EUROPEAN UNION RECOGNISED ORGANISATION (EU RO) MUTUAL RECOGNITION TYPE APPROVAL CERTIFICATE

Certificate No:
MRA0000051

In accordance with Article 10.1 of EU Regulation 391/2009

This Certificate is issued to

Schneider Electric Industries S.A.S.

Eybens, **France**

for
Computers and Programmable Logic Controllers

with type designation(s)
TeSys™ island - Bus coupler (TPRBCEIP, TPRBCPFN), I/O Modules (TPRDG4X2, TPRAN2X1), Voltage Interface Module (TPRVM001)

The product is found to comply with
EU RO Mutual Recognition Technical Requirements for Computers and Programmable Logic Controllers

Intended service
Modules for control, monitoring, alarm, and safety functions subject to classification requirements.

Temperature [°C]:	**-25 to 70**
Vibration:	**± 1 mm / 0.7g**
EMC:	**All locations including bridge and deck zone**
IP Code:	**IP20**

This is to certify:

that the Product referred to herein has been inspected for the Manufacturer, pursuant to the relevant requirements of the European Union Recognised Organisation Mutual Recognition procedure, required by Article 10.1 of EU Regulation 391/2009, and has been found in accordance with those requirements.

This Certificate is valid until **2030-02-04**.

Issued at **Høvik** on **2025-02-05**

DNV local unit: **France CMC**

Approval Engineer: **Sonali Marathe**

for **DNV**

Digitally signed by
Elter, Frederik Tore
Location: DNV
Høvik, Norway

Frederik Tore Elter
Head of Section

Product description

TeSys island is a modular, multifunctional system providing integrated functions inside an automation architecture, primarily for the direct control and management of low-voltage loads.
The physical TeSys island consists of a set of devices installed on a single DIN rail and connected together with flat cables providing the internal communication between modules.
Nominal Power supply is 24V DC for all modules.

TeSys island Bus Couplers:
A Bus Coupler is always present in the island as the fieldbus communication interface. It controls all other modules of the island. It permits to exchange with all other devices in TeSys island through internal bus and also with external like PLC through industrial network.

Product Reference	Description	Hardware (name/version)	Firmware (name/version)	Software (name/version)
TPRBCEIP	Fieldbus protocol - EtherNet/IP - Modbus TCP	EP2	003.003.000	003.003.000
TPRBCPFN	Fieldbus protocol - PROFINET	EP2	003.003.000	003.003.000

TeSys island I/O module:
I/O modules are typically used to get data from sensors and to control devices.

Product Reference	Description	Hardware (name/version)	Firmware (name/version)	Software (name/version)
TPRDG4X2	Digital I/O module, providing 4 digital inputs and 2 digital outputs	KP3	01.00.51	01.00.51
TPRAN2X1	Analog I/O module, providing 2 analog inputs and 1 analog output	KP3	01.00.51	01.00.51

TeSys island Voltage Interface Module:
The voltage interface module (VIM) enables voltage, power, and energy monitoring for the TeSys island.

Product Reference	Description	Hardware (name/version)	Firmware (name/version)	Software (name/version)
TPRVM001	Voltage measurement range 100-690Vrms	KP3	01.00.51	01.00.51

Manufactured by

PT Schneider Electric Manufacturing Batam
Jl. Beringin Lot4 BIP, Mukakuning, Kabil, Sei Beduk,
Batam, Indonesia

Application/Limitation

The Type Approval covers all hardware listed under Product description. The modules are intended for use in control, monitoring, alarm, and safety functions subject to classification requirements.
Modules are approved for connection to 24V DC distribution systems, but are not tested/approved for supply connection from battery systems.

Type Approval documentation

DNV No.	Document No.	Date	Title
29	SPEC23AA6566_V3	2024-12-06	ENV Test Report (TPRBCEIP, TPRVM001, TPRDG4X2, TPRAN2X1)
1	SPEC23AC4731_V1	2024-03-25	ENV Test Report (TPRBCEIP, TPRVM001)
3	SPEC22AA6577_V2	2024-03-18	EMC Test Report (TPRBCEIP, TPRDG4X2, TPRAN2X1, TPRVM001)
4	SPEC22AA6589_V2	2024-03-18	EMC Test Report (TPRBCEIP)
8	LVCATISL_EN	2023-09	Catalog TeSys island 2023
9	DOCA0270EN-02	2024-04	TeSys island - System, Installation, and Operation Guide
14	-	2024-11-21	Product datasheet - Bus coupler_TPRBCEIP
15	-	2024-11-21	Product datasheet - Bus coupler_TPRBCPFN
18	-	2024-11-21	Product datasheet - Analog I/O module_TPRAN2X1
17	-	2024-11-21	Product datasheet - Digital I/O module_TPRDG4X2
16	-	2024-11-21	Product datasheet - Voltage interface module_TPRVM001
13	MFR44097-05	2023-10	Manual - TPRBCEIP
10	MFR44098-04	2023-10	Manual - TPRBCPFN
11	MFR44099-05	2023-10	Manual - TPRAN2X1 and TPRDG4X2
12	MFR44100-05	2023-10	Manual - TPRVM001

Marking of product

The products to be marked with:
- manufacturer name
- model name
- serial number (including date of manufacture)
- power supply ratings

Other Conditions

The units have been verified for compliance with EU Mutual Recognition Technical Requirements for Computers and programmable logic controllers (PLCs) version 0.9, dated 2024-07-01, including IACS Unified Requirements E10 rev. 10.

Environmental test parameters:		DNV location classes
Temperature:	-25°C and 70°C	D
Vibration:	±1mm / 0.7g	A
EMC:	All locations including bridge and deck zone	B
Enclosure:	IP20	A

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 annually and at renewal of this certificate.

END OF CERTIFICATE

Generic Statement for EU RO MR Type Approval Certificate

When a product is presented with this EU RO MR Type Approval Certificate for given application, its acceptability with regards to the limitations stated in the certificate conditions defined in 1b, 1c and 1d of the applied Technical Requirement will be evaluated by the EU RO in charge of classing the ship or being in charge of the unit/system certification.

In accordance with Article 10 of Regulation (EC) No 391/2009 of the European Parliament and of the Council of 23 April 2009 "on common rules and standards for ship inspection and survey organizations", the following organizations, recognized by the EU on this date, have agreed on the technical and procedural conditions under which they will mutually recognize this certificate:

- American Bureau of Shipping (ABS);
- Bureau Veritas (BV);
- China Classification Society (CCS);
- Croatian Register of Shipping (CRS);
- DNV;
- Indian Register of Shipping (IRS);
- Korean Register (KR);
- Lloyd's Register Group Ltd. (LR);
- Nippon Kaiji Kyokai General Incorporated Foundation (ClassNK);
- Polish Register of Shipping (PRS);
- RINA Services S.p.A. (RINA);

The scheme for the mutual recognition of class certificates for materials, equipment and components laid down by Article 10(1) of Regulation (EC) No 391/2009 is only enforceable within the Union in respect of ships flying the flag of a Member State. As far as foreign vessels are concerned, the acceptance of relevant certificates remains at the discretion of relevant non-EU flag States in the exercise of their exclusive jurisdiction, notably under the United Nations Convention on the Law of the Sea (UNCLOS). (In accordance with COMMISSION IMPLEMENTING REGULATION (EU) No 1355/2014 amending Regulation (EC) No 391/2009 - recital (25)).