Certificate no.:
TAA00003GB

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Programmable Controller

with type designation(s)
SCADA (Electrodynamic Controller & Foxboro EVO SCD6000 Controller) Components

issued to
Schneider Electric Systems USA Inc.
Foxboro, MA, USA

is found to comply with
DNV 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.

Temperature	**A**
Humidity	**B**
Vibration	**A**
EMC	**A**
Enclosure	**B**

Issued at **Hamburg** on **2025-03-18**
This Certificate is valid until **2029-12-26**.
DNV local unit: **Certification & Inspection Services**

for **DNV**

Approval Engineer: **Jens Dietrich**

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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.

Product description

Components to be mounted in closed cabinet (see Application/Limitation below):

Module Type	Part Number	Rev	Module or Assembly
Card Cage	SY-2003098R	B	Ten I/O slot card file
	SY-2003100R	B	Five I/O slot card file
	SY-2003102R	B	Three I/O slot card file
	SY-2003104R	B	One I/O slot card file
	SY-2003092R	B	2x5 I/O slot card file
	SY-2003107R	B	3x3 slot card file
	SY-2003110R	B	6x1 slot card file
CPU Modules	SY-60399008R	D	SCD6000 COPE TYPE II Assembly
	SY-60399009R	C	SCD6000 COE TYPE II Assembly
Power Supply	SY-0399131R	E	Power Supply Module
Communication Modules	SY-0399192R	D	Dual Communications Module V.28 CONITEL C2020/ C2025 (Master and Slave)
	SY-0399194R	D	Dual Communications Module V.28 DNP3
	SY-60399036R	B	V.28 DCB IEC 101 Master Module
	SY-0399196R	D	V.28 Dual Communication Board IEC 60870-5-101Slave Module V.28
	SY-0399226R	D	Communications Module V.28 DNP3 Master/Slave RoHS Type 2
	SY-0399127R	D	Dual Communication Board Glass Optical IEC 60870-5-103
	SY-0399122R	C	Dual Communications Module Optical DNP3
	SY-0399227R	D	Communications Module Glass Optical DNP3 Master/ Slave RoHS Type 2
	SY-0399163R	E	64 K Dual Communications Module V.11 DNP3
	SY-0399225R	D	Communications Module V.11 DNP3 Master/Slave RoHS Type 2
	SY-0399132R	D	8 Channel Serial Module RS-485 / RS-232
Input/Output Modules	SY-0399160R	E	32 Digital Input (24 V to 129 V) 4 Analog Input (1 kV isolated) Module

	SY-0399222R	E	4 Isolated AI and 32 DI Input Board (Deep Wiring Channel) Module
	SY-60399035R	B	32 Digital Input (24 V to 129 V) 4 Analog Input (1 kV isolated) Module with configurable debounce time
	SY-60399011R	B	4 Isolated AI and 32 DI Input Board (Deep Wiring Channel) Module with configurable debounce time
	SY-0399085R	D	20 Analog Input (1 kV isolated) Module
	SY-0399084R	D	4 Analog Output Module
	SY-60399016R	A	SCD6000 4 Channel Analog Output Module
	SY-0399086R	D	12 Digital (Relay) Output Module
	SY-0399087R	D	12 Magnetically Latched Relay Output Module
	SY-0399136R	D	8 x 10 Amp Digital (Relay) Output Module
	SY-0399089R	D	24 Digital Input (24 V)/6 Analog Input/6 Pilot Relay Output Module
	SY-0399096R	D	24 Digital Input (48 V)/6 Analog Input/6 Pilot Relay Output Module
	SY-0399097R	D	24 Digital Input (129 V)/6 Analog Input/6 Pilot Relay Output Module
	SY-0399088R	D	24 Digital Input (24 V)/6 Analog Input/8 Mini-Pilot Relay Output Module
	SY-0399094R	D	24 Digital Input (48 V)/6 Analog Input/8 Mini-Pilot Relay Output Module

	SY-0399095R	D	24 Digital Input (129 V)/6 Analog Input/8 Mini-Pilot Relay Output Module
ACT Modules	SY-0399140R	G	3 Phase AC Transducer Module 1 Amp
	SY-0399142R	G	3 Phase AC Transducer Module 5 Amp
IO Expansion Modules	SY-60399004R	B	Electrobus Upper Expansion Module
	SY-60399005R	B	Electrobus Lower Expansion Module
Combiner/Splitter	SY-6006251	A	SCD6000 DIDO Splitter for HA Hardwired
	SY-6006252	A	SCD6000 DI Adaptor for HA Hardwired
	SY-6006253	A	SCD6000 4AO Splitter for HA Hardwired
	SY-6039060	A	SCD6000 DI Cable for HA Hardwired
	AI Combiner		AI Combiner (Current) DIN1X2 ISOEM A7-P1-O9O9 (+/- 20mA) AI Combiner (Voltage) DIN1X2 ISOEM U5-P1-O7O7 (+/- 5V)
	AO power Isolator		AO Power Isolator (MEAN WELL MPN:DDR-15G-24)
	P0926AH	F	Splitter/Combiner
SFP	SY-6034085	C	10/100 BASE-T SMALL FORM PLUGGABLE ELECTRICAL TRANSCEIVER
	SY-6038090	A	100Base-FX Small Form-Factor Pluggable (SFP) Module
Enclosure	G128	A	SCD6000 – SYSTEM ENCLOSURE* 800 W x 800 D x 2000 H, F&R ACCESS
External Power Supply	RH101CR		DRF480-24-1/HLIVS POWER MODULE
	TME59876		DRM40 Redundancy Module
Cables	RH972ZQ	A	Fiber optic cable from Electrodynamic Controller to splitter/combiner (0.25m) LC-LC (multimode or single mode)
	P0972TN	B	Fiber optic cable from splitter/combiner (RH972ZQ) to switch (3m) LC-LC (multimode or single mode)
	SY-6051037	A	Optical cable assembly multimode two ST to two ST (1m)
	SY-6051034	C	Optical cable assembly multimode two ST to two ST (5m)
	SY-6500176R	B	High Speed Interconnect Cable (0.2m)

	SY-6500177R	B	High Speed Interconnect Cable (0.5m)
	SY-6500178R	B	High Speed Interconnect Cable (1m)
	SY-6500180R	B	High Speed Interconnect Cable (5m)
	SY-6500175R-AS	A	SCD6000 ELECTROBUS IO EXPANSION 50 PIN DSUB CABLE ASSEMBLY

External Power supply: 100-240VAC or 125-370VDC.

Place of Production

Shanghai Foxboro Co., Ltd.
No 669, Suide Road,
Putuo District, Shanghai 200331,
Shanghai, PR CHINA

Wuxi Pro-face Co., Ltd.
No.20, Hanjiang Road
National Hi-Tech Industrial
Development Zone,
Wuxi, 214028, PR CHINA

Approval conditions

The Type Approval covers hardware listed under Product description based on Pt.4 Ch.9 Sec.5. When the hardware is used in applications to be classed by DNV, 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 rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

Product certificate
If specified in the Rules, the control and monitoring system in which the above listed hardware is used shall be delivered with a product certificate. For each such delivery the certification test is to be performed at the manufacturer of the application system before the system is shipped to the yard. The test shall be done according to an approved test program. After certification the clause for software control will be put into force.

Software control
All changes in software are to be recorded as long as the system is in use on board. Documentation of major changes is to be forwarded to DNV for evaluation and approval before implemented on board. Certification of modified functionality may be required for the particular vessel.

Application/Limitation

-Components listed under product description need to be mounted in EM shielded cabinet enclosure of type Rittal TS 8808.750 / TS 8108.750, degree of protection IP54.
-Power supply of internal components mentioned under product description only by TDK DRF 480-24-1 power supply, mounted in the cabinet.
-IECs mentioned in above product description are not in scope of this type approval and have been referenced only.
-ACT modules: Use for generator protection not covered by this certificate.

Type Approval documentation

Tests carried out

Applicable tests according to DNV CG-0339, 2021.

Marking of product

Stickers on the product showing Schneider/Foxboro, Part number as shown under product description, Rev.

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