



FAIL-SAFE DIGITAL MODULE DM-F PROFISAFE;
 FOR FAIL-SAFE SWITCH-OFF VIA BUS / PROFISAFE;
 UV: 110..240 V AC/DC,
 2 RELAY ENABLING CIRCUITS;
 2 RELAY OUTPUTS;
 3 INPUTS;
 MAX. ERR. SIL (IEC 61508): 3;
 MAX. ERR. PL (ISO 13849-1): E;

General technical data:

product brand name		SIRIUS
product designation		DM-FP
Design of the product		for fail-safe shutdown
Item designation / according to DIN EN 61346-2		F
Item designation / according to DIN 40719 extendable after IEC 204-2 / according to IEC 750		F

Installation/mounting/dimensions:

mounting position		any
Type of mounting		screw and snap-on mounting
Width	mm	45
Height	mm	106
Depth	mm	124

Connections:

Design of the electrical connection / for auxiliary and control current circuit		screw-type terminals
Conductor cross-section that can be connected / for auxiliary contact		
• solid • finely stranded	mm ²	0.5 ... 4

- with conductor end processing

mm² 0.5 ... 2.5

Ambient conditions:

Ambient temperature

- during operating
- during storage
- during transport

°C -25 ... +60
°C -40 ... +80
°C -40 ... +80

Relative humidity

- during operating phase

% 5 ... 95

Installation altitude / at a height over sea level / maximum

m 2,000

Protection class IP

IP20

Resistance against vibration

1-6 Hz / 15 mm; 6-500 Hz / 2 g

EMC immunity to interference / according to IEC 60947-1

corresponds to degree of severity 3

Conductor-bound parasitic coupling BURST

2 kV network connection / 1 kV control connection

Conductor-bound parasitic coupling conductor-earth SURGE

- according to IEC 61000-4-5

2 kV

Conductor-bound parasitic coupling conductor-conductor SURGE

- according to IEC 61000-4-5

1 kV

Field-bound parasitic coupling

- according to IEC 61000-4-3

10 V/m

EMC emitted interference / according to IEC 60947-1

class A

Insulation voltage / rated value

V 300

Impulse voltage resistance / rated value

V 4,000

Safety:

Safety Integrity Level (SIL) / according to IEC 61508

SIL3

Performance level (PL) / according to ISO 13849-1

e

Category / according to EN 954-1

4

Category / according to ISO 13849-1

4

Stop category / according to DIN EN 60204-1

0

Product function

- emergency stop function
- automatic start
- monitored start-up
- light barrier monitoring
- protective door monitoring
- magnetic switch monitoring Normally closed contact-Normally open contact
- light grid monitoring

No
No
No
No
No
No
No

• magnetic switch monitoring Normally closed contact-Normally closed contact		No
• step mat monitoring		No
Acceptability for application		
• EMERGENCY-OFF circuit monitoring		No
• safety-related circuits		No
• position switch monitoring		No
• safety cut-out switch		No
• magnetically operated switches monitoring		No
• proximity switches monitoring		No
• tactile sensor monitoring		No
• opto-electronical protection device monitoring		No
• valve monitoring		No
Product feature / transverse contact-secure		Yes
Design of the input / feedback input		Yes
Probability of dangerous failure per hour (PFHD) / with high demand rate / according to EN 62061	1/h	0.441E-8
Average probability of failure on demand (PFDavg) / with low demand rate / according to IEC 61508	1/y	0.521E-5
SIL claim limit (for a subsystem) / according to EN 62061		3
T1 value / for proof test interval or service life / according to IEC 61508	a	20
PROFIsafe monitoring time F_WD_Time	ms	250
Response time / in faultless state WCDT	ms	150
Response time / in case of failure OFDT	ms	200
Backslide delay time / at mains power cut / typical	ms	220
Backslide delay time / at mains power cut / maximum	ms	320
Recovery time / after mains power cut / typical	s	1

Communication:

Protocol / will be supported / PROFIsafe protocol		Yes
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Inputs/ Outputs:

Number of inputs		4
Number of digital inputs		3
Number of analog inputs		0
Number of outputs		2
Number of outputs / as contact-affected switching element		2
Switching behaviour		monostable
Number of analog outputs		0
Number of outputs / as contact-affected switching element / as NO contact / safety-related / instantaneous switching		2

Type of input characteristic		Type 2 in accordance with EN 61131-2
Cable length / for digital signals / maximum	m	300
Mechanical operating cycles as operating time / typical		10,000,000
Electrical operating cycles as operating time / typical		100,000
Operating cycles / maximum	1/h	360
Switching capacity current • of the NO contacts of the relay outputs • at AC-15 • at 24 V • at 120 V • at 240 V • at DC-13 • at 24 V • at 60 V • at 125 V • at 250 V • of relay enabling circuits • for AC-15 • at 24 V • at 120 V • at 240 V • for DC-13 • at 24 V • at 60 V • at 125 V • at 250 V	A A A A A A A A A A A A A A	3 3 1.5 4 0.55 0.22 0.11 3 3 1.5 4 0.55 0.22 0.11
Design of fuse link / for short-circuit protection of relay enabling circuits / required		gL/gG: 4 A
Thermal current / of the contact-affected switching element / maximum	A	5

Control circuit:

Type of voltage / of the controlled supply voltage		AC/DC
Control supply voltage • for DC • rated value • at 50 Hz / at AC • rated value • at 60 Hz / at AC • rated value	V V V	110 ... 240 110 ... 240 110 ... 240
Control supply voltage frequency		

• 1 / rated value	Hz	50
• 2 / rated value	Hz	60
• 1	Hz	50 ... 60
Active apparent power / at 230 V / for AC / typical	V·A	11
Stored energy time / at mains power cut	ms	200

Certificates/approvals:

Verification of suitability

- UL-registration
- TÜV (German technical inspectorate) certificate

CE / UL / CSA / C-TICK / GOST / NOM / ATEX / RoHS

Yes

Yes

General Product Approval

EMC

For use in hazardous locations

Test Certificates



CSA



GOST



UL



C-TICK



ATEX

[Special Test Certificate](#)

Shipping Approval

other



GL

[Declaration of Conformity](#)



Profibus

[PROFINET-Certification](#)

[PROFISafe-Certification](#)

Further information:

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<http://www.siemens.com/industrial-controls/mall>

Cax online generator

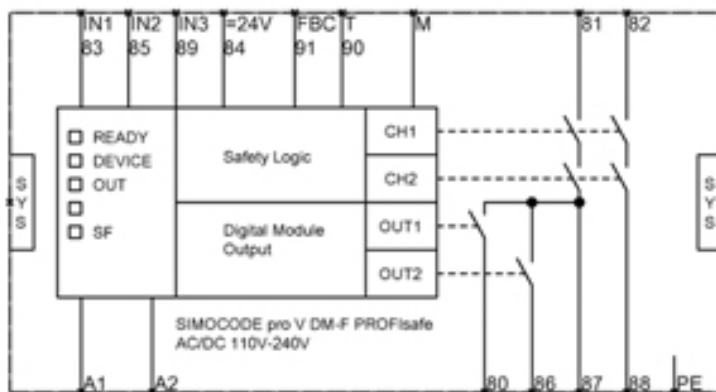
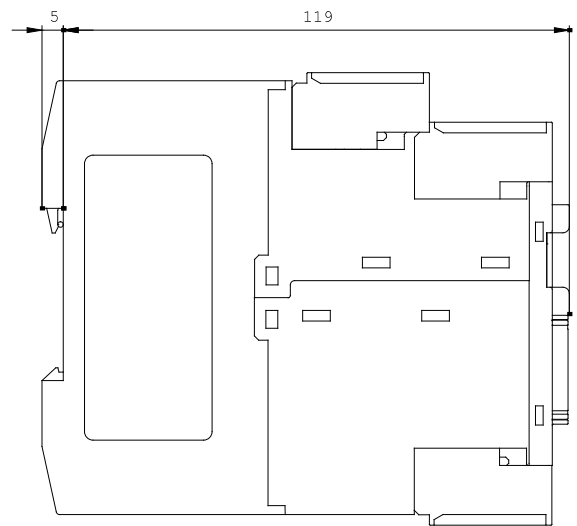
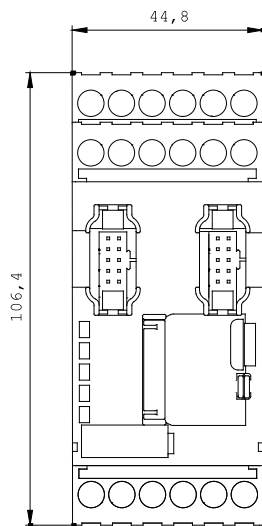
<http://www.siemens.com/cax>

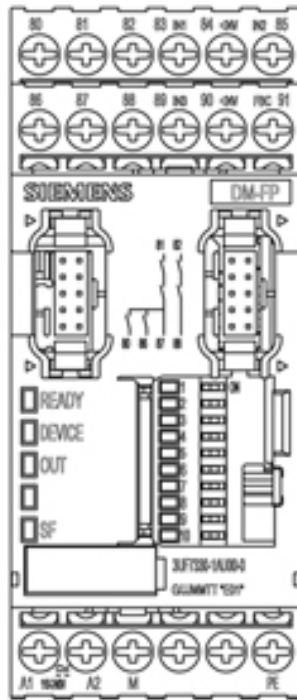
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3UF7330-1AU00-0/all>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3UF7330-1AU00-0





last change:

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