## **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	
<ul> <li>input for thermistor connection</li> </ul>	No
<ul> <li>input for analog temperature sensors</li> </ul>	Yes
input for ground fault detection	No
surge voltage resistance rated value	4 000 V
protection class IP	IP20
shock resistance acc. to IEC 60068-2-27	15g / 11 ms
vibration resistance acc. to IEC 60068-2-6	1 6 Hz: 15 mm, 6 500 Hz: 2g
reference code acc. to IEC 81346-2	В
measurable temperature	
• initial value	-50 °C
• full-scale value	500 °C
Substance Prohibitance (Date)	01.05.2012 00:00:00
measurable temperature	
with NTC minimum	80 °C
<ul> <li>with NTC maximum</li> </ul>	160 °C
<ul><li>with KTY 84 minimum</li></ul>	-40 °C
<ul><li>with KTY 84 maximum</li></ul>	300 °C
<ul><li>with KTY 83-110 minimum</li></ul>	-50 °C
<ul><li>with KTY 83-110 maximum</li></ul>	175 °C
<ul><li>with Pt 1000 minimum</li></ul>	-50 °C
<ul> <li>with Pt 1000 maximum</li> </ul>	500 °C
<ul> <li>with Pt 100 minimum</li> </ul>	-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	Voe
open-circuit detection  diagnostics function at concer input with KTV 94	Yes
diagnostics function at sensor input with KTY 84	Voo
short-circuit detection	Yes
open-circuit detection	Yes
diagnostics function at sensor input with NTC	V
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 acc. to IEC 60947-1	class A
EMC immunity acc. to IEC 60947-1	corresponds to degree of severity 3
conducted interference	
<ul><li>due to burst acc. to IEC 61000-4-4</li></ul>	1 kV
<ul> <li>due to conductor-earth surge acc. to IEC 61000-4-5</li> </ul>	2 kV
<ul> <li>due to conductor-conductor surge acc. to IEC 61000-4-5</li> </ul>	1 kV
field-based interference acc. 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
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Installation/ mounting/ dimensions	
Installation/ mounting/ dimensions	anv
mounting position	any screw and snan-on mounting
mounting position fastening method	screw and snap-on mounting
mounting position fastening method height	screw and snap-on mounting 92 mm
mounting position fastening method height width	screw and snap-on mounting 92 mm 22.5 mm
mounting position fastening method height width depth	screw and snap-on mounting 92 mm
mounting position fastening method height width depth required spacing	screw and snap-on mounting 92 mm 22.5 mm 124 mm
mounting position fastening method height width depth required spacing • top	screw and snap-on mounting 92 mm 22.5 mm 124 mm
mounting position fastening method height width depth required spacing • top • bottom	screw and snap-on mounting 92 mm 22.5 mm 124 mm 40 mm 40 mm
mounting position fastening method height width depth required spacing • top • bottom • left	screw and snap-on mounting  92 mm  22.5 mm  124 mm  40 mm  40 mm  0 mm
mounting position fastening method height width depth required spacing  • top • bottom • left • right	screw and snap-on mounting 92 mm 22.5 mm 124 mm 40 mm
mounting position fastening method height width depth required spacing • top • bottom • left • right Connections/ Terminals	screw and snap-on mounting  92 mm  22.5 mm  124 mm  40 mm  40 mm  0 mm
mounting position fastening method height width depth required spacing • top • bottom • left • right  Connections/ Terminals type of connectable conductor cross-sections	screw and snap-on mounting  92 mm  22.5 mm  124 mm  40 mm  40 mm  0 mm  0 mm
mounting position fastening method height width depth required spacing • top • bottom • left • right  Connections/ Terminals type of connectable conductor cross-sections • solid	screw and snap-on mounting  92 mm  22.5 mm  124 mm  40 mm  40 mm  0 mm  0 mm  1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)
mounting position fastening method height width depth required spacing • top • bottom • left • right  Connections/ Terminals type of connectable conductor cross-sections • solid • finely stranded with core end processing	screw and snap-on mounting  92 mm  22.5 mm  124 mm  40 mm  0 mm  0 mm  1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)  1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)
mounting position  fastening method  height  width  depth  required spacing  • top  • bottom  • left  • right  Connections/ Terminals  type of connectable conductor cross-sections  • solid  • finely stranded with core end processing  • at AWG cables solid	screw and snap-on mounting  92 mm  22.5 mm  124 mm  40 mm  40 mm  0 mm  0 mm  1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)  1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)  1x (20 14), 2x (20 16)
mounting position fastening method height width depth required spacing • top • bottom • left • right  Connections/ Terminals type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded	screw and snap-on mounting  92 mm  22.5 mm  124 mm  40 mm  40 mm  0 mm  0 mm  1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)  1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)  1x (20 14), 2x (20 16)  1x (20 12), 2x (20 14)
mounting position fastening method height width depth required spacing • top • bottom • left • right  Connections/ Terminals type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded tightening torque with screw-type terminals	screw and snap-on mounting  92 mm  22.5 mm  124 mm  40 mm  0 mm 0 mm 0 mm  1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 1x (20 14), 2x (20 16) 1x (20 12), 2x (20 14) 0.8 1.2 N·m
mounting position fastening method height width depth required spacing • top • bottom • left • right  Connections/ Terminals type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded tightening torque with screw-type terminals tightening torque [lbf·in] with screw-type terminals	screw and snap-on mounting  92 mm  22.5 mm  124 mm  40 mm  40 mm  0 mm  0 mm  1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)  1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)  1x (20 14), 2x (20 16)  1x (20 12), 2x (20 14)
mounting position fastening method height width depth required spacing • top • bottom • left • right  Connections/ Terminals  type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded tightening torque with screw-type terminals tightening torque [lbf-in] with screw-type terminals Ambient conditions	screw and snap-on mounting  92 mm  22.5 mm  124 mm  40 mm  0 mm 0 mm 0 mm  1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 1x (20 14), 2x (20 16) 1x (20 12), 2x (20 14) 0.8 1.2 N·m
mounting position fastening method height width depth required spacing • top • bottom • left • right  Connections/ Terminals type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded tightening torque with screw-type terminals tightening torque [lbf·in] with screw-type terminals Ambient conditions installation altitude at height above sea level	screw and snap-on mounting  92 mm  22.5 mm  124 mm  40 mm  0 mm  0 mm  1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)  1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)  1x (20 14), 2x (20 16)  1x (20 12), 2x (20 14)  0.8 1.2 N·m  7 10.3 lbf·in
mounting position fastening method height width depth required spacing • top • bottom • left • right  Connections/ Terminals type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded tightening torque with screw-type terminals tightening torque [lbf-in] with screw-type terminals Ambient conditions installation altitude at height above sea level • 1 maximum	screw and snap-on mounting  92 mm  22.5 mm  124 mm  40 mm  0 mm 0 mm 0 mm  1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 1x (20 14), 2x (20 16) 1x (20 12), 2x (20 14) 0.8 1.2 N·m 7 10.3 lbf·in
mounting position fastening method height width depth required spacing • top • bottom • left • right  Connections/ Terminals  type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded tightening torque with screw-type terminals tightening torque [lbf·in] with screw-type terminals Ambient conditions installation altitude at height above sea level • 1 maximum • 2 maximum	screw and snap-on mounting  92 mm  22.5 mm  124 mm  40 mm  0 mm 0 mm 0 mm  1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 1x (20 14), 2x (20 16) 1x (20 12), 2x (20 14) 0.8 1.2 N·m 7 10.3 lbf·in
mounting position fastening method height width depth required spacing • top • bottom • left • right  Connections/ Terminals  type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded tightening torque with screw-type terminals tightening torque [lbf-in] with screw-type terminals  Ambient conditions installation altitude at height above sea level • 1 maximum • 2 maximum • 3 maximum	screw and snap-on mounting  92 mm  22.5 mm  124 mm  40 mm  0 mm 0 mm 0 mm  1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 1x (20 14), 2x (20 16) 1x (20 12), 2x (20 14) 0.8 1.2 N·m 7 10.3 lbf·in
mounting position fastening method height width depth required spacing • top • bottom • left • right  Connections/ Terminals type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded tightening torque with screw-type terminals tightening torque [lbf-in] with screw-type terminals Ambient conditions installation altitude at height above sea level • 1 maximum • 2 maximum • 3 maximum ambient temperature	screw and snap-on mounting  92 mm  22.5 mm  124 mm  40 mm  0 mm  0 mm  1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)  1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)  1x (20 14), 2x (20 16)  1x (20 12), 2x (20 14)  0.8 1.2 N·m  7 10.3 lbf·in  2 000 m  3 000 m; max. +50 °C (no protective separation)  4 000 m; max. +40 °C (no protective separation)
mounting position fastening method height width depth required spacing • top • bottom • left • right  Connections/ Terminals type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded tightening torque with screw-type terminals tightening torque [lbf·in] with screw-type terminals Ambient conditions installation altitude at height above sea level • 1 maximum • 2 maximum • 3 maximum ambient temperature • during operation	screw and snap-on mounting  92 mm  22.5 mm  124 mm  40 mm  0 mm 0 mm 0 mm  1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 1x (20 14), 2x (20 16) 1x (20 12), 2x (20 14) 0.8 1.2 N·m 7 10.3 lbf·in  2 000 m 3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation) -25 +60 °C
mounting position fastening method height width depth required spacing • top • bottom • left • right  Connections/ Terminals type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded tightening torque with screw-type terminals tightening torque [lbf-in] with screw-type terminals Ambient conditions installation altitude at height above sea level • 1 maximum • 2 maximum • 3 maximum ambient temperature • during operation • during storage	screw and snap-on mounting  92 mm  22.5 mm  124 mm  40 mm  40 mm  0 mm  0 mm  1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)  1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²)  1x (20 14), 2x (20 16)  1x (20 12), 2x (20 14)  0.8 1.2 N·m  7 10.3 lbf·in  2 000 m  3 000 m; max. +50 °C (no protective separation)  4 000 m; max. +40 °C (no protective separation)  -25 +60 °C  -40 +80 °C
mounting position fastening method height width depth required spacing • top • bottom • left • right  Connections/ Terminals type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded tightening torque with screw-type terminals tightening torque [lbf-in] with screw-type terminals Ambient conditions installation altitude at height above sea level • 1 maximum • 2 maximum • 3 maximum ambient temperature • during operation • during storage • during transport	screw and snap-on mounting  92 mm  22.5 mm  124 mm  40 mm  0 mm 0 mm 0 mm  1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 2.5 mm²), 2x (0.5 1.5 mm²) 1x (20 14), 2x (20 16) 1x (20 12), 2x (20 14) 0.8 1.2 N·m 7 10.3 lbf·in  2 000 m 3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation) -25 +60 °C
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(sand must not get into the devices), 3M6 3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 • during storage acc. to IEC 60721 (sand must not get into the devices), 3M6 • during transport acc. 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 % Safety related data touch protection against electrical shock finger-safe galvanic isolation between inputs and electronics No Certificates/ approvals **Declaration of EMC General Product Approval** 













Conformity

**Test Certificates** 

Marine / Shipping

other

Type Test Certificates/Test Report







Confirmation

PROFINET-Certification

other



Profibus

## Further information

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

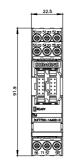
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

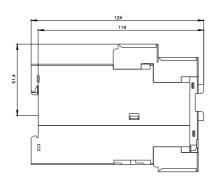
https://support.industry.siemens.com/cs/ww/en/ps/3UF7700-1AA00-0

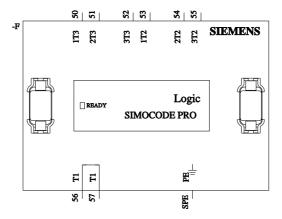
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) <a href="http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3UF7700-1AA00-0&lang=en">http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3UF7700-1AA00-0&lang=en</a>

Test report No. A0258, protective separation

https://support.industry.siemens.com/cs/ww/en/view/109748152







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