

DFW I ECEX

Dini Argeo "DFWIECEX" weight indicator, IECEx and ATEX certified, for Zones 1 and 21, 2 and 22.



The DFWIECEX weight indicator represents the state of the art for weighing in environments with a high risk of explosion. Thanks to the RGB backlit display, to the powerful processor and above all to the main interfaces available, all intrinsically safe, DFWIECEX allows the integration of weighing within production processes, directly in hazardous areas, driving solenoid valves and communicating with PLCs and other devices. IECEx and ATEX certified and approved for legal-for-trade use.



**The best solution
for advanced industrial
applications**

Highlights

- LCD display with RGB backlight
- State-of-the-art, high-speed X-Core CPU ideal for handling fast and accurate weighing, filling or dosing processes
- ASCII/RTU Modbus
- Comprehensive range of industrial interfaces, at your choice:
 - Intrinsically safe digital I/O
 - Intrinsically safe analog output
 - Up to 3 intrinsically safe bi-directional RS485 serial ports
 - Bluetooth

NOTE: All of the above interfaces are certified for use in hazardous areas

Technical Features

- Protection:
 - for Gas: Ex ib [ib Gb] [ia Ga] IIC T4 Gb
 - for dust: Ex tb [ib Db] [ia Da] IIIC T135°C Db
 - ATEX: II2(2)G(1)G
 - ATEX: II2(2)D(1)D
 - Ta 0°C / +50°C
- High contrast RGB backlit display, with 6 digits of 25 mm. Brightness adjustable from keyboard.
- 17-key waterproof keyboard
- AISI304 stainless steel casing, with IP65 and IP68 certified protections.
- Minimum measurement range (internal use): 0.01 $\mu\text{V/d}$
- 4 load cell inputs, with selectable operating mode:
 - Single scale (use of only one input)
 - 4-channel digital junction box (use of multiple load cell inputs)
- Metrological approval: 10,000e or multi range 3x3000e @ 0.3 $\mu\text{V/e}$.
- Connection up to 8 load cells of 3500 Ω .
- Possibility of direct connection to load receptor installed in Zone 0 and 20.
- 1 Intrinsically safe RS485 serial port as standard, for two-way communication with PLCs, PCs or devices in explosive zones.
- Power supply of your choice (see options table):
 - Through Dini Argeo power supply, 110-230 Vac or 24 Vac - 24 Vdc
 - Through Dini Argeo external battery, in stainless steel, with autonomy of about 40 h (Connection/disconnection directly in explosive zone and charging in safe area)

NOTE: Autonomy may be reduced depending on load reception system, connected communication accessories, and backlight configuration.

- Dimensions: 280x143x185 mm.
- Available cable glands: 2 x PG9 as standard, 1 PG supplied (not mounted) and setup for a further 2 optional PG9s.

Main certifications

- EU Type Examination Certificate (EN 45501:2015)
- OIML R76
- EN/IEC 60079-0
- EN/IEC 60079-11
- EN/IEC 60079-5
- EN/IEC 60079-31
- Certification according to ATEX directive 2014/34/EU and in compliance with IECEx certification scheme, group II category 2GD according to EN/IEC 60079-0, EN/IEC 60079-11, EN/IEC 60079-5, EN/IEC 60079-31.

IECEx Certificate of Conformity	
INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres <small>IECEx is a trademark of the IECEx Scheme and is used under license</small>	
Certificate No.	IECEx 192 15 00000 Page 1 of 1 Certificate 192000
Model	Exempt
Date of Issue	2014-10-15
Applicant	IMA S.p.A. Via dell'Industria, 15 - 40142 Sassuolo (MO) - Italy
Equipment	Electronic weighing indicator
Optional accessory	Model: 355601T-IECEx000, 355601T-IECEx000N, 355601T-IECEx000D, 355601T-IECEx000N
Type of Protection	Restricted breathing for all, Dust tight Ex n
Marking	Ex n IIC T80 °C or Ex n IIC T80 °C Ex n IIC T80 °C or Ex n IIC T80 °C
Approved for release on behalf of the IECEx Certification Body	Mr. Mauro CROCI
Position	IECEx Sales Manager
Signature (for printed version)	
Date	
<small>1. This certificate and annexes may only be reproduced in full. 2. This certificate is not transferable and remains the property of the issuing body. 3. The validity and authenticity of this certificate may be verified by visiting www.iecex.com or by using the QR Code.</small>	
Certificate issued by: International Electrotechnical Commission 11, Rue de la Voie 1202 Geneva Switzerland	
	

[View the certificate](#)

Communication Interfaces - OPTIONS

- OPTIONAL DIGITAL INPUTS/OUTPUTS:
- Intrinsically safe 4-input, 4-output digital card with the following specifications:
 - Inputs
 - U_i : 18 V
 - R_i : 214 Ω
 - R input: 859 Ω
 - Electronic relay outputs
 - U_i : 18 V
 - P_i : 1,75 W
 - I_n : 70 mA
- Intrinsically safe power supply terminal, for piloting devices in ATEX zone or push-button panel. Output voltage 6V, max current 300mA.

NOTE: by using the available power supply terminal, it is possible to manage the push button panel code EXPHBN in a direct way, even in a safe area, without protection barriers.

- OPTIONAL ANALOG OUTPUT:
- Intrinsically safe analog output, programmable at 0...10Vdc, 0...20mA or 4...20mA.

NOTE: It is possible to transmit the signal directly to the safe area using the intrinsically safe protective barrier, code PFANOUTEX for analog output in 0...20mA (or 4...20mA) configuration.

The analogue output of DFWIECEXAN is an active analogue output, which is why it must not be powered. The resistance of analogue input shall be:

- If the output signal is in voltage: $R_{min}=1K$
- If the output signal is in current: $R_{max}=300\Omega$

- RS485 SERIAL PORT
- 2 Optional intrinsically safe RS485 serial ports for communication with repeaters and other devices.
 - ASCII protocol
 - Programmable weight string and read command
 - Modbus RTU

NOTE: it is possible to transmit data directly to the safe area using the protective barrier code PFB485EX

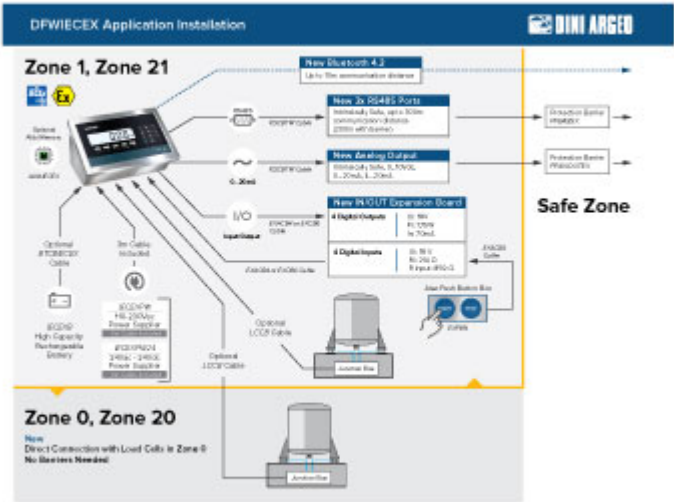
Certification of assembly

- EXDC: ATEX certification of assembly for DFWIECEX

DETAIL 1



DETAIL 2



“YOUR WORLDWIDE PARTNER FOR WEIGHING,”

DINI ARGEO
FRANCE sarl
France

DINI ARGEO
GMBH
Germany

DINI ARGEO
UK Ltd
United Kingdom

DINI ARGEO WEIGHING
INSTRUMENTS Ltd
China

DINI ARGEO
OCEANIA
Australia



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SALES AND TECHNICAL ASSISTANCE SERVICE