SIEMENS

Data sheet 3UF7700-1AA00-0



Temperature module, 3 inputs for connection of up to 3 temperature sensors, for SIMOCODE pro V basic unit

product brand name	SIMOCODE
product designation	temperature module
product type designation	TM
General technical data	
product component	
● input for thermistor connection	No
● input for analog temperature sensors	Yes
● input for ground fault detection	No
consumed active power	0.2 W
surge voltage resistance rated value	4 000 V
shock resistance according to IEC 60068-2-27	15 g / 11 ms
vibration resistance according to IEC 60068-2-6	1 ... 6 Hz: 15 mm, 6 ... 500 Hz: 2 g
reference code according to IEC 81346-2	B
measurable temperature	
● initial value	-50 °C
● full-scale value	500 °C
Substance Prohibitance (day/month/year)	05/01/2012
SVHC substance name	Lead CAS-No. 7439-92-1 Lead monoxide (lead oxide) CAS-No. 1317-36-8 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one CAS-No. 71868-10-5 Melamine CAS-No. 108-78-1
Net Weight	109.95 g
measurable temperature	
● with NTC minimum	80 °C
● with NTC maximum	160 °C
● with KTY 84 minimum	-40 °C
● with KTY 84 maximum	300 °C
● with KTY 83-110 minimum	-50 °C
● with KTY 83-110 maximum	175 °C
● with Pt 1000 minimum	-50 °C
● with Pt 1000 maximum	500 °C
● with Pt 100 minimum	-50 °C
● with Pt 100 maximum	500 °C
relative temperature-related measurement deviation at 20 °C	2 %
sensor current for Pt 100 typical	1 mA
sensor current for Pt 1000/KTY 83-110/KTY 84/NTC typical	0.2 mA
diagnostics function at sensor input with Pt 100	
● short-circuit detection	Yes

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● open-circuit detection	Yes
diagnostics function at sensor input with Pt 1000	
● short-circuit detection	Yes
● open-circuit detection	Yes
diagnostics function at sensor input with KTY 83-110	
● short-circuit detection	Yes
● open-circuit detection	Yes
diagnostics function at sensor input with KTY 84	
● short-circuit detection	Yes
● open-circuit detection	Yes
diagnostics function at sensor input with NTC	
● short-circuit detection	Yes
● open-circuit detection	No
type of connection technology of sensor circuit	2-wire or 3-wire connection
A/D conversion time at sensor circuit	500 ms
Electromagnetic compatibility	
EMC emitted interference according to IEC 60947-1	class A
EMC immunity according to IEC 60947-1	corresponds to degree of severity 3
conducted interference	
● due to burst according to IEC 61000-4-4	1 kV
● due to conductor-earth surge according to IEC 61000-4-5	2 kV
● due to conductor-conductor surge according to IEC 61000-4-5	1 kV
field-based interference according to IEC 61000-4-3	10 V/m
Inputs/ Outputs	
number of inputs	3
number of digital inputs	0
number of analog inputs	3
number of outputs as contact-affected switching element	0
number of analog outputs	0
Protective and monitoring functions	
design of the sensor for temperature measurement connectable	PT100 / PT1000 / KTY83-110 / KTY84 / NTC
Precision	
temperature drift per °C	0.05 %/°C
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting
height	92 mm
width	22.5 mm
depth	124 mm
required spacing	
● top	40 mm
● bottom	40 mm
● left	0 mm
● right	0 mm
Connections/ Terminals	
type of electrical connection for auxiliary and control circuit	screw-type terminals
type of connectable conductor cross-sections	
● solid	1x (0.5 ... 4.0mm²), 2x (0.5 ... 2.5 mm²)
● finely stranded with core end processing	1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²)
● for AWG cables solid	1x (20 ... 14), 2x (20 ... 16)
● for AWG cables stranded	1x (20 ... 12), 2x (20 ... 14)
tightening torque with screw-type terminals	0.8 ... 1.2 N·m
tightening torque [lbf·in] with screw-type terminals	7 ... 10.3 lbf·in
Ambient conditions	
installation altitude at height above sea level	
● 1 maximum	2 000 m
● 2 maximum	3 000 m; max. +50 °C (no protective separation)
● 3 maximum	4 000 m; max. +40 °C (no protective separation)

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ambient temperature	
● during operation	-25 ... +60 °C
● during storage	-40 ... +80 °C
● during transport	-40 ... +80 °C
environmental category	
● during operation according to IEC 60721	3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
● during storage according to IEC 60721	3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
● during transport according to IEC 60721	3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
relative humidity during operation	5 ... 95 %
Electrical Safety	
touch protection against electrical shock	finger-safe
Galvanic isolation	
galvanic isolation between inputs and electronics	No

Approvals Certificates

Environment	General Product Approval				
Environmental Confirmations	EPD	CCC	cULus	UL	EAC

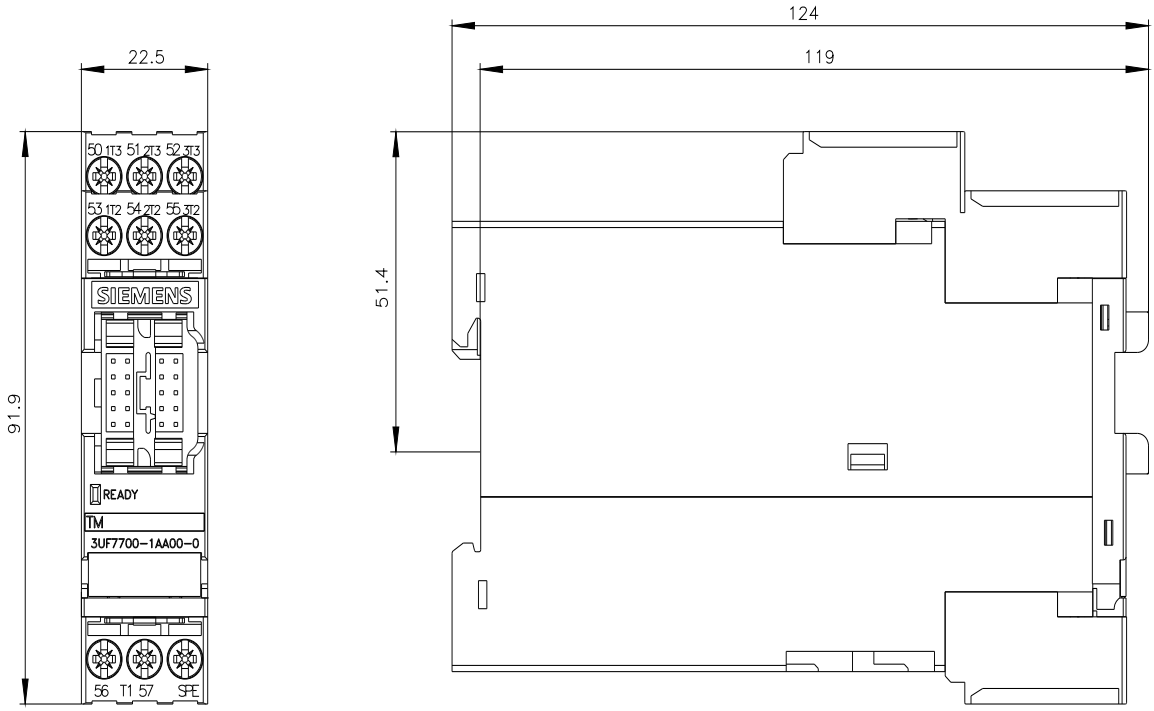
General Product Approval	EMV		Test Certificates	Maritime application
CE EG-Konf.	UKCA	KC	RCM	Type Test Certificates/Test Report	ABS

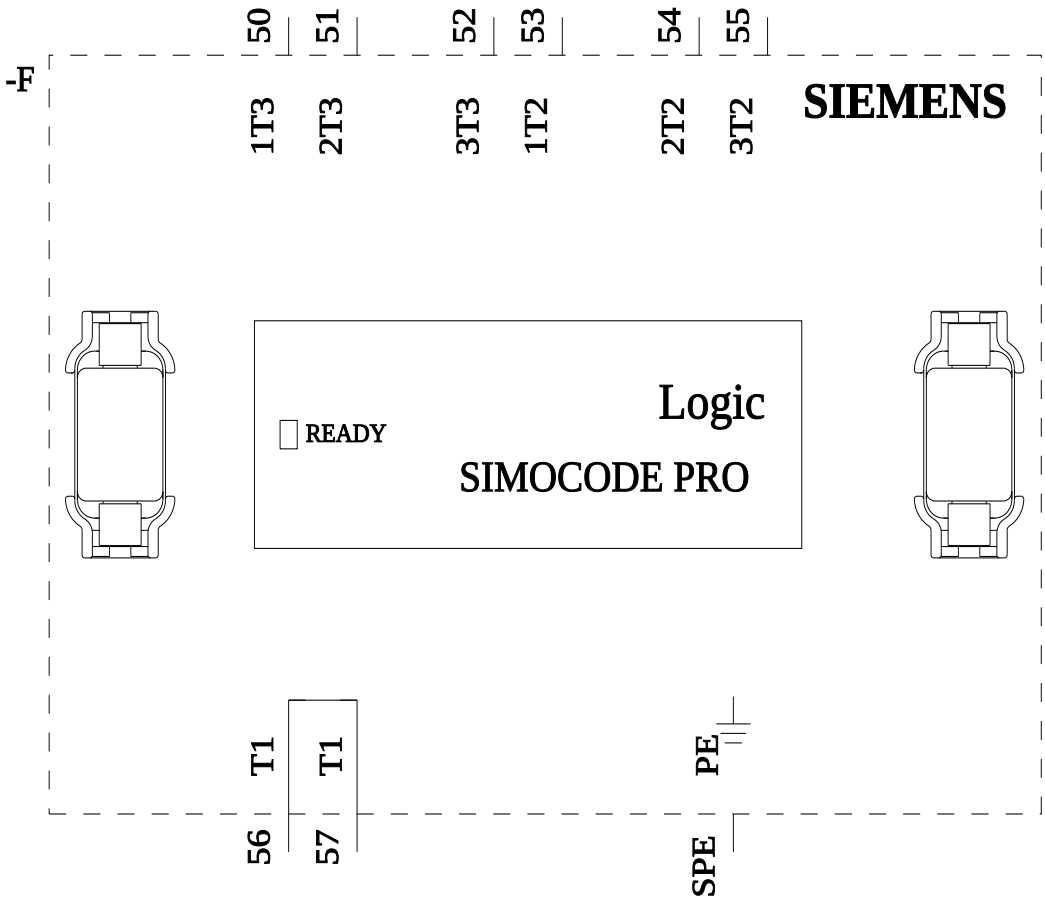
Maritime application	other		Industrial Communication
DNV	Confirmation	产品合格 QC PASS	Profibus

Further information

Information on the packaging
https://support.industry.siemens.com/cs/ww/en/view/109813875
Information for data generation and storage
https://support.industry.siemens.com/cs/ww/en/view/109995012
Information- and Downloadcenter (Catalogs, Brochures,…)
https://www.siemens.com/ic10
Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3UF7700-1AA00-0
Cax online generator
https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UF7700-1AA00-0
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3UF7700-1AA00-0
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UF7700-1AA00-0&lang=en

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