



(1) **EC-TYPE EXAMINATION CERTIFICATE**

(2) Equipment or protective system intended for use in potentially explosive atmospheres
Directive 94/9/EC

(3) EC-Type Examination Certificate number: **LOM 02ATEX2022**

(4) Equipment or Protection System Connection boxes type AS-...

(5) Applicant: NUOVA ASP S.r.l.

(6) Address
Via De Gasperi, 26
20090 PANTIGLIATE
MILAN
ITALY

(7) Laboratorio Oficial J.M. Madariaga (LOM), notified body number 0163 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.


The examination and test results are recorded in confidential report nr. **LOM 01.216 UP**


(8) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- Standards **EN 50014:1997 + A1:1999 + A2:1999**
EN 50019:2000

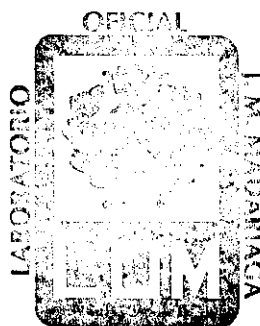
(9) If the sign X is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

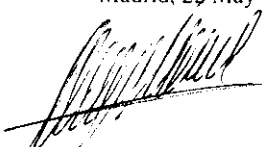
(10) This EC-Type Examination Certificate relates only to the design and construction of this specified equipment or protective system in accordance with the Directive 94/9/EC. Further requirements of the Directive applies to the manufacture and supply of this equipment or protective system.

(11) The marking of the equipment or protective system shall include the following:

 II 2G EEx e II T6 Ta: -40 °C / +55 °C


Carlos Fernández Ramón
DIRECTOR OF THE LABORATORY



Madrid, 22 May 2002

Angel Vega Remesal
Head of ATEX area

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LABORATORIO OFICIAL J. M. MADARIAGA

(A1) **SCHEDULE**

(A2) EC-Type Examination Certificate: : **LOM 02ATEX2022**

(A3) Description of equipment or protective system

Terminal connection boxes based on empty boxes tip AS... having a component certificate number LOM 01ATEX2039U.

Table of maximum number of terminals(excluding earth terminals)

box type	nr. of terminals	section (mm ²)	Maximum current (A) Ta: -40 °C/+40 °C	Coefficient K_j	
				Ta: -40 °C/+40 °C	Ta: -40 °C/+55 °C
AS-21*	14	2,5	15	3800	2400
	14	4	20	5700	3600
	12	6	24	7400	4600
	4	10	36	9900	6200
	36	2,5	13	7000	4400
	26	4	20	10500	6600
AS-22*	22	6	25	13700	8600
	10	10	35	18600	11600
	8	16	51	39100	24400
	6	25	57	69700	43500
	6	35	84	81400	50900
	4	70	141	102900	64300
AS-42*	92	2,5	11	12300	7700
	58	4	18	18900	11800
	32	6	28	25400	15900
	32	10	30	35900	22400
	24	16	44	71300	44500
	18	25	68	123100	77000
AS-44*	16	35	76	150000	93800
	4	70	134	206300	128900
	138	2,5	11	19000	11900
	132	4	14	29300	18300
	110	6	18	40000	25000
	100	10	24	57600	36000
AS-44*	86	16	35	111700	69800
	54	25	57	190300	119000
	32	35	71	236000	147500
	16	70	124	337100	210700

* = A (thick cover)

* = B (thin cover)

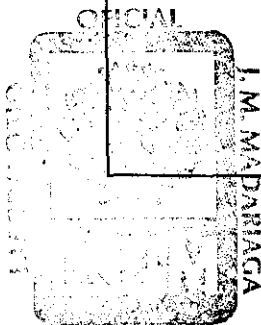
For other combinations and mixture of terminals inside the same enclosure, or maximum ambient temperature other than 40 °C, it must apply the following criteria:

$$\sum_j N_j \cdot I_j^2 \leq K_j$$

Where I_j is the rated current of the terminal (A)

N_j is the number of type j terminals

K_j is the coefficient done in the above table according box type and terminal section



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LABORATORIO OFICIAL J. M. MADARIAGA

(A1) **SCHEDULE**

(A2) EC-Type Examination Certificate: : **LOM 02ATEX2022**

(A3) Description of equipment or protective system (continued)

These boxes can include active terminals and earth terminals having a component certificate based on directive 94/9/CE. Permitted mark and type terminals are in applicant descriptive documents.

These boxes are supplied with cable entry threaded holes and these threads can be conic NPT, PG, conic GAS, cylindric GAS and y Metric, also they are according descriptive documents of manufacturer in respect to maximum number, arrangement and combinations.

Maximum rated voltage will be the lower of mounted terminals.

(A4) Test report nr. **LOM 01.216 UP**

(A5) Special conditions for safe use

None

(A6) Essential Health and Safety Requirements

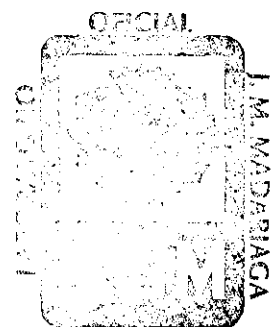
Explosion safe requirements are covered by application of the standards indicated in page 1/3 of this certificate.

(A7) Individual tests

Dielectric tests between active parts and earth connection at $2 U_N + 1000V$ (U_N = rated voltage) with a minimum of 1500 V at 50 Hz during 1 minute, according 6.1 of EN 50019:2000

(A8) Descriptive documents:

	<u>Rev.</u>	<u>Date</u>
- Description nr. NT-201/ATEX (11 pp.)	0	2001-09-06
- Drawing nr. PNC-201/ATEX (2 sheets)	0	2001-09-06



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(1) **EC-TYPE EXAMINATION CERTIFICATE SUPPLEMENT**

(2) Equipment or protective system intended for use in potentially explosive atmospheres
Directive 94/9/EC

(3) EC-Type Examination Certificate supplement number: **LOM 02ATEX2022/01**

(4) Equipment or Protection System Connection boxes type AS-...

(5) Applicant NUOVA ASP S.r.l.

(6) Address Via De Gasperi, 26
20090 PANTIGLIATE
MILÁN
ITALIA

(7) This certificate supplement increases the scope of certificate LOM 02ATEX2022 to include variants as specified in the annex to this certificate supplement and listed documents.

(8) The examination and test results are recorded in confidential report nr. **LOM 02.446 CP**

This supplement must be an inseparable part together base certificate.

Carlos Fernández Ramón
DIRECTOR OF THE LABORATORY



Madrid, 23 December 2002

Angel Vega Remesal
Head of ATEX area

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LABORATORIO OFICIAL J. M. MADARIAGA

(A1) **ANNEX**

(A2) EC-Type Examination Certificate supplement number: **LOM 02ATEX2022/01**

(A3) Description of equipment or protective system

To include new sizes of boxes:

Type	Lenght (mm)	Width (mm)	Height (mm)
AS-09 A	95	95	80
AS-09 B	95	95	63
AS-14 B	140	140	82

box type	nr. of terminals	section (mm ²)	Maximum current (A) Ta: -40 °C/+40 °C	Coefficient K_f	
				Ta: -40 °C/+40 °C	Ta: -40 °C/+55 °C
AS-9 A	7	2,5	12	2865	1790
AS-9 B	7	4	18	4335	2775
AS-14 B	16	2,5	12	5130	3210
	15	4	18	7690	4805
	12	6	22	9990	6245
	9	10	34	13450	8410
	7	16	48	29300	18300

For other combinations and mixture of terminals inside the same enclosure, or maximum ambient temperature other than 40 °C, it must apply the formula indicated in certificate LOM 02ATEX2022.

(A4) Test report nr **LOM 02.446 CP**

(A5) Special conditions for safe use

No change

(A6) Essential Health and Safety Requirements

No change

(A7) Descriptive documents:

No change





(1) **EC-TYPE EXAMINATION CERTIFICATE SUPPLEMENT**

(2) Equipment or protective system intended for use in potentially explosive atmospheres
Directive 94/9/EC

(3) Supplement nr. **2** to EC-Type Examination Certificate number: **LOM 02ATEX2022**

(4) Equipment or Protection System Connection boxes type AS-...

(5) Applicant NUOVA ASP S.r.l.

(6) Address Via De Gasperi, 26
20090 PANTIGLIATE
MILÁN
ITALIA

(7) This certificate supplement increases the scope of certificate LOM 02ATEX2022 to include variants as specified in the annex to this certificate supplement and listed documents.

(8) The examination and test results are recorded in confidential report nr. **LOM 03.167 VP**

This supplement must be an inseparable part together base certificate.

Carlos Fernández Ramón
DIRECTOR OF THE LABORATORY



Madrid, 18 September 2003

Angel Vega Remesal
Head of ATEX area

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LABORATORIO OFICIAL J. M. MADARIAGA

(A1) **ANNEX**

(A2) Supplement nr. 2 to EC-Type Examination Certificate number: **LOM 02ATEX2022**

(A3) Variations included in this supplement

To include new variations of the connection boxes to incorporate circuit modules and control circuit switches mounted on the cover as described in manufacturer documents. These modules have a type of protection Ex d IIC and they are in conformity with 94/9/EC directive.

These variations of the AS-... connection boxes are named ASCS-...

Additionally, to extend the application of the AS-... and ASCS-... boxes to combustible dust ambient by application of the standard **EN 50281-1-1:1998 + A1:2002**.


(A4) Test report nr LOM 03.167 VP

(A5) Special conditions for safe use


No change

(A6) Marking change

AS-... boxes

 II 2GD EEx e II T6 T85 °C IP65 Ta: -40 °C / +55 °C

ASCS-... boxes

 II 2GD EEx ed IIC T6 T85 °C IP65 Ta: -40 °C / +55 °C

(A7) Essential Health and Safety Requirements

No change

(A7) Descriptive documents:

	<u>Rev.</u>	<u>Date</u>
- Description nr. NT-222/ATEX (8 pages)	0	2003-06-20
- Drawing n° PNC-222/ATEX (4 sheets)	0	2003-06-20





(1) **EC-TYPE EXAMINATION CERTIFICATE SUPPLEMENT**

(2) Equipment or protective system intended for use in potentially explosive atmospheres
Directive 94/9/EC

(3) Supplement nr. **3** to EC-Type Examination Certificate number: **LOM 02ATEX2022**

(4) Equipment or Protection System Connection boxes type AS...

(5) Applicant NUOVA ASP S.r.l.

(6) Address Via De Gasperi, 26
20090 PANTIGLIATE
MILAN
ITALY

(7) Test report no. **LOM 03.472 OP**

(8) Variations included in this certificate

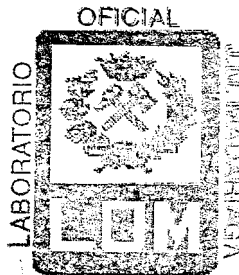
To permit the use of new certified connecting devices and grounding terminals as detailed in manufacturer document nr. NT-201/ATEX.

The limit of the number of connecting devices, excluding grounding terminals, and maximum admissible current are indicated in paragraph (A3) of the schedule of base certificate LOM 02ATEX2022.

(9) Descriptive documents

	<u>Rev.</u>	<u>Date</u>
- Description nr. NT-201/ATEX	1	2003-07.17

Carlos Fernández Ramón
DIRECTOR OF THE LABORATORY



Madrid, 15 December 2003

Angel Vega Remesal
Head of ATEX area

This supplement must be an inseparable part together base certificate **LOM 02ATEX2022**

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(1) **EC-TYPE EXAMINATION CERTIFICATE SUPPLEMENT**(2) Equipment or protective system intended for use in potentially explosive atmospheres
Directive 94/9/EC(3) Supplement nr. **4** to EC-Type Examination Certificate number: **LOM 02ATEX2022**

(4) Equipment or Protection System Connection boxes type AS-...

(5) Applicant NUOVA ASP S.r.l.

(6) Address Via De Gasperi, 26
20090 PANTIGLIATE
MILAN
ITALY(7) Test report no. **LOM 06.065 VP**(8) Variations included in this certificate

- To include a new variant to use switchgear and signalling flameproof components on the cover. These components are agreed 94/9/CE directive according to EN 60079-1 or EN 50018 standards.

- Standards update to: **EN 60079-0:2004, EN 60079-7:2003, prEN 61241-0:2004 and EN 61241-1:2004**


(9) Marking variations

II 2GD Ex ed IIC T6 (Ex e II T6 as connection boxes)
Ex tD A21 T85 °C IP66


(10) Descriptive documents

	<u>Rev.</u>	<u>Date</u>
- Technical note nr. NT-201-222/ATEX	0	2006-07-05
- Drawings nr.: PNC-201-222 ATEX (2 sheets)	0	2006-07-05




Carlos Fernández Ramón
DIRECTOR OF THE LABORATORY

Madrid, 9th January 2007


Angel Vega Remesal
Head of ATEX area

This supplement must be an inseparable part together base certificate **LOM 02ATEX2022**

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