhesive
GTIN (EAN)	4032248478798	
Qty.	200 pc(s).	

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Accessories

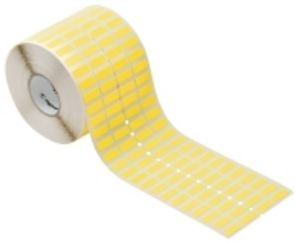
ESG 6/15

Guaranteed long service life: ESG
The multi-colour and multi-format labels have a strong adhesive layer to ensure the best possible adhesion to the underlying surface. Double laminated polyester makes the basic material very thin and yet extremely tear-resistant.
Your benefits with MultiMark
- "Different materials for various requirements"
- Can be used with equipment from many manufacturers
- Device markers with a familiar design

General ordering data

Type	ESG 6/15 MM WS	Version
Order No.	2619940000	ESG, Device markers, 6 x 15 mm, white
GTIN (EAN)	4050118626148	
Qty.	3,000 pc(s).	

Yellow



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General ordering data

Type	THM GEW 15/6 GE	Version	Packaging
Order No.	1059790000	THM, Device markers, 6 x 15 mm, yellow	Reel
GTIN (EAN)	4032248808182		
Qty.	1 pc(s).		

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General ordering data

Type	ESG 6/15 K MC NE GE	Version
Order No.	1880130000	ESG, Device markers x 15 mm, PA 66, Colour: yellow, Self-adhesive
GTIN (EAN)	4032248478910	
Qty.	200 pc(s).	

Type	ESG 6/15 K MC NE WS	Version
Order No.	1880100000	ESG, Device markers x 15 mm, PA 66, Colour: white, Self-adhesive
GTIN (EAN)	4032248478781	
Qty.	200 pc(s).	

Crosshead screwdriver Phillips

VDE insulated crosshead screwdriver, for Phillips screws, SDIK PH DIN 7438, ISO 8764/2-PH, output to ISO 8764-PH, SoftFinish grip

General ordering data

Type	SDIK PH0 X 60	Version
Order No.	2749880000	Screwdriver, Blade length: 60 mm
GTIN (EAN)	4050118897081	
Qty.	1 pc(s).	

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ESG 6/17

Guaranteed long service life: ESG
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- "Different materials for various requirements"
- Can be used with equipment from many manufacturers
- Device markers with a familiar design

General ordering data

Type	ESG 6/17 MM WS	Version
Order No.	2005100000	ESG, Device markers, 6 x 17 mm, white
GTIN (EAN)	4050118390728	
Qty.	3,000 pc(s).	
Type	ESG 6/17 MM GE	Version
Order No.	2005110000	ESG, Device markers, 6 x 17 mm, yellow
GTIN (EAN)	4050118390827	
Qty.	3,000 pc(s).	

SM 18/9.5

Prevention of incorrect operation: SM
MultiMark device markers can be used with marking materials from different manufacturers.Wherever they are used, they ensure that all components, such as control and signalling devices from different vendors, are clearly assigned.
Your benefits with MultiMark
- "Different materials for various requirements"
- Can be used with equipment from many manufacturers
- Device markers with a familiar design

General ordering data

Type	SM 18/9.5 MM GE	Version
Order No.	2006240000	SwitchMark, Device markers, 9 x 18 mm, yellow
GTIN (EAN)	4050118390698	
Qty.	1,000 pc(s).	
Type	SM 18/9.5 MM GR	Version
Order No.	2006260000	SwitchMark, Device markers, 9 x 18 mm, grey
GTIN (EAN)	4050118390964	
Qty.	1,000 pc(s).	
Type	SM 18/9.5 MM WS	Version
Order No.	2006220000	SwitchMark, Device markers, 9 x 18 mm, white
GTIN (EAN)	4050118391435	
Qty.	1,000 pc(s).	

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General ordering data

Type	ESG 9/11 K MC NE WS	Version
Order No.	1857440000	ESG, Device markers x 11 mm, PA 66, Colour: white, Self-adhesive
GTIN (EAN)	4032248402731	
Qty.	200 pc(s).	

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