

BASIC UNIT SIMOCODE pro V PB PRO V; PROFIBUS DP  
 INTERFACE 12 MBIT/S, RS485; 4I/3O FREELY  
 PARAMETERIZABLE; US: DC 24V; THERMISTOR MOTOR  
 PROTECTION; RELAY OUTPUTS MONOSTABLE; EXPANDABLE  
 BY EXPANSION MODULES



Figure similar

<b>product brandname</b>	SIRIUS
<b>Product designation</b>	SIMOCODE pro V Motor Management System
<b>Design of the product</b>	basic unit 2

General technical data	
<b>Product function</b>	
• soft starter control	Yes
• data acquisition function	Yes
• Diagnostics function	Yes
• Password protection	Yes
• Test function	Yes
• maintenance function	Yes
• becomes supported Device Level Ring (DLR)	No
<b>Product component</b>	
• input for thermistor connection	Yes
• Digital input	Yes
• input for analog temperature sensors	No
• input for ground fault detection	No

• Relay output	Yes
<b>Product extension</b>	
• Temperature monitoring module	Yes
• Current measuring module	Yes
• Current/voltage measuring module	Yes
• failsafe digital I/O module	Yes
• Ground fault monitoring module	Yes
• decoupling module	Yes
• digital I/O module	Yes
• Control unit with display	Yes
• Control unit	Yes
• analog I/O module	Yes
<b>Consumed active power</b>	7 W
<b>Insulation voltage</b>	
• with degree of pollution 3 rated value	300 V
<b>Surge voltage resistance rated value</b>	4 000 V
<b>Protection class IP</b>	IP20
<b>Shock resistance</b>	
• acc. to IEC 60068-2-27	15g / 11 ms
<b>Vibration resistance</b>	1-6 Hz / 15 mm; 6-500 Hz / 2 g
<b>Switching behavior</b>	monostable
<b>Switching capacity current of the NO contacts of the relay outputs at AC-15</b>	
• at 24 V	6 A
• at 120 V	6 A
• at 230 V	3 A
<b>Switching capacity current of the NO contacts of the relay outputs at DC-13</b>	
• at 24 V	2 A
• at 60 V	0.55 A
<b>Mechanical service life (switching cycles)</b>	
• typical	10 000 000
<b>Electrical endurance (switching cycles)</b>	
• typical	100 000
<b>Buffering time in the event of power failure</b>	0.05 s
<b>Certificate of suitability</b>	CE / UL / CSA / CCC / C-Tick (RCM) / GOST / NOM / ATEX / NEPSI / ABS / DNV / GL / LRS / RoHS
<b>Equipment marking</b>	
• acc. to DIN EN 81346-2	F
<b>Continuous current of the NO contacts of the relay outputs</b>	
• at 50 °C	6 A
• at 60 °C	5 A

Type of input characteristic	Type 1 in accordance with EN 61131-2
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### Electromagnetic compatibility

<b>EMC emitted interference</b>	
<ul style="list-style-type: none"> <li>• acc. to IEC 60947-1</li> </ul>	class A
<b>Conducted interference</b>	
<ul style="list-style-type: none"> <li>• due to burst acc. to IEC 61000-4-4</li> </ul>	2 kV (power ports) / 1 kV (signal ports)
<ul style="list-style-type: none"> <li>• due to conductor-earth surge acc. to IEC 61000-4-5</li> </ul>	2 kV
<ul style="list-style-type: none"> <li>• due to conductor-conductor surge acc. to IEC 61000-4-5</li> </ul>	1 kV
<ul style="list-style-type: none"> <li>• due to high-frequency radiation acc. to IEC 61000-4-6</li> </ul>	10 V
<b>Field-bound parasitic coupling acc. to IEC 61000-4-3</b>	10 V/m
<b>Electrostatic discharge acc. to IEC 61000-4-2</b>	6 kV contact discharge / 8 kV air discharge
<b>Conducted HF-interference emissions acc. to CISPR11</b>	corresponds to degree of severity A
<b>Field-bound HF-interference emission acc. to CISPR11</b>	corresponds to degree of severity A

### Inputs/ Outputs

<b>Product function</b>	
<ul style="list-style-type: none"> <li>• Parameterizable inputs</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Parameterizable outputs</li> </ul>	Yes
<b>Number of inputs</b>	4
<ul style="list-style-type: none"> <li>• for thermistor connection</li> </ul>	1
<b>Number of digital inputs</b>	
<ul style="list-style-type: none"> <li>• with a common reference potential</li> </ul>	4
<b>Digital input version</b>	
<ul style="list-style-type: none"> <li>• Type 1 acc. to IEC 61131</li> </ul>	Yes
Input voltage at digital input at DC rated value	24 V
<b>Number of outputs</b>	3
<b>Number of outputs as contact-affected switching element</b>	3
<b>Number of semiconductor outputs</b>	0
<b>Wire length for digital signals maximum</b>	300 m
<b>Wire length for thermistor connection</b>	
<ul style="list-style-type: none"> <li>• with conductor cross-section = 0.5 mm<sup>2</sup> maximum</li> </ul>	50 m
<ul style="list-style-type: none"> <li>• with conductor cross-section = 1.5 mm<sup>2</sup> maximum</li> </ul>	150 m
<ul style="list-style-type: none"> <li>• with conductor cross-section = 2.5 mm<sup>2</sup> maximum</li> </ul>	250 m

### Protective and monitoring functions

<b>Product function</b>	
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• Phase unbalance	Yes
• blocking current evaluation	Yes
• power factor monitoring	Yes
• Ground fault detection	Yes
• 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

### Motor protection functions

<b>Product function</b>	
• Current detection	Yes
• Overload protection	Yes
• Evaluation of thermistor motor protection	Yes
<b>Response value of thermoresistor</b>	3 400 ... 3 800 $\Omega$
<b>Release value of thermoresistor</b>	1 500 ... 1 650 $\Omega$
<b>Explosion device group and category acc. to ATEX product directive 94/9/EC</b>	Ex II (2) GD / Ex I (M2)

### Motor control functions

<b>Product function</b>	
• 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

<b>Number of interfaces</b>	
• acc. to PROFINET	0
• acc. to PROFIBUS	1

• according to Ethernet/IP	0
<b>Product function Bus communication</b>	Yes
<b>Product function</b>	
• web server	No
• shared device	No
• at the Ethernet interface Autocrossover	No
• at the Ethernet interface Autonegotiation	No
• at the Ethernet interface Autosensing	No
• MRRT redundancy procedure	No
• is supported PROFINET system redundancy	No
• supports PROFINET energy measured values	No
• supports PROFINET energy shutdown	No
<b>Transfer rate maximum</b>	12 Mbit/s
<b>Identification &amp; maintenance function</b>	
• I&M0 - device-specific information	Yes
• I&M1 – higher-level designation/location designation	Yes
• I&M2 - installation date	Yes
• I&M3 - comment	Yes
<b>Type of electrical connection</b>	
• of the communication interface	9-pin SUB-D socket (12 Mbit) / screw terminal (1.5 Mbit)

Installation/ mounting/ dimensions	
<b>Mounting position</b>	any
<b>Mounting type</b>	screw and snap-on mounting
<b>Height</b>	111 mm
<b>Width</b>	45 mm
<b>Depth</b>	124 mm
<b>Required spacing</b>	
• top	40 mm
• bottom	40 mm
• left	0 mm
• right	0 mm

Connections/Terminals	
<b>Product function</b>	
• removable terminal for auxiliary and control circuit	Yes
<b>Type of electrical connection</b>	
• for auxiliary and control current circuit	screw-type terminals
<b>Type of connectable conductor cross-sections</b>	
• solid	1x (0.5 ... 4.0 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> )
• finely stranded with core end processing	1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> )

<ul style="list-style-type: none"> <li>• at AWG conductors solid</li> <li>• at AWG conductors stranded</li> </ul>	<p>1x (20 ... 12), 2x (20 ... 14)</p> <p>1x (20 ... 14), 2x (20 ... 16)</p>
<b>Tightening torque</b> <ul style="list-style-type: none"> <li>• with screw-type terminals</li> </ul>	0.8 ... 1.2 N·m
<b>Tightening torque [lbf·in]</b> <ul style="list-style-type: none"> <li>• with screw-type terminals</li> </ul>	7 ... 10.3 lbf·in

#### Ambient conditions

<b>Installation altitude at height above sea level</b> <ul style="list-style-type: none"> <li>• 1 maximum</li> <li>• 2 maximum</li> <li>• 3 maximum</li> </ul>	<p>2 000 m</p> <p>3 000 m</p> <p>4 000 m; No protective separation at 40 °C</p>
<b>Ambient temperature</b> <ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> </ul>	<p>-25 ... +60 °C</p> <p>-40 ... +80 °C</p> <p>-40 ... +80 °C</p>
<b>Environmental category</b> <ul style="list-style-type: none"> <li>• during transport acc. to IEC 60721</li> </ul>	2K2, 2C1, 2S1, 2M2
<b>Relative humidity</b> <ul style="list-style-type: none"> <li>• during operation</li> </ul>	5 ... 95 %
<b>Contact rating of auxiliary contacts according to UL</b>	B300 / R300

#### Short-circuit protection

<b>Design of short-circuit protection</b> <ul style="list-style-type: none"> <li>• per output</li> </ul>	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 <sub>K</sub> < 500 A)
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#### Safety related data

<b>Protection against electrical shock</b>	finger-safe
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#### Galvanic isolation

<b>Design of the electrical isolation</b>	Protective separation in accordance with IEC 60947-1 for all circuits
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#### Control circuit/ Control

<b>Type of voltage of the control supply voltage</b>	DC
<b>Control supply voltage 1</b> <ul style="list-style-type: none"> <li>• at DC rated value</li> </ul>	24 V
<b>Operating range factor control supply voltage rated value at DC</b> <ul style="list-style-type: none"> <li>• initial value</li> <li>• Full-scale value</li> </ul>	<p>0.8</p> <p>1.2</p>

#### Certificates/approvals

General Product Approval	EMC	For use in hazardous locations
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For use in hazardous locations	Declaration of Conformity	Test Certificates	Shipping Approval
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[Explosion Protection Certificate](#)



[Special Test Certificate](#)

[Declaration of the Compliance with the order](#)

[Type Test Certificates/Test Report](#)



Shipping Approval	other
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[Confirmation](#)

[PROFINET-Certification](#)

other
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Profibus

[PROFI safe-Certification](#)

### Further information

**Information- and Downloadcenter (Catalogs, Brochures,...)**

<http://www.siemens.com/industrial-controls/catalogs>

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mfb=3UF7010-1AB00-0>

**Cax online generator**

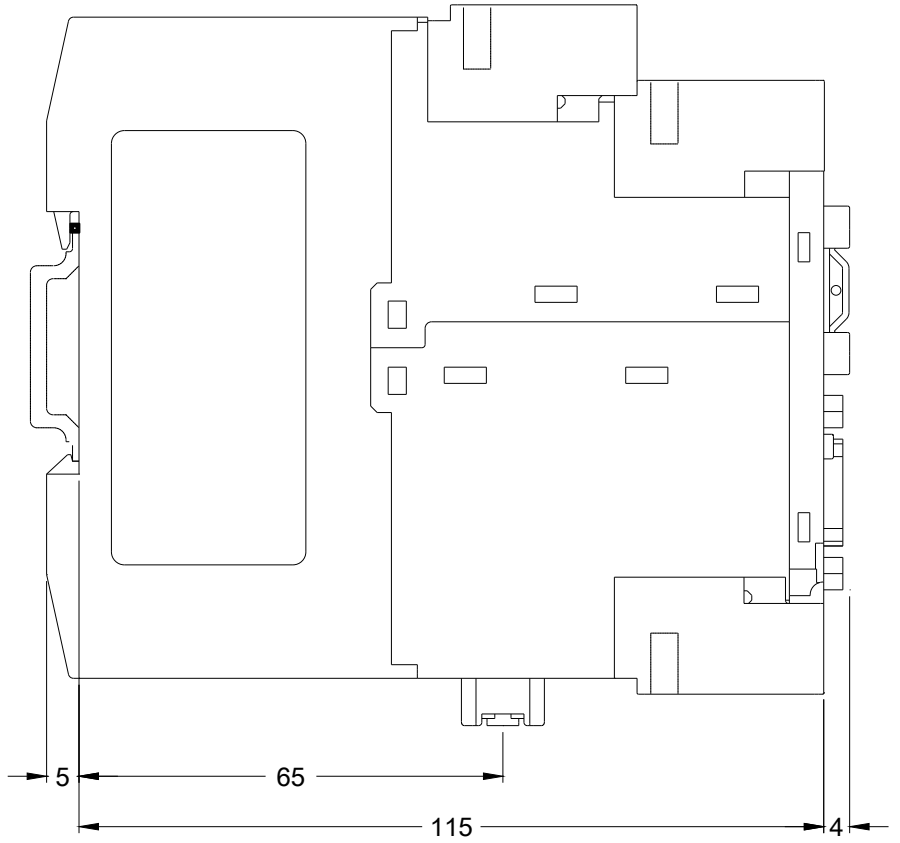
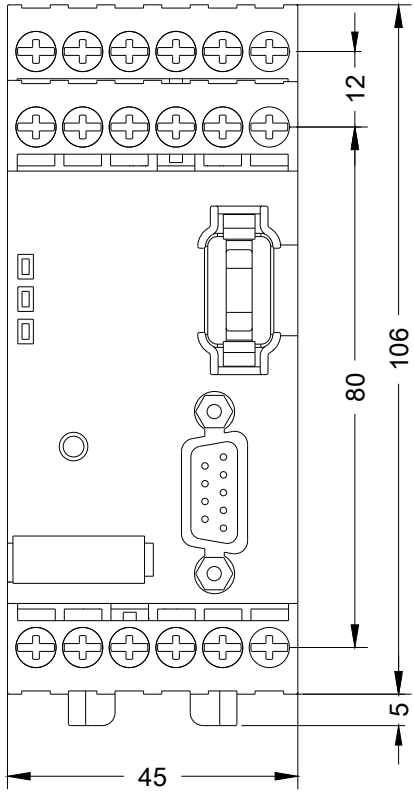
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3UF7010-1AB00-0>

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

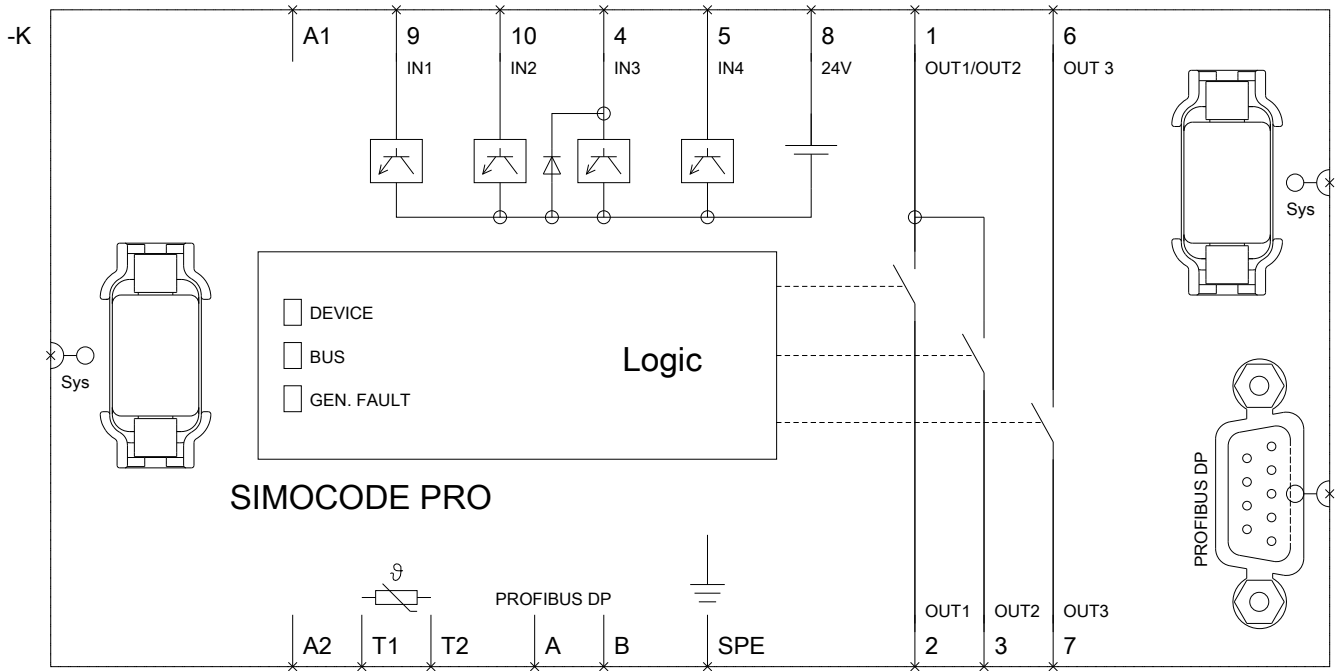
<https://support.industry.siemens.com/cs/ww/en/ps/3UF7010-1AB00-0>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mfb=3UF7010-1AB00-0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3UF7010-1AB00-0&lang=en)







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