



SIRIUS ACT with PROFINET: fail-safe interface module with 4 DI, 1 DQ (24 V DC), 1 AI (12-bit A/D resolution), 24 V DC, spring-loaded terminal, front plate mounting, 1 to 20 terminal modules connectable



product brand name	SIRIUS ACT
product designation	Fail-safe interface module for PROFINET
product type designation	3SU1
<b>Display</b>	
display version	<ul style="list-style-type: none"> <li>for diagnostic function: Supply voltage monitoring power LED</li> <li>status Tx/Rx link</li> </ul>
	Yes
	Yes
<b>General technical data</b>	
product function	<ul style="list-style-type: none"> <li>reverse polarity protection</li> <li>diagnostics function</li> <li>alarms</li> <li>I&amp;M data</li> </ul>
	Yes; With polarity change, DI1 ... DI4 may not be connected to (M) pole
	Yes
	Yes
	Yes; I&M0 ... I&M3
firmware version	2.1.4
hardware version	1
configuration function with dataset	Yes
software version with STEP 7 in the TIA Portal required	Integrated in TIA Portal Version 14 SP1 or higher (HSP for V13 and V14)
number of units per rack maximum	20
number of submodules per station maximum	24
power loss [W] typical	0.67 W
insulation voltage rated value	30 V
degree of pollution	3
type of voltage	<ul style="list-style-type: none"> <li>of the operating voltage</li> <li>of the input voltage</li> </ul>
	DC
	DC
surge voltage resistance rated value	0.8 kV
consumed current	<ul style="list-style-type: none"> <li>maximum</li> <li>rated value</li> </ul>
	100 mA
	28 mA
protection class IP	IP20
shock resistance	<ul style="list-style-type: none"> <li>according to IEC 60068-2-27</li> <li>for railway applications according to EN 61373</li> </ul>
	sinusoidal half-wave 15g / 11 ms
	Category 1, Class B
vibration resistance	<ul style="list-style-type: none"> <li>according to IEC 60068-2-6</li> <li>for railway applications according to EN 61373</li> </ul>
	10 ... 500 Hz: 5g
	Category 1, Class B

reference code according to IEC 81346-2	K
Substance Prohibitance (Date)	12/19/2016
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 71868-10-5 Lead titanium zirconium oxide - 12626-81-2
operating voltage rated value minimum	20.4 V
I <sub>2t</sub> value	0.008 A <sup>2</sup> s
<b>Supply voltage</b>	
supply voltage at DC rated value	24 V
<b>Communication/ Protocol</b>	
protocol is supported	
• PROFINET IO protocol	Yes
• PROFIsafe protocol	Yes
product function at the Ethernet interface	
• Autocrossover	Yes
• Autonegotiation	Yes
protocol at the 1st interface media redundancy protocol	No
product function at the 1st interface PROFINET IO device	Yes
product function of the PROFINET IO device is supported PROFINET system redundancy	No
service as PROFINET IO device	
• prioritized startup	No
• isochronous mode	No
• supports Shared Device	No
• supports PROFlenergy	No
• IRT	No
• MRP	No
• MRPD	No
service for open IE communication	
• LLDP	Yes
• SNMP	Yes
• TCP/IP	Yes
GSD version/revision with PROFINET required	V2.34
transmission mode for Industrial Ethernet	PROFINET with 100 Mbps full duplex (100BASE-TX)
network load class according to PROFINET	1
specification for Security Level 1 test according to PROFINET	Resilient to network loading
<b>Control circuit/ Control</b>	
inrush current maximum	16 A
<b>Galvanic isolation</b>	
galvanic isolation between PROFINET and all other circuits	Yes
<b>Inputs/ Outputs</b>	
number of digital inputs	4
• safety-related	0
number of analog inputs	1
number of digital outputs	1
<b>Connections/ Terminals</b>	
type of electrical connection	spring-loaded terminals
connectable conductor cross-section for auxiliary contacts	
• solid or stranded	0.2 ... 2.5 mm <sup>2</sup>
• finely stranded with core end processing maximum	2.5 mm <sup>2</sup>
connectable conductor cross-section	
• solid	0.2 ... 2.5 mm <sup>2</sup>
• solid with core end processing	0.2 ... 2.5 mm <sup>2</sup>
• finely stranded with core end processing	0.25 ... 2.5 mm <sup>2</sup>
• finely stranded without core end processing	0.2 ... 2.5 mm <sup>2</sup>
AWG number as coded connectable conductor cross section	26 ... 12
<b>Safety related data</b>	
product function suitable for safety function	Yes
safe state	Process value within PROFISafe telegram is set to zero

service life maximum	20 a
test wear-related service life necessary	No
function test interval maximum	1 mo
IEC 62061	
<b>Safety Integrity Level (SIL) according to IEC 62061</b>	3
PFHD with high demand rate according to IEC 62061	6E-10 1/h
ISO 13849	
<b>performance level (PL) according to ISO 13849-1</b>	e
<b>category according to ISO 13849-1</b>	4
IEC 61508	
Safety Integrity Level (SIL) according to IEC 61508	SIL 3
<b>safety device type according to IEC 61508-2</b>	Type B
<b>PFHD with high demand rate according to IEC 61508</b>	6E-10 1/h
PFDavg with low demand rate according to IEC 61508	2.426E-6
<b>Safe failure fraction (SFF)</b>	99.6 %
hardware fault tolerance according to IEC 61508	1
<b>T1 value</b>	
• according to IEC 61508	1 a
• of service life according to IEC 61508	20 a
<b>Interfaces</b>	
<b>design of the interface</b>	
• Ethernet interface	Yes; for Ethernet services
• Fast Ethernet interface	Yes; PROFINET with 100 Mbps
<b>interface design 1</b>	
• integrated switch	No
• RJ45 (Ethernet)	Yes
<b>number of ports at the 1st interface</b>	1
number of interfaces according to PROFINET	1
<b>Ambient conditions</b>	
<b>ambient temperature</b>	
• during operation	-25 ... +60 °C
• during storage	-40 ... +80 °C
environmental category during operation according to IEC 60721	3M6, 3S2, 3B2, 3K6 (with relative air humidity of 10 ... 95%, no condensation in operation permitted)
<b>explosion protection marking for intrinsic safety of related equipment EEx ia</b>	No
<b>explosion protection marking for intrinsic safety of related equipment EEx ib</b>	No
<b>Environmental footprint</b>	
Environmental Product Declaration(EPD)	Yes
Global Warming Potential [CO2 eq] total	0.787 kg
Global Warming Potential [CO2 eq] during manufacturing	0.566 kg
Global Warming Potential [CO2 eq] during operation	0.235 kg
Global Warming Potential [CO2 eq] after end of life	-0.015 kg
Siemens Eco Profile (SEP)	Siemens EcoTech
<b>Installation/ mounting/ dimensions</b>	
fastening method of modules and accessories	Front plate mounting
<b>height</b>	80.1 mm
<b>width</b>	40 mm
<b>depth</b>	72.1 mm
<b>Approvals Certificates</b>	
General Product Approval	Functional Safety



[Confirmation](#)



[Type Examination Certificate](#)

[Test Certificates](#)

[other](#)

[Environment](#)

## Industrial Communication

[PROFIsafe](#)

## Further information

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=3SU1400-1LL10-3BA1>

Cax online generator

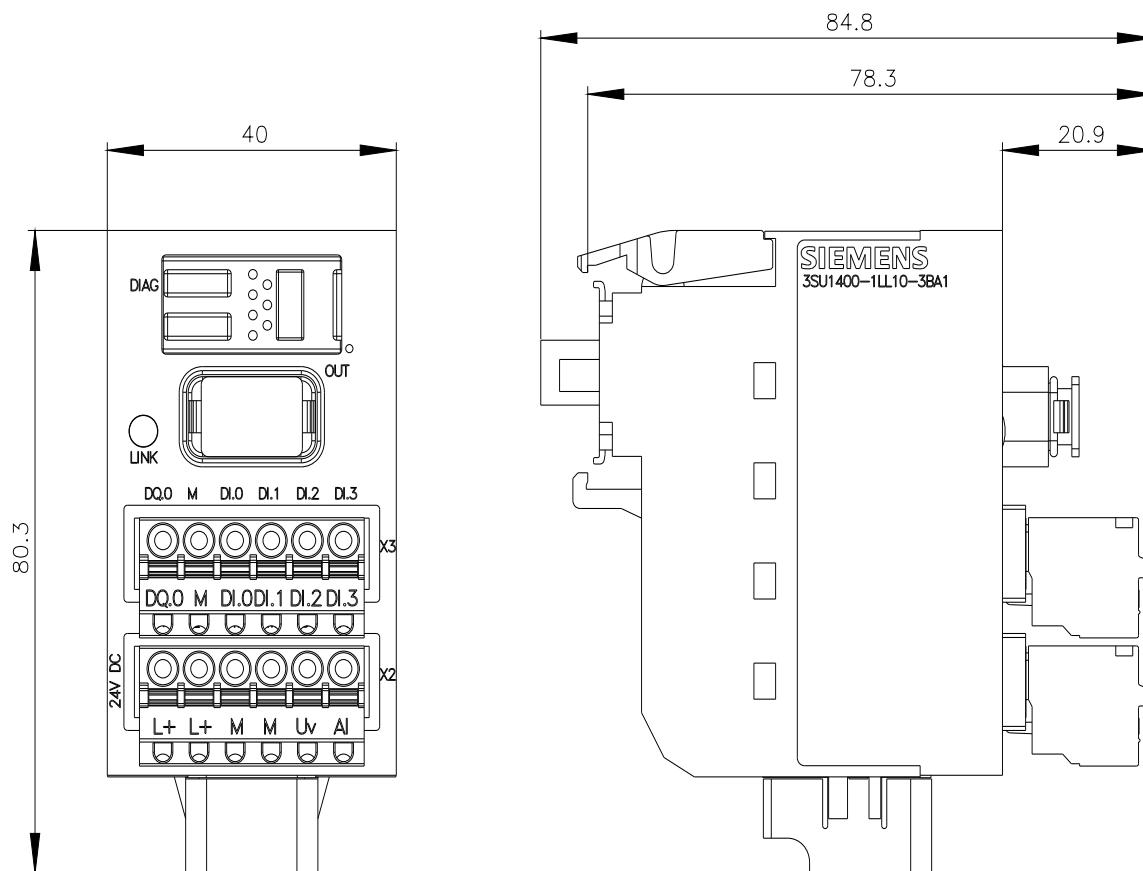
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3SU1400-1LL10-3BA1>

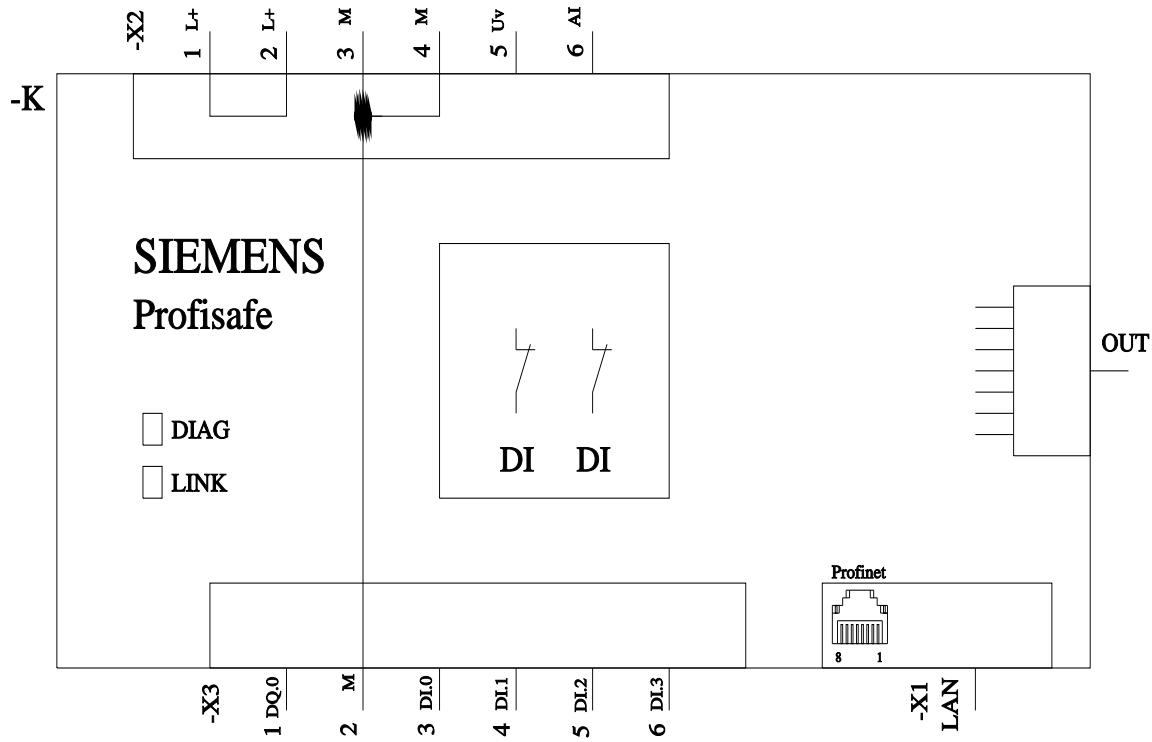
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3SU1400-1LL10-3BA1>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3SU1400-1LL10-3BA1&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3SU1400-1LL10-3BA1&lang=en)





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