

Siemens
EcoTech



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
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	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"> of the operating voltage 	DC
<ul style="list-style-type: none"> of the input voltage 	DC
surge voltage resistance rated value	0.8 kV
consumed current	
<ul style="list-style-type: none"> maximum 	100 mA
<ul style="list-style-type: none"> rated value 	28 mA
protection class IP	IP20
shock resistance	
<ul style="list-style-type: none"> according to IEC 60068-2-27 	sinusoidal half-wave 15g / 11 ms
<ul style="list-style-type: none"> for railway applications according to EN 61373 	Category 1, Class B
vibration resistance	
<ul style="list-style-type: none"> according to IEC 60068-2-6 	10 ... 500 Hz: 5g

• for railway applications according to EN 61373	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 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol - 79-94-7 Lead titanium zirconium oxide - 12626-81-2 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 71868-10-5
Weight	158 g
operating voltage rated value minimum	20.4 V
I2t value	0.008 A ² ·s
Supply voltage	
supply voltage at DC rated value	24 V
Communication/ Protocol	
protocol is supported	
• PROFINET IO protocol	Yes
• PROFI-safe 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 PROFIenergy	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	I
specification for Security Level 1 test according to PROFINET	Resilient to network loading
Control circuit/ Control	
inrush current maximum	16 A
Galvanic isolation	
galvanic isolation between PROFINET and all other circuits	Yes
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	spring-loaded terminals
connectable conductor cross-section for auxiliary contacts	
• solid or stranded	0.2 ... 2.5 mm ²
• finely stranded with core end processing maximum	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

Safety related data		
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		
Safety Integrity Level (SIL) according to IEC 62061	SIL 3	
PFHD with high demand rate according to IEC 62061	0 1/h	
ISO 13849		
performance level (PL) according to ISO 13849-1	PL e	
category according to ISO 13849-1	4	
device type according to ISO 13849-1	1	
IEC 61508		
Safety Integrity Level (SIL) according to IEC 61508	SIL 3	
safety device type according to IEC 61508-2	Type B	
PFHD with high demand rate according to IEC 61508	0 1/h	
PFDAvg with low demand rate according to IEC 61508	2.43E-6	
Safe failure fraction (SFF)	99.6 %	
hardware fault tolerance according to IEC 61508	1	
T1 value		
• according to IEC 61508	1 a	
• of service life according to IEC 61508	20 a	
Interfaces		
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 according to PROFINET	1	
Ambient conditions		
ambient temperature		
• 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)	
explosion protection marking for intrinsic safety of related equipment EEx ia	No	
explosion protection marking for intrinsic safety of related equipment EEx ib	No	
Environmental footprint		
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	
Installation/ mounting/ dimensions		
fastening method of modules and accessories	Front plate mounting	
height	80.1 mm	
width	40 mm	
depth	72.1 mm	
Approvals Certificates		
General Product Approval	Functional Safety	Test Certificates



[Type Examination Certificate](#)

[Type Test Certificates/Test Report](#)

Test Certificates Maritime application other

[Special Test Certificate](#)



[Confirmation](#)

other Environment Industrial Communication



[Environmental Confirmations](#)

[PROFIsafe](#)

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=3SU1400-1LL10-3BA1>

Cax online generator

<https://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, ...)

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



