

# Professional Solutions for Hazardous Areas



Take control of your individual requirements with the ID7sx – intrinsically safe, certifiable, rugged. The integrated software packs of the ID7sx terminal provide you with a system solution that adapts to the challenges of a harsh production environment, whilst the serial interfaces ensure a smooth data flow.

A range of different scale bases with load capacities up to 12 metric tons, and a certifiable readability of up to 1 gram, allow powerful configurations for the hazardous area zones of 1 and 21.

METTLER TOLEDO technology – ensures the highest security and precision for your production process.



**METTLER TOLEDO**

**nefton**  
Ζύγιση  
Σημάνση  
Συμμόρφωση

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# Tough enough for harsh environments, sensitive enough to weigh and measure

- Meets ATEX Guidelines 94/9/EG for hazardous areas
- Performance through flexible application specific software pacs
- Backlit LCD display with graphics capability for efficient operation
- Expandable - make it grow with your needs by adding modules
- Withstands harsh conditions thanks to IP65/66 protection



**To see and be seen** – fast and unmistakably clear, the backlit LCD display shows you the result of the weighing process. With a maximum character height of 25mm, your results are instantly recognisable. Scratch-resistant safety glass ensures that clarity is retained for years.

## Applications made easy

Every weighing task has its own unique requirements and calls for special knowledge. Allow yourself to profit with the help of application-specific software pacs.

## Strong functions

Naturally, general weighing functions are only the beginning. Built-in extras such as automatic taring, fixed-value memory, test function, DeltaTrac, date/time or product identification data simplify and perfect your weighing tasks for you - even when you need to work with 3 interconnected scales.

## 1 Basic housing design – many application possibilities

The functional housing design allows the weighing terminal to be used as a table, wall or built-in unit. With the IP66 (water jets) type of protection, the stainless steel housing can be easily and thoroughly cleaned, no matter the application.

## Very easy to operate

The rugged membrane keypad has a smooth surface allows easy data entry. This, along with the clear structuring of the functions, ensures the device is user-friendly.

## Interfaces for secure connections

The ID7sx reliably communicates with peripheral devices in nonhazardous areas via the data interfaces and power supply unit PSU/...Ex already installed in the basic equipment. With clear dialogue capability, the device is retrofittable for up to 2 additional data interfaces for connecting to Ex-compatible barcode reader equipment, for example.

Proving its flexibility, the ID7sx also allows you to easily incorporate an I/O interface or a memory card.

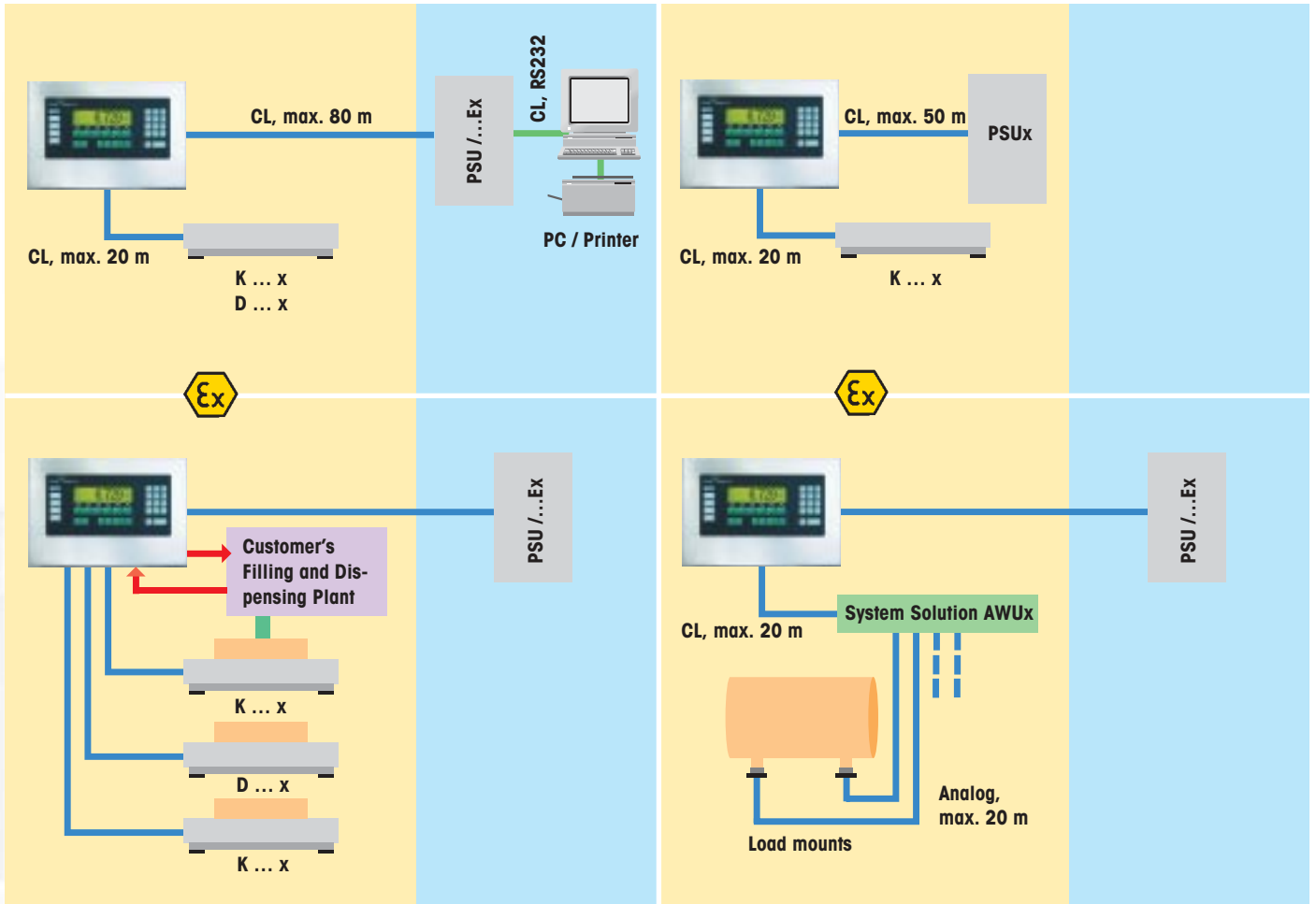


**Hazardous Area**

**Safe Area**

**Hazardous Area**

**Safe Area**



**Connection to the ideal scale**

**Table and bench scales**

Weighing ranges from 3kg/0.1g to 300kg/20g Class II and III certifiable with a resolution of up to 32000 verification scale intervals or 3 x 3000e multi-intervals.



**Pallet scales**

Weighing ranges from 600kg/100g to 3000kg/500g. Class III certifiable with a resolution of 6000 verification scale intervals.



**Low profile scales**

Weighing ranges from 300kg/50g to 1500kg/500g. Class III certifiable with a resolution of 6000 verification scale intervals. Overhand pass-through height 35mm.



**Floor scales**

Weighing ranges from 300kg/20g to 12 metric tons/2kg. Class II and III certifiable with a resolution of up to 7500 verification scale intervals or 3 x 3000e multi-intervals.



**Floor scales with raisable load plate**

Weighing ranges from 1500kg/200g to 3000kg/500kg. Class III certifiable with a max. resolution of 7500 verification scale intervals or 3 x 3000e multi-intervals.



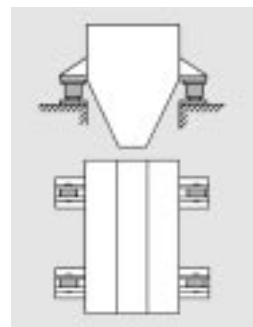
**Flexible container construction with load cells and system solution AWUx**



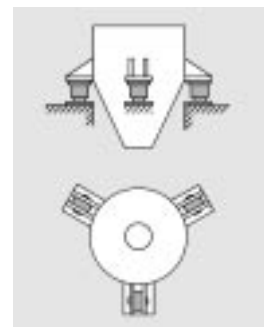
Ringmount™ weigh modules

Hermetically sealed and extremely flexible. The RWM2x weighing cells and 0970 RingWeigh modules are manufactured from stainless steel, which makes them ideal for use in wet, corrosive environments.

The wide product range offers multi-faceted solutions for tank, silo or special weighing. In connection with the AWUx system solution and the ID7sx you will always get the most precise results during the harsh production workday.



Installation example for horizontal tank/container, with 4 load mounts



Installation example for weighing container round construction with 3 load mounts



# Technical data for Application Terminal ID7sx

## Housing/Environmental conditions

### Table and wall device

Construction Desktop

### Built-in device

Construction Desktop for installation in front panel  
Material Entirely chrome-nickel steel DIN X5 CrNi 1810

Type of protection IP65/66: protected against dust and water jets

Type of protection:

– CENELEC II 2G EEx ib IIC T4  
-10°C < Ta < +40°C

– FM II 2D IP65 T55°C  
Class I, II, III DIV 1 Group: A, B, C, D, E, F, G

Certification D93-09-108

Environmental 0...40° C for accuracy class II,  
temperature limits - 10...+40° C for accuracy class III

For dimensions of all ID7sx housing types see dimension diagrams.

## Display and operation

### Display

Display size Display field 132 x 39 mm, 240 x 64 pixels

Technology Backlit LCD with graphics capability

Display data Weighing data, identification data, plaintext information, graphic information, inscription of the function keys F1...F6.

Character height Max. 25 mm

Display cover Scratch-resistant, tempered safety glass

### Keyboard

Technology Action-point membrane keypad with perceptible lift of key, audible acknowledgment

Surface Closed, smooth surface of heavy duty polyester, raised, embossed buttons

Inscription/Key design Scratch-resistant text/symbol inscription, important keys enlarged.

Key functions

- 4 keys A...D for identification data
- 6 function keys F1...F6, with function change and information keys
- 4 weighing function keys
- Numerical entry pad

Alphanumeric entry With keys F1...F6, operator controlled selection

## Basic functions

### Weighing functions

Tare compensation Subtractive, at the touch of a key

Automatic taring Automatic taring, with cut-off switch

Tare preset

- Via keyboard or interface
- 999 fixed tare memory for frequently used tare values

Tare deduction Tare addition, tare multiplication, intermediate tare

Gross select Displays gross weight at the touch of a key

Zero set Automatic or manual

Unit switching Switchable to the following weight units at the touch of a key: kg, g, lb, oz, ozt, dwf

In-motion weighing For unstable weighing samples, e.g. animal weighing, selectable cycle time and automatic printout

Stability detector Adjustable to 4 levels, with movement indicator

Weighing process adapter Adjusts the scale to the weighing process, 3 levels selectable

Vibration adapter Cushions the effect of vibrations, 3 levels selectable

Test key

- Identcode display (certification seal)
- Tests measurement accuracy (internal self-calibration) of K...x scale bases

Control mode Weight value display with increased resolution

Set points 4 independent, freely definable set points for Base, FormXP and Data ID7sx (only with 8 I/O-ID7sx interface)

### Scale connections

Standard 1 IDNet connection

Expansion Expandable to max. 3 scale connections (accessories)

Scale models MMRx scale bases D...x / K...x  
Load mounts with system solution AWUx

### Display functions

Switch-on text 20-space text, completely configurable

Tare indicator NET illuminates when tare weight is saved

DeltaTrac Analog display of dynamic measurement values, with visual marks for target value and plus/minus tolerances.  
999 DeltaTrac fixed value memory

Date/time 12- or 24-hour display, automatic calendar function, European or USA format

Information functions Recall possibility of all current weighing data, memory and identification data

Language All texts for display and data output selectable in several languages

### Identification data

Number/Digits 4 alphanumeric values, max. 30 positions

Input Via membrane keypad or interface

Designation Keys A...D with variable text field

Permanent texts 999 fixed value memory for frequently used text and identification data, 20 positions

Application pacs: see Accessories

## Interfaces

### Serial Interface Connection C1

Type CL (standard)

Operating mode Dialog or print mode for communication with peripheral devices in the nonhazardous area

### Serial Interface Connections C2–C3

Types CL or RS232 (accessories)

Operating mode Dialog capability, allowing connection to devices in the hazardous area

Expansion Max. 2

### I/O Interface

Type Discrete I/O interface with 8 inputs/8 outputs (accessories)

Operating mode Direct or indirect (via switching amplifier)  
Control of keys, cut-off switches or SPS controls in the nonhazardous area

Number Max. 1

### Memory module

Type Nonvolatile mass storage, 12 MB flash (acc.)

Operating mode Direct or indirect (via switching amplifier)  
Control of keys, cut-off switches or SPS controls in the nonhazardous area

Number Max. 1

## General data

### Certifications and standards

EU conformity CE label with declaration of conformity

Certification EU Directive 90/384/EWG; EN 45 501; OIML R76

Electromagnetic compatibility EU Directive 93/68/EWG; EN 50 081-1; EN 50 082-2; EN 61 000-6-2

Ex certification EU Directive 94/9/EG; EN 50 014; EN 50 020; EN 50 281-1

IP type of protection EN 60 529



# FormXP

## ID7sx FormXP increases the efficiency of your work.

Formulas can be quickly and easily managed – with safety – and then put into action. ID7sx FormXP – your simple link to a multi-range weighing solution! The unit's ability to connect to a number of METTLER TOLEDO scales with different readabilities and weighing ranges means that, whether you work in the harsh industrial environment or in a laboratory, formula software FormXP is the ideal solution software.

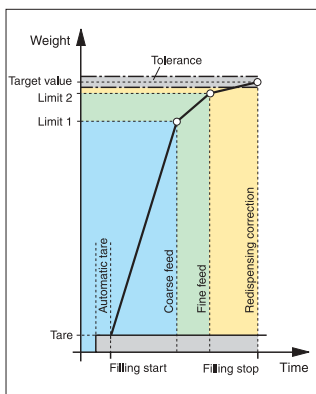
## Compounds with formulas on file

Whether you weigh a formula in one container, pour each individual component into a separate container or prepare a number of batches – FormXP software has already factored in application- and industry-specific characteristics.

# Dos

## Target weight reached, fast and precise.

Automatic and self-teaching, the ID7sx Dos ensures reliably safe industrial filling. Filters adaptable to every condition, along with separate weight determination and evaluation, also guarantees reliability.



### Learn mode

After the desired target weight is entered, the cut-off points are automatically determined by the ID7sx Dos. As a result, dispensing is exact from the beginning, preventing a loss of time and material.

### Fully automatic dispensing

When you advance from "manual operation" to the fully automatic dispensing system with ID7sx Dos, simply connect the coarse and fine stream valve to the 8 I/O-ID7sx interface - and you're ready to go.

### Secure filling

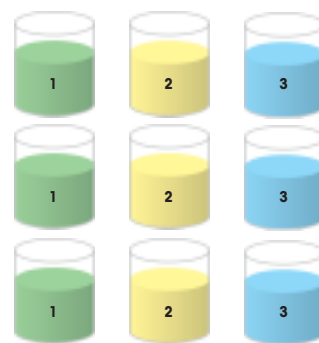
The ID7sx Dos constantly controls material flow with the help of dispensing monitoring. Many other functions, such as post-dispensing correction, correction threshold, acknowledgement, etc., ensure the safety and reliability of the dispensing system controlled by the ID7sx Dos.

### Adaptation to dispensing tasks

Connectable functions such as scale switchover, remaining quantity and filling process controls, materials equilibrium or manual correction also keep you ready for exceptional cases.



**Vertical formula weighing**  
Weighing all components into a single container



**Batch formula weighing**  
Multiple weighings of separate components into individual containers



**Horizontal formula weighing**  
Weighing each component into a separate container

## Trouble-free interconnection of processes

From recording raw materials to processing formulas - FormXP ensures user-friendly operation. Comprehensive, linked databases also offer the opportunity to supply information such as work instructions, quantity and tolerance information during the formula process.

## Simple management of your data

Edit message, component and formula data with ease using "FormtoolIXP" PC software. A simple click of the mouse and you're connected directly to the ID7sx from your PC.

# Data

## Data

- A = Art  
E = Mach
- B = Tare  
F = Param.
- C = Test  
G = Attribut
- D = Print  
H = Statist.

### Small cost, large benefit...

Comfortable operation allows computer-assisted control of several weighing stations at the same time – and without the need for costly programming.

### Industrial data processing made easy.

Reliably precise data are the be-all and end-all of every modern industrial process that aims to be efficient and profitable. Together with the ID7sx data application software, the ID7sx terminal registers and records the desired relevant data in conjunction with your host computer.

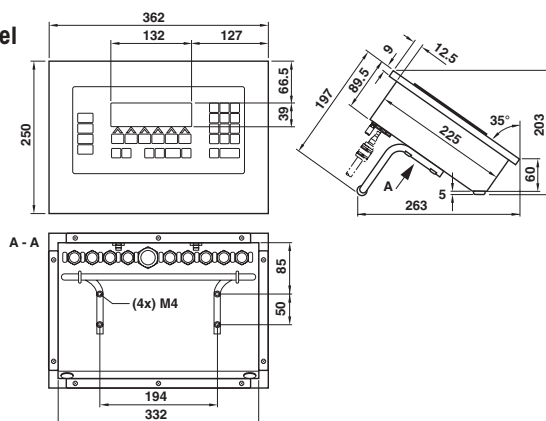
Seitenverkürzung

## Technical data for power supply units

| Model                       | PSU/...Ex                            | PSUx/230 V                   | PSUx/120 V                       |
|-----------------------------|--------------------------------------|------------------------------|----------------------------------|
| Power supply                | 100 - 240 V AC, 50/60 Hz             | 230 V AC, 50 Hz              | 120 V AC, 60 Hz                  |
| IP type of protection       | IP65                                 | IP65                         | IP65                             |
| Temperature range           | -10°C ... + 40°C                     | -10°C ... + 40°C             | -10°C ... + 40°C                 |
| Type of protection          |                                      |                              |                                  |
| - CENELEC                   | II (2) G, D [EEx ib] IIC             | II 2 G, D EEx em [ib] IIC T4 | -                                |
| - FM                        | AIS Class I, II, III DIV 1 Group A-G | -                            | Class I, II, III DIV 1 Group A-G |
| - CSA                       | -                                    | -                            | Class I, II, III DIV 1 Group A-G |
| Power supply cable (m)      | 2,4 (M16 x 1,5)                      | 1,9 (M16 x 1,5)              | - (1/2" NPT)                     |
| Cable for ID7sx (m)         | 10, max. 80                          | 5, max. 50                   | 5, max. 50                       |
| Dimensions [w x d x h] (mm) | 426 x 268 x 117                      | 278 x 120 x 85               | 266 x 120 x 85                   |
| Scale slots                 | 3, max. connections: 3               | -                            | -                                |
| Interface slots             | 3, max. connections: 3               | -                            | -                                |

### Dimension diagram (dimensions in mm)

#### ID7sx bench model



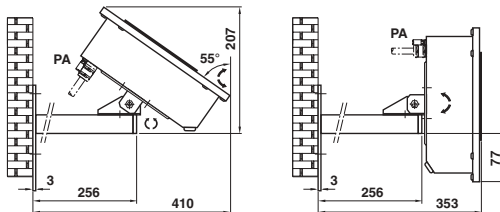
Power Supply Unit  
PSU/...Ex



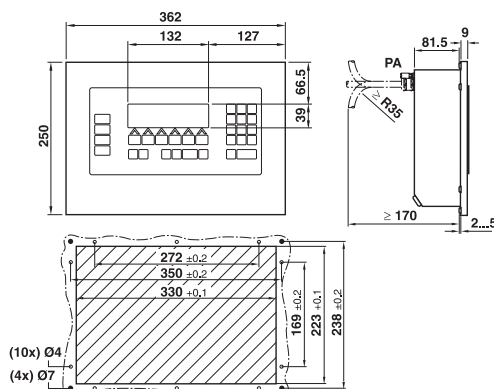
PSUx/230 V

PSUx/120 V

#### ID7sx wall model



#### ID7sx panel mount model



### Accessories Application Terminal ID7sx

|  |   |            |
|--|---|------------|
| <b>Scale connections</b>   |   | Order no.  |
| IDNet-ID7sx  | Scale connection for IDNet scales   | 22 008 443 |
| <b>Serial interfaces</b>   |   |            |
| CL20mA-ID7sx   | CL20mA interface  | 22 008 444 |
| RS232-ID7sx  | RS232 interface   | 22 008 445 |
| <b>Digital I/O interfaces</b>  |   |            |
| 8 I/O-ID7sx  | 8 input / 8 output interface  | 22 008 446 |
| <b>Memory module</b>   |   |            |
| Memory ID7sx   | Memory for approx. 700,000 metrologically relevant records. Replaces the alibi printer with certifiable applications. | 22 008 447 |
| <b>Wall bracket</b>  |   |            |
| For attaching the application terminal to the wall. Complete with mounting screws.   |   |            |
| - stainless steel design   |   | 00 504 130 |
| <b>Stand base</b>  |   |            |
| For flexible installation of the floor stand.  |   |            |
| - stainless steel design   |   | 00 503 701 |
| <b>Pillar support</b>  |   |            |
| For mounting the application terminal on the bench stand for KB and KCC scale bases. |   |            |
| - stainless steel design   |   | 00 504 128 |

### Sales and Service: