

[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 0782

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

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

Series: M, VM

- [5] **Manufacturer:**

NADI S.r.l.

- [6] **Address:**

Via Risorgimento, 10 - 20017 Mazza 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 IIC Tx

$-60^{\circ}\text{C} \leq T_{amb} \leq +60^{\circ}\text{C}$ Series M, VM

II 1/2 GD c Ex d IIC Tx Gb Ex t IIIC IP67 T x $^{\circ}\text{C}$ Db


$-60^{\circ}\text{C} \leq T_{amb} \leq +60^{\circ}\text{C}$

Other series

Turin, 07 September 2012

CE
2049


Dionisio Bucchieri
Directive Responsible


Paolo Dentis
Notified Body Manager



PRD N° 119B
ISP N° 030E

Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC
Signatory of EA, IAF and ILAC Mutual Recognition Agreements

This Certificate has 4 pages and it is reproducible only in its entirety. Conditions of validity are reported below.

[13] **ANNEX**
[14] **EC TYPE EXAMINATION CERTIFICATE N. EUM1 12 ATEX 0782**

[15] **Equipment description**

The solenoid valves, electromagnetic devices and air opened valves 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**

Air operated valves series: **M, VM**

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;

M, VM: air operated valves

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 _{amb} [°C]	Thermal power dissipated [W]	
	P _{diss} ≤ 11	P _{diss} ≤ 26
(-60 ÷ +60)	T5 e T100°C	T4 e T135°C

Warning label

After de-energizing delay 15 min before opening.

[16] **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.

[13]

ANNEX

[14]

EC TYPE EXAMINATION CERTIFICATE N. EUM1 12 ATEX 0782

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

[13] **ANNEX**
[14] **EC TYPE EXAMINATION CERTIFICATE N. EUM1 12 ATEX 0782**

[17] **Individual test**

None.

Special condition for a safe use

None

[18] **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.

[20] **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.

[1] SUPPLEMENT N.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 0782

[4] Equipment: **Solenoid valves, electromagnetic devices and valves**

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

Series: **M, VM**

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

[6] Address: **Via Risorgimento, 10 - 20177 Mazza di Rho (MI)**

[7] No changes

[8] Eurofins Product Testing Italy S.r.l., Notified Body n. 0477 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.EPT.15.REL.01/53451

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

EN 60079-0:2012; EN 60079-1:2007; EN 60079-1:2014;
EN 60079-31:2014; EN 13463-1:2009; EN 13463-5:2011.

[10] No changes

[11] No changes

[12] The equipment must include the symbol  and at least one of the following strings:

II 1G/2GD c IIC Tx

$-60^{\circ}\text{C} \leq T_{amb} \leq +xx^{\circ}\text{C}$

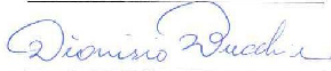
Series M, VM

II 1G/2GD c Ex d IIC Tx Gb Ex t IIIC Tx °C Db

$-60^{\circ}\text{C} \leq T_{amb} \leq +xx^{\circ}\text{C}$

Other series

Turin, 6 June 2015

Dionisio Bucchieri
Directive Responsible



Paolo Trisoglio
Managing Director

ANNEX
[13] SUPPLEMENT N.1 EC TYPE EXAMINATION CERTIFICATE N. EUM1 12 ATEX 0782
[15] Equipment description

This point [15] replace the point [15] of the EC Type certificate n. EUM1 12 ATEX 0782 of 07-09-2012.

The solenoid valves, electromagnetic devices and air opened valves 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**

Air operated valves series: **M, VM**

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. The equipment is suitable for groups IIC and group IIIC. It has respectively the type of protection "Ex d" and "Ex t".

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;

M, VM: air operated valves

The enclosure is made made of light alloy (the paint used has a maximum thickness of 200 µm) and silicone gaskets.

Electrical characteristics

Maximum voltage: 400 Vdc or 400Vac

Rated frequency: 50 or 60 Hz

Maximum power dissipation: 11W or 26W

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 _{amb} [°C]	Thermal power dissipated [W]	
	P _{diss} ≤ 11	P _{diss} ≤ 26
(-60 ÷ +40)	T6 and T65°C	T5 and T87°C
(-60 ÷ +60)	T5 and T85°C	T4 and T107°C
(-60 ÷ +90)	T4 and T115°C	T3 and T137°C

Warning label

After de-energizing delay 15 min before opening.

Joints cannot be repaired

ANNEX
[13] SUPPLEMENT N.1 EC TYPE EXAMINATION CERTIFICATE N. EUM1 12 ATEX 0782
[16] Assessment Report n° EPT.15.REL.01/53451

This point [16] replaces the point [16] of the EC Type examination certificate n. EUM1 12 ATEX 0782 of 07-09-2012.

This EC Type Examination Certificate is released after the positive result of the conformity assessment of the Council Directive 94/9/CE, and to harmonized technical standards EN 60079-0:2012; EN 60079-1:2007; EN 60079-1:2014; EN 60079-31:2014; EN 13463-1:2009; EN 13463-5:2011 performed by the Notified Body Eurofins Product Testing Italy S.r.l., and reported in the Assessment Report above cited.

Descriptive documents

The equipment object of this certificate are described by the following documents.
Scheduled documents are indicated with the symbol "v" and can not be modified without the explicit authorization of the notified body:

Document	Name	Rev.	Date	Scheduled
Marking label	3880	2	04/05/2015	v
Drawing	3870	0	21/05/2007	v
Drawing	3870A	0	21/05/2007	v
Drawing	3870B	0	09/01/2003	v
Safety instructions	3860	3	04/05/2015	-
Datasheet of O-ring	Schede elastomeri	0	03/2015	-

[17] Individual tests

No changes

[18] Essential Health and Safety Requirements

No changes

[19] Supplement History

This Supplement is at its first issue.

It intervenes as a result of: addition of two new ambient temperature range, change of o-rings material and standard update.

The evaluation is contained in the Assessment report n. EPT.15.REL.01/53451.

[20] Terms and conditions

No changes

