



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**  
**product designation**  
**product type designation**

SIRIUS ACT  
Fail-safe interface module for PROFINET  
3SU1

### Display

#### display version

- for diagnostic function: Supply voltage monitoring power LED
- status Tx/Rx link

Yes  
Yes

### General technical data

#### product function

- reverse polarity protection
- diagnostics function
- alarms
- I&M data

Yes; With polarity change, DI1 ... DI4 may not be connected to (M) pole  
Yes  
Yes

#### firmware version

2.1.1

#### 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
- of the input voltage

DC  
DC

#### surge voltage resistance rated value

0.8 kV

#### consumed current

- maximum
- rated value

100 mA  
28 mA

#### protection class IP

IP20

#### reference code according to IEC 81346-2

K

#### Substance Prohibitance (Date)

12/19/2016

#### operating voltage rated value

20.4 V

#### I2t value

0.008 A<sup>2</sup>·s

### Supply voltage

#### supply voltage at DC rated value

24 V

### Communication/ Protocol

#### protocol is supported

- PROFINET IO protocol

Yes

|                                                                                                 |                                                 |
|-------------------------------------------------------------------------------------------------|-------------------------------------------------|
| <ul style="list-style-type: none"> <li>• PROFIsafe protocol</li> </ul>                          | Yes                                             |
| <b>product function at the Ethernet interface</b>                                               |                                                 |
| <ul style="list-style-type: none"> <li>• Autocrossover</li> </ul>                               | Yes                                             |
| <ul style="list-style-type: none"> <li>• Autonegotiation</li> </ul>                             | Yes                                             |
| protocol at the 1st interface media redundancy protocol                                         | No                                              |
| product function at the 1st interface PROFINET IO device                                        | Yes                                             |
| <b>product function of the PROFINET IO device is supported PROFINET system redundancy</b>       | No                                              |
| <b>service as PROFINET IO device</b>                                                            |                                                 |
| <ul style="list-style-type: none"> <li>• prioritized startup</li> </ul>                         | No                                              |
| <ul style="list-style-type: none"> <li>• isochronous mode</li> </ul>                            | No                                              |
| <ul style="list-style-type: none"> <li>• supports Shared Device</li> </ul>                      | No                                              |
| <ul style="list-style-type: none"> <li>• supports PROFIenergy</li> </ul>                        | No                                              |
| <ul style="list-style-type: none"> <li>• IRT</li> </ul>                                         | No                                              |
| <ul style="list-style-type: none"> <li>• MRP</li> </ul>                                         | No                                              |
| <ul style="list-style-type: none"> <li>• MRPD</li> </ul>                                        | No                                              |
| <b>service for open IE communication</b>                                                        |                                                 |
| <ul style="list-style-type: none"> <li>• LLDP</li> </ul>                                        | Yes                                             |
| <ul style="list-style-type: none"> <li>• SNMP</li> </ul>                                        | Yes                                             |
| <ul style="list-style-type: none"> <li>• TCP/IP</li> </ul>                                      | Yes                                             |
| <b>GSD version/revision with PROFINET required</b>                                              | V2.3                                            |
| <b>transmission mode for Industrial Ethernet</b>                                                | PROFINET with 100 Mbps full duplex (100BASE-TX) |
| <b>network load class according to PROFINET</b>                                                 | 1                                               |
| <b>specification for Security Level 1 test according to PROFINET</b>                            | Resilient to network loading                    |
| <b>Control circuit/ Control</b>                                                                 |                                                 |
| <b>inrush current maximum</b>                                                                   | 16 A                                            |
| <b>Galvanic isolation</b>                                                                       |                                                 |
| galvanic isolation between PROFINET and all other circuits                                      | Yes                                             |
| <b>Inputs/ Outputs</b>                                                                          |                                                 |
| <b>number of digital inputs</b>                                                                 | 4                                               |
| <ul style="list-style-type: none"> <li>• safety-related</li> </ul>                              | 0                                               |
| <b>number of analog inputs</b>                                                                  | 1                                               |
| <b>number of digital outputs</b>                                                                | 1                                               |
| <b>Connections/ Terminals</b>                                                                   |                                                 |
| <b>type of electrical connection</b>                                                            | spring-loaded terminals                         |
| <b>connectable conductor cross-section for auxiliary contacts</b>                               |                                                 |
| <ul style="list-style-type: none"> <li>• solid or stranded</li> </ul>                           | 0.2 ... 2.5 mm <sup>2</sup>                     |
| <ul style="list-style-type: none"> <li>• finely stranded with core end processing</li> </ul>    | 2.5 mm <sup>2</sup>                             |
| <b>connectable conductor cross-section</b>                                                      |                                                 |
| <ul style="list-style-type: none"> <li>• solid</li> </ul>                                       | 0.2 ... 2.5 mm <sup>2</sup>                     |
| <ul style="list-style-type: none"> <li>• solid with core end processing</li> </ul>              | 0.2 ... 2.5 mm <sup>2</sup>                     |
| <ul style="list-style-type: none"> <li>• finely stranded with core end processing</li> </ul>    | 0.25 ... 2.5 mm <sup>2</sup>                    |
| <ul style="list-style-type: none"> <li>• finely stranded without core end processing</li> </ul> | 0.2 ... 2.5 mm <sup>2</sup>                     |
| <b>AWG number as coded connectable conductor cross section</b>                                  | 26 ... 12                                       |
| <b>Safety related data</b>                                                                      |                                                 |
| <b>Safety Integrity Level (SIL) according to IEC 61508</b>                                      | 3                                               |
| SIL Claim Limit (subsystem) according to EN 62061                                               | SILCL 3                                         |
| <b>performance level (PL) according to EN ISO 13849-1</b>                                       | e                                               |
| category according to EN ISO 13849-1                                                            | 4                                               |
| <b>Safe failure fraction (SFF)</b>                                                              | 99.6 %                                          |
| PFHD with high demand rate according to EN 62061                                                | 0.0000000006 1/h                                |
| <b>PFDavg with low demand rate according to IEC 61508</b>                                       | 0.0000024                                       |
| <b>service life maximum</b>                                                                     | 20 a                                            |
| <b>T1 value according to IEC 61508</b>                                                          | 1 a                                             |
| <b>design of the interface</b>                                                                  |                                                 |
| <ul style="list-style-type: none"> <li>• Ethernet interface</li> </ul>                          | Yes; for Ethernet services                      |
| <ul style="list-style-type: none"> <li>• Fast Ethernet interface</li> </ul>                     | Yes; PROFINET with 100 Mbps                     |
| <b>interface design 1</b>                                                                       |                                                 |
| <ul style="list-style-type: none"> <li>• integrated switch</li> </ul>                           | No                                              |
| <ul style="list-style-type: none"> <li>• RJ45 (Ethernet)</li> </ul>                             | Yes                                             |

|                                            |   |
|--------------------------------------------|---|
| number of ports at the 1st interface       | 1 |
| number of interfaces according to PROFINET | 1 |

#### Ambient conditions

|                                                                                                                       |                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| <b>ambient temperature</b> <ul style="list-style-type: none"> <li>during operation</li> <li>during storage</li> </ul> | -25 ... +60 °C<br>-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                                                                                                    |

#### Installation/ mounting/ dimensions

|                                             |                      |
|---------------------------------------------|----------------------|
| fastening method of modules and accessories | Front plate 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 |
|--------------------------|---------------------------------------|---------------------------|

[Confirmation](#)



[Type Examination Certificate](#)



|                   |       |
|-------------------|-------|
| Test Certificates | other |
|-------------------|-------|

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

[Confirmation](#)

[Environmental Conformations](#)

[PROFINET-Certification](#)

#### Further information

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)



