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	SIRIUS
product designation	temperature module
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	15g / 11 ms
vibration resistance according to IEC 60068-2-6	1 ... 6 Hz: 15 mm, 6 ... 500 Hz: 2g
reference code according to IEC 81346-2	B
measurable temperature	
● initial value	-50 °C
● full-scale value	500 °C
Substance Prohibitance (Date)	05/01/2012
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8
Weight	138 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
● 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 ... 4.0 mm²), 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)
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

General Product Approval

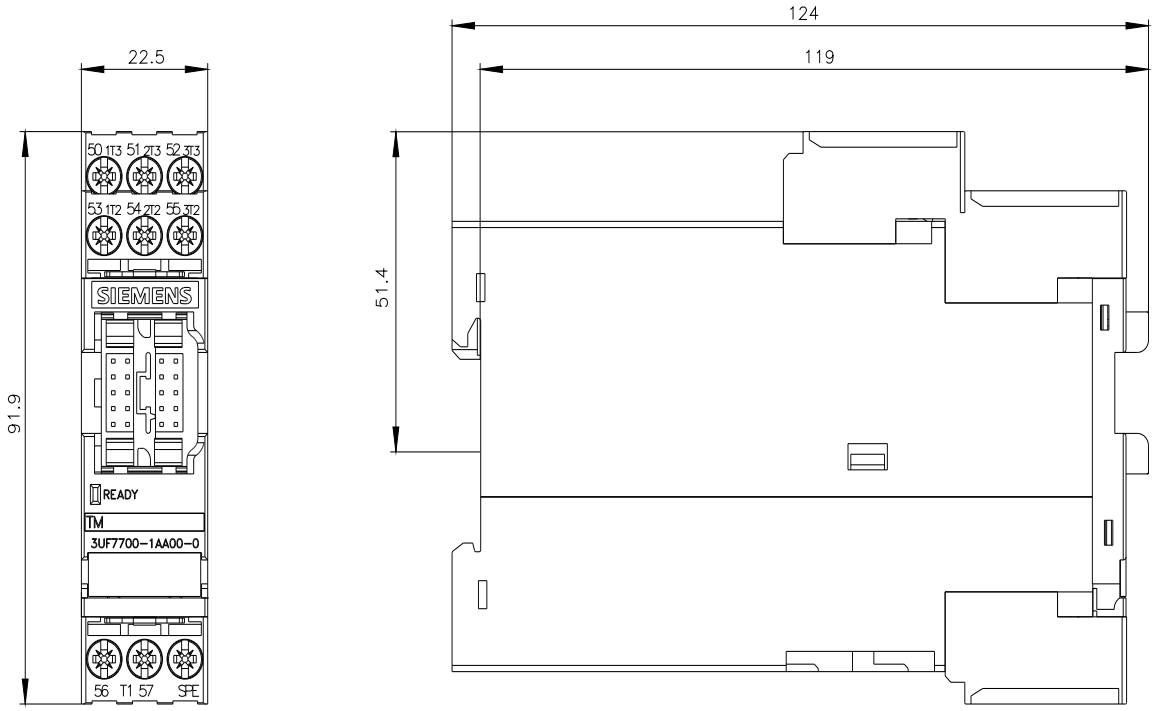
Confirmation

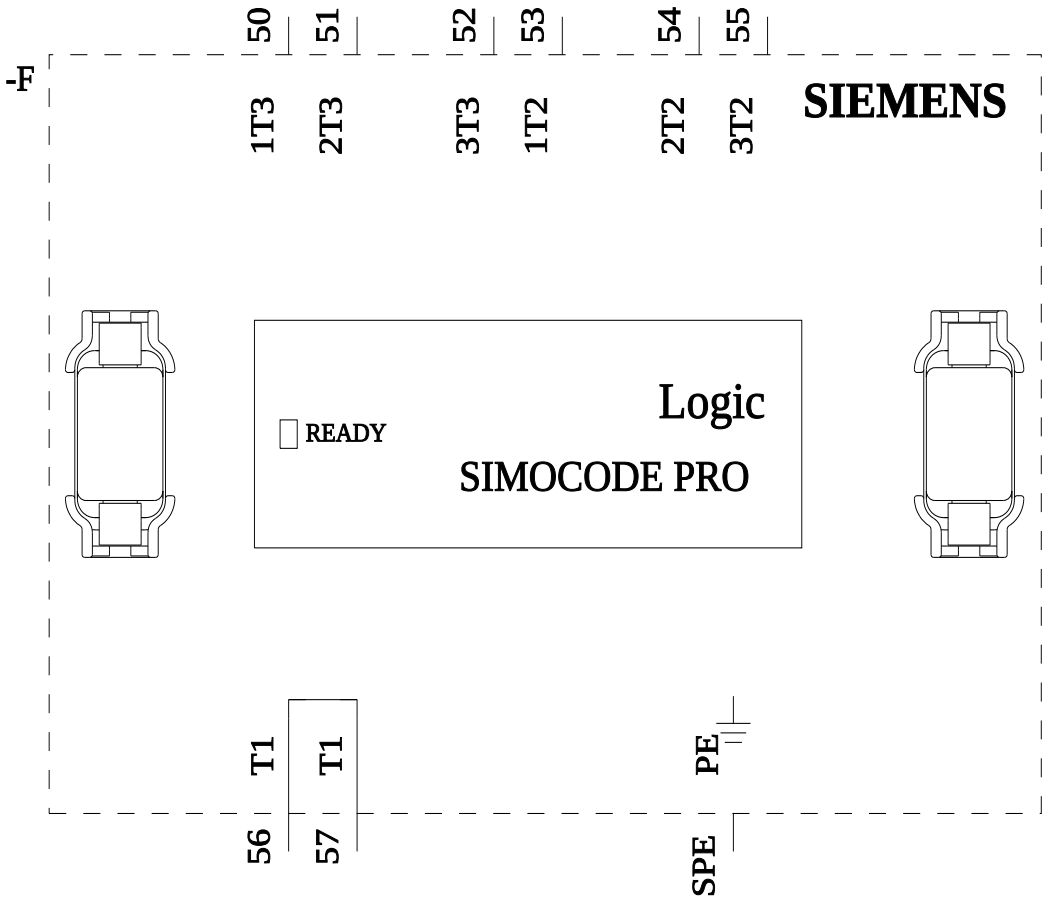
EMV	Test Certificates	Marine / Shipping
KC	Type Test Certific-ates/Test Report	

other	Environment	Industrial Communication
Confirmation	Environmental Con-firmations	

Further information

Information on the packaging
https://support.industry.siemens.com/cs/ww/en/view/109813875
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
http://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, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UF7700-1AA00-0&lang=en





last modified: 3/11/2024