



Multifunctional module, 4 inputs and 2 relay outputs, input voltage 110-240 V AC/DC relay outputs monostable, analog residual current detection, with residual-current transformer 3UL23 Connection temperature sensor Pt100/Pt1000/KTY/NTC, max. 1 multifunctional module per basic unit SIMOCODE pro S

product brand name

SIRIUS

product designation

Multifunction module

manufacturer's article number

- 1 of residual current transformer connectable
- 2 of residual current transformer connectable
- 3 of residual current transformer connectable
- 4 of residual current transformer connectable
- 5 of residual current transformer connectable
- 6 of residual current transformer connectable

- [3UL2302-1A](#)
- [3UL2303-1A](#)
- [3UL2304-1A](#)
- [3UL2305-1A](#)
- [3UL2306-1A](#)
- [3UL2307-1A](#)

General technical data

type of current for monitoring

Type A (alternating currents and pulsing DC residual currents)

response time maximum

0.1 s

product function residual current display

Yes

adjustable current response value current

40 ... 0.03 A

product component

- input for thermistor connection No
- digital input Yes
- input for residual current converter Yes
- input for analog temperature sensors Yes
- input for ground fault detection Yes
- relay output Yes

consumed active power

0.8 W

insulation voltage with degree of pollution 3 at AC rated value

300 V

surge voltage resistance rated value

4 000 V

protection class IP

IP20

shock resistance

- when mounted on current measuring module according to IEC 60068-2-27 10 g / 11 ms
- 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
- when mounted on current measuring module according to IEC 60068-2-6 1 ... 4 Hz / 15 mm, 4 ... 500 Hz / 1g

switching capacity current of the NO contacts of the relay outputs at AC-15

- at 24 V 6 A
- at 120 V 6 A
- at 230 V 3 A

switching capacity current of the NO contacts of the relay outputs at DC-13

- at 24 V 2 A
- at 60 V 0.55 A

<ul style="list-style-type: none"> • at 125 V 	0.25 A
mechanical service life (operating cycles) typical	10 000 000
electrical endurance (operating cycles) typical	100 000
buffering time in the event of power failure	0.02 s
reference code according to IEC 81346-2	F
continuous current of the NO contacts of the relay outputs	
<ul style="list-style-type: none"> • at 50 °C • at 60 °C 	6 A
Substance Prohibitance (Date)	5 A
certificate of suitability according to ATEX directive 2014/34/EU	05/01/2012
explosion device group and category according to ATEX directive 2014/34/EU	BVS 06 ATEX F001
measurable temperature	II (2) G, II (2) D, I (M2)
<ul style="list-style-type: none"> • with NTC minimum • with NTC maximum • with KTY 84 minimum • with KTY 84 maximum • with KTY 83-110 minimum • with KTY 83-110 maximum • with Pt 1000 minimum • with Pt 1000 maximum • with Pt 100 minimum • with Pt 100 maximum 	80 °C
relative temperature-related measurement deviation at 20 °C	160 °C
sensor current for Pt 100 typical	-40 °C
sensor current for Pt 1000/KTY 83-110/KTY 84/NTC typical	300 °C
diagnostics function at sensor input with residual current transformer	-50 °C
<ul style="list-style-type: none"> • short-circuit detection • open-circuit detection 	175 °C
diagnostics function at sensor input with Pt 100	-50 °C
<ul style="list-style-type: none"> • short-circuit detection • open-circuit detection 	500 °C
diagnostics function at sensor input with Pt 1000	-50 °C
<ul style="list-style-type: none"> • short-circuit detection • open-circuit detection 	500 °C
diagnostics function at sensor input with KTY 83-110	2 %
<ul style="list-style-type: none"> • short-circuit detection • open-circuit detection 	1 mA
diagnostics function at sensor input with KTY 84	0.2 mA
<ul style="list-style-type: none"> • short-circuit detection • open-circuit detection 	
diagnostics function at sensor input with NTC	
<ul style="list-style-type: none"> • short-circuit detection • open-circuit detection 	Yes
type of connection technology of sensor circuit	Yes
A/D conversion time at sensor circuit	Yes
measurable line frequency initial value	Yes
measurable line frequency full-scale value	Yes
relative measurement deviation of residual current transformer	Yes
	No
	2-wire or 3-wire connection
	500 ms
	16 Hz
	400 Hz
	7.5 %
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	
<ul style="list-style-type: none"> • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to high-frequency radiation according to IEC 61000-4-6 	2 kV (power ports) / 1 kV (signal ports)
	2 kV
	1 kV
	10 V

field-based interference according to IEC 61000-4-3
 electrostatic discharge according to IEC 61000-4-2
 conducted HF interference emissions according to CISPR11
 field-bound HF interference emission according to CISPR11

10 V/m
 6 kV contact discharge / 8 kV air discharge
 corresponds to degree of severity A
 corresponds to degree of severity A

Inputs/ Outputs

product function

- parameterizable inputs
- parameterizable outputs

Yes
 Yes

number of inputs

4

number of digital inputs

4

- with a common reference potential

4

digital input version

- type 1 acc. to IEC 61131
- type 2 acc. to IEC 61131

No
 Yes

number of analog inputs

0

number of sensor inputs

- for ground fault detection
- for temperature measurement

1
 1

input voltage at digital input at DC rated value

230 V

number of outputs

2

number of semiconductor outputs

0

number of outputs as contact-affected switching element

2

number of analog outputs

0

switching behavior

monostable

property of contacts of the relay outputs

Floating NO contacts (NC reaction parameterizable via internal signal conditioning), of which 2 relay outputs connected to common ground and one relay output separately, can be freely assigned to the control functions (e.g. line, star (wye), delta contactor or signaling of the operating state)

wire length for digital signals maximum

200 m

Protective and monitoring functions

product function ground fault detection

Yes

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

height

100 mm

width

22.5 mm

depth

124.5 mm

required spacing

- top
- bottom
- left
- right

40 mm
 40 mm
 0 mm
 0 mm

diameter of inlet opening of connectable residual current transformer

35 ... 210 mm

Connections/ Terminals

product component removable terminal for auxiliary and control circuit

Yes

type of connectable conductor cross-sections

- solid
- finely stranded with core end processing
- at AWG cables solid
- at AWG cables stranded

1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²)
 1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.0 mm²)
 1x (20 ... 14), 2x (20 ... 16)
 1x (20 ... 12), 2x (20 ... 14)

tightening torque with screw-type terminals

0.6 ... 0.8 N·m

tightening torque [lbf·in] with screw-type terminals

5.2 ... 7 lbf·in

Ambient conditions

installation altitude at height above sea level

- 1 maximum

2 000 m

<ul style="list-style-type: none"> • 2 maximum • 3 maximum ambient temperature <ul style="list-style-type: none"> • during operation • during storage • during transport environmental category <ul style="list-style-type: none"> • during operation according to IEC 60721 • during storage according to IEC 60721 • during transport according to IEC 60721 relative humidity during operation contact rating of auxiliary contacts according to UL	3 000 m; max. +50 °C (no protective separation) 4 000 m; No protective separation at 40 °C -25 ... +60 °C -40 ... +80 °C -40 ... +80 °C 3K6 (no formation of ice, no condensation, relative humidity 10 ... 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (no condensation, relative humidity 10 ... 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4 2K2, 2C1, 2S1, 2M2 10 ... 95 % B300 / R300
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Short-circuit protection

design of short-circuit protection per output	Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I_K < 500 A)
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Safety related data

touch protection against electrical shock	finger-safe
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Galvanic isolation

(electrically) protective separation according to IEC 60947-1	All circuits with protective separation (double creepage paths and clearances), the information in the "Protective Separation" test report, No. A0258, must be observed (link see further information)
galvanic isolation between inputs and electronics	No

Control circuit/ Control

type of voltage of the control supply voltage	AC/DC
control supply voltage at AC	
<ul style="list-style-type: none"> • at 50 Hz rated value • at 60 Hz rated value 	110 ... 240 V 110 ... 240 V
control supply voltage frequency 1	50 ... 60 Hz
control supply voltage at DC	
<ul style="list-style-type: none"> • rated value 	110 ... 240 V
operating range factor control supply voltage rated value at DC	
<ul style="list-style-type: none"> • initial value • full-scale value 	0.85 1.1
operating range factor control supply voltage rated value at AC at 50 Hz	
<ul style="list-style-type: none"> • initial value • full-scale value 	0.85 1.1
operating range factor control supply voltage rated value at AC at 60 Hz	
<ul style="list-style-type: none"> • initial value • full-scale value 	0.85 1.1

Certificates/ approvals

General Product Approval	EMC
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[Confirmation](#)



For use in hazardous locations	Declaration of Conformity	Test Certificates
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[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)

Marine / Shipping	other
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Confirmation



Further information

Siemens has decided to exit the Russian market (see here).

<https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business>

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3UF7600-1AU01-0>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UF7600-1AU01-0>

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

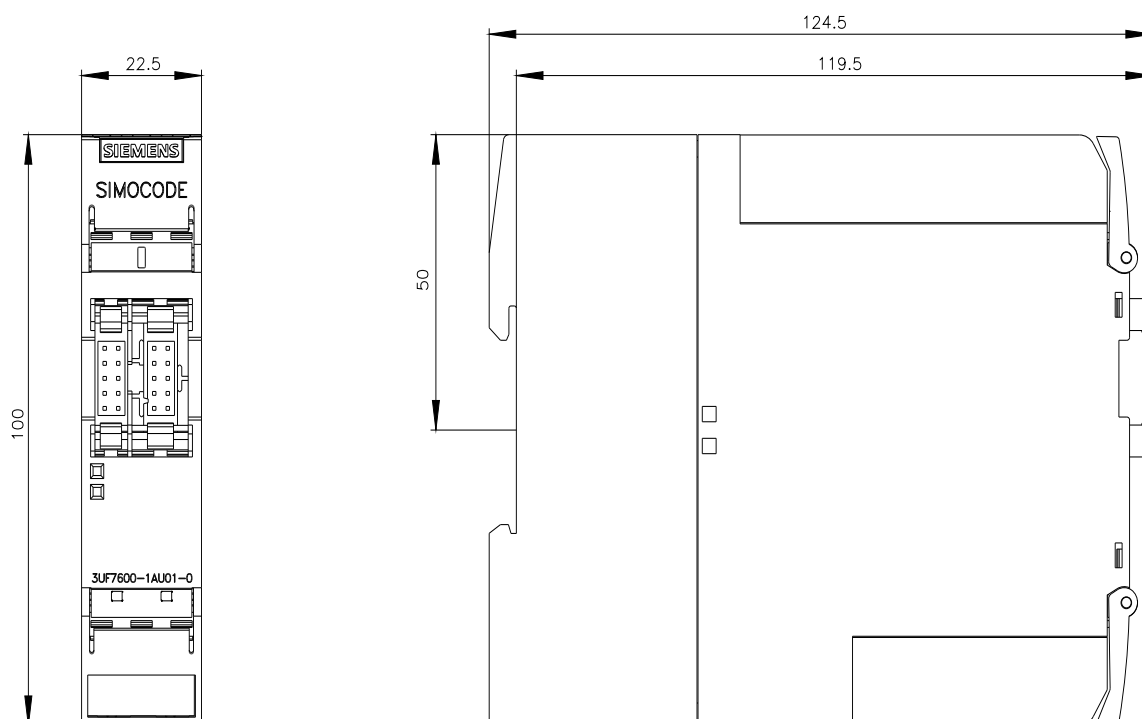
<https://support.industry.siemens.com/cs/ww/en/ps/3UF7600-1AU01-0>

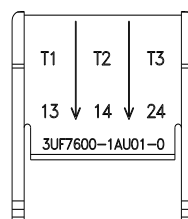
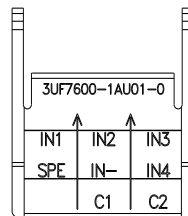
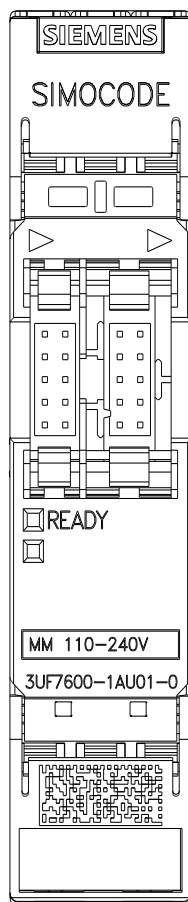
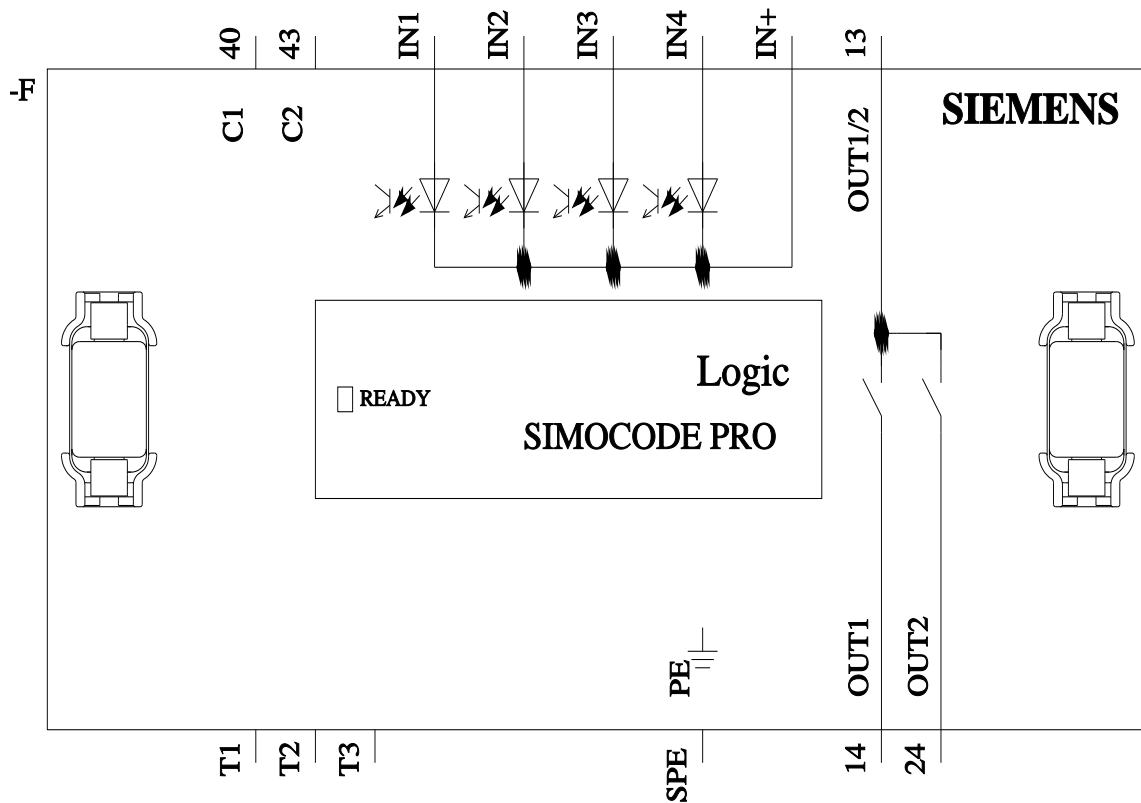
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UF7600-1AU01-0&lang=en

Test report No. A0258, protective separation

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





last modified:

4/7/2022