



Basic unit SIMOCODE pro C, PROFIBUS DP interface 12 Mbit/s, RS 485, 4I/3O freely parameterizable, Us: 110...240 V AC/DC, input for thermistor connection Monostable relay outputs

product brand name	SIRIUS
product designation	Motor management system
design of the product	basic unit 1
product type designation	SIMOCODE pro C
General technical data	
product function	
• bus communication	Yes
• data acquisition function	Yes
• diagnostics function	Yes
• password protection	Yes
• test function	Yes
• maintenance function	Yes
product component	
• input for thermistor connection	Yes
• digital input	Yes
• input for analog temperature sensors	No
• input for ground fault detection	No
• relay output	Yes
product extension	
• temperature monitoring module	No
• current measuring module	Yes
• current/voltage measuring module	No
• fail-safe digital I/O module	No
• ground-fault monitoring module	No
• control unit with display	No
• control unit	Yes
• analog I/O module	No
apparent power consumption	5.3 V·A
consumed active power	2.9 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	
• acc. to IEC 60068-2-27	15g / 11 ms
• vibration resistance	1-6 Hz / 15 mm; 6-500 Hz / 2 g
switching capacity current of the NO contacts of the relay outputs at AC-15	
• at 24 V	6 A
• at 120 V	6 A

<ul style="list-style-type: none"> at 230 V 	3 A
switching capacity current of the NO contacts of the relay outputs at DC-13	
<ul style="list-style-type: none"> at 24 V at 60 V at 125 V 	2 A 0.55 A 0.25 A
mechanical service life (switching cycles) typical	10 000 000
electrical endurance (switching cycles) typical	100 000
buffering time in the event of power failure	0.05 s
reference code acc. 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 5 A
type of input characteristic	Type 1 in accordance with EN 61131-2
Substance Prohibittance (Date)	01.05.2012 00:00:00
certificate of suitability	
<ul style="list-style-type: none"> according to ATEX directive 2014/34/EU 	BVS 06 ATEX F001
explosion device group and category according to ATEX directive 2014/34/EU	II (2) G, II (2) D, I (M2)

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 style="list-style-type: none"> due to burst acc. to IEC 61000-4-4 due to conductor-earth surge acc. to IEC 61000-4-5 due to conductor-conductor surge acc. to IEC 61000-4-5 due to high-frequency radiation acc. to IEC 61000-4-6 	2 kV (power ports) / 1 kV (signal ports) 2 kV 1 kV 10 V
field-based interference acc. to IEC 61000-4-3	10 V/m
electrostatic discharge acc. to IEC 61000-4-2	6 kV contact discharge / 8 kV air discharge
conducted HF interference emissions acc. to CISPR11	corresponds to degree of severity A
field-bound HF interference emission acc. to CISPR11	corresponds to degree of severity A

Inputs/ Outputs	
product function	
<ul style="list-style-type: none"> parameterizable inputs parameterizable outputs 	Yes Yes
number of inputs	4
<ul style="list-style-type: none"> for thermistor connection 	1
number of digital inputs with a common reference potential	4
digital input version type 1 acc. to IEC 61131	Yes
input voltage at digital input at DC rated value	24 V
number of outputs	3
number of semiconductor outputs	0
number of outputs as contact-affected switching element	3
switching behavior	monostable
type of relay outputs	Monostable
wire length for digital signals maximum	300 m
wire length for thermistor connection	
<ul style="list-style-type: none"> with conductor cross-section = 0.5 mm² maximum with conductor cross-section = 1.5 mm² maximum with conductor cross-section = 2.5 mm² maximum 	50 m 150 m 250 m

Protective and monitoring functions	
product function	
<ul style="list-style-type: none"> asymmetry detection blocking current evaluation power factor monitoring ground fault detection phase failure detection phase sequence recognition 	Yes Yes No Yes Yes No

• voltage detection	No
• monitoring of number of start operations	Yes
• overvoltage detection	No
• overcurrent detection 1 phase	Yes
• undervoltage detection	No
• undercurrent detection 1 phase	Yes
• active power monitoring	No
product function	
• current detection	Yes
• overload protection	Yes
• evaluation of thermistor motor protection	Yes
total cold resistance number of sensors in series maximum	1.5 k Ω
response value of thermoresistor	3 400 ... 3 800 Ω
• of the short-circuit control	9 Ω
release value of thermoresistor	1 500 ... 1 650 Ω

Motor control functions

product function	
• parameterizable overload relay	Yes
• circuit breaker control	Yes
• direct start	Yes
• reverse starting	Yes
• star-delta circuit	No
• star-delta reversing circuit	No
• Dahlander circuit	No
• Dahlander reversing circuit	No
• pole-changing switch circuit	No
• pole-changing switch reversing circuit	No
• slide control	No
• valve control	No

Communication/ Protocol





• protocol is supported PROFIBUS DP protocol	Yes
• protocol is supported PROFINET IO protocol	No
• protocol is supported PROFI-safe protocol	No
• protocol is supported Modbus RTU	No
• protocol is supported EtherNet/IP	No
• protocol is supported OPC UA Server	No
• protocol is supported LLDP	No
• protocol is supported Address Resolution Protocol (ARP)	No
• protocol is supported SNMP	No
• protocol is supported HTTPS	No
• protocol is supported NTP	No
• protocol is supported Media Redundancy Protocol (MRP)	No
• product function is supported Device Level Ring (DLR)	No
number of interfaces	
• acc. to PROFINET	0
• acc. to PROFIBUS	1
• according to Ethernet/IP	0
product function	
• web server	No
• shared device	No
• at the Ethernet interface Autocrossover	No
• at the Ethernet interface Autonegotiation	No
• at the Ethernet interface Autosensing	No
• is supported PROFINET system redundancy	No
• supports PROFIenergy measured values	No
• supports PROFIenergy shutdown	No
transfer rate maximum	12 Mbit/s


identification & maintenance function	
<ul style="list-style-type: none"> • I&M0 - device-specific information • I&M1 – higher level designation/location designation • I&M2 - installation date • I&M3 - comment 	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
type of electrical connection of the communication interface	9-pin SUB-D socket (12 Mbit) / screw terminal (1.5 Mbit)
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting
height	111 mm
width	45 mm
depth	95 mm
required spacing	
<ul style="list-style-type: none"> • top • bottom • left • right 	<p>40 mm</p> <p>40 mm</p> <p>0 mm</p> <p>0 mm</p>
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	Yes
type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded 	<p>1x (0.5 ... 4.0 mm²), 2x (0.5 ... 2.5 mm²)</p> <p>1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²)</p> <p>1x (20 ... 12), 2x (20 ... 14)</p> <p>1x (20 ... 14), 2x (20 ... 16)</p>
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
type of connectable conductor cross-sections for PROFIBUS wire	2x 0.34 mm ² , AWG 22
Ambient conditions	
installation altitude at height above sea level	
<ul style="list-style-type: none"> • 1 maximum • 2 maximum • 3 maximum 	<p>2 000 m</p> <p>3 000 m; max. +50 °C (no protective separation)</p> <p>4 000 m; max. +40 °C (no protective separation)</p>
ambient temperature	
<ul style="list-style-type: none"> • during operation • during storage • during transport 	<p>-25 ... +60 °C</p> <p>-40 ... +80 °C</p> <p>-40 ... +80 °C</p>
environmental category	
<ul style="list-style-type: none"> • during operation acc. to IEC 60721 • during storage acc. to IEC 60721 • during transport acc. to IEC 60721 	<p>3K6 (no formation of ice, no condensation, relative humidity 10 ... 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6</p> <p>1K6 (no condensation, relative humidity 10 ... 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4</p> <p>2K2, 2C1, 2S1, 2M2</p>
relative humidity	
<ul style="list-style-type: none"> • during operation 	5 ... 95 %
contact rating of auxiliary contacts according to UL	B300 / R300
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)
Safety related data	
touch protection against electrical shock	finger-safe
Galvanic isolation	
(electrically) protective separation acc. 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)
Control circuit/ Control	
product function soft starter control	No
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
control supply voltage frequency	
<ul style="list-style-type: none"> 1 rated value 2 rated value 	50 Hz 60 Hz
relative symmetrical tolerance of the control supply voltage frequency	5 %
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

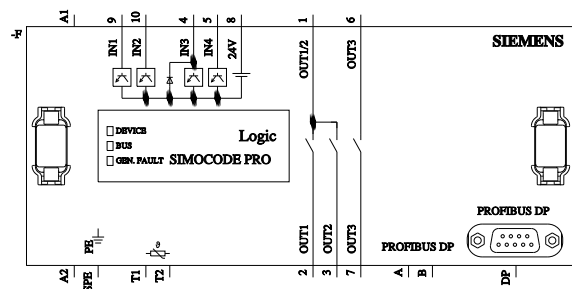
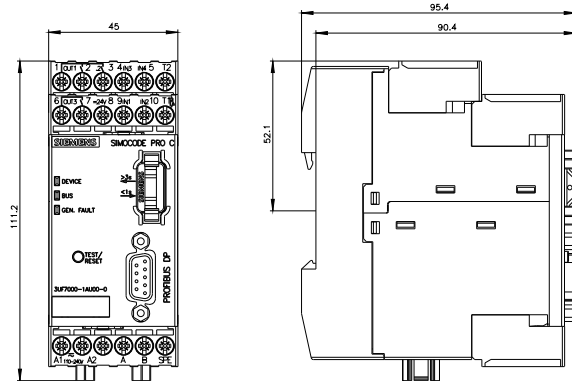
General Product Approval	EMC	For use in hazardous locations
     		

For use in hazardous locations	Declaration of Conformity	Test Certificates	Marine / Shipping
  	Type Test Certificates/Test Report	Special Test Certificate	

Marine / Shipping	other
  	Confirmation PROFINET-Certification 

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=3UF7000-1AU00-0>
 Cax online generator
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UF7000-1AU00-0>
 Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<https://support.industry.siemens.com/cs/ww/en/ps/3UF7000-1AU00-0>
 Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UF7000-1AU00-0&lang=en
 Test report No. A0258, protective separation
<https://support.industry.siemens.com/cs/ww/en/view/109748152>



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