SIEMENS

Product data sheet 3UF7320-1AU00-0

FAIL-SAFE DIGITAL MODULE DM-F LOCAL;
FOR FAIL-SAFE SWITCH-OFF VIA HARDWARE SIGNAL;
UV: 110...240 V AC/DC,
2 RELAY ENABLING CIRCUITS;
2 RELAY OUTPUTS;
SAFETY FUNCTION CAN BE SELECTED VIA DIL SWITCH;
MAX. ERR. SIL (IEC 61508): 3;
MAX. ERR. PL (ISO 13849-1): E;

General technical data:		
product brand name		SIRIUS
product designation		DM-FL
Design of the product		for emergency off and safety doors
Item designation / according to DIN EN 61346-2		F
Item designation / according to DIN 40719 extendable after IEC 204-2 / according to IEC 750		KT

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	mm^2	0.5 … 4
• finely stranded		

• with conductor end processing	mm²	0.5 … 2.5

Ambient conditions:		
Ambient temperature		
• during operating	°C	-25 … +60
• during storage	°C	-40 … +80
• during transport	°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		Yes
• automatic start		Yes
• monitored start-up		Yes
• light barrier monitoring		Yes
• protective door monitoring		Yes
• magnetic switch monitoring Normally closed contact-Normally open contact		Yes
• light grid monitoring		Yes

• magnetic switch monitoring Normally closed contact-Normally closed contact		Yes
• step mat monitoring		Yes
Acceptability for application		
• EMERGENCY-OFF circuit monitoring		Yes
• safety-related circuits		Yes
• position switch monitoring		Yes
• safety cut-out switch		Yes
• magnetically operated switches monitoring		Yes
• proximity switches monitoring		No
• tactile sensor monitoring		No
• opto-electronical protection device monitoring		Yes
• valve monitoring		No
Type of the safety-related wiring / of the inputs		single-channel and two-channel
Product feature / transverse contact-secure		Yes
Design of the input / start input		Yes
Design of the input / feedback input		Yes
Design of the cascading		cascading
Design of the input / cascading-input/functional switching		Yes
Probability of dangerous failure per hour (PFHD) / with high demand rate / according to EN 62061	1/h	0.458E-8
Average probability of failure on demand (PFDavg) / with low demand rate / according to IEC 61508	1/y	0.548E-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
Make time		
• with automatic start		
• typical	ms	50
• for DC / maximum	ms	100
• for AC / maximum	ms	100
• after mains power cut		
• typical	ms	8,000
• maximum	ms	8,200
• with monitored start		
• typical	ms	50
• maximum	ms	100
Backslide delay time / after opening of the safety circuits / typical	ms	50
Backslide delay time / at mains power cut / typical	ms	220
Backslide delay time / at mains power cut / maximum	ms	320

Recovery time / after opening of the safety circuits / typical	ms	250
Recovery time / after mains power cut / typical	s	8
Pulse duration		
• of the sensor input / minimum	ms	30
• of the ON pushbutton input / minimum	s	0.2
• of the cascading-entrance / minimum	s	0.2

Inputs/ Outputs:		
Number of inputs		5
Number of digital inputs		0
Number of analog inputs		0
Number of sensor inputs / 2-channel		1
Number of sensor inputs / 1-channel or 2-channel		1
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 / between sensor and electronic evaluation device / with Cu 1.5 mm² and 150 nF/km / maximum	m	1,500
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	A	3
• at 120 V	A	3
• at 240 V	A	1.5
• at DC-13		
• at 24 V	A	4
• at 60 V	A	0.55
• at 125 V	A	0.22
• at 250 V	A	0.11
• of relay enabling circuits		
• for AC-15		
• at 24 V	A	3

• at 120 V	A	3
• at 240 V	A	1.5
• for DC-13		
• at 24 V	A	4
• at 60 V	A	0.55
• at 125 V	A	0.22
• at 250 V	A	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	V	110 … 240
• at 50 Hz / at AC		
• rated value	V	110 … 240
• at 60 Hz / at AC		
• rated value	V	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	9.5
Stored energy time / at mains power cut	ms	200

Certificates/approvals:

Verification of suitability		CE / UL / CSA / C-TICK / GOST / NOM / ATEX / RoHS
• UL-registration		Yes
• TÜV (German technical inspectorate) certificate		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:

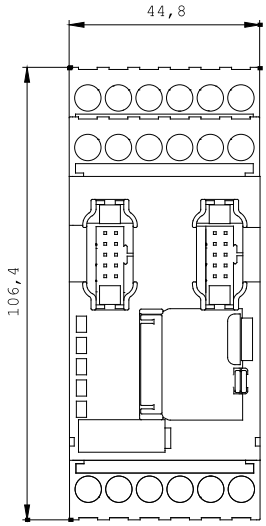
Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/industrial-controls/catalogs

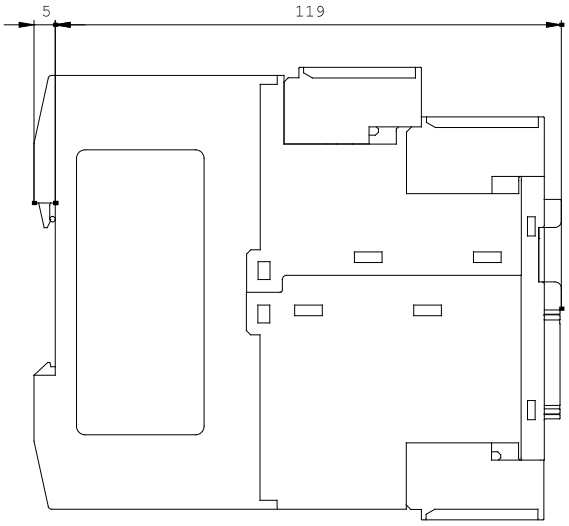
Industry Mall (Online ordering system)
http://www.siemens.com/industrial-controls/mall

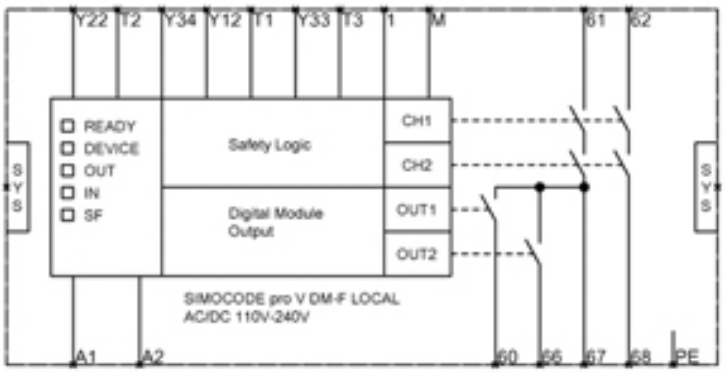
Cax online generator
http://www.siemens.com/cax

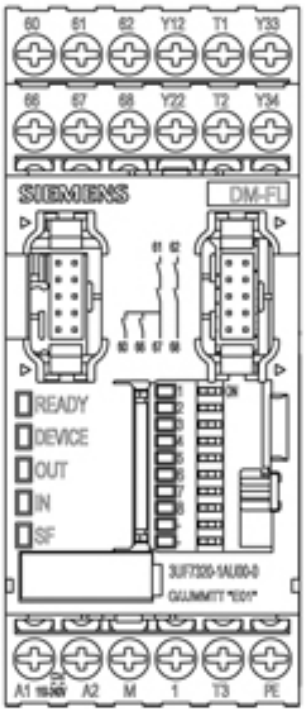
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
http://support.automation.siemens.com/WW/view/en/3UF7320-1AU00-0/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3UF7320-1AU00-0









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