



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  
**CESI-ATEX**

Schema di certificazione



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

[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:

**CESI 12 ATEX 033 X**

[4] Equipment: **Electro-pumps type EX50 12V**

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

[6] Address: **via Pacinotti, 16A  
46029 Suzzara - MN  
Italia**

[7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] CESI, notified body n. 0722 in accordance with Article 9 of the Council Directive 94/9/EC 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 n. EX-B2026020.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN 60079-0: 2009 EN 60079-1: 2007 EN 60079-31: 2009 EN 60079-28: 2007**

[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 EC-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

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

**II 2G Ex d IIA T4 Gb**

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

**Date 19/06/2012 - Translation issued on 19/06/2012**

**Prepared**  
Tiziano Cola

**Verified**  
Mirko Balaz

**Approved**  
Fiorenzo Bregani

[13]

## Schedule

[14]

### EC-TYPE EXAMINATION CERTIFICATE n. CESI 12 ATEX 033 X

[15] **Description of equipment**

Electro-pumps type EX50 12V are transportable apparatuses made of and electric motor and relevant junction box held in a flameproof enclosure and a volumetric rotating pump, equipped with a bypass valve, which closes the motor enclosure.

The electric motor is equipped with an automatic rearm thermal protection (Klixon CET 00KP-3) which opens the electric circuit in case the temperature goes over the set threshold. Three radial openings allow the free ventilation of a stretch of the shaft between motor and pump.

The electro-pump is suitable to be used to transfer liquid fuels, as defined by the manufacturer, and shall be supervised during its functioning which shall be discontinuous: maximum 30 minutes functioning followed by at least 1 hour rest.

This certificate bases on the assumption the service conditions are appropriate for the classification zone 1 inside the pump.

The apparatus is equipped with an earthing screw which shall be connected, by means of a suitable wire, to an earth in common with the fuel tanks, before energizing the motor.

#### *Electric characteristics*

|                                |                         |
|--------------------------------|-------------------------|
| Rated voltage:                 | 12 Vdc                  |
| Rated current:                 | 15 A                    |
| Maximum power:                 | 300 W                   |
| Insulation class of the motor: | F                       |
| Maximum rotating speed:        | 2700 min <sup>-1</sup>  |
| Type of service:               | max 30' ON, min 60' OFF |

|                             |                                  |
|-----------------------------|----------------------------------|
| Category:                   | 2G                               |
| Protection:                 | Ex d IIA                         |
| Temperature class:          | T4                               |
| Equipment Protection Level: | Gb                               |
| Ambient temperature:        | -10°C ≤ T <sub>amb</sub> ≤ +40°C |

#### *Cable entries*

The accessory used for the cable entry shall be certificated according to the standard EN 60079-1.

#### *Warning label*

“WARNING – Do not open the enclosure in presence of explosive atmosphere”.

[16] **Report n. EX-B2026020**

#### *Routine tests*

The manufacturer shall carry out the routine tests foreseen at clause 27 of the standard EN 60079-0 and at clause 16 of the standard EN 60079-1.

The equipment is exempted from carrying out the routine overpressure test because the enclosure Ex d has overcome the type test at a pressure equal to four time the reference one.

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

[13]

## Schedule

[14]

### EC-TYPE EXAMINATION CERTIFICATE n. CESI 12 ATEX 033 X

---

[16] **Report n. EX-B2026020**

***Descriptive documents*** (prot. EX- B2026019)

|   |       |            |
|---|-------|------------|
| - Technical file (173 sheets)                     | dated | 21/05/2012 |
| - Excerpt of the user manual M0217 IT (15 sheets) |       |            |
| - Technical drawing n. EX001 (2 sheets)           | dated | 28/05/2012 |
| - Technical drawing n. EX002 (2 sheets)           | dated | 1/06/2012  |
| - Technical drawing n. EX003                      | dated | 28/05/2012 |
| - Technical drawing n. EX004                      | dated | 28/05/2012 |
| - Technical drawing n. EX005                      | dated | 29/05/2012 |
| - Technical drawing n. EX006                      | dated | 28/05/2012 |
| - Technical drawing n. EX007                      | dated | 28/05/2012 |
| - Technical drawing n. EX008                      | dated | 28/05/2012 |
| - Technical drawing n. EX009                      | dated | 28/05/2012 |
| - Technical drawing n. EX010                      | dated | 29/05/2012 |
| - Data of the Installed devices (14 sheets)       |       |            |

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

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

- The equipment shall be attended while working in order to suddenly detect possible malfunctioning, including the intervention of the thermal protection and the pump stop;
- Keep stuck to the foreseen type of service: maximum 30 min. ON followed by minimum 60 min. OFF.
- In case of intervention of the thermal protection in normal conditions, do not attempt to restart the electro-pump but send it to the manufacturer for due checks.
- Before running the pump, connect tanks and electro-pump, using the special screw, to a common earth.
- The usage shall comply with the classification zone 1 inside the pump.
- Do not close and keep clear from waste the three openings which put a stretch of the shaft, between Ex d enclosure and pump, in connection with open air.
- The electric connection of the electro-pump, especially when used as portable equipment, shall be carried out in safe area or shall be suitably protected, using one of the protection methods foreseen by the standard EN 60079-0.

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

Covered by standard fulfilment and by following the safety conditions.