



basic device SIMOCODE pro V PB, PROFIBUS DP interface 12 Mbps, RS-485, 4 I/3 O freely configurable, Us: 110...240 V AC/DC, input for thermistor connection monostable relay outputs, expandable by expansion modules

product brand name	SIMOCODE
product designation	Motor management system
design of the product	basic unit 2
product type designation	pro V PB
General technical data	
certificate of suitability	CE / UL / CSA / CCC / C-Tick (RCM) / GOST / NOM / ATEX / NEPSI / ABS / DNV / GL / LRS / RoHS
product function	• current measurement No • voltage measurement No • active power measurement Yes • energy measurement No • frequency measurement No • bus communication Yes • data acquisition function Yes • diagnostics function Yes • password protection Yes • test function Yes • maintenance function Yes • MRRT redundancy procedure No
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 Yes • current measuring module Yes • current/voltage measuring module Yes • fail-safe digital I/O module Yes • ground-fault monitoring module Yes • decoupling module Yes • analog I/O module Yes • digital I/O module with monostable outputs Yes • digital I/O module with bistable outputs Yes • control unit with display Yes • control unit Yes
apparent power consumption	8.3 VA

consumed active power	3.6 W
insulation voltage with degree of pollution 3 at AC rated value	300 V
surge voltage resistance rated value	4 000 V
shock resistance	
• according to IEC 60068-2-27	15 g / 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
• 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
• 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	0.2 s
reference code according to IEC 81346-2	F
continuous current of the NO contacts of the relay outputs	
• at 50 °C	6 A
• at 60 °C	5 A
type of input characteristic	Type 1 in accordance with EN 61131-2
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	357 g
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	2 kV (power ports) / 1 kV (signal ports)
• 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
• due to high-frequency radiation according to IEC 61000-4-6	10 V
field-based interference according to IEC 61000-4-3	10 V/m
electrostatic discharge according to IEC 61000-4-2	6 kV contact discharge / 8 kV air discharge
conducted HF interference emissions according to CISPR11	corresponds to degree of severity A
field-bound HF interference emission according to CISPR11	corresponds to degree of severity A
Inputs/ Outputs	
product function	
• parameterizable inputs	Yes
• parameterizable outputs	Yes
number of inputs	4
• 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
number of relay outputs	3
type of relay outputs	Monostable
wire length for digital signals maximum	300 m
wire length for thermistor connection	
• with conductor cross-section = 0.5 mm ² maximum	50 m
• with conductor cross-section = 1.5 mm ² maximum	150 m
• with conductor cross-section = 2.5 mm ² maximum	250 m
Protective and monitoring functions	
product function	
• asymmetry detection	Yes
• blocking current evaluation	Yes
• power factor monitoring	Yes
• ground fault detection	Yes
• ground-fault monitoring	No
• phase failure detection	Yes
• phase sequence recognition	Yes
• voltage detection	Yes
• monitoring of number of start operations	Yes
• overvoltage detection	Yes
• overcurrent detection 1 phase	Yes
• undervoltage detection	Yes
• undercurrent detection 1 phase	Yes
• active power monitoring	Yes
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 kΩ
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	Yes
• star-delta reversing circuit	Yes
• Dahlander circuit	Yes
• Dahlander reversing circuit	Yes
• pole-changing switch circuit	Yes
• pole-changing switch reversing circuit	Yes
• slide control	Yes
• valve control	Yes
Communication/ Protocol	
protocol is supported	
• PROFIBUS DP protocol	Yes
• PROFINET IO protocol	No
• PROFIsafe protocol	Yes
• Modbus RTU	No
• EtherNet/IP	No
• OPC UA Server	No
• LLDP	No
• Address Resolution Protocol (ARP)	No
• SNMP	No
• HTTPS	No
• NTP	No

Media Redundancy Protocol (MRP)	No
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 Device Level Ring (DLR)	No
is supported PROFINET system redundancy (S2)	No
supports PROFINET measured values	No
supports PROFINET shutdown	No
transfer rate maximum	12 Mbit/s
identification & maintenance function	
I&M0 - device-specific information	Yes
I&M1 - higher level designation/location designation	Yes
I&M2 - installation date	Yes
I&M3 - comment	Yes
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	124 mm
required spacing	
top	40 mm
bottom	40 mm
left	0 mm
right	0 mm
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	Yes
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 ... 12), 2x (20 ... 14)
for AWG cables stranded	1x (20 ... 14), 2x (20 ... 16)
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 mm², AWG 22
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
note	Restrictions apply to higher installation altitudes, see: https://support.industry.siemens.com/cs/document/109995153
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, relative humidity 10 ... 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
during storage according to IEC 60721	1K6 (no condensation, relative humidity 10 ... 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4
during transport according to IEC 60721	2K2, 2C1, 2S1, 2M2
relative humidity	
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)
Electrical Safety	
touch protection against electrical shock	finger-safe
ATEX	
certificate of suitability • IECEx • according to ATEX directive 2014/34/EU • acc. to Equipment and Protective System Intended for Use in Potentially Explosive Atmospheres Regulations 2016 (S.I. 2016 No.1107) • according to UKCA	Yes; IECEx BVS 20.0020 / IECEx PTB 18.0004X BVS 06 ATEX F001, PTB 18 ATEX 5003 X ITS21UKEX0464, ITS21UKEX0455X ITS21UKEX0464, ITS21UKEX0455X
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)
design of the electrical isolation • note	Protective separation in accordance with IEC 60947-1 for all circuits Test report No. A0258 must be observed (https://support.industry.siemens.com/cs/document/109748152)
Control circuit/ Control	
product function soft starter control	Yes
type of voltage of the control supply voltage	AC/DC
control supply voltage at AC	
• at 50 Hz rated value • at 60 Hz rated value	110 ... 240 V 110 ... 240 V
control supply voltage frequency	
• 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 rated value	110 ... 240 V
operating range factor control supply voltage rated value at DC	
• initial value • full-scale value	0.85 1.1
operating range factor control supply voltage rated value at AC at 50 Hz	
• initial value • full-scale value	0.85 1.1
operating range factor control supply voltage rated value at AC at 60 Hz	
• initial value • full-scale value	0.85 1.1
inrush current peak	
• at 240 V	15 A
duration of inrush current peak	
• at 240 V	1 ms
Approvals Certificates	
Environment	General Product Approval

[Environmental Conformations](#)



General Product Approval

EMV

For use in hazardous locations



For use in hazardous locations	Test Certificates
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[Miscellaneous](#)

[Special Test Certificate](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

Maritime application	other	Industrial Communication
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[Confirmation](#)

[Confirmation](#)



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=3UF7010-1AU00-0>

Cax online generator

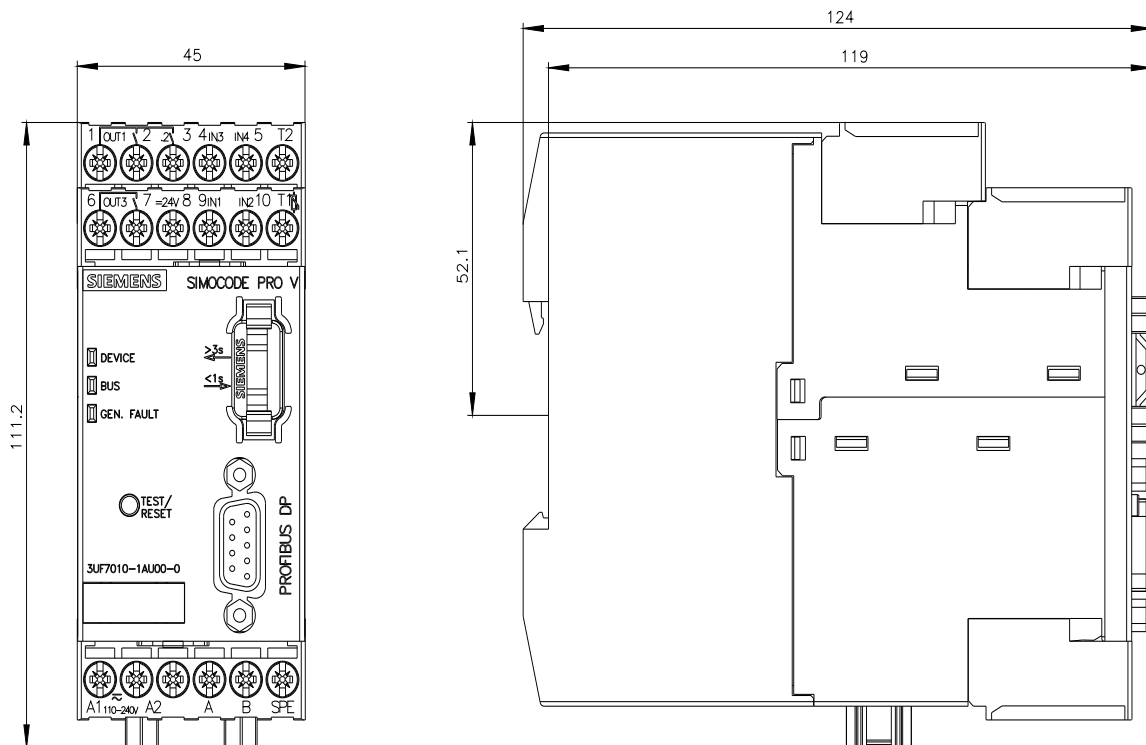
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UF7010-1AU00-0>

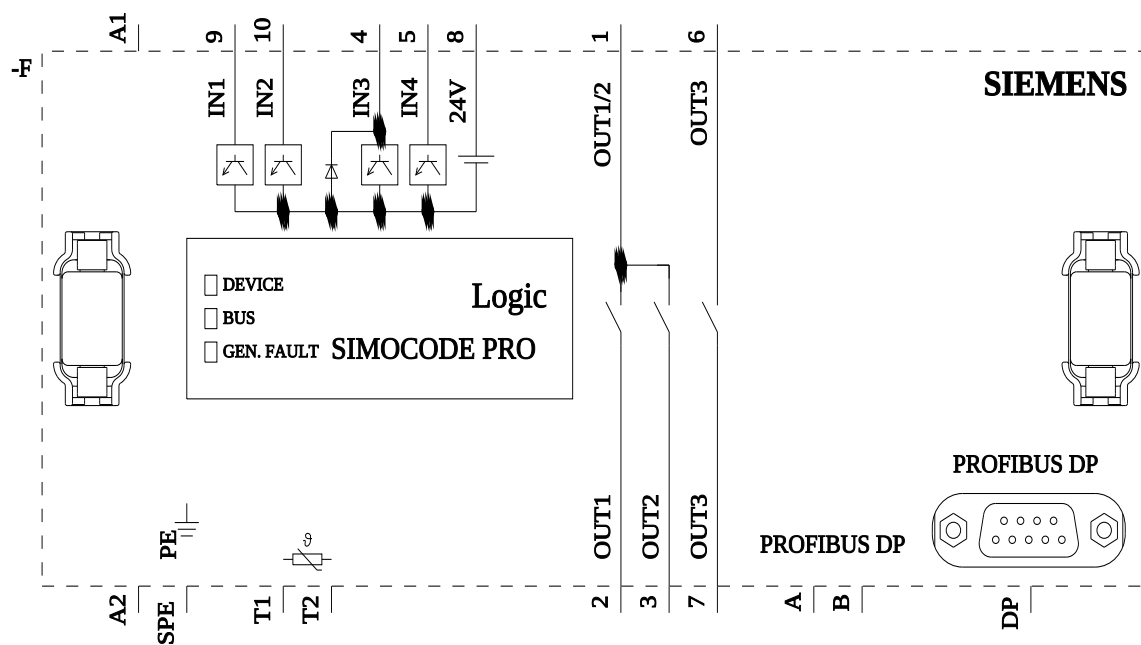
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3UF7010-1AU00-0>

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

https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UF7010-1AU00-0&lang=en





last modified:

4/4/2026