DFWIECEX3GD: IECEx Weight Indicator For Ex 2 & 22 Zones

Standard Features

- IECEx certification.
- New enclosure with screwless front closure for easy cleaning of the indicator.
- PG7 and PG9 cable glands with adapters for 4 to 7 mm and 7 to 10 mm cable routing. Equipped with anti-friction system that does not require additional external cable fixing, as required by the IECEx scheme and ATEX directives.
- Available in specific version for direct connection to load cells installed in zone 1/21 and 0/20.
- 17-key high thickness waterproof keyboard.
- LCD display with backlight as standard with 6 25 mm digits.

- AISI 304 stainless steel casing, with IP65 certified protection and IP68 performance.
- Suitable for use on the table.
- Dimensions: 280x143x185mm.
- Up to 10.000e or 3 x 3000e @ 0,3 μV/d OIML approved version and CE-M legal for trade.
- Up to 1.000.000 displayable divisions for internal factory use.
- Up to 8 signal linearisation points with DINITOOLS (3 from the keyboard).
- Internal resolution up to 3.000.000 points.
- 24-bit sigma-delta A/D converter, up to 200 conv./sec. with automatic frequency selection.
- Board protection case inside the box.
- Calibration and digital Set-Up from the keyboard.
- Instrument management and configuration from PC with DINITOOLS.
- 4 channels (for single weighing system).
- Power supply from 110-240Vac.
- Connection with up to 8 load cells of 350 Ohm.

Weight indicator for Ex areas classified as hazardous. ATEX/IECEx marking:

- II 3G Ex nR IIC T6 Gc X (0°C<= Ta <=50°C) for gas
- II 3D Ex tc IIIC T85°C Dc IP65 X (0°C<= Ta <=50°C) for dust.
- ATEX/IECEx marking with intrinsically safe connection for load cells:
- II 3G Ex nR [ia] IIC T6 Gc X (0°C<= Ta <=50°C) for gas
- II 3D Ex tc [ia] IIIC T85°C Dc IP65 X (0°C<= Ta <=50°C) for dust.
- Suitable to realize weighing, dosing and automation systems. CE-M approvable (OIML R-76 / EN 45501).

DFWIECEX3GD Specifications

I/O SECTION:

- RS232/C bi-directional port configurable for connection to printer/labeller in safe zone.
- RS232/C bi-directional port configurable for PC, PLC, additional remote display, in safe zone.

MAIN CERTIFICATIONS:

- EU Type Examination Certificate (45501:2015)
- OIML R76
- EN/IEC 60079-0
- EN/IEC 60079-11 (ZB version)
- EN/IEC 60079-15
- EN/IEC 60079-31
- Australian legal for trade certificate of approval (NMI S788)
- Certification according to ATEX directive 2014/34/EU and in compliance with IECEx scheme, group II category 3GD according to EN/IEC 60079-0, EN/IEC 60079-11, EN/IEC 60079-15, EN/IEC 60079-31.

MASTER/REPEATER OPTION:

- Specific programme (**MSTSLV** code) to use the indicator as a universal weight repeater or as a multi-scale repeater (MASTER) in combination with DFW/DGT/MCW.
  FUNCTIONING MODES:
- **Multi-scale repeater (MASTER):** function which allows the user to repeat up to 32 independent scales, with the possibility of managing their functions, or displaying and printing the sum of the weighs of all the scales.
- **UNIVERSAL weight repeater:**
  function which allows the user to repeat the weight of any scales, through the configuration of the input string.

FUNCTIONS:

- **KEYBOARD:**
  Zeroing, Automatic tare, Presettable tare, printing and/or data transmission, selectable function command, on/off switching, database of 20 tares, 2 Numeric IDs, keyboard lock, repetition of last printout made.

- **SELECTABLE FUNCTIONS:**
  - High Resolution Weighing x 10.
  - Net/Gross or lb/kg conversion.
  - Accumulation.
  - Formula weighing.
  - +/- Checkweighing.
  - Percentage weighing.
  - Approved transmission of the weight to PC/PLC (with ALMEM Alibi memory option).
  - Counting.
  - In/Out Truck weighing.
  - Hold.
  - Set Point Control (with DFIO option).

AVAILABLE LANGUAGES FOR PRINTING

- IT, EN, FR, DE, ES, PT, CN*, EL*

  * For Chinese and Greek a programming of the printer/labeler is required (S1, only at the time of order)

Parts

Part #	Description
Available Versions	
DFW-IECEX3GD	Ex Indicator for Zone 2/22. Stainless steel enclosure with IP65 and IP68 certified protections, 17-key keypad, backlit LCD display and internal power supply. ATEX/IECEX Marking: II 3G Ex nR IIC T6 Gc X (0°C<= Ta <=50°C) for gas and II 3D Ex tc IIIC T85°C Dc IP65 X (0°C<= Ta <=50°C) for dust. Provided with safety instructions and the ATEX EU declaration of conformity (EN, DE, FR, ES and IT).
DFW-IECEX3GDZB	Ex Indicator for zone 2/22 that can be directly connected to load cells installed in zone 1/21 and 0/20. Stainless steel enclosure with IP65 and IP68 certified protections, 17-key keypad, backlit LCD display and internal power supply. ATEX/IECEX Marking: II 3(1)G Ex nR [ia] IIC T6 Gc X (0°C<= Ta <=50°C) for gas and II 3(1)D Ex tc [ia] IIIC T85°C Dc IP65 X (0°C<= Ta <=50°C) for dust. Provided with safety instructions and the ATEX EU declaration of conformity (EN, DE, FR, ES and IT).

Options

Part #	Description

Optional Power Supply Cords

EXACB4	4x0.5 mm^2 armoured cable (suitable for Ex zones). PVC inner sheath. Armour: galvanised steel wire braid. Outer sheath PVC, diameter 7.3 mm. Temperature range: -30 / +80 °C. Minimum bending radius >/= 10 x O.D. €/m. Maximum orderable length: 100 m (longer lengths available only upon request).

Declaration of ATEX Conformity

DCATEX3GD	Declaration of ATEX conformity of whole. Ex II 3G IIC T6 Gc X and Ex II 3D IIIC T115°C Dc X system, with relative label of whole system, for ATEX certified or NOT ATEX certified Dini Argeo indicator (in the latter case to be installed in a safe area) connected to a mechanical structure with ATEX load cells (each load cell must be certified with CCATEX or CCATEX3GD option). Provided with descriptive document of the assembly and ATEX EU declaration of conformity of the assembly (EN, DE, FR, ES and IT). Includes IP68 connection between platform and weight indicator.
DCATEXMB4	ATEX declaration for the whole system with Dini Argeo Zener barriers. Ex II 2G IIC T6 Gb X e Ex II 2D IIIC T125°C Db X system, with label of the whole system, for weight indicator connected to Dini Argeo zener barriers, connected to a mechanical structure with ATEX load cells (each cell must be certified with CCATEX option). Provided with descriptive document of the assembly and ATEX EU declaration of conformity of the assembly (EN and IT).

Approval for Sale to Third Parties

KCEM	Plates and Welmec form for legal trade use of a scale. NET PRICE. Service available in combination with a Dini Argeo indicator.
ECEMDOC	Printed EU declaration of conformity, EU certificate of verification, test certificate and metrological book (free download from our website, only for approved CE-M products). NET €.
ECEM-AU	Single platform/scale legal-for-trade approval for Australia.

Date & Time Option

DFCLK	Real time clock for printing/displaying of date and time. With UL marked PCB, screw terminal, plastic box and labels (if applicable).

Communication Interfaces

OBWIFI3GD-5	WIFI module for ATEX zones, with ABS IP66 case, 3 m shielded cable, and power supply from indicator. Protection: ATEX II 3G Ex ec IIB T6 Gc X for gases and ATEX II 3D Ex tc IIIC T85°C Dc IP66 X for dust. Max. functioning distance, in appropriate environmental and installation conditions: 30m indoors, 70m outdoors. Provided with safety instructions and the ATEX EU declaration of conformity (EN, DE, FR and IT).
OBRF2G4-3GD	2.4 GHz radio frequency module for ATEX 2 & 22 zones. ABS IP66 case, 3 m shielded cable, and power supply from indicator. Protection: ATEX II 3G Ex ec IIC T6 Gc X for gases and ATEX II 3D Ex tc IIIC T85°C Dc IP66 X for dust. Max. functioning distance, in appropriate environmental and installation conditions: 45 m indoors, 140m outdoors. 39 configurable channels. Provided with safety instructions and the ATEX EU declaration of conformity (EN, DE, FR and IT).
ETHD	Built-in Ethernet interface. Speed from 10 to 100 Mbps, TCP, UDP, IP, ARP, ICMP, Ethernet Mac protocols.

Part #	Description
ALMEM-1	Alibi memory (fiscal memory, max 120.000 weighs) for approved weight transmission to PC/PLC or data recording on MMC/USB. Built-in real time clock to print the date/time with PCB, screw terminal, plastic box and UL-marked labels. If applicable, it requires FW 05.00.02 or higher. Not compatible with weight repeaters.
RS485C	Built-in RS485 interface (mounting and cable gland excluded).
WPAN-CL	Classic WPAN device, complete with AMP cable and integrated antenna.

Digital Input / Output

Part #	Description
DFIO3GD-1	ATEX 3GD built-in 2 IN/6 OUT interface (requires FW 05.05.00 or higher).

Printers / Labelers for Safe Zones

Part #	Description
OBTPRB	Table thermal printer. For weight indicator, with IP40 ABS case, 1,5 m connection cable and internal power supply. Thermal paper roll included as standard.
CODEPG	Service for loading a customised code-page on TPR printer (standard is PC437 - Central Europe, USA)
LP542TE	Thermal transfer or direct thermal labelling machine Supplied with standard peel mechanism. Maximum printing size 25400 x 108 mm. Maximum roll Ø 127 mm and width up to 112 mm. Label roll and ribbon not included.

Connection Cables

Part #	Description
RSCBTW	4-core twisted shielded cable (2x2x0.34 mm^2), for RS485 communication or analogue output. Polyolefin inner sheath. Tinned copper braid shielding. Outer sheath PVC, diameter 7mm. Temperature range: -30 / +80 °C. Minimum bending radius >/= 6 x O.D. €/m. Maximum orderable length: 100 m (longer lengths available only upon request).
ETHCBEX	Multi-core cable (4x2xAWG24) suitable for Ethernet connections in Ex-zones (connectors and cable gland only installed with S6 service). First shield: aluminium/polyester tape, second shield: tinned copper braid (coverage = 85% - EMC 89/336). Outer sheath: PVC, diameter 6.3mm. Temperature range: -30 / +80 °C. Minimum bending radius >/= 8 x O.D. Minimum length 10 m. €/m. Maximum orderable length: 100 m (longer lengths available only upon request).
ETHCBEX10M	ETHCBEX cable complete with cable gland and connectors. Length 10 m.

Columns, Supports Brackets, Visors

Part #	Description
EXSTFR	AISI 304 stainless steel bracket, adjustable inclination. For mounting IECEX weight indicators on the wall or on TCBI columns.
EXSTFI	AISI 304 stainless steel wall bracket. For mounting IECEX weight indicators.
PANEL-ST	Bracket for mounting the indicator on the panel.

Weight Repeater Software

Part #	Description
MSTSLV	Program to use the indicator as a repeater. It must be combined with the DFW and DGT weight indicators.

PC Software for Managing Weighbridges

Part #	Description
WEITRUCK-1	PC software for vehicle weighing. It can be combined with DFW, DGT and 3590 series' weight indicators. Databases to store customer, material and vehicle data, management of the totals and programmable printouts. Alibi Memory is required for DFW/DGT (3590 series is equipped with alibi memory as standard).

Storing Weighments

SWM	"WeiMonitor" PC program to monitor and record in real time weighs performed on the connected scale (the price is intended for the license to manage one scale).

PG Cable Glands

PG7-IECEX	PG7 Cable Gland for DFW and 3590 IECEx Series Cable diameter: 4 to 7 mm.
PG9-IECEX	PG9 Cable Gland for DFW and 3590 IECEx Series Complete with ferrules and seals. Cable diameter: 4 to 7 mm or 7 to 10 mm.
PG13-IECEX	PG13 Cable Gland for DFW and 3590 IECEx Series Complete with ferrules and seals. Cable diameter: 5,5 to 8 mm, 8 to 10,5 mm or 10,5 to 13 mm.

Other Options

TECSUP	Technical assistance by telephone upon request.