

[1]

**EC TYPE EXAMINATION CERTIFICATE**

[2] **Equipment or protective systems or components intended for use in potentially explosive atmospheres Directive 94/9/EC**

[3] Number of EC Type examination certificate:

**EUM1 12 ATEX 0783**

[4] Equipment: **SOLENOID VALVES, ELECTROMAGNETIC DEVICES AND VALVES**

Series: **L, C, D, E, F, G, VL, VC, VD, VE, VF, VG, H** (version IIB  $(-20 \leq T_{amb} \leq +40)$  or  $(-20 \leq T_{amb} \leq +60)$ )

[5] Manufacturer: **NADI S.r.l.**

[6] Address: **Via Risorgimento, 10 - 20017 Mazzo di Rho (MI)**

[7] This equipment and any acceptable variation thereto are specified in the annex to this certificate and the documents reported in it.

[8] EUROFINS-MODULO UNO S.p.A., notified body n. 2049 in accordance with Article 9 of the Council Directive 94/9/CE of 23th March 1994, certifies that this equipment have been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II of the Directive.  
The examination and test results are recorded in the confidential report n. M1.12.REL.01/48647.

[9] Compliance with the essential health and safety is assured by compliance with:

**EN 60079-0:2009; EN 60079-1:2007; EN 60079-31:2009; EN 13463-1:2009; EN 13463-5:2011.**

[10] The sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the annex to this certificate.

[11] This EC-TYPE EXAMINATION CERTIFICATE relates only to the design, the exam and the tests of the equipment specified, in accordance with the Directive 94/9/CE.

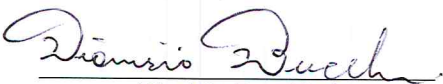
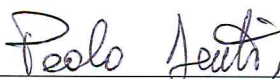
Further requirements of this Directive apply to the manufacture and supply of this equipment.

These requirements are not object of this certificate.

[12] The equipment shall include the sign  and the following string:

**II 1/2 GD c Ex d IIB Tx Gb Ex t IIIC IP67 T x °C Db -20°C ≤ T<sub>amb</sub> ≤ +xx°C**

Turin, 07 September 2012

  
**2049**  
Dionisio Bucchieri  
Directive Responsible  
Paolo Dentis  
Notified Body Manager



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# **ANNEX**

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## **EC TYPE EXAMINATION CERTIFICATE N. EUM1 12 ATEX 0783**

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### **Equipment description**

The solenoid valves and the electromagnetic devices covered by this EC-type examination Certificate are divided into the following series, identifiable through the first alphabetical letters of the product code:

Solenoid valves: **L, C, D, E, F, G, VL, VC, VD, VE, VF, VG**

Electromagnetic devices series: **H**

They can be used with gas and liquid. They are suitable to be installed in potentially explosive atmospheres for the presence of gas and/or combustible dust.

With reference to the above mentioned series the solenoid valves, electromagnetic devices and air operated valves are subdivided as follows:

L, VL: 2 way solenoid valve;

C, VC: 3 way solenoid valve;

D, VD: 5 way solenoid valve;

E, VE: manual reset 2 way solenoid valve;

F, VF: manual reset 3 way solenoid valve;

G, VG: manual reset 5 way solenoid valve;

H: electromagnetic pilot;

The class temperature, in reference to use in potentially explosive atmospheres for the presence of gas and/or combustible dust, depends from the ambient temperature and from the nominal power of the solenoid valve coil according to the following table:

| T <sub>amb</sub><br>[°C] | Thermal power dissipated [W] |                        |
|--------------------------|------------------------------|------------------------|
|                          | P <sub>diss</sub> ≤ 11       | P <sub>diss</sub> ≤ 26 |
| (-20 ÷ +40)              | T6 e T85°C                   | T5 e T100°C            |
| (-20 ÷ +60)              | T5 e T100°C                  | T4 e T135°C            |

### **Warning label**

After de-energizing delay 15 min before opening.

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### **Assessment report n° M1.12.REL.01/48647**

This EC Type certificate is released after the positive result of the conformity assessment of the Council Directive 94/9/CE and to harmonized technical standards applicable; performed by the notified body EUROFINS-MODULO UNO S.p.A., and reported in the assessment report above cited.



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**Descriptive Documents**

| Description                                                                   | Name                                   | Date       | Rev. |
|-------------------------------------------------------------------------------|----------------------------------------|------------|------|
| Analysis of electrical hazards                                                | Valutazione rischi parte elettrica     | XXX        |      |
| Analysis of non -electrical hazards                                           | Valutazione rischi parte non elettrica | XXX        |      |
| Test report: test to withstand pressure - determination of reference pressure | M1.07.EXET.573/29999-0                 | 04/12/2007 |      |
| Test report: Overpressure test - first method static                          | M1.07.EXET.574/29999-0                 | 04/12/2007 |      |
| Use and maintenance instructions                                              | 3860-R1                                | XXX        |      |
| EC Type examination certificate (KEMA) and thermal tests                      | KEMA 04ATEX2159                        | 13/07/2004 |      |
| EC Type examination certificate (CESI) and tests                              | CESI 02 ATEX 130                       | 28/11/2002 |      |

**Drawings/Documents listed in annex to the technical documentation**

|                               |       |            |   |
|-------------------------------|-------|------------|---|
| Enclosure drawing             | 3870  | 21/05/2007 | 0 |
| Table of joints tolerances    | 3870A | -          | 0 |
| Internal ground socket detail | 3870B | 09/01/2003 | 0 |
| Nameplate                     | 3880  | 15/05/2012 | 1 |



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**ANNEX**

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**Individual test**

None.

**Special condition for a safe use**

None

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**Essential Health and Safety Requirements**

Requirement 1.5 is not applicable because there are not ATEX protective system installed on the equipment covered by this EC type examination certificate.

[19]

**Certificate History**

This Certificate is at its first issue.

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**Terms and conditions**

This certificate do not replace anyway the declaration of conformity nor exonerate the manufacturer from product liability. The technical documentation do not refers to others directives applicable to the equipment.

The product liability rests with the manufacturer, his representative or, in the absence of a representative, with the importer, in accordance with the General Product Safety Directive 2001/95/EC.

The following conditions may render this certificate invalid:

- Changes in the design or construction of the product;
- Changes or amendments to the Directive;
- Changes or amendments in the standards which form the basis for documenting compliance with the essential requirements of the 94/9/EC directive.
- This document is the English translation (made by the notified body) of the original document drawn in Italian; only the Italian text is legally valid.