



[1] **EU-TYPE EXAMINATION CERTIFICATE**

[2] **Equipment or Protective System intended for use in potentially
explosive atmospheres - Directive 2014/34/EU
Annex III - MODULE B: EU-TYPE EXAMINATION**

[3] EU-type Examination Certificate number: **IMQ 19 ATEX 042 X**

[4] PRODUCT: **Single coils for solenoid valves**
TYPE/SERIES: **Series 4408 - 24 VDC and 230 VAC**

[5] MANUFACTURER: **AE.CAS. S.r.l.**

[6] ADDRESS: **Via Novara, 1 – I-20834 Nova Milanese MB - Italy**

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

[8] IMQ, notified body N° 0051, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product 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 Report No.: **AT21-0063747-01**

[9] Compliance with Essential Health and Safety Requirements, except in respect of those listed at item 18 of the annex, has been assured by compliance with:

EN IEC 60079-0 : 2018; EN 60079-18 : 2015 + A1 : 2017

[10] 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

[11] This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

[12] The marking of the equipment or protective system shall include the following:



II 2G Ex mb IIC T3 Gb

This document is composed of 4 pages including 1 annex

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B.U. PRODUCT CONFORMITY ASSESSMENT
CERTIFICATION SECTOR – MANAGER

This Certificate may only be reproduced in its entirety and without any change. It is subject to the general rules for assessing conformity to community Directives for which IMQ operates as Notified Body and to the particular rules for the aforementioned Directive.

[13] **Annex**

[14] EU-type Examination Certificate number: **IMQ 19 ATEX 042 X**

[15] **Description of product:**

Single coils for solenoid valves.
The coils control the solenoids which are normally closed, they open when the coils are energized.
Coils with encapsulation made by glass reinforced moulding compound (HR5330HF BK503).

[15.1] **Models/Series Identification:**

Singles coils series 4408 which consists of the following models:

Code	Voltage	Power	Number of turns	Wire diam.	Degree and thermal class	Resistance Ω 20°C \pm 5%	Cable length
44901010.00	24 VDC	13,7 W	2050	0,28	G1 H-200°C	42	3 m
44901710.00	24 VDC	13,7 W	2050	0,28	G1 H-200°C	42	5 m
44901810.00	24 VDC	13,7 W	2050	0,28	G1 H-200°C	42	6 m

Code	Voltage	Power	Number of turns	Wire diam.	Degree and thermal class	Resistance Ω 20°C \pm 5%	Cable length
44901210.00	230VAC	24 VA	6500	0,16	G1 H-200°C	430	3 m
44902310.00	230VAC	24 VA	6500	0,16	G1 H-200°C	430	5 m
44902410.00	230VAC	24 VA	6500	0,16	G1 H-200°C	430	6 m

[15.2] **Ratings:**

V_n = 24 VDC V_n = 230 VAC
I_n = 0,57 A I_n = 0,1 A
P_n = 13,7W P_n = 24 VA

[15.3] **Safety Ratings:** -

[15.4] **Ambient temperature and temperature classes:**

Ambient temperature: -40 °C ÷ +60 °C for 24 VDC version.
-40 °C ÷ +50 °C for 230 VAC version
Temperature Class : T3

[15.5] **Degree of protection (IP code):** N/A

[15.6] **Warnings:**

WARNING-Potential electrostatic charging hazard – See instructions

[16] **Report:** AT21-0063747-01

[16.1] **Routine (factory) tests:**

The manufacturer must carry out the routine test and verifications prescribed at clause 27 of the EN 60079-0 and clause 9 of the EN 60079-18.
The manufacturer must carry out a dielectric routine test at 500 V maintained for at least 60 seconds, on complete device, with a maximum leakage current of 5 mA.

[16.2] **Conformity with the documentation:**

The manufacturer shall carry out the verifications or tests necessary to ensure that the product complies with the documentation.

Marking the equipment in accordance with Clause 29 of EN 60079-0, the manufacturer attests on his own responsibility that:

- the equipment has been constructed in accordance with the applicable requirements of the

[13] Annex

[14] EU-type Examination Certificate number: **IMQ 19 ATEX 042 X**

relevant standards in safety matters;

- the routine verifications and routine tests in 28.1 of EN 60079-0 have been successfully completed with positive results.

[16.3] Installation conditions:

Above referred equipment is foreseen to be installed in locations where there are environmental conditions, as clearly specified at clause 1, par. 2 of EN 60079-0.

Installation and use in atmospheric and environmental conditions that are out of above mentioned intervals request special considerations and additional measures by the side of installer or user.

These should be specified to the manufacturer by the user;

It is not a required by applicable standard listed in [9] that the certification body confirm suitability for the adverse conditions.

Installation of equipment shall be done according to EN 60079-14 Standard requirements.

Check the valve information label for correct catalogue number and service conditions.

[17] Special Condition of use (X):

Coils series 4408 24Vdc:

- A surge protector corresponding to the solenoid operator's rated current (not below to 1,5 Amp. IEC60127) switch with instantaneous thermal acting or short-circuit. This surge protector may be positioned in the respective power supply or it must be installed separately. Before initial operation of the solenoid operator, make sure that the equipment meets the requirements of the EMC directive.

- The coil must be protected from solar or any artificial light.

- In case of cleaning of the coil please use ONLY wet cloth

Coils series 4408 230Vac:

- A Current Fuse corresponding to the solenoid operator's rated current (not above to 1,6 Amp, Breaking capacity not below 1500A. IEC 60127) switch with instantaneous thermal acting or short-circuit. This Current Fuse protector may be positioned in the respective power supply or it must be installed separately. Before initial operation of the solenoid operator, make sure that the equipment meets the requirements of the EMC directive.

- The coil must be protected from solar or any artificial light

- Potential electrostatic charging hazard. In case of cleaning of the coil use ONLY wet cloth

[18] Essential Health and safety Requirements:

This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed in [9].

This Certificate **does not** cover hazards coming from environmental conditions different from those clearly and precisely indicated and covered in clause 1 of EN 60079-0.

ESHR 1.2.7 According Annex VIII of the Directive

ESHR 1.4 Not verified.

ESHR 1.5 Not verified.

ESHR 3 Not applied.

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at [9], the following are considered relevant to this product, and conformity is demonstrated in the report:
n/a

[13] **Annex**

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[19] **Descriptive documents:**

DL-AT21-0063747-01, rev.0 dated 2021-04-27

[20] **Certification Validity Conditions:**

The use of this Certificate is subject to the Certification Scheme and to the Regulation applicable to holders of IMQ Certificates.

The validity of this certificate is subject to the condition that the manufacturer complies with the results of the document review and of the pertinent requirement if any included, recorded in the relevant copy of documentation as per 19.

One copy of the mentioned documentation is kept in IMQ file.

[21] **Variations**

2019, September:

First issue

2020, February:

- Addition of 230 Vac single coils version.

2021, May:

- Standards updating

- Construction change added on product series 4408, not impacting on type of protection