



# IECEx Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: **IECEx IMQ 21.0013X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2021-12-10

Applicant: **Dini Argeo S.r.l**  
Via della Fisica , 20 41042 Spezzano di Fiorano Mod.se (MO) - Italy  
**Italy**

Equipment: **Electronic weighing system**

Optional accessory:

Type of Protection: **Intrinsic safety Ex i; Dust protection Ex t; Protection by filling powder Ex q**

Marking: DFWIECEX\*:  
Ex ib [ib Gb] [ia Ga] IIC T4 Gb  
Ex tb [ib Db] [ia Da] IIIC T135°C Db

IECEXPW-S/IECEXPW24-S:  
[Ex ib Gb] IIC  
[Ex ib Db] IIIC

IECEXPW/IECEXPW24:  
Ex q [ib Gb] IIC T4 Gb  
Ex tb [ib Db] IIIC T135°C Db

IECEXB:  
Ex ib [ib Gb] IIC T4 Gb  
Ex ib [ib Db] IIIC T135°C Db

Approved for issue on behalf of the IECEx  
Certification Body:

**Mr. Mauro CASARI**

Position:

**IMQ ExCB Manager**

Signature:  
(for printed version)

Date:  
(for printed version)

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**Istituto Italiano del Marchio di Qualità S.p.A**  
**Via Quintiliano 43**  
**20138 Milano**  
**Italy**





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Manufacturer: **Dini Argeo S.r.l**  
Via della Fisica , 20 41042 Spezzano di Fiorano Mod.se (MO) - Italy  
**Italy**

Manufacturing  
locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

## STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements  
Edition:7.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

[IEC 60079-31:2013](#) Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"  
Edition:2

[IEC 60079-5:2015](#) Explosive atmospheres –Part 5: Equipment protection by powder filling “q”  
Edition:4.0

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

## TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[IT/IMQ/ExTR21.0013/00](#)

Quality Assessment Report:

[IT/IMQ/QAR18.0001/03](#)



# IECEx Certificate of Conformity

Certificate No.: **IECEx IMQ 21.0013X**

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Date of issue: 2021-12-10

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## EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The system consists of the following parts:

- DFWIECEX\* (terminal);
- IECEXPW & IECEXPW24 (power supply for Ex zone);
- IECEXPW-S & IECEXPW24-S (power supply for Safety zone);
- IECEXB (Battery power supply) including IECEXCB (stabilised power supply for charging battery in safe zone)

Full details in Annex.

## SPECIFIC CONDITIONS OF USE: YES as shown below:

- DFWIECEX\* main unit: potential electrostatic charge hazard for display and keyboard, clean only with wet clothes or antistatic products
- IECEXPW24 and IECEXPW24-S power supply at 24 VAC/DC: adequate galvanic insulation from power source must be assured by installation ( $U_m = 60\text{ V}$ )

## Annex:

[IECEx IMQ 21.0013 X issue No. 0 Annex\\_DINI ARGEO\\_1.pdf](#)

Annex to: IECEx IMQ 21.0013X issue No. 0

Applicant: Dini Argeo S.r.l.

Apparatus: Dini Argeo Ex Electronic weighing system:  
DFWIECEX\* ; IECEXPW ; IECEXPW24 ; IECEXPW-S;  
IECEXPW24-S; IECEXB; IECEXCB



## General description

Dini Argeo Ex Electronic weighing system consists of the following parts:

- **DFWIECEX\***: terminal, which is the weight indicator with user interface (membrane keyboard), display and inner I/O boards, that is connected to external Ex load cells and level gauge (both not included in this certificate).  
Internal option expansion boards:
  - 485IECEX serial port board
  - IECEXANOUT analogue output board
  - ALM-IECEX alibi-clock board
  - BTH-IECEX bluetooth board
  - IECEX4IN4OUT 4 input-4 output board
  - IECEX8OUT 8 output board
 The suffix/characters (\*) that follows "DFWIECEX" identify the additional features of weighing indicator that are not related to Ex type of protection.
- **IECEXB**: separate 6+6 NiMH cells (7.2 V rated) battery supply unit, including **IECEXCB** power supply for battery charge in non-hazardous area only;
- **IECEXPW** and **IECEXPW-S**: 230 Vac or 110 Vac mains power supply unit, or **IECEXPW24** and **IECEXPW24-S**: 24 Vac/dc mains power supply unit. **IECEXPW** and **IECEXPW24** power supply suitable for Ex zone and **IECEXPW-S** and **IECEXPW24-S** power supply suitable for Safety zone only.  
With the following characteristics:

| CODE                               | INPUT             |          | OUTPUT |         |                                              |         |
|------------------------------------|-------------------|----------|--------|---------|----------------------------------------------|---------|
|                                    | Input voltage (V) | Um (Vpk) | Uo (V) | Io (mA) | Un (V)                                       | In (mA) |
| <b>IECEXPW &amp; IECEXPW-S</b>     | 230 Vac & 110 Vac | 375      | 9.6    | 1070    | Vout linear = 7.7 V<br>( Iout (mA) * 0.002 ) | 630     |
| <b>IECEXPW24 &amp; IECEXPW24-S</b> | 24 Vac/dc         | 60       |        |         |                                              |         |

Ambient temperature: 0°C ÷ +50°C

## Intrinsic Safety parameters:

### DFWIECEX\*:

|       |         |        |            |            |
|-------|---------|--------|------------|------------|
| Ui    | Ii      | Pi     | Ci         | Li         |
| 9,6 V | 1,071 A | 2,57 W | Negligible | 2,653 µH   |
|       |         |        |            |            |
| Uo    | Io      | Po     | Ci         | Li         |
| 9,6 V | 0,68 A  | 1,63 W | Negligible | Negligible |

### IECEXPW / IECEXPW24 / IECEXPW-S / IECEXPW24-S:

|       |        |         |        |            |
|-------|--------|---------|--------|------------|
| Uo    | Io     | Po      | Ci     | Li         |
| 9,6 V | 1,07 A | 2,568 W | 0,1 µF | Negligible |

**Annex to:** IECEx IMQ 21.0013X issue No. 0  
**Applicant:** Dini Argeo S.r.l.  
**Apparatus:** Dini Argeo Ex Electronic weighing system:  
DFWIECEX\* ; IECEXPW ; IECEXPW24 ; IECEXPW-S;  
IECEXPW24-S; IECEXB; IECEXCB



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**IECEXB:**

| Uo    | Io     | Po      | Ci         | Li         |
|-------|--------|---------|------------|------------|
| 9,6 V | 1,07 A | 2,568 W | Negligible | Negligible |

**Conditions of use (X):**

DFWIECEX\* main unit: potential electrostatic charge hazard for display and keyboard, clean only with wet clothes or antistatic products

IECEXPW24 and IECEXPW24-S power supply at 24 Vac/dc: adequate galvanic insulation from power source must be assured by installation (Um = 60 V)

**Warning:**

WARNING – ELECTROSTATIC HAZARD, CLEAN ONLY WITH WET CLOTHS OR ANTISTATIC PRODUCT

WARNING – USE ONLY REPLACEABLE BATTERY PACK DINI ARCEO MOD.: IECEXB

WARNING – DO NOT CHARGE THE BATTERY IN HAZARDOUS LOCATION

WARNING – USE ONLY ON DFWIECEX

**Routine tests:**

Manufacturer must carry out the routine tests prescribed at clause 5.2.2 of IEC 60079-5, dielectric strength test of the filling material prior to the filling process, and at clause 11.2 of IEC 60079-11, routine tests for infallible transformers

**Manufacturer's documentation:**

EX Safety Instructions, document: DFWIECEX\_21.06.2021\_EN\_Rev.00\_U.

**Annex to:** IECEx IMQ 21.0013X issue No. 0

**Applicant:** Dini Argeo S.r.l.

**Apparatus:** Dini Argeo Ex Electronic weighing system:  
DFWIECEX\* ; IECEXPW ; IECEXPW24 ; IECEXPW-S;  
IECEXPW24-S; IECEXB; IECEXCB



## Use of components covered by separate IECEx Certificates

The table below details the components covered by separate IECEx Certificates related to older editions of the standards that can be fitted with Dini Argeo Ex weighing system.

| Name                                | Manufacturer                                     | Description          | Marking                                                          | ATEX Certificate Number | Standards ATEX:                                                                                           | IECEx Certificate Number | Standards on IECEx CoC:                                                           | Gap analysis review (ExTAG DS 2014-001)                                                                                                                        |
|-------------------------------------|--------------------------------------------------|----------------------|------------------------------------------------------------------|-------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type 25.*****                       | ROSE Systemtechnik GmbH                          | Empty enclosure      | II 2G Ex eb IIC Gb<br>II 2D Ex tb IIIC Db                        | PTB 98 ATEX 3101U       | EN 60079-0:2012<br>+A11:2013 ,<br>EN 60079-7:2015 , EN<br>60079-31:2014                                   | IECEx PTB 08.0005U       | IEC 60079-0: 2011,<br>IEC 60079-7:2015,<br>IEC 60079-31:2013                      | Components certified to old edition of standards. No applicable major technical differences between 60079-0:2017 and 60079-0:2011, for this kind of component. |
| Type Gore® PolyVent Ex+ (PMF200400) | W.L. Gore & Associates GmbH                      | Protective Vent      | II 2G Ex eb IIC Gb<br>II 2D Ex tb IIIC Db                        | IBExU 16 ATEX 1193 U    | EN IEC 60079-0: 2018,<br>EN IEC 60079-7:2015<br>+A1:2018,<br>EN 60079-31:2014                             | IECEx IBE 17.0013U       | IEC 60079-0: 2017,<br>IEC 60079-7:2017,<br>IEC 60079-31:2013                      | Components certified to current edition of standards                                                                                                           |
| Type 781EM2                         | CMP Products LTD                                 | Breather/drain plugs | II 2G Ex eb IIC Gb<br>II 1D Ex ta IIIC Da                        | CML 18 ATEX 1330 U      | EN IEC 60079-0: 2018,<br>EN IEC 60079-7:2015<br>+A1:2018,<br>EN 60079-31:2014                             | IECEx CML 18.0187U       | IEC 60079-0: 2017,<br>IEC 60079-7:2017,<br>IEC 60079-31:2013                      | Components certified to current edition of standards                                                                                                           |
| CV                                  | Eaton electrical systems Ltd as Redapt or Raxton | Breather drain       | II 2G Ex e IIC Gb<br>II 2D Ex tb IIIC Db                         | ITS 16 ATEX 101338 X    | EN 60079-0: 2012<br>+A11:2013,<br>EN 60079-0:2014<br>EN IEC 60079-7:2015<br>+A1:2018,<br>EN 60079-31:2014 | IECEx ITS 16.0014X       | IEC 60079-0: 2011,<br>IEC 60079-1:2014,<br>IEC 60079-7:2015,<br>IEC 60079-31:2013 | Components certified to old edition of standards. No applicable major technical differences between 60079-0:2017 and 60079-0:2011, for this kind of component. |
| DP-E                                |                                                  |                      | II 2G Ex e IIC Gb<br>II 2D Ex tb IIIC Db                         |                         |                                                                                                           |                          |                                                                                   |                                                                                                                                                                |
| BD-U                                |                                                  |                      | II 2G Ex e IIC Gb<br>II 2G Ex d IIB+H2 Gb<br>II 2D Ex tb IIIC Db |                         |                                                                                                           |                          |                                                                                   |                                                                                                                                                                |