



Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer	Schneider Electric Automation GmbH
Address	Schneiderplatz 1, Marktheidenfeld, 97828, Germany
Place of Production	PT. Schneider Electric Manufacturing Batam Batamindo Industrial Park Jl. Beringin, Lot 208Muka Kuning, Batam Island, 29433, Indonesia
Place of Production	Wuxi Pro-face Co.,Ltd. No.20, Hanjiang Road, Wuxi New District, Wuxi, Jiangsu, 214028, China
Type	Control Units
Description	Programmable Logic Controller with associated accessories
Trade Name	Modicon TM241 / TM251
Application	Marine, Offshore and Industrial applications for the use in environmental category ENV1 and ENV2 as defined in the Lloyd's Register Type Approval System, Test Specification Number 1 (2015).
Specified Standard	Manufacturer's Specification. IACS unified requirements E10 (Rev.9 Aug 2023)
Ratings	Modicon TM241 / TM251 TM241CEC24U (24 I/O; Ethernet; CANopen)

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TM241C24U (24 I/O; CANopen)
 TM241CE24U (24 I/O; Ethernet)
 TM241CEC24T *1 (24 I/O; Ethernet; CANopen)
 TM241CE24T *1 (24 I/O; Ethernet)
 TM241CE40U *1 (40 I/O; Ethernet)
 TM241C40T *1 (40 I/O; CANopen)
 TM241CE40T *1 (40 I/O; Ethernet)
 TM241C24T *1 (24 I/O; CANopen)
 TM241C40U *1 (40 I/O; CANopen)
 TM241C24R/40R *2 (24/40 I/O; Serial links)
 TM241CE24R/40R *2 (24/40 I/O; Serial links; Ethernet)
 TM241CEC24R *2 (24 I/O; Serial links; Ethernet; CANopen)
 TM251MESC *2 (Serial link; Ethernet; CANopen)
 TM251MESE *1 (Serial link; Ethernet; "Fieldbus" Ethernet)

Configuration Software: SoMachine V4.3
 Firmware of Controller: M241 – V4.0.6.xx
 M251 – V4.0.6.yy

Accessories
 TM3XREC1 *2 (Receiver; Ethernet; 24V DC external)
 TM3XTRA1 (Transmitter; Ethernet; 5V DC internal)
 TM4ES4 *2 (Expansion; Ethernet switch 4)
 TM4PDPS1 (Profibus; SubD9; RS485 Modbus)
 TMC4AI2 *1 (2xAI; 0...10V; 0/4...20mA)
 TMC4AQ2 *1 (2xAO; 0...10V; 4...20mA)
 TMC4HOIS01 *1 (Cartridge; 2xAI for control of load cell)
 TMC4PACK01 *1 (Cartridge; 2xAI for temperature control)
 TMC4TI2 *2 (2x Thermocouple or RTD input)

Additional Tests

Shock Test: A0 = 15g and 30g with T = 11ms
 Ingress Protection Rating: IP20

Other Conditions

For compliance with radiated emissions for the installation in bridge and deck zones the products have to be installed inside a metallic cabinet (e.g. NSYS3D)

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and fixed on a metallic grid.

24V DC equipment is not suitable for direct battery supply.

Application marked with *1 are allowed to be installed in "bridge and deck zones" in combination with a Single- Stage Filter, Ratings: L= 22,5mH; Cx=220nF; Cy=4,7nF; R= 1000kΩ. (Refer to Instruction Sheet "NHA5337200_00")

Application marked with *2 are not allowed to be installed in "bridge and deck zones".

Final arrangements of the system have to be in compliance with Lloyd's Register Rules and Regulations.

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: LR2022547TA

The Design Appraisal Document TSO-25-037047/TW and its supplementary Type Approval Terms and Conditions form part of this Certificate.