



TYPE EXAMINATION STATEMENT CATEGORY 3 EQUIPMENT

Equipment intended for use in potentially explosive atmospheres - ATEX

Type Examination Statement number: **IMQ 16 ATEX 023 X**

PRODUCT: **Magnetic sensors**
TYPE/SERIES: **D121 *B ** Z*** ** EX ; D12P *B ** Z*** ** EX ; D122 *B ** Z*** ** EX; D128 *B ** Z*** ** EX;
E780 *B ** Z*** ** EX ; N557 HD QR Z***P * EX; N557 HE QR Z***P * EX**

MANUFACTURER: **STEM S.r.l.**

ADDRESS: **Via della Meccanica, 2 – 27010 Cura Carpignano (PV)**

This equipment and any acceptable variation thereto are specified in the annex to this statement and the documents therein referred to.

IMQ states that this equipment has 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 to the Directive 2014/34/EU with reference to the requirements covered by the standards below defined.

The examination and test results are recorded in Report No.: **AT15A0423027-01**

Compliance with Essential Health and Safety Requirement given in the Directive, except for those listed at item 18 of the annex, has been assured by compliance with the requirements of the following standard:

EN 60079-0:2012 + A11:2013 ; EN 60079-18:2015

If the sign "X" is placed after the statement number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this statement

This TYPE EXAMINATION STATEMENT 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 statement.

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



**II3G Ex mc IIC T6 Gc
II3D Ex mc IIIC T75°C Dc**

This document is composed of 4 pages including 1 annex. **This certificate in English language is a true copy of the original one in Italian language issued on 2016/11/21.**

Date: 2020 | 05 | 14

**B.U. PRODUCT CONFORMITY ASSESSMENT
CERTIFICATION SECTOR – MANAGER**

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This Test Statement is the result of testing a sample of the product submitted, in accordance with the provisions of the specified Technical Specifications/Standards. It is issued according to product certification scheme type 1 of EN ISO/IEC 17067; therefore, it does not imply any judgment on the production and it does not permit the use of a mark of conformity. Only full reproductions of this Statement are allowed without written permission of IMQ.

[13] **ANNEX**

[14] Type Examination Statement number: **IMQ 16 ATEX 023 X**

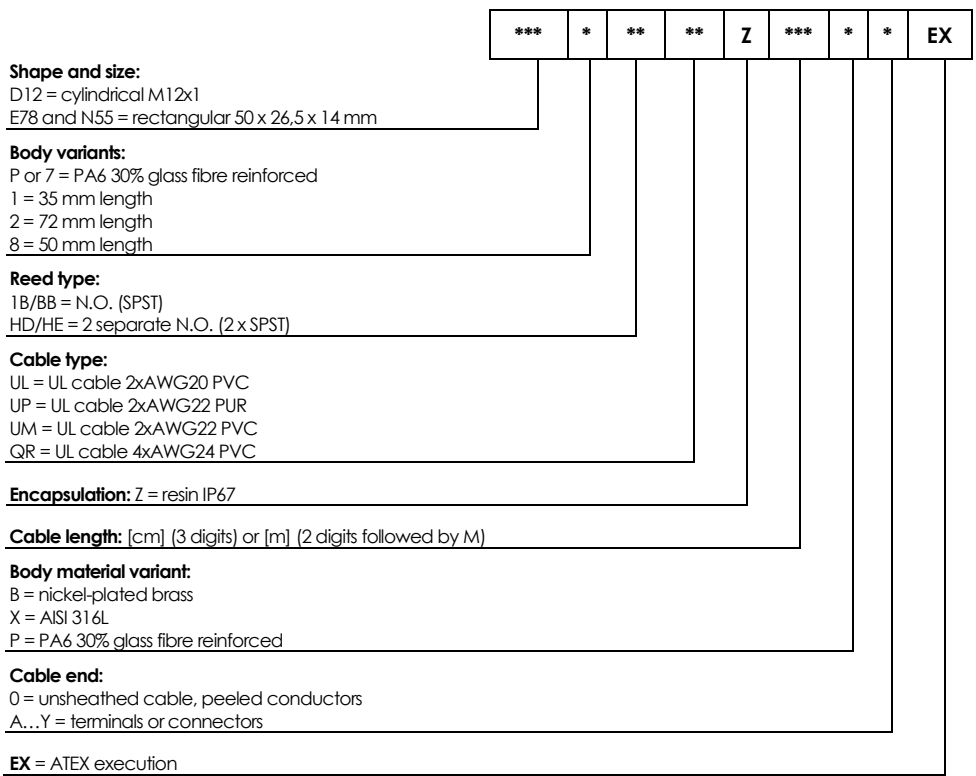
[15] **Description of product:**

Magnetic sensors are devices used to monitor the position of a permanent magnet in a defined working area. The permanent magnet is usually fixed to a structure or moving object, of which the sensor has to determine the position.

D12* series magnetic sensors are made of cylindrical M12x1 plastic (PA6), nickel-plated brass or stainless steel body, with permanently connected cable.

E780 and N557 series magnetic sensors are made of parallelepiped plastic body (PA6), with permanently connected cable.

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



[15.2] **Ratings:**

- V_{max}: 200 V DC / 250 V AC (for series D121, D12P, D122, D128, E78)
- V_{max}: 27 V DC / AC (for series N557)
- I_{max}: 0,5 A (for series D121, D12P, D122, D128, E78, N557 HD)
- I_{max}: 0,25 A (for series N557 HE)

[13] **ANNEX**

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[15.3] **Safety Ratings:**

Maximum switching voltage: 200 V DC / 250 V AC

Maximum switching current: 0,5 A

Maximum allowed short circuit current: 80 A

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

Ambient temperature: -20 °C ÷ 70 °C

Temperature classification: T6 for Gas atmospheres, T75°C for Dust atmospheres

[15.5] **Degree of protection (IP code):** IP67

[15.6] **Warnings:** none

[16] **Report:** AT15A0423027-01

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

The manufacturer must carry out the routine test prescribed at clauses 27 of the EN 60079-0, and clause 9 of the EN 60079-18.

[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 adverse conditions should be specified to the manufacturer by the user; it is not a required by applicable standard listed in first page, that the certification body confirm suitability for the adverse conditions.

Installation and maintenance shall proceed according to EN 60079-14 and EN 60079-17 standards.

This equipment shall be installed by connecting the permanently connected cable with a type of protection list in the EN 60079-0 and according the standard EN 60079-14, if done in Ex classified area.

[13] **ANNEX**

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[17] **Special Condition of use (X):**

D121 series magnetic sensors shall be protected from light (daylight or light from luminaires), on back side where cable exits from metal body, when installed.

D12P series magnetic sensors shall be protected from damaging risk due to mechanical impact, when protruding of front sensing body is beyond 20 mm.

[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 1.3.5	Not applicable
ESHR 1.4	Not verified.
ESHR 1.5	Not verified.
ESHR 3	Not applicable

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:
None.

[19] **Descriptive documents:** DL-AT15A0423027-01, revision 0 dated 2016-11-11, 123 pages

[20] **Certification Validity Conditions:**

The present Statement is not referred to IMQ certification activities as Notified Body according to 2014/34/EU Directive. The validity of this Statement 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**

Editorial corrections.