



[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 04 ATEX 0001**

[4] PRODUCT: **Load cell**
TYPE/SERIES: **AX-***

[5] MANUFACTURER: **ADOS S.r.l.**

[6] ADDRESS: **Via Lazio, 25 – 20090 Buccinasco (MI) – 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.:

AT18-0029370-01A

[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 60079-0:2012; EN 60079-0:2012/A11: 2013; EN 60079-11: 2012

[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 1G Ex ia IIC T5 Ga**
II 1D Ex ia IIIC T120°C Da

This document is composed of 4 pages including 1 annex

FIRST ISSUE: 2004 | 10 | 13

CURRENT ISSUE: 2020 | 03 | 03

PREVIOUS ISSUE: 2019 | 08 | 02

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 04 ATEX 0001**

[15] **Description of product:**

Series AX load cells are analogue devices used in systems for measuring weight and/or force in potentially explosive areas, with the presence of combustible gases and/or powders. They are essentially composed of a steel body - stainless steel (AISI 630 / AISI 304 / AISI 316) or hardened steel, steels which do not contain more than 7.5% magnesium + titanium + zirconium, to which the strain gauges are attached – and a connection system made of either an inseparable shielded cable with a maximum length of 50 m or by way of a metal connector integral with the load cell body.

All load cells are protected by welded metal elements or by chemical sealing, and the degree of protection can be**: IP66 / IP67 / IP69 according to IEC / EN 60259 (IP69K according to DIN 40050-9).

The protection level of the load cell is guaranteed by chemical and/or mechanical sealing. There are various methods for sealing the load cells:

- coating and/or encapsulating the electrical part with epoxy, silicone rubber or polyurethane resins
- micro-TIG welding of metal parts
- a combination of both methods

** The degree of protection and the ambient temperature may vary depending on the type of cable gland/connector

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



[15.2] **Ratings:** N/A

[15.3] **Safety Ratings:**

Ui = 17,3V; li = 200mA; Pi = 865mW; Ci = 0,075nF; Li = 0,8uH
or
Ui = 14V; li = 238mA; Pi = 833mW; Ci = 0,075nF; Li = 0,8uH
or
Ui = 24V; li = 164mA; Pi = 980mW; Ci = 0,075nF; Li = 0,8uH

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

T5 with Tamb: -40°C ÷ +70°C.

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

IP66/67/69 (according to EN 60529 only)
IP69K according to DIN 40050-9

[15.6] **Warnings:** None

[13] Annex

[14] EU-type Examination Certificate number: **IMQ 04 ATEX 0001**

[16] **Report:** AT18-0029370-01A

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

The manufacturer must carry out the routine test and verifications prescribed at clause 28.1 of the EN 60079-0.

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 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.

Above referred equipment shall be supplied by associated apparatus certified according to EN 60079-0 and EN 60079-11, with the electrical characteristics reported in clause [15.3].

This equipment shall be installed and maintained according to installation and maintenance standards EN 60079-14 and EN 60079-17.

[17] **Special Condition of use (X):** none

[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

[14] EU-type Examination Certificate number: **IMQ 04 ATEX 0001**

[19] **Descriptive documents:** DL- AT18-0029370-01, rev.1 dated 2019-10-12.

[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:**

2004-10: First issue.

2007-09:

- Standards update to the following documents: EN 60079 0:2006, EN 60079 11:2007, EN 60079 26:2004, EN 61241 0:2006, EN 61241 11:2006;
- Modification to the Ex-i parameters;
- Minimum ambient temperature: -40°C.

2013-03:

- Standards update to the following documents: EN 60079 0:2009, EN 60079 11:2012, EN 60079 26:2007;
- Modification to the Ex-i parameters;

2019-08:

- Standards update to the following documents: EN 60079 0:2012+A11:2013;
- adding of new casting compound materials;
- new IP degree according to IEC 60529: IP66/67/69K;

2020-03:

- Corrections of an editorial mistake on key code. Explanation regarding IP69K.