



**TYPE APPROVAL CERTIFICATE**  
**No. ELE037623CS002**

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

<i>Description</i>	<b>Fixed fire detection and fire alarm systems: Monitoring and control equipment</b>
<i>Type</i>	<b>MD9800-LC</b>
<i>Applicant</i>	<b>Control, Monitoring and Power Supply Equipment MICRODATA DUE SRL Via Greti Del Vara 9 , 19020 Follo, La Spezia ITALY</b>
<i>Manufacturer</i>	<b>MICRODATA DUE SRL</b>
<i>Place of manufacture</i>	<b>Via Greti Del Vara 9, 19020 Follo, La Spezia ITALY</b>
<i>Reference standards</i>	<b>SOLAS 74 as amended: Reg. II-2/7, Reg. X/3; IMO Res.MSC.36(63)-(1994 HSC Code) 7 ; IMO Res.MSC.97(73)-(2000 HSC Code) 7; IMO Res.MSC.98(73)-(FSS Code) 9; IMO Res.MSC 391(95)-(Codice IGF) 11; IMO MSC.1/Circ.1242; IMO MSC.1/Cir.1487; IMO MSC.1/Circ 1528; IMO MSC.1/Circ 1554</b>

*Issued in* **Genoa** on **February 22, 2023**. *This Certificate is valid until* **August 14, 2025**

---

**RINA Services S.p.A.**  
**Luigi Benedetti**

This certificate consists of this page and 1 enclosure

**TYPE APPROVAL CERTIFICATE**  
**No. ELE037623CS002**  
**Enclosure - Page 1 of 2**  
**MD9800-LC**  
**Control, Monitoring and Power Supply Equipment**

**Product description:**

Analogue, addressable fire detection and fire alarm system type MD9800 LC, comprising:

Main Fire detection and alarm panel	MD 9800-LC - ( four loops )
Power supply module	TRACO Series TCL 60124 / TCL 120124
Alarm repeater panel	MD9860; MD9860I

**Reference documents:**

Microdata Due doc. n. ST25813 Rev. A	Technical specification
Microdata Due doc. n. D27933 rev. C	MD9800-LC Data sheet
Microdata Due doc. n. IM-27375 - 40014 rev. 0	System Test Drawing
Traco AC/DC TCL Series	TCL 60124/ TCL 120124 Datasheet
Microdata Due doc. n. IM29185_1-40014 rev.0	System Test Drawing (IEC 60092-504 2016)

**Test reports:**

Microdata Due doc. IS28961 rev.B Anx.A (12/11/08)	Conformity to EN 54-2 / EN 54-4
TesLab Report n. 051014F-2; Microdata due Report n. IS24738_687	MD9860
RINA doc. 8CS 4221 01 (20/11/08)	Conformity to EN 54-2 / EN 54-4
Microdata Due doc. IS28961 rev.B n° 474 (12/11/08)	Functional test-Rule Fire Detection System IM-27375
TesLab doc. IS 28961 rev.B n° 13/9 (05/03/2009)	Functional test-Rule Fire detection System IM-27375
TesLab doc. IS28961 rev.B n° 514 to 533 (15/12/08-23/01/09)	Functional test-Rule Fire detection System IM-27375 Annex B
TesLab doc. 08C189F-1 (20/02/2009)	Environmental report
Microdata Due doc. IS24740 Rev.0 (14/10/2004)	Software test
Microdata Due doc. D31249 Rev. 0 (09/02/2012)	Failure Mode and Effect Analysis
Microdata Due doc. IS 32331 Rev. C Test n° 1000/17 (22/12/17)	Functional Test according to dwg. IM29185_1-40014 (IEC 60092-504 _2016)
Microdata Due doc. n° 17C331E-C (EMC Test as IEC 60092-504 _2016)	MD9860
TesLab report n° 17C330E-C (EMC Test as IEC 60092-504 _2016)	MD9800-2L; TRACO TCL
Microdata Due doc. D36679 rev.0 Risk Assessment	MD9800-LC

**TYPE APPROVAL CERTIFICATE**  
**No. ELE037623CS002**  
**Enclosure - Page 2 of 2**  
**MD9800-LC**  
**Control, Monitoring and Power Supply Equipment**

**Software description:**

Microdata Due doc. D29013 Rev. 0	EN 54-2 Software requirements conformity
Microdata Due doc. PDQ24748 Rev. B	Software FDS MD9800-LC quality plan
Microdata Due doc. D24746 Rev. C	MD9800-LC Fire Alarm Control panel Software Requirement
Microdata Due doc. D24727 Rev. E	MD9860 - Data Sheet
Microdata Due doc. PDQ24747 Rev. B	MD9800-LC Fire Detection System Architectural Design Document

**General Remarks:**

When the fire alarm and fire detection system is also used for monitoring and control of other fire safety systems, according to Resolution MSC.311(88) Amendments to FSS Code, chapter 9, a Failure Mode and Effect Analysis document of the integrated system is to be provided before of the installation on board.

Depending on the FMEA results, system redundancy may be requested, on a case by case bases.

It shall be demonstrated that any malfunction of the interfaced and connected equipment should not propagate under any circumstance to the fire detection system.

A Block diagram including communication links, and power supply sources is to be sent for approval for each application on board.

**Genoa February 22, 2023**