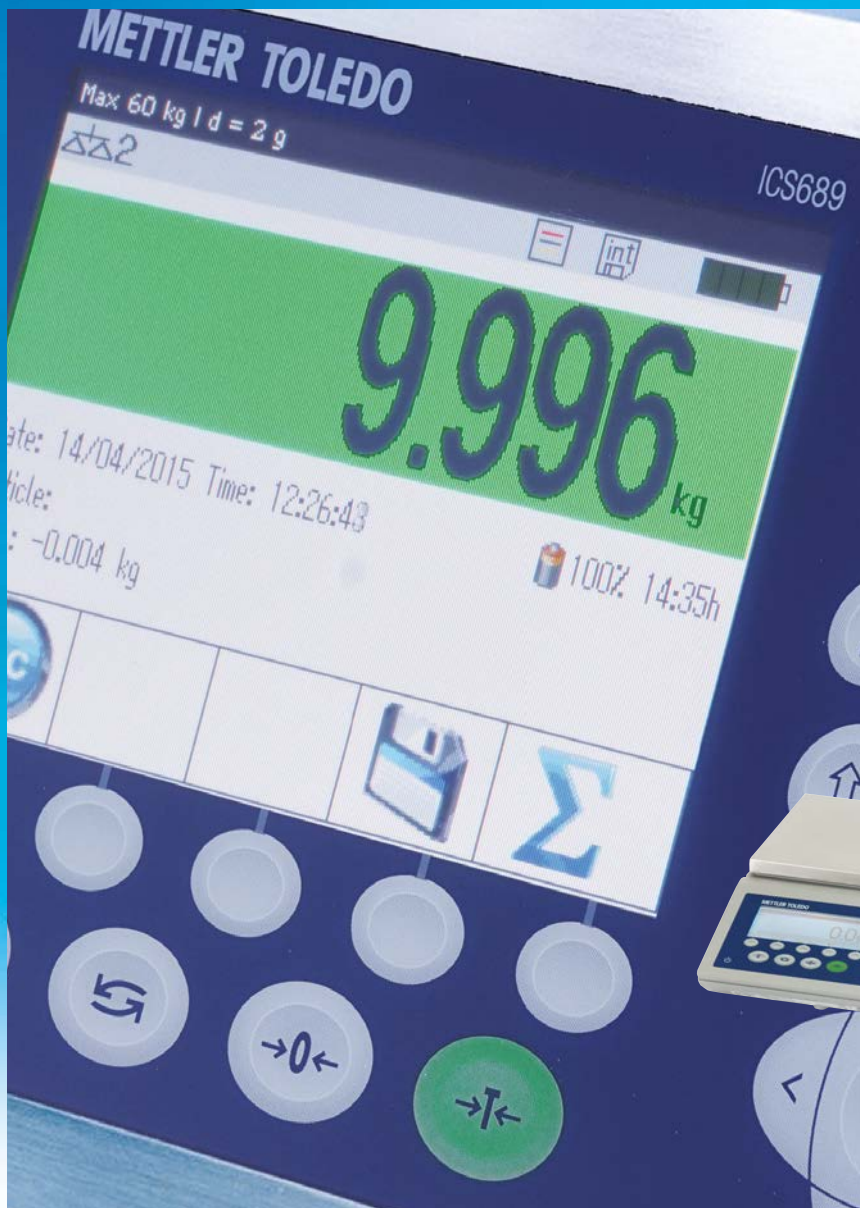


# Compact Weighing Systems



## Industrial Compact Systems The ICS4 and ICS6 Family

Modular and Versatile

Fast and Precise

Robust and Reliable

For Dry and Wet Environments



## Tailored Solutions for Your Industrial Applications

**METTLER TOLEDO**

# One Family Versatile Use

The ICS product family is a highly modular product range consisting of a large variety of terminals and platforms to best fulfill your specific requirements. From simple weighing to integrated solutions with multiple components including third party devices – a wide range of configurations are possible.

The right solution tailored to the specific needs of your application in any industrial environment.

ICS425



ICS465



ICS685



Filling, Classifying,

Counting, Over/Under-Checkweighing,

Basic Weighing

Dry, Dusty

**Manufacturing**

### Maximum Versatility

The ICS6 Excellence level terminals enable you to manage complex systems with a high degree of flexibility and easy setup. With the ability to control up to four platforms and a wide range of interface options, your investment will help maximize profits while providing long-life, high up-time quality weighing equipment.

### Highest Throughput

The ICS4 Standard level scales are available with a variety of keypad and housing options to allow a customized solution perfectly tailored to your specific weighing tasks. The software supports a range of applications including counting, over/under checkweighing, dynamic weighing, and portioning. The graphic display with colorWeight® feature ensures high throughput with easy-to-read error free results.

### Reliable Weighing

Numerous workplaces in different industrial market segments require only basic weighing solutions. Choose the easy-to-use basic models of the ICS family which provide all the necessary functions, proven industrial quality and reliable weighing results day in and day out.



ICS689

ICS469

ICS429

Data/User Management

Portioning

ng

Wet, Harsh, Hygienic  
**Food, Chemical, Pharmaceutical**

**Application**  
**Environment**  
**Industry**

# Optimize Your Processes

## Meet Your Toughest Requirements

The ICS scale family is designed to integrate easily into your weighing process. It offers a broad range of solutions for your checkweighing, counting or quality assurance applications. Make your choice, select your optimal combination and raise your throughput, increase process security and improve your product and delivered quality.

### Reliable Counting



When verifying inventory, packaging or confirming production quantities, every part is important. METTLER TOLEDO counting solutions ensure that only the right number of parts are delivered to the customer. The ICS scale family provides solutions to make parts-counting applications fast, accurate and cost effective.

### Portioning and Classifying



The ICS product family supports fast and efficient portioning or classifying processes. Depending on the preferred working procedure the operator can choose between different modes. Whether filling small containers placed on the platform, or using the powerful take away mode feature for filling without a keystroke, the ICS scales help to speed up productivity up to 20%.

### Quality Checks by Weight



When product integrity matters, check-weighing is a fast and cost-effective quality assurance method. Whether you need to detect missing components of assemblies or whole shipments, control the completeness of castings or verify the amount of lubricants applied, the ICS scales provide clear information as to whether the quality specifications are met and the shipment is complete.



## Flexible and Mobile

All ICS4 and ICS6 models can be equipped with WLAN technology. In combination with an optional built-in rechargeable battery, the scales can easily be moved and placed where they best fit into the process. The state of the art Lithium-Ion battery technology ensures many hours of continuous operation.



# High Throughput and Reliable Processes

**Speed counts in today's competitive environment. Manufacturers need not only to deliver error free, high-quality products, but to produce with high throughput. With the ICS4 and ICS6 Industrial Compact Scales you can achieve both. Benefit from an intuitive user menu with easy-to-use weighing and counting applications and superior weighing performance for fast and accurate results.**

## Increase Speed



While counting pieces or checking weighing completeness using a weighing system, operators typically have to concentrate intensely on the terminal display which slows down their process. The colorWeight® function clearly indicates, using different colors, when the target is reached. This eases the operator's concentration, speeds up the task and saves time and money.

## Avoid Errors



Intuitive user menus and efficient user prompting prevent operator errors and fatigue during repetitive tasks. Configurable softkeys allow fast access to frequently used functions. Users are guided through the weighing and counting tasks in different languages. Set user profiles and deactivate unused hardkeys to make operation traceable, secure and error free.

## Ensure Accuracy



ICS compact scales feature high-performance weighing technology. This includes MonoBloc® electromagnetic force-compensation load cells, built for long service life, extreme ruggedness and outstanding accuracy. These high-precision load cells deliver accurate results fast and reliable measurements day in and day out for increased productivity and minimum downtime.



## colorWeight® Speeds up production

Save time and money with the smart colored display making weighing applications such as completeness checks, portioning, classifying and counting simple, fast and less error prone. The colorWeight® display indicates at a glance if weight or count is below, within or above target.

## colorWeight®

**101** PCS

above target

**100** PCS

ok

**99** PCS

below target

# Resist Wet and Harsh 24/7 for Fast and Complete Washdown

From light wet to harsh washdown conditions - it doesn't matter. The stainless steel platforms and terminals of the ICS4 and ICS6 series provide a flexible and rugged solution for a wide range of weighing tasks. All parts have been engineered and manufactured according to the latest hygienic design guidelines resulting in a construction without closed cavities or sharp edges and with minimum horizontal surfaces. This allows easy, fast and efficient cleaning.

## Designed for Harsh Conditions



Equipment used in hygienic sensitive areas such as food production must be designed and installed according to sound sanitary principles. The ICS689 product line is designed using the latest hygienic design guidelines including EHEDG or NSF. This includes a double sealed, IP69k protected terminal.

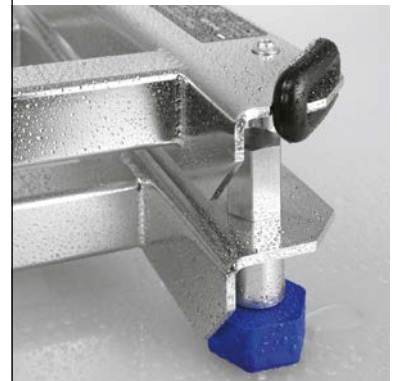
EHEDG: European Hygienic Engineering & Design Group NSF: National Sanitation Foundation

## Configurable to your Environment



Whether your processes require only wet wiping or heavy washdown procedures, the appropriate load cell according to your cleaning requirements can be chosen. Selections include an aluminum potted load cell with IP65 protection up to a hermetically sealed stainless steel load cell (IP68/IP69k) for permanently wet environments.

## Open and Rugged Design



The stainless steel construction is built to withstand wet and harsh environments. Designs feature seamless welded construction. Optimally placed overload stops provide the best possible protection against load cell damage. This assures long service life and up-time of your scale and reduces the total costs of ownership.





## Built for Efficient Cleaning

IP69K protected terminals and hermetic sealed loadcells engineered in conjunction with platform designs conforming to the latest hygienic guidelines, enable efficient and easy cleaning access to all areas.

- Stainless Steel Construction
- No Open Threads
- Smooth Surface Finish
- Minimized Horizontal Surfaces
- Full Penetration Welding



IP69k

EHEDG NSF

# Integrated Data Handling

## Fast, Reliable and Traceable

**Accurate weighing is important, but so is weighing data integration. Easily manage articles, materials and related parameters on the scale or a connected computer. Capture weighing results and other relevant data on the scale, print them on customizable labels or securely transfer them to your data management system to document and monitor your process.**

### **Proven Traceability**

Whether legally required or specified by customers, today traceable processes are standard. Ensure full traceability of your weighing process with a comprehensive set of features such as

- Identification of articles and materials via barcode reader
- Definition of tolerances and tare values in an article database
- Secure storage of weighing data and related parameters
- Accurate batch identification with customizable label printing



### Easy Connectivity

Connect your scale via Ethernet, WLAN or USB for easy data transfer and connect a barcode reader (via RS232 or USB) for secure material identification.



### Customizable Label Printing

Customize printing labels to meet customer and industry requirements with the easy-to-use label editor in the DatabICS software. Ensure traceable printing of weighing or counting results and process identification.



### Real-time Monitoring

Visualize your weighing results from anywhere in real-time with the software Collect+. Capture statistical quality control data with FreeWeigh. Net PC software.



Database		
Article	Description	Article info 1
Screu 1	M5	
Screu 2	M6	
Screu 3	M8	
Screu 4	M10	

### Powerful Database

Store your articles and materials in the scale-embedded database together with relevant parameters such as target weight or count, tolerances, tare values or average piece weights.



### Secure Data Handling

Weighing data including date/time, article ID or operator ID, is securely stored in a protected memory. Manage access to the scale and weighing data with multi-level user access rights.



### Efficient Data Management

Manage articles and related data directly on the scale or use the PC software DatabICS to easily set-up and manage your article database centrally for multiple scales.

# Safe and Accurate Weighing In Hazardous Areas

**Three considerations are important in potentially explosive environments: Is the weighing process safe and compliant? Does it deliver accurate results? And can it be handled efficiently? The intrinsically safe ICS4\_6x-Series combi bench scales deliver all three aspects and ensure safe, accurate and efficient weighing in hazardous areas.**

## Full Protection



The ICS4\_6x-Series combi bench scales enable safe and efficient operations in hazardous areas classified as Zone 1/21 and Division 1. The intrinsically safe product design ensures the highest level of safety and compliance with the latest hazardous area requirements. In addition, the scales feature a compact design and can be easily maintained.

## Highest Accuracy



High-precision weighing in a hazardous area is a challenge. The ICS4\_6x-Series enable industry leading accuracy of up to 750.000d in Zone 1/21, Division 1. When tolerances are tight, these scales deliver the precision to ensure consistently accurate results without compromising safety.

## Best Usability



The scales can be flexibly configured to ensure ergonomic and efficient operation. An intuitive operating philosophy provides easy and secure handling of even complex weighing applications in the hazardous area. The colorWeight® functionality of the ICS466x improves speed and control of weighing tasks by immediately indicating if a result is within tolerance.



## Proven Compliance

The ICS4\_6x-Series are approved according global and local standards. IECEx, ATEX and FMC+US are approvals for use in hazardous areas classified as Zone 1/21 and Division 1. Regular audits of the METTLER TOLEDO production facilities by the certification bodies verify that standards are applied and safety is ensured.



# Compact Weighing Systems

## For Dry and Dusty Environments

The ICS4\_5 and ICS685 compact scales are the perfect fit for your applications in dry or dusty environment. Whether you look for a scale for simple weighing, advanced counting or quality control applications you will find the perfect solution for your specific needs.

### 1 Choose an Application / Terminal



Model	ICS425	ICS435	ICS445	ICS465	ICS685
Applications					
Color TFT display					•
colorWeight®				•	•
Configurable soft keys			•	•	•
Numeric (n) / alphanumeric (a) keypad		n		n	a
Additional interface options	1	1	1	1	3
Attachable platforms	1	1	2	2	4*

\* Maximum 2 analog, or 2 IDNet platforms respectively 1 analog plus 1 IDNet

Basic Weighing

Counting

Over/Under Checkweighing

Filling/Dosing

Classifying

### General Specifications

Resolution for analog platforms**	300,000d; 7,500e, OIML/ 10,000d, NTEP
Display	<b>ICS4_5:</b> LCD liquid crystal graphical display with backlighting <b>ICS685:</b> Color TFT display 320 x 240 pixels
Keypad	Tactile-touch membrane keypad (PET), scratch-resistant material
Housing	Die-cast aluminium
Protection	IP65
Power	100–240 VAC; optional battery 12 V/2.5 A
Standard Interfaces	1 RS232

\*\* for digital platforms, the resolution is defined by the respective platform

### 2 Interface Options / Accessories

<b>Optional Data Interfaces</b>	RS232, RS422/485, USB device/host, Ethernet, WLAN, Digital I/O (4 Inputs + 4 Outputs)
<b>Optional Scale Interfaces</b>	digital SICSpro, digital IDNet, analog (max. 2 analog, or 2 IDNet resp. 1 analog + 1 IDNet)
<b>Accessories</b>	Choose from various accessories such as wall bracket, columns/stands, roller tops, printers, battery packs, relays for digital I/O, barcode scanners and much more

### 3 Combine with the best fit platform for dry environment

#### Standard Resolution, ICS4\_5/685 Compact Scales



PBD555 Platform Size (Loadplate size)	Capacity										
	0.6kg	3kg	6kg	12kg	15kg	30kg	35kg	60kg	120kg	300kg	600kg
SM 206x247 (200x240 mm)		•	•								
LA 247x357 (240x350 mm)					•		•				
Readability approved		0.5g	1g		2g		5g				
Readability not approved		0.05g	0.1g		0.2g		0.5g				
Minimum Reference Weight*		2.5g	5g		12.5g		30g				

Resolution	OIML Class III, up to 7'500e	(not approved up to 75'000d)
Environment, IP Protection	Dry, IP65 (optional)	

#### High Precision, ICS4\_5/685 Compact Scales



PBK785 Platform Size (Loadplate size)	Capacity										
	0.6kg	3kg	6kg	12kg	15kg	30kg	35kg	60kg	120kg	300kg	600kg
XS 206x247 (130x160 mm)	•	•	•								
SM 206x247 (200x240mm)				•							
LA 247x357 (240x350 mm)					•		•				
Readability approved	0.01g	0.1g	0.1g	1g		1g	1g				
Readability not approved	0.001g	0.01g	0.01g	0.1g		0.1g	0.1g				
Minimum Reference Weight*	0.05g	0.5g	0.5g	0.5g		5g	5.8g				

Resolution	OIML Class II, 60'000e	(not approved up to 610'000d)
Environment, IP Protection	Dry, IP65 (optional)	

#### High Capacity, ICS4\_5/685 Compact Scales



PBD655 Platform Size	Capacity										
	0.6kg	3kg	6kg	12kg	15kg	30kg	35kg	60kg	120kg	300kg	600kg
A 240x300 mm			•	•							
BB 300x400 mm						•		•			
B 400x500 mm								•	•		
BC 500x650 mm								•	•	•	
CC 600x800 mm								•	•	•	•
Readability approved			1g	2g		5g		10g	20g	50g	100/200g <sup>1)</sup>
Readability not approved			0.1g	0.2g		0.5g		1g	2g	5g	10g
Minimum Reference Weight*			5g	10g		25g		50g	100g	250g	500g

<sup>1)</sup>2x3000e Multi Range /



















Approved Resolution	OIML Class III, 6'000e	(not approved up to 60'000d)
Environment, IP Protection	Dry, IP65 (standard)	

\* For counting applications; process tolerance 1%; probability 95.4%

# Your Customized Solution Wet and Harsh Environments

The ICS4\_9 and ICS689 compact systems are the perfect solution for any application in wet and harsh environment. The rugged stainless steel design of all terminals and platforms with high ingress protection guarantees long lifetime and allows frequent and intensive cleaning.

## 1 Choose an Application / Terminal

					
Model	ICS429	ICS439	ICS449	ICS469	ICS689
Applications			  	  	    
Color TFT display					•
colorWeight®			•	•	•
Five configurable soft keys			•	•	•
Numeric (n) / alphanumeric (a) keypad		n		n	a
Additional interface options	1	1	1	1	3
Attachable platforms	1	1	2*	2*	4**

\* Connection of a second scale to ICS449 and ICS469 is limited to SICSpro- or SICS-interface  
 \*\* Maximum 2 analog, or 2 IDNet platforms respectively 1 analog plus 1 IDNet



## General Specifications

Resolution for analog platforms***	300,000d; 7,500e, OIML/10,000d, NTEP
Display	<b>ICS4_9:</b> LCD liquid crystal graphical display with backlighting <b>ICS689:</b> Color TFT display 320 x 240 pixels
Keypad	<b>ICS4_9:</b> Tactile-touch membrane keypad (PET), scratch-resistant material <b>ICS689:</b> Piezo keypad scratch-resistant material
Housing	Stainless steel 1.4301, AISI 304
Protection	IP69k
Power	100–240 VAC; optional battery 12 V/2.5 A
Standard Interfaces	1 RS232

\*\*\* for digital platforms, the resolution is defined by the respective platform

## 2 Interface Options / Accessories

<b>Optional Data Interfaces</b>	RS232, RS422/485, USB device/host, Ethernet, WLAN, Digital I/O (4 Inputs + 4 Outputs)
<b>Optional Scale Interfaces</b>	digital SICSpro, digital IDNet, analog (max. 2 analog, or 2 IDNet resp. 1 analog + 1 IDNet)
<b>Accessories</b>	Choose from various accessories such as wall bracket, columns/stands, roller tops, printers, battery packs, relays for digital I/O, barcode scanners and much more



### 3 Combine with the best fit platform for wet and harsh environments

#### Economic Solutions, ICS429/439/449/469 Combi Bench Scales



PBA226, 426, 429		Capacity								
Platform Size	0.6kg	3kg	6kg	15kg	30kg	60kg	120kg	150kg	300kg	600kg
A 240 x 300 mm		•	•	•						
BB 300 x 400 mm					•	•				
B 400 x 500 mm					•	•				
QA 229 x 229 mm		•	•							
QB 305 x 305 mm				•	•	•				
Readability approved		1g	2g	5g	10g	20g				
Readability not approved		0.2g	0.5g	1g	2g	5g				

Resolution	OIML Class III, 3'000e			(not approved Resolution 15'000d)
Environment, IP Protection	Wet, IP65	IP65/IP67	IP68, IP69k	(three different options)

#### Hygienic Design, ICS689 Combi Bench Scales



PBA430		Capacity								
Platform Size	0.6kg	3kg	6kg	15kg	30kg	60kg	120kg	150kg	300kg	600kg
A 240 x 300 mm		•	•	•						
BB 300 x 400 mm					•	•				
B 400 x 500 mm					•	•		•		
BC 500 x 650 mm						•		•	•	
CC 600 x 800 mm						•		•	•	•
QA 229 x 229 mm			•							
QB 305 x 305 mm				•	•	•				
QC 457 x 457 mm						•		•		
Readability approved		1 g <sup>1)</sup>	1/2 g	2/5 g	5/10g	10/20 g		20/50 g	50/100 g	100/200 g
Readability not approved		0,1 g	0,2 g	0,5 g	1 g	2 g		5 g	10 g	20 g

Resolution	OIML Class III, 2x3'000e dual range			(not approved Resolution up to 30'000d)
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Environment, IP Protection	Wet IP69k EHEDG
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<sup>1)</sup> single range 3000e

#### High Precision, Bundle ICS Terminals with PBK989



PBK9 Series		Capacity								
Platform Size (Load Plate Size)	0.6kg	3kg	6kg	15kg	30kg	60kg	120kg	150kg	300kg	600kg
XS 210x250 (130x160 mm)	•									
A 275x345 (240x300 mm)		•	•							
AB 280x350 mm				•	•	•				
B 400 x 500 mm						•	•			
CC 600 x 800 mm								•	•	
Readability approved*	0.01g	0.1g	0.2g	0.5g	1g	2g	5g	5g	10g	
Readability not approved*	0.001g	0.005g	0.01g	0.02g	0.05g	0.1g	0.2g	0.2g	0.5g	

\*max. readability/resolution, other resolutions see datasheet

Resolution	OIML Class II, up to 30'000e* (not approved Resolution up to 750'000d*)		
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Environment, IP Protection	Wet, IP66, IP68
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# Compact Scales

## For Hazardous Environments

The ICS4\_6x-Series combi bench scales are specifically designed for safe and accurate performance in potentially explosive environments. The scales are approved for use in hazardous areas classified as Zone 1/21 and Division 1. Select the right solution for your weighing application:

### General specification Terminal

Hazardous Area Approval	Zone 1/21, Division 1
Resolution for analog platforms	300,000d; 10,000e OIML / 10,000d NTEP
Display	LCD liquid crystal graphical display with backlighting
Keypad	Tactile-touch membrane keypad (PET), scratch resistant material
Housing	Stainless steel 1.4301, AISI 304
Protection	IP65
Power	Either 120V or 230V via APS768x power supply
Standard Data Interface	Intrinsically safe RS232
Optional Data Interfaces	1 RS422/485 or CL20mA via ACM200 communication module
Accessories	Choose from accessories such as wall bracket, columns/stands and printer (safe area)

### High Precision, ICS426x Combi Bench Solution

Applications	Basic Weighing
Attachable Platforms	1 digital weighing platform



### High Precision, Bundle ICS Terminals with PBK989

PBK9 Series Platform Size (Load Plate Size)	Capacity									
	0.6kg	3kg	6kg	15kg	30kg	60kg	120kg	150kg	300kg	600kg
A 275x345 (240x300 mm)		•	•							
AB 280x350 mm				•	•	•				
Approved Readability*		0.1g	0.2g	0.5g	1g	2g				
Recommended Readability (min.)*		0.005g	0.01g	0.02g	0.05g	0.1g				

\*max. readability/resolution, other resolutions see datasheet

### Match the ICS466x to Your Requirements in Hazardous Areas

Applications	Basic Weighing, Over/Under Checkweighing, Over/Under, Filling/Dosing
Attachable Platforms	2 digital platforms or one analog and one digital platform
Features	colorWeight®, 5 configurable soft keys, alphanumeric keypad



## Economic Solutions, ICS466x Combi Bench Scales



PBA426x/PBA429x		Capacity								
Platform Size	0.6kg	3kg	6kg	15kg	30kg	60kg	120kg	150kg	300kg	600kg
A 240 x 300 mm		•	•	•						
BB 300 x 400 mm					•	•				
B 400 x 500 mm					•	•				
QA 229 x 229 mm		•	•							
QB 305 x 305 mm				•	•	•				
Approved Readability*		1g	2g	5g	10g	20g				
Recommended Readability (min.)*		0.2g	0.5g	1g	2g	5g				

Resolution	OIML Class III, 3'000e	(not approved Resolution 15'000d)
Environment, IP Protection	Wet, IP65	IP65/IP67 IP68, IP69k (three different options)
Ex Zone	Zone 1/21, Division 1	

## Hygienic Design, ICS466x Combi Bench Scales



PBA430x		Capacity								
Platform Size	0.6kg	3kg	6kg	15kg	30kg	60kg	120kg	150kg	300kg	600kg
A 240 x 300 mm		•	•	•						
BB 300 x 400 mm					•	•				
B 400 x 500 mm					•	•		•		
BC 500 x 650 mm						•		•	•	
CC 600 x 800 mm						•		•	•	•
QA 229 x 229 mm			•							
QB 305 x 305 mm				•	•	•				
QC 457 x 457 mm						•		•		
Approved Readability*		1 g <sup>1)</sup>	1/2 g	2/5 g	5/10g	10/20 g		20/50 g	50/100 g	100/200 g
Recommended Readability (min.)*		0,1 g	0,2 g	0,5 g	1 g	2 g		5 g	10 g	20 g

Resolution	OIML Class III, 2x3'000e dualrange	(not approved Resolution up to 30'000d)
Environment, IP Protection	Wet IP69k	
Ex Zone	Zone 1/21, Division 1	

1) single range 3000e

## High Precision, ICS466x Combi Bench Scales



PBK9 Series		Capacity								
Platform Size (Load Plate Size)	0.6kg	3kg	6kg	15kg	30kg	60kg	120kg	150kg	300kg	600kg
A 275x345 (240x300 mm)		•	•							
AB 280x350 mm				•	•	•				
B 400 x 500 mm						•	•			
CC 600 x 800 mm								•	•	
Approved Readability*	0.01g	0.1g	0.2g	0.5g	1g	2g	5g	5g	10g	
Recommended Readability (min.)*	0.001g	0.005g	0.01g	0.02g	0.05g	0.1g	0.2g	0.2g	0.5g	

Resolution	OIML Class II, up to 30'000e*	(not approved Resolution up to 750'000d*)
Environment, IP Protection	Wet, IP66, IP68	
Ex Zone	Zone 1/21, Division 1	

\*max. readability/resolution, other resolutions see datasheet

# A Tailored Service Offering Ensures Compliance and Reliability

From evaluating your needs to select the right scale, through to daily routine operation, our Sales & Service Team can accompany you every step of the way. The METTLER TOLEDO Good Weighing Practice approach GWP® ensures excellent performance, maximum uptime and full compliance with the norms and standards relevant to your industry.

## Evaluation and selection

Our GWP® Recommendation service helps you select the right scale according to your specific process and quality requirements.

## Installation

We document the installation and qualification of your scale in accordance with the relevant industry regulations. Operator training following installation leads to improved productivity.



## Calibration

Scale calibration is at the core of accurate weighing results. Each calibration certificate declares the scale's minimum weight and measurement uncertainty.

## Routine operation

GWP® Verification provides clear guidance for performance verification of your scale to save you time and money.

► [www.mt.com/gwp](http://www.mt.com/gwp)

[www.mt.com/bench-scales](http://www.mt.com/bench-scales)

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