

# CESI



CESI S.p.A.  
Via Rubattino 54  
I-20134 Milano - Italy  
Tel: +39 02 21251  
Fax: +39 02 21255440  
e-mail: info@cesi.it  
www.cesi.it

Schema di certificazione

# ATEX - CESI



PRD N. 018B  
Membro degli Accordi di Mutuo  
Riconoscimento EA, IAF e ILAC  
Signatory of EA, IAF and ILAC  
Mutual Recognition Agreements

# CERTIFICATE



## [1] SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use  
in potentially explosive atmospheres  
Directive 2014/34/EU**

[3] Supplementary EU-Type Examination Certificate number:

**CESI 13 ATEX 049X /01**

[4] Product: **Electronic turbine meters K24 model F00408 N NN**

[5] Manufacturer: **PIUSI S.p.A.**

[6] Address: **Via Antonio Pacinotti, 16A – 46029 Suzzara (MN) - Italy**

[7] This supplementary certificate extends EU-Type Examination Certificate **CESI 13 ATEX 049X**, to apply to Product designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

[8] CESI, notified body n. 0722 in accordance with Article 17 of the Directive 2014/34/EU of the Parliament and Council of 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 or 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 n. **EX-C3014954**.

[9] In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.

[10] If the sign "X" is placed after the certificate number, it indicates that the Product in 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, examination and tests of the specified Product in accordance to the Directive 2014/34/EU. 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 Product shall include the following:



**II 2G Ex ia IIB T4 Gb**

This certificate may only be reproduced in its entirety and without any change, schedule included.

Date 17/11/2023 - Translation issued the 17/11/2023

**Prepared**  
Adrián Lucas Vagni

**Verified**  
Alessandro Fedato

**Approved**  
Roberto Piccin

[13]

## Schedule

[14]

**SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 13 ATEX 049X /01**

[15]

### Description of the variation to the Product

Variation 1.1: The **Electronic turbine meters K24** model **F00408 N NN** previously assessed in compliance with standard EN 60079-0:2012 have been re-assessed on the basis of the new edition EN IEC 60079-0:2018. Unchanged the other constructional characteristics of the Equipment **Electronic turbine meters K24**.

### Description of Product

The electronic turbine meters **K24** are apparatus, designed and manufactured, for digital and bi-directional low viscosity liquids measurement. The **K24** compatible liquids are: diesel fuel, kerosene, gasoline.

The **K24** series meters are connected directly to the pipes and they are manufactured in two versions:

- **Meter** (for direct measurement with LCD display),
- **Pulser** (for remote measurement).

The **Meter** version has self-powered by a Lithium battery pack; the **Pulser** version via IS certified barrier.

The housing of the **K24** apparatus is made of aluminum with two protective rubber guards, a plastic display cover and stainless-steel back closure.

The Equipment has been separately tested against the requirements of EN 60529 and meets IP65.

### Model identification

**F00408 N NN**

	Electronic turbine meter <b>K24</b>
- <b>X</b>	Meter version ATEX or IECEx certificated
- <b>Y</b>	Pulser version ATEX or IECEx certificated
- <b>U</b>	Meter version UL certificated
- <b>Z</b>	Pulser version UL certificated
<b>other letters</b>	version not covered by any certification
	( <i>alphanumeric</i> ) not safety relevant; e.g. inlet and outlet thread of connection pipes (BSP or NPT), color of the front cover, etc

### Electrical characteristics

Version **K24 Meter**: lithium battery pack cod. PIUSI 018021000 (VARTA CR 1/2 AA – 3 V; 950 mAh)

Version **K24 Pulser**:  $U_i = 12\text{ V}$ ,  $I_i = 100\text{ mA}$ ,  $P_i = 0.3\text{ W}$

The **K24 Pulser** shall be supplied and interfaced with certified apparatus according to EN IEC 60079-0 and EN 60079-11 complying with the limits of the above electrical characteristics.

The **Electronic turbine meters K24** must be installed in environments with  $T_{amb} -10\text{ °C} \div +50\text{ °C}$ .

### Warning labels

Adhesive label on equipment enclosure:

!WARNING!

ALUMINIUM BODY: AVOID IGNITION DUE TO IMPACT OR FRICTION

SUBSTITUTION OF COMPONENTS MAY IMPAIR INTRINSIC SAFETY

Adhesive label on the battery pack PIUSI 018021000:

WARNING!

To reduce the risk of ignition of a flammable or explosive atmosphere, batteries must only be changed in a location be non-hazardous.

To prevent ignition of flammable or combustible atmosphere, disconnect power before servicing.

This certificate may only be reproduced in its entirety and without any change, schedule included.

## [13] Schedule

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 13 ATEX 049X /01**

[16] **Report n. EX-C3014954**

### **Routine tests**

None.

[17] **Special conditions for safe use (X)**

- The conditions of the installation, use and maintenance of the **K24** meters, are included within the Safety Instruction. For a safe use these Instruction are to be followed precisely.
- Use only low viscosity compatible liquids.
- Replace the internal battery pack in a non-hazardous area, and exclusively with PIUSI model n.018021000.
- The complementary parts of the **K24** meters system such as pipes, nozzle, etc. shall guarantee the continuity of the ground connection.

[18] **Essential Health and Safety Requirements**

Compliance with the Essential Health and Safety Requirements is not affected by this variation.  
EHSR are assured by compliance with safety conditions and by compliance with the following standards:

**EN IEC 60079-0:2018** Explosive atmospheres - Part 0: Equipment - General requirements

**EN 60079-11:2012** Part 11: Equipment protection by intrinsic safety 'i'

[19] **Descriptive documents** (prot. EX-C3014987)

*FT112_IECEX_K24 Technical File for IECEx and ATEX Directive, rev.01 (pag.27)	dated	23/10/2023
*M0320 D Safety Instruction Bulletin, rev.00 (pag.2)	dated	04/2022
-EX018 Battery technical drawing, rev.00 (pag.2)	dated	27.09/2013
-EX021 Assembly drawing K24 Meter, rev.00 (pag.1)	dated	30.08/2013
-EX022 Assembly drawing K24 Pulser, rev.00 (pag.1)	dated	30.08/2013
-EX019 Electronic board drawing Meter version, rev.00 (pag.5)	dated	01.08/2013
-EX020 Electronic board drawing Pulser version, rev.00 (pag.1)	dated	01.08/2013
-EX023 PCB drawing Meter version GERBER, rev.00 (pag.1)	dated	02.07/2013

*Note: an \* is placed before the title of documents which are new or revised, annexed to this supplement.*

One copy of all documents mentioned above is kept in CESI files.

### Certificate history

Issue N.	Issue Date	Summary description of variation
00	15/02/2005	First Issue of the Certificate.
01	17/11/2023	Standard update to EN IEC 60079-0:2018.