



TYPE APPROVAL CERTIFICATE

N. **ELE343716CS**



This is to certify that the product below is found to be in compliance with the applicable requirements of the RINA type approval system.

Description	Temperature monitoring and control module
Type	NT935 Basic ; NT935 AD; NT935 ETH NT538 Basic ; NT538 AD; NT538 ETH T154
Applicant	Tecsystem Srl Via L. Da Vinci, 54/56 20094 Corsico (MI) Italy
Manufacturer	Tecsystem Srl Via L. Da Vinci, 54/56 20094 Corsico (MI) Italy
Testing Standard	Rules for the classification of ships – Part C – Machinery, Systems and fire protection, Ch.3, Sect. 6, Table 1

Issued in **Genova, December 13, 2016**

This certificate is valid until **December 13, 2021**

RINA Services S.p.A.

Valerio Bonanni

Genova, December 13, 2016

RINA Services S.p.A.
Via Corsica, 12 – 16128 Genova



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Microprocessor based Modules for temperature monitoring and control:

Main features:

Module type	NT935 Basic	NT935 AD	NT935ETH
Power supply	24-240 Vac/dc 50-60Hz 7, 5 VA	24-240 Vac/dc 50-60Hz 7, 5VA	85-260Vac /dc
Operating range	0 to 240°C	0 to 240°C	0 to 240°C
Inputs	4 ch. PT100 3 wires	4 ch. PT100 3 wires	4 ch. PT100 3 wires
Outputs	1 alarm relay SPDT (N.O.) 1 trip relay SPDT (N.O.) 1 failure relay SPST (N.C.) 2 fan relays SPST Fan 1 Fan 2	1 alarm relay SPDT (N.O.) 1 trip relay SPDT (N.O.) 1 failure relay SPST (N.C.) 2 fan relays SPST Fan 1 Fan 2	1 alarm relay SPDT (N.O.) 1 trip relay SPDT (N.O.) 1 failure relay SPST (N.C.) 2 fan relays SPST Fan 1 Fan 2
Accuracy	± 1% F.S. ±1 digit	± 1% F.S. ±1 digit	± 1% F.S. ±1 digit
Analog output	NO	4-20 mA optoisolated	NO
Communication	NO	RS 485 Modbus RTU	Ethernet RJ45 10 Base T/100 Base-TX Modbus TCP slave
Self testing	YES	YES	YES
2 display	Temp., Warnings, Channels	Temp. , Warnings, Channels	Temp. , Warnings, Channels
Module size	100 x100mm , depth 131 mm	100 x100mm , depth 131 mm	100 x100mm , depth 131 mm
Panel cut out	92 x 92 mm	92 x 92 mm	92 x 92 mm

Module type	NT538 Basic	NT538 AD	NT538 ETH
Power supply	24-240 Vac/dc 50-60Hz 7, 5 VA	24-240 Vac/dc 50-60Hz 7, 5VA	85-260Vac /dc 7, 5VA
Operating range	0 to 240°C	0 to 240°C	0 to 240°C
Inputs	8 ch. PT100 3 wires	8 ch. PT100 3 wires	8 ch. PT100 3 wires
Outputs	1 alarm relay SPDT (N.O.) 1 trip relay SPDT (N.O.) 1 failure relay SPST (N.C.) 2 fan relays SPST Fan 1 Fan 2	1 alarm relay SPDT (N.O.) 1 trip relay SPDT (N.O.) 1 failure relay SPST (N.C.) 2 fan relays SPST Fan 1 Fan 2	1 alarm relay SPDT (N.O.) 1 trip relay SPDT (N.O.) 1 failure relay SPST (N.C.) 2 fan relays SPST Fan 1 Fan 2
Accuracy	± 1% F.S. ±1 digit	± 1% F.S. ±1 digit	± 1% F.S. ±1 digit
Analog output	NO	4-20 mA optoisolated	NO
Communication	NO	RS 485 Modbus RTU	Ethernet RJ45 10 Base T/100 Base-TX Modbus TCP slave
Self testing	YES	YES	YES
2 display	Temp., Warnings, Channels	Temp. , Warnings, Channels	Temp. , Warnings, Channels
Module size	100 x100mm , depth 131 mm	100 x100mm , depth 131 mm	100 x100mm , depth 131 mm
Panel cut out	92 x 92 mm	92 x 92 mm	92 x 92 mm

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Module type	T154
Power supply	24-240 Vac/dc 50-60Hz 7,5 VA
Operating range	0 to 240°C
Inputs	4 ch. PT100 3 wires
Outputs	1 alarm relay SPDT (N.O.) 1 trip relay SPDT (N.O.) 1 failure relay SPST (N.C.) 1 fan relays SPST Fan 1
Accuracy	± 1% F.S. ±1 digit
Analog output	NO
Communication	NO
Self testing	YES
2 display	Temp., Warnings, Channels
Module size	100 x100mm , depth 131 mm
Panel cut out	92 x 92 mm

Instruction manuals:

NT 538 Basic / NT 538 AD : R 1.2 29/04/16
NT 538 ETH: R 1.2 29/04/16
NT 935 Basic / NT 935 AD: R 1.2 29/04/16
NT 935 ETH : R 1.2 29/04/16

Test reports:

Nemko report n. 305815-1TRFEMC (2016/04/06); 305815-2 TRFEMC (2016/04/06)
319731-1TRFEMC (2016/11/14); 319731-2TRFEMC (2016/11/14)

Note:

It is intended that the product ordering key and technical manual may be subject to variations for describing minor changes and aesthetic options.
Therefore modification in the electronic circuits and variations related to new functionalities and performances are not allowed.

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