DNV·GL

Certificate No:
TAA00001G1

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Peripheral Equipment

with type designation(s)
AS-i SlimLine Compact modules

Issued to
Siemens AG GWA
Amberg Bayern, Germany

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Temperature	**B**
Humidity	**B**
Vibration	**A**
EMC	**A**
Enclosure	**Required protection according to the Rules shall be provided upon installation on board.**

Issued at **Hamburg** on **2017-11-13**
This Certificate is valid until **2022-11-12**.
DNV GL local station: **Augsburg**

Approval Engineer: **Heinz Scheffler**

for **DNV GL**

Joannis Papanuskas
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

Product description

3RK1/2 AS-i SlimLine Compact

AS-i SlimLine Compact modules score points for their minimal space requirements in control cabinets and distributed local control boxes.

Nomenclature Article No.:

3RK	**1**	**1**	**0**	**-0**	**0**	**B**	**E**	**00**	**-2**	**AA**	**2**
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII

I. Basic type: 3RK

II. Addressing mode
- 1 – Standard addressing mode
- 2 – A/B addressing mode

III. Type of module
- 1 – Output module
- 2 – Input module
- 4 – Input / Output module

IV. Communication interface
- 0 – AS-Interface

V. Type of inputs / outputs
- -0 – Binary inputs / outputs
- -2 – Binary inputs / relay outputs
- -5 - Safety inputs / standard outputs
- -7 – Analog inputs / outputs

VI. Auxiliary voltage
- 0 – Supplied via AS-I bus
- 1 – 24V dc
- 2 – AS-I / Aux supply switchable
- 3 – 230V ac / 115V ac

VII. Number of inputs / outputs
- B – 2I / 2O
- C – 4I / 4O
- M – 4I / 2O

VIII. Terminals
- E – Screw terminals
- G – Spring loaded terminals

IX. Product design
- 00 – Manufacturers identification

X. Module type identification
- -2 – SlimLine Compact modules

XI. Manufacturer
- AA – Siemens

XII. Ambient temperature range
- 2 – -25°C through +70°C

Accessory:

- 3ZY1311-0AA0 – Push-in lug
- 3ZY1440-1AA0 - coding Pin
- 3RK1901-1YA00 AS-I Device Connector 17.5mm, two standard connector
- 3RK1901-1YA10 AS-I Device Connector 22.5mm, two standard connector
- 3RK1901-1YA01 AS-I Device Connector 17.5mm, two terminating connector
- 3RK1901-1YA11 AS-I Device Connector 22.5mm, two terminating connector

Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV GL Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

Type Approval documentation

Test Reports: 194300-237-2016 AJ; 194300-238-2016 AJ; 194300-239-2016 AJ; 194300-240-2016 AJ; 194300-241-2016 AJ; 194300-242-2016 AJ; 16-E006422-BM-B01; 16-E006422-BM-C01; 16-E006422-BM-D01; 16-E006422-BM-E01; 16-E006422-BM-F01; 16-E006422-BM-G01; 16-E006422-BM-H01; 16-E006422-BM-I01; 21248122-001; 21248122-002.
Documents: Manual 11/2016, A5E33414181001A/RS-AC/003; Operation Instruction 3ZX1012-0RK21-1CA1 dated 24-05-2016.

Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, November 2016.

Marking of product

The products to be marked with:

- Model name
- Manufacturer name
- Serial number

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.
The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE