SIEMENS

Data sheet 3UF7010-1AB00-0



Basic unit SIMOCODE pro V PB PROFIBUS DP interface 12 Mbit/s, RS 485, 4I/3O freely parameterizable, Us: 24 V DC, input for thermistor connection Monostable relay outputs, expandable by extension modules

product brand name	SIRIUS
product designation	Motor management system
design of the product	basic unit 2
product type designation	SIMOCODE pro V PB
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 	Yes
 current measuring module 	Yes
 current/voltage measuring module 	Yes
fail-safe digital I/O module	Yes
 ground-fault monitoring module 	Yes
 control unit with display 	Yes
• control unit	Yes
analog I/O module	Yes
consumed active power	2.6 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	
according to IEC 60068-2-27	15g / 11 ms
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

- ct 60 V	0.55 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 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 (Date)	05/01/2012
SVHC substance name	Blei - 7439-92-1 Bleimonoxid (Bleioxid) - 1317-36-8 4,4'-isopropylidendiphenol (Bisphenol A, - 80-05-7
certificate of suitability	
• IECEx	Yes; IECEx BVS 20.0020 / IECEx PTB 18.0004X
 according to ATEX directive 2014/34/EU 	BVS 06 ATEX F001, PTB 18 ATEX 5003 X
 acc. to Equipment and Protective System Intended for Use in Potentially Explosive Atmospheres Regulations 2016 (S.I. 2016 No.1107) 	ITS21UKEX0464, ITS21UKEX0455X
according to UKCA	ITS21UKEX0464, ITS21UKEX0455X
explosion device group and category according to ATEX directive 2014/34/EU	II (2) G, II (2) D, I (M2) / I (M2), II (1/2) G, II (1G/2D)
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
type of relay outputs	Monostable
wire length for digital signals maximum	300 m
wire length for thermistor connection	
with conductor cross-section = 0.5 mm² maximum	50 m
with conductor cross-section = 1.5 mm² maximum	150 m
	250 m
• with conductor cross-section = 2.5 mm² maximum	250 m
• with conductor cross-section = 2.5 mm² maximum Protective and monitoring functions	250 m
• with conductor cross-section = 2.5 mm² maximum Protective and monitoring functions product function	
with conductor cross-section = 2.5 mm² maximum Protective and monitoring functions product function asymmetry detection	Yes
• with conductor cross-section = 2.5 mm² maximum Protective and monitoring functions product function	

 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
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
number of interfaces	
 according to PROFINET 	0
 according 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 Device Level Ring (DLR)	No
• is supported PROFINET system redundancy (S2)	No
 supports PROFlenergy measured values 	No
 supports PROFlenergy 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	Yes
control circuit	
type of connectable conductor cross-sections	
• solid	1x (0.5 4.0 mm²), 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	2x 0.34 mm², AWG 22
PROFIBUS wire	
Ambient conditions	
installation altitude at height above sea level	
• 1 maximum	2 000 m
• 2 maximum	3 000 m; max. +50 °C (no protective separation)
• 3 maximum	4 000 m; max. +40 °C (no protective separation)
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)
Safety related data	
touch protection against electrical shock	finger-safe
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)
Control circuit/ Control	
product function soft starter control	Yes
type of voltage of the control supply voltage	DC
control supply voltage at DC	
• rated value	24 V
control supply voltage 1 at DC rated value	24 V

operating range factor control supply voltage rated value at DC	
• initial value	0.8
• full-scale value	1.2
inrush current peak	
• at 24 V	11 A
duration of inrush current peak	
• at 24 V	1.1 ms

Certificates/ approvals

General Product Approval EMC For use in hazardous locations

Confirmation











For use in hazardous locations

Declaration of Conformity







Explosion Protection Certificate





Test Certificates

Marine / Shipping

Special Test Certificate

Type Test Certificates/Test Report

Special Test Certificate







Marine / Shipping

other



Confirmation



Profibus

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=3UF7010-1AB00-0

Cax online generator

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

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

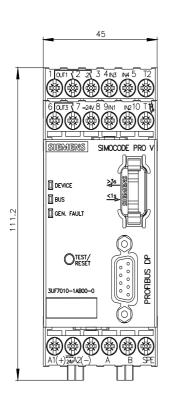
https://support.industry.siemens.com/cs/ww/en/ps/3UF7010-1AB00-0

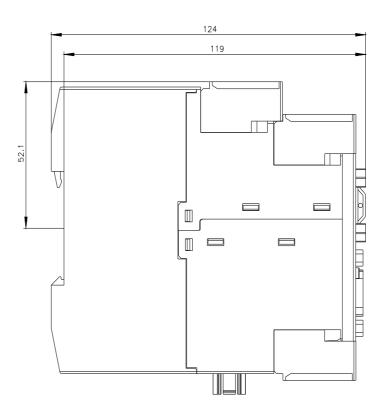
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

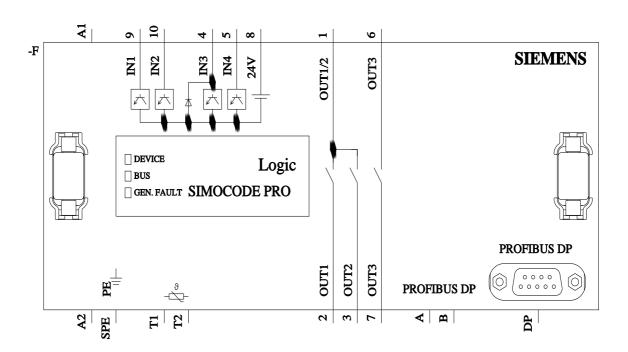
 $\underline{\text{http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UF7010-1AB00-0\&lang=en}$

Test report No. A0258, protective separation

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







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