

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, screw terminal, front plate mounting, 1 to 20 terminal modules connectable



Product brand name	SIRIUS ACT
Product designation	Fail-safe interface module
Product type designation	3SU1

Display

Display version	
<ul style="list-style-type: none"> • for diagnostic function: Supply voltage monitoring Power LED 	Yes
<ul style="list-style-type: none"> • status Tx/Rx link 	Yes

General technical data

Product function	
<ul style="list-style-type: none"> • Reverse polarity protection 	Yes; With polarity change, DI1 ... DI4 may not be connected to (M) pole
<ul style="list-style-type: none"> • Diagnostics function 	Yes
<ul style="list-style-type: none"> • Alarms 	Yes
<ul style="list-style-type: none"> • I&M data 	Yes; I&M0 ... I&M3
Firmware version	1.0.0
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	
• of the operating voltage	DC
• of the input voltage	DC
Surge voltage resistance rated value	0.8 kV
Consumed current	
• maximum	100 mA
• Rated value	28 mA
Protection class IP	IP20
Reference code acc. to DIN EN 81346-2	K
Operating voltage rated value	20.4 V
I²t value	0.008 A ² ·s

Supply voltage

Supply voltage at DC Rated value	24 V
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Communication/ Protocol

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 (S2)	No
Service as PROFINET IO device	
• prioritized startup	No
• isochronous mode	No
• supports Shared Device	No
• supports PROFINET energy	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	V2.3
Transmission mode for Industrial Ethernet	PROFINET with 100 Mbps full duplex (100BASE-TX)
Network load class acc. to PROFINET	1
Specification for Security Level 1 test acc. to PROFINET	Resilient to network loading

Control circuit/ Control

Inrush current maximum	16 A
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Galvanic isolation

Galvanic isolation between PROFINET and all other circuits	Yes
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Inputs/ Outputs

Number of digital inputs	4
• safety-related	0
Number of analog inputs	1
Number of digital outputs	1

Connections/Terminals

Type of electrical connection	screw-type terminals
Connectable conductor cross-section for auxiliary contacts	
• single or multi-stranded	0.2 ... 2.5 mm ²
• finely stranded with core end processing	2.5 mm ²
Connectable conductor cross-section	
• solid	0.2 ... 2.5 mm ²
• solid with core end processing	0.2 ... 2.5 mm ²
• finely stranded with core end processing	0.25 ... 2.5 mm ²
• finely stranded without core end processing	0.2 ... 2.5 mm ²
AWG number as coded connectable conductor cross section	30 ... 12
Tightening torque with screw-type terminals	0.5 ... 0.6 N·m

Safety related data

Safety Integrity Level (SIL) acc. to IEC 61508	3
SIL Claim Limit (subsystem) acc. to EN 62061	SILCL 3
Performance level (PL) acc. to EN ISO 13849-1	e
Category acc. to EN ISO 13849-1	4
Safe failure fraction (SFF)	99.6 %
PFHD with high demand rate acc. to EN 62061	0.000000006 1/h
PFDavg with low demand rate acc. to IEC 61508	0.0000024
Service life maximum	20 y
T1 value acc. to IEC 61508	1 y
Design of the interface	
• Ethernet interface	Yes; for Ethernet services

• Fast Ethernet interface	Yes; PROFINET with 100 Mbps
Interface design 1	
• integrated switch	No
• RJ45 (Ethernet)	Yes
Number of ports at the 1st interface	1
Number of interfaces acc. to PROFINET	1







Ambient conditions

Ambient temperature	
• during operation	-25 ... +60 °C
• during storage	-40 ... +80 °C
Environmental category during operation acc. to IEC 60721	3M6, 3S2, 3B2, 3K6 (with relative air humidity of 10 ... 95 %, no condensation in operation permitted)
Explosion protection marking for intrinsic safety of related equipment EEx ia	No
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Installation/ mounting/ dimensions

Mounting type of modules and accessories	Snap-on mounting
Height	80.1 mm
Width	40 mm
Depth	72.1 mm

Certificates/approvals

General Product Approval	Functional Safety/Safety of Machinery	Declaration of Conformity	Test Certificates
 UL	 EAC	 EG-Konf.	  
	Type Examination Certificate	Miscellaneous	Special Test Certificate

Test Certificates	other
Type Test Certificates/Test Report	Confirmation

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?mlfb=3SU1400-1LL10-1BA1>

Cax online generator

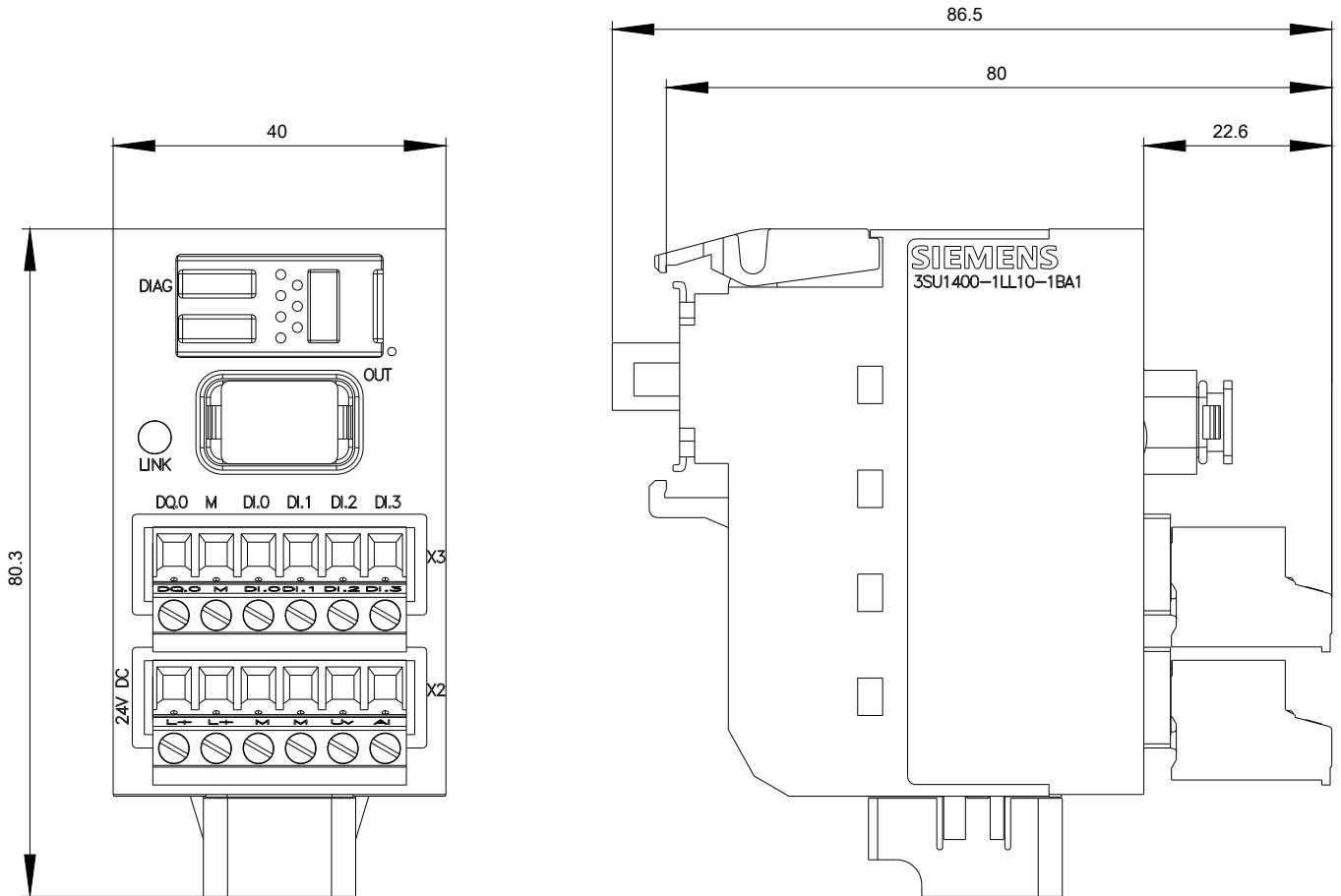
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3SU1400-1LL10-1BA1>

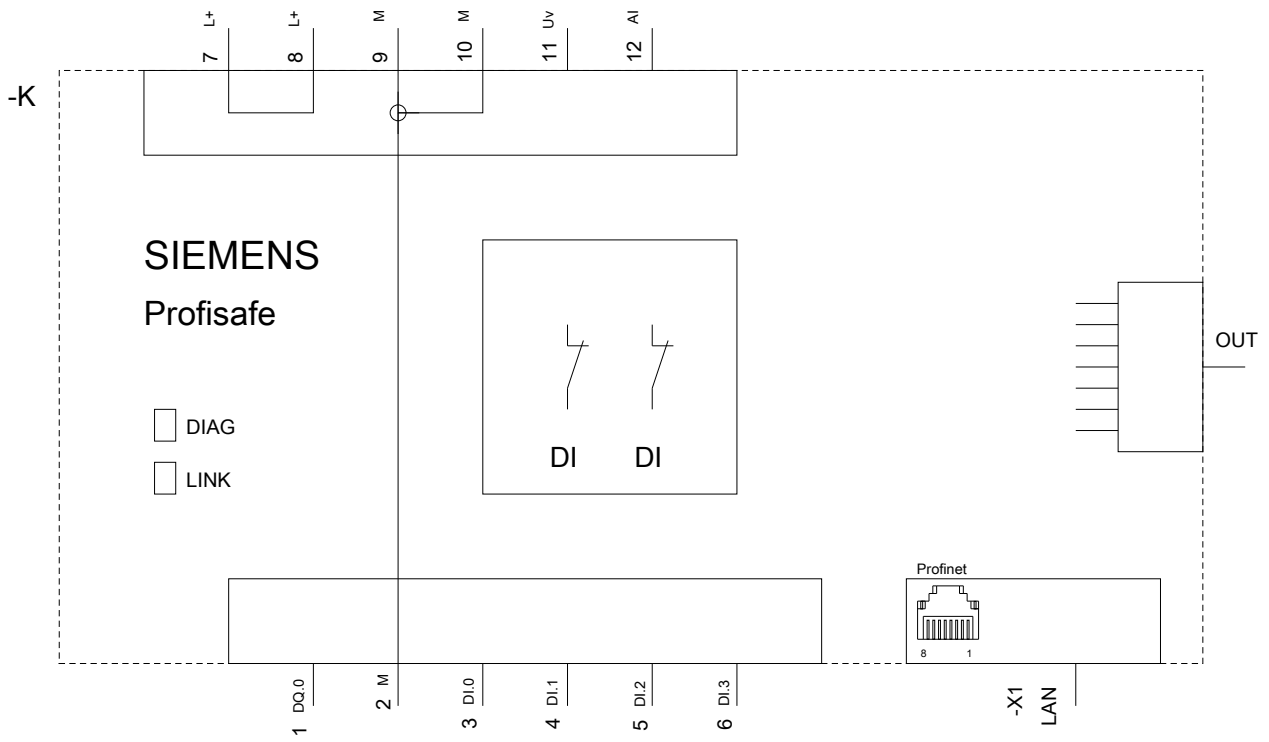
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

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

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3SU1400-1LL10-1BA1&lang=en





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