BILANCIAI
OUR STORY BUILDS YOUR INNOVATION



DD700IS

INTRINSICALLY SAFE WEIGHING TERMINAL FOR **ATEX/IECEx** HAZARDOUS AREAS

BILANCIAI GROUP

DD700IS

INTRINSICALLY SAFE WEIGHING TERMINAL FOR **ATEX/IECEx** HAZARDOUS AREAS

ATEX Certified

Certificate IECEX

Approval EC metrology (Directive 2014/31/EU)

Stainless steel IP65

SAFETY, RELIABILITY AND BUSINESS CONTINUITY

The **DD700IS** is a weighing terminal designed for use in **explosion hazardous areas according to the ATEX Directive**, reliability and operational continuity are essential requirements.

Thanks to **ATEX certification** and **international IECEx certification**, the **DD700IS** represents an ideal solution for applications in potentially explosive atmospheres, supporting projects requiring regulatory compliance both in Europe and in non-EU markets.
It is the ideal choice for those who must install a terminal in classified areas, reducing risks and ensuring a high standard of safety of the system.



ATEX AND IECEX CERTIFICATION

Can be used in areas at risk of explosion, classified as zones 1, 2, 21 and 22.
The device complies with the **ATEX** Directive and holds **IECEx** certification.



AMBIENT TEMPERATURE UP TO 55°C

Safe operation even in high-temperature environments up to 55°C, ideal for installations in hot areas such as the Middle East.

BILANCIAI FOR ATEX

ATEX: LONG-LASTING COMPETENCE

For over 60 years we have been developing weighing solutions for complex industrial applications, building up a solid know-how even in environments at risk of explosion.

Our **ATEX terminals** are designed to **ensure operational safety, process continuity and simple integration into existing systems**, even in the most critical conditions.

Reliability, experience and attention to international regulations are the basis of every Coop Bilanciai solution.





INTERFACE WITH PLC

Equipped with 2 RS422 ports with Modbus RTU protocol and an analog 4-20 mA output, ensuring integration with PLC and industrial automation systems.



SOLID AND RELIABLE CONSTRUCTION

The AISI304 stainless steel case and the high-performance sealing gaskets ensure long-term IP65 protection over time, even after exposure to extreme thermal cycles.



LOAD CELLS CAN BE CONNECTED IN ZONE 0

Possibility to connect up to 8 ATEX certificate load cells of 700 Ω in hazardous areas.

IDEAL FOR DOSING AND FILLING SYSTEMS LNG/LPG CYLINDERS

For cylinder filling, the **DD700IS** features control logic for fast/slow filling modes and automatic stop at the target weight. It enables valve control and PLC integration, improving repeatability and reducing overweight and waste.
Cycle logging ensures process traceability and control, including in **ATEX/IECEx** environments.
Expandable up to 8 digital inputs/outputs, including intrinsically safe inputs, for direct control of certified solenoid valves in hazardous areas.



SAFETY, EFFICIENCY AND CONTROL

The **DD700IS** is the ideal solution for industrial applications such as weighing systems for silos weighing systems and dosing systems, ensuring stable performance even in the most critical environments at risk of explosion.

Equipped with internal archives for data management and traceability, the **DD700IS** also allows information to be easily transferred to a safe area and integrated with existing systems.
Communication with PLCs takes place via standard interfaces, including 4–20 mA, Ethernet and fieldbuses such as PROFINET and EtherNet/IP.

In this way, the **DD700IS** combines safety in hazardous areas advanced data management functions and industrial connectivity to make weighing and dosing more efficient, controllable and ready for automation.

HAZARDOUS AREA

DD700IS Platform scheme

area 0/20

area 1/21



Weighing on silo



ATEX certified analog loadcell

Weighing platform



Main weighing terminal **DD700IS**



230VAC
115VAC



Power supply for **DD700IS**

4-20mA

RS422



Intrinsically safe solenoid valves



Intrinsically safe button box

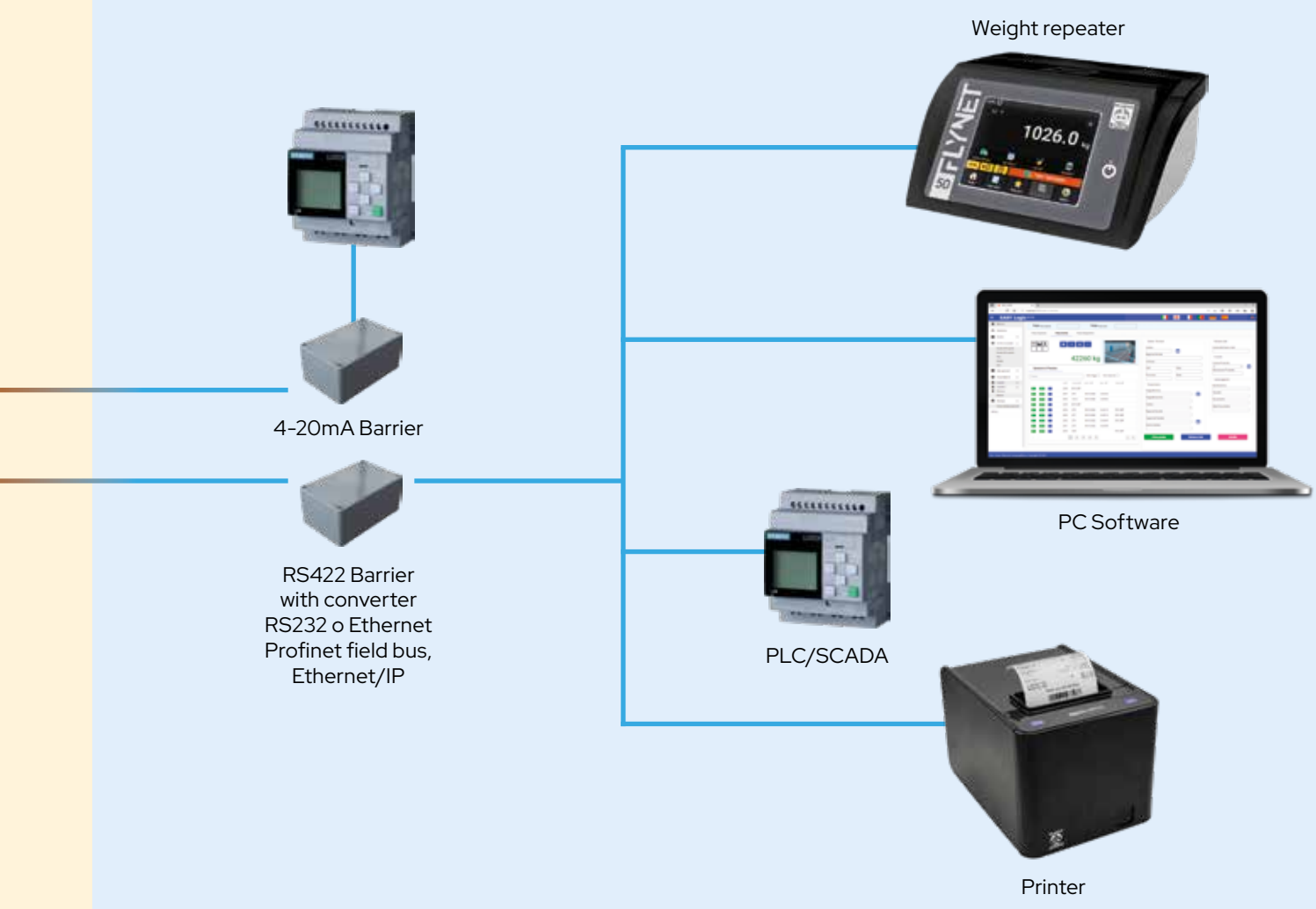
SIMPLE WEIGHING

The single weighing application enables fast, accurate weighing.
The sum weighing feature allows you to perform multiple weigh-ins in sequence and manage totals without unloading the scale between weighings, resetting the net weight after each operation.

DOSAGE ON LOADING AND UNLOADING

The Loading and Unloading Extraction program allows you to perform single-component dosing operations at two speeds.
Thanks to the digital outputs, it is possible to manage solenoid valves or other devices.
Through more advanced configurations, you can manage in-flight weight, ejectors and recall recipes through archives and quick keys.

SAFE AREA



ACCURACY, PERFORMANCE, POWER

The **DD700IS** is the ideal solution for weighbridges installed in hazardous areas (**ATEX/IECEx**), where the weight needs to be displayed safely within the hazardous zone. In this configuration, the terminal acts as a field repeater installed near the weighbridge, making the weight value immediately visible and available to operators, even in hazardous area.

This solution brings concrete advantages to daily operations: it reduces operator movements thanks to the immediate reading of the weight near the weighbridge, increases safety and speed during loading/unloading and vehicle entry and exit operations, and allows for more effective operation management even in poor visibility or in difficult environmental conditions.

In this way, the **DD700IS** allows you to combine operation and readability in hazardous areas with complete connectivity to the safe zone, making the management of the weighbridge simpler, integrated and ready for automation.

HAZARDOUS AREA

DD700IS Weighbridge scheme

area 0/20

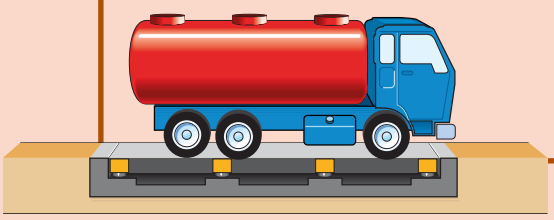
area 1/21



SBP/M weighbridge



SBP/M-SB weighbridge



Digital weighbridge

Weighing terminal repeater **DD700IS**



230VAC
115VAC



Power supply for **DD700IS**



Intrinsically safe solenoid valves



Intrinsically safe button box

RS422

COMMUNICATION, DATA PROCESSING

Communication with the safe zone is handled via the main weighing terminal, which can be directly connected to make weighing data available to automation and supervision systems. In this way it is possible to transfer the weight value and process information to PLCs and business software using the most popular interfaces and protocols, such as 4–20 mA output, Ethernet, fieldbus (e.g. PROFINET and EtherNet/IP) and integration with computer systems via SQL databases, keeping the communication infrastructure and data processing entirely in a secure area.



TECHNICAL CHARACTERISTICS

- INOX AISI 304 steel casing
- IP65 protection against water and dust
- Backlit graphic display
- Connection for up to 4 analog load cells (350 Ω) or 8 (700 Ω)
- Approved resolution up to 6,000 divs.
- Direct connection to ATEX certificate load cells installed in Zones 0 and 20
- 2 intrinsically safe RS422 ports
- Up to two optional expansion cards:
  - 4 inputs + 4 outputs (dry contacts)
  - 4I + 4O with intrinsically safe powered outputs
  - Intrinsically safe 4–20 mA analog output
- 115VAC or 230VAC power supply depending on the configuration

DD700IS

WALL VERSION





TABLE VERSION

PS700IS

STRENGTHS

- ATEX AND IECEx CERTIFIED FOR USE IN POTENTIALLY EXPLOSIVE ATMOSPHERES
- IDEAL FOR DOSING SYSTEMS AND WEIGHBRIDGES
- GRAPHIC DISPLAY AND ARCHIVE MANAGEMENT

DD700IS WEIGHING TERMINAL CERTIFICATION:

TUV IT 25 ATEX 0294 X , IECEx TPS 25.0064X

ATEX MARKING:

II 2(2)G (1)G Ex ib [ib Gb][ia Ga] IIC T4 Gb
II 2(2)D (1)D Ex tb [ib Db][ia Da] IIIC T135°C Db

IECEX MARKING:

Ex ib [ib Gb][ia Ga] IIC T4 Gb
Ex tb [ib Db][ia Da] IIIC T135°C Db

- -10 °C ≤ Tamb ≤ +55 °C

PD700IS POWER SUPPLY CERTIFICATION:

TUV IT 25 ATEX 0293 X , IECEx TPS 25.0063X

ATEX MARKING:

II 2(2)G Ex eb mb [ib Gb] IIC T4 Gb
II 2(2)D Ex tb [ib Db] IIIC T135°C Db

IECEX MARKING:

Ex eb mb [ib Gb] IIC T4 Gb
Ex tb [ib Db] IIIC T135°C Db

- -10°C ≤ Ta ≤ +55°C

DD700IS

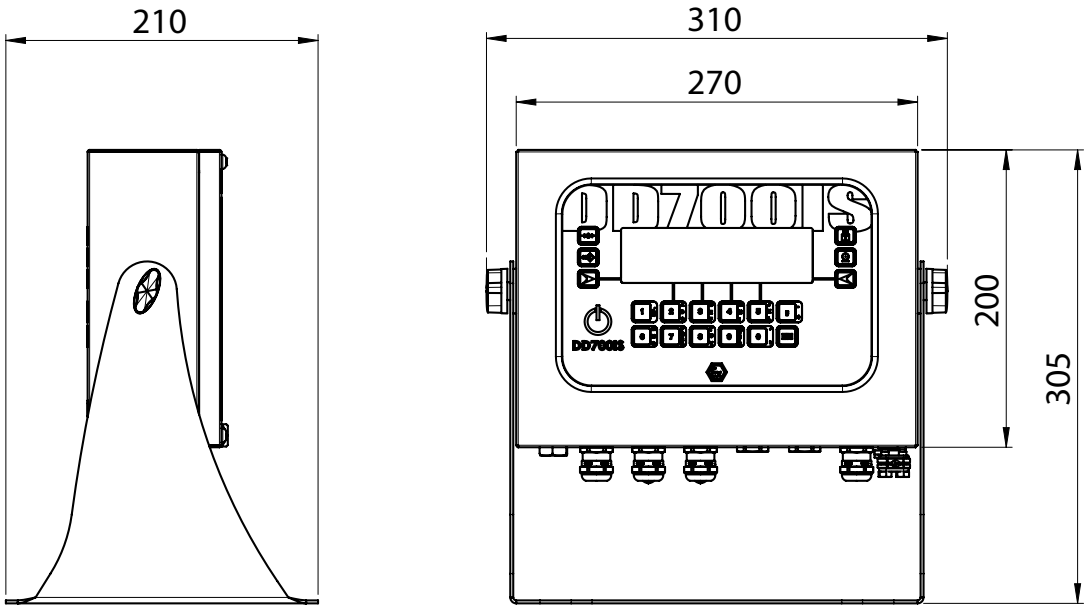
TABLE VERSION



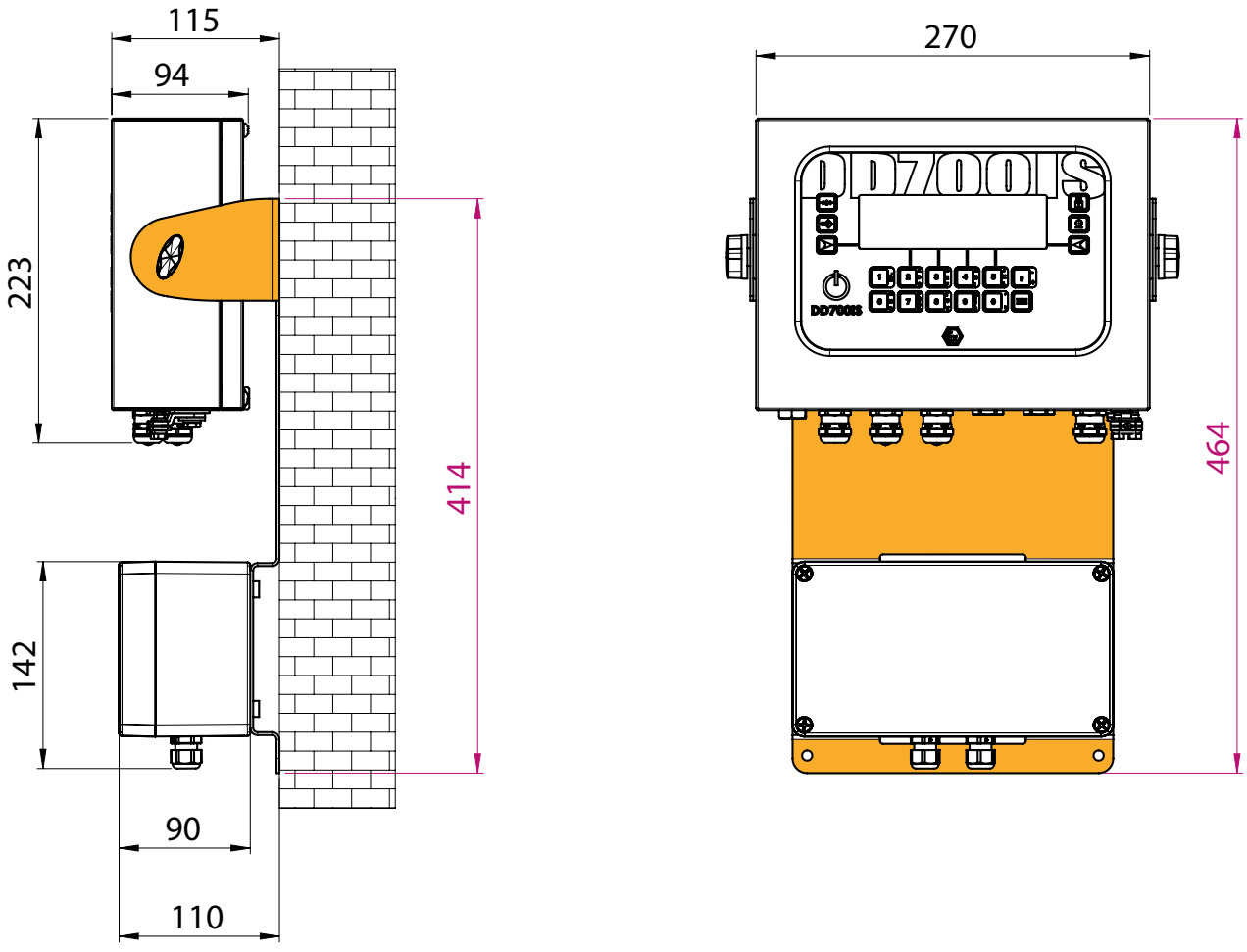
PS700IS

PRECISION • PERFORMANCE • POWER

TABLE VERSION



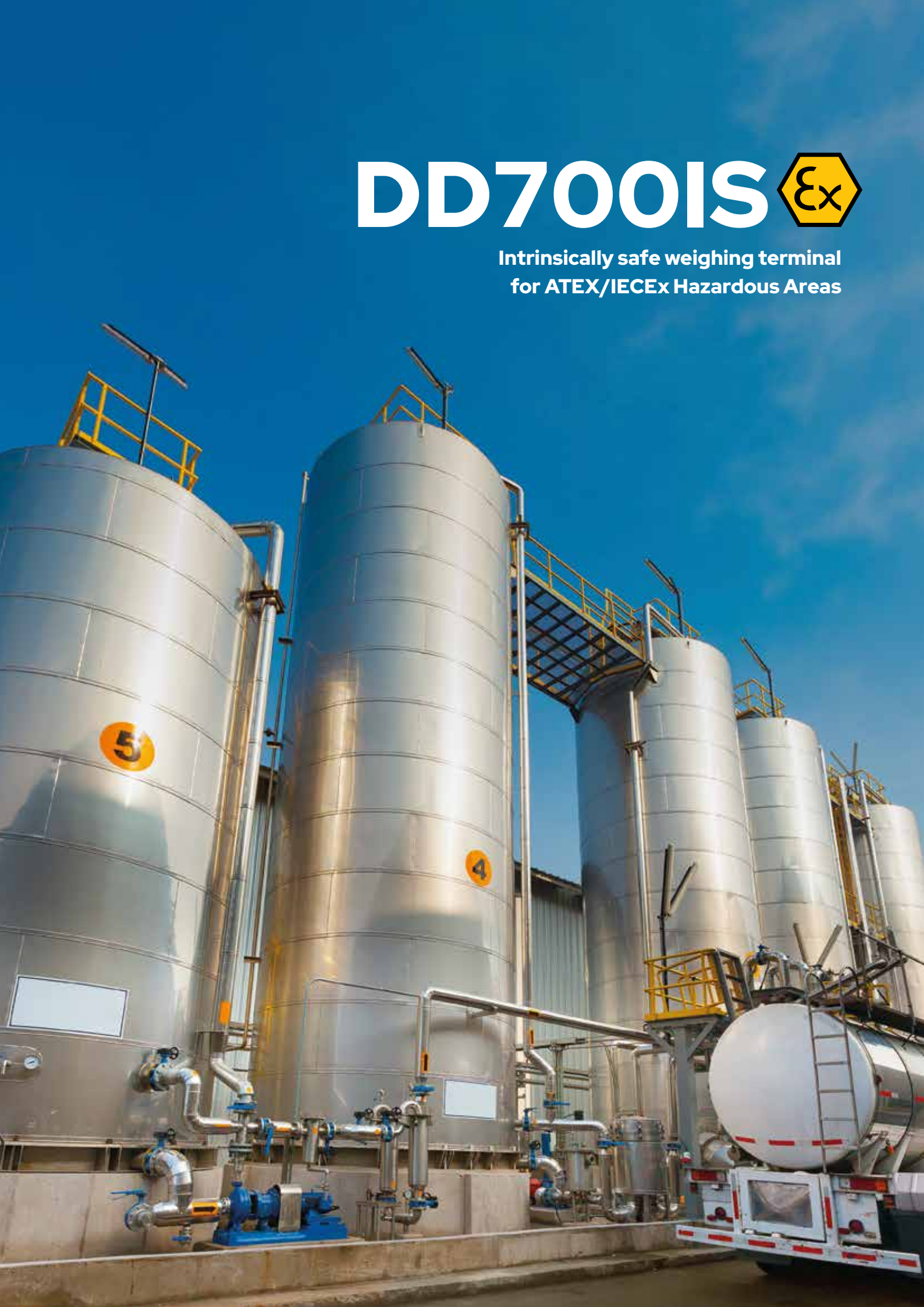
COMPACT SUPPORT FOR WALL MOUNTING



= Accessories

DD700IS

Intrinsically safe weighing terminal for ATEX/IECEx Hazardous Areas



DD700IS: Document related to the TÜV IT 25 certificate ATEX 0294 X, IECEx TPS 25.0064X.
Changes are not permitted without the approval of the "Authorized Entity".

PS700IS: Document related to the TÜV IT 25 certificate ATEX 0293 X, IECEx TPS 25.0063X.
Changes are not permitted without the approval of the Authorized Entity.

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