

DFWIECEX-BATCH1

DFWIECEX-BATCH1 weight indicator, IECEx and ATEX certified, for Zones 1 and 21, 2 and 22, for dosages in hazardous areas



DFWIECEX-BATCH1 weight indicator is the ultimate solution for single product dosages in hazardous areas. Equipped with RGB backlit display to drive the operator during dosage process and new 3 speed management to make a fast, medium and slow speed filling, with fully programmable thresholds. Lance control will handle the lance lifting up. Up to 50 memories database to store preset dosage targets for a quick recall.

**The best solution
for advanced industrial
applications**

Highlights

- In load dosage function and automatic unload phase
- RGB LCD backlit display, easy to read in any light condition
- 4 digital inputs to remotize START, STOP and PAUSE
- 12 digital outputs, for Fast, Medium and Slow speed dosage, lance control, errors
- State-of-the-art, high-speed X-Core CPU, ideal for handling fast and accurate weighing, filling or dosing processes
- 50 formula database
- Fly weight management
- Tolerance check
- Safety Tare Control at dosage start
- Programmable lance control
- Optional analog output proportional to dosed weight or dosage speed

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
- 17-key waterproof keyboard
- AISI 304 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 external junction box)
- Metrological approval: 10,000e or multi range 3x3000e @ 0.3 $\mu\text{V/e}$
- Connection up to 8 load cells of 350 Ohm
- 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 (2 optional RS485 serial port can be added as option)
- Power supply of your choice (see options table):
 - Through Dini Argeo power supply, 110-230 Vac or 24 Vac - 24 Vdc (battery powered unit available upon request)
- Dimensions: 280 x 143 x 185 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.s. IECEx and ATEX certified and approved for legal-for-trade use.

Communication Interfaces

- DIGITAL INPUTS/OUTPUTS:

Intrinsically safe 4-input, 12-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: $R_{max}=300ohm$

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

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



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