

Industrial Bench Scales



BBA436/BBA439 Scales

Modular and Versatile

Ergonomic Design

Robust and Reliable

Intuitive Touch Interface



Durable Benchtop Weighing
Simplified Touchscreen Operation

METTLER TOLEDO

BBA436/BBA439 Bench Scales

Built for Washdown Environments

The BBA436 and BBA439 incorporate highly sought-after features to minimize contamination risks and maximize long-term weighing performance. The platforms' low surface roughness and ingress protection enable rapid operation and easy cleaning, making them ideal for wet and washdown environments.

► www.mt.com/BBA4-BBD6

Hygienic Design

The open, sturdy frame and enclosure design provides easy access to all parts of the construction to improve cleaning efficiency and minimize contamination risk.

Accuracy Protection

Optimally placed and independently adjusted overload stops deliver a high level of protection against load cell damage to give you confidence in your scale's accuracy over time.

High Durability

The electropolished, fully stainless-steel construction is designed to withstand harsh environments to protect equipment reliability and longevity.

5" Color Display

Minimize training time, avoid operator fatigue, and reduce human errors with clear, highly visible prompts and results

Capacitive Touchscreen

Benefit from higher sensitivity and optimized touch algorithms that allow for precise touch, light touch, timely response, and smooth sliding, even when you are wearing gloves.

colorWeight® Functionality

Speed up weighing processes and minimize waste with the simple three-color display system that confirms results at a glance.



Intuitive User Interface

Leverage familiar features like toggle, time picker, and the brightness slider to control the system settings like your smartphone.

Optional Hygienic Kit

To further reduce the risk of contamination, this platform series offers an optional hygienic kit, containing leveling feet and overload stops without open threads so water and residue have no place to collect and hide.



BBA436 and BBA439 with IND400 provides visibility into your operation:



Easy Integration with Cloud and ERP Systems

Access and share data on inventory management, quality control, and other production performance with connectivity via Ethernet, serial, USB, or WiFi to your MES / ERP systems.



Connectivity for Seamless Communication

Easily exchange data between devices including printers, barcode scanners, or other peripherals, and integrate IND400 into existing processes with connectivity via Modbus RTU or Modbus TCP.



Designed and Tested for Cybersecurity

IND400's rigorous cybersecurity testing and low-risk verification report demonstrate our commitment to protecting customer privacy and transaction data. Unauthorized activities can be identified quickly, helping to prevent tampering or flag potential data breaches.

Make Data-Driven Decisions Connectivity Delivers Visibility

Data is your business's most critical asset, as it is the foundation of Lean operations and innovative practices. IND400's rich communication interfaces facilitate data sharing from your manual processes into the overall enterprise system, forming a digital closed loop where your information is securely accessible where and when you need it.

Be Audit-Ready Any Time

Complete, Reliable Reporting

Simplify compliance with on-demand, verifiable documentation and reporting, supported by IND400's data integrity feature bundle. Audit trails track every action and change made within the indicator, attributing them to specific users to promote accountability and transparency, making it clear who performed each action and when.

Bench scales with IND400 support data integrity per ALCOA++ principles:

A

Attributable

The data integrity features ensure that every transaction is recorded together with a user account as well as date and time. Users can be assigned to customizable permission groups, and password policies ensure the security of user accounts.

L

Legible

IND400 can store up to 300,000 weighing records and is equipped with electronic signature functionality, allowing for weighing data to be reviewed directly on the indicator.

C

Contemporaneous

IND400 also supports NTP time-server functionality, allowing it to synchronize with the factory time server to ensure accurate timestamping of every weighing log. A high-performance internal time chip is also built in to reduce the frequency of manual time setting in situations where there is no network available.

O

Original

The built-in SHA-256 hash chain encryption policy ensures that source data cannot be tampered with. Encrypted PDF and CSV file exports are also available to ensure secure archival of data as certified true copies.

A

Accuracy and Traceability

The comprehensive audit trail logging feature ensures that all user actions relating to data generation, review, and deletion are recorded. These operations are time-stamped and tracked for audit purposes, ensuring the integrity and security of the data.



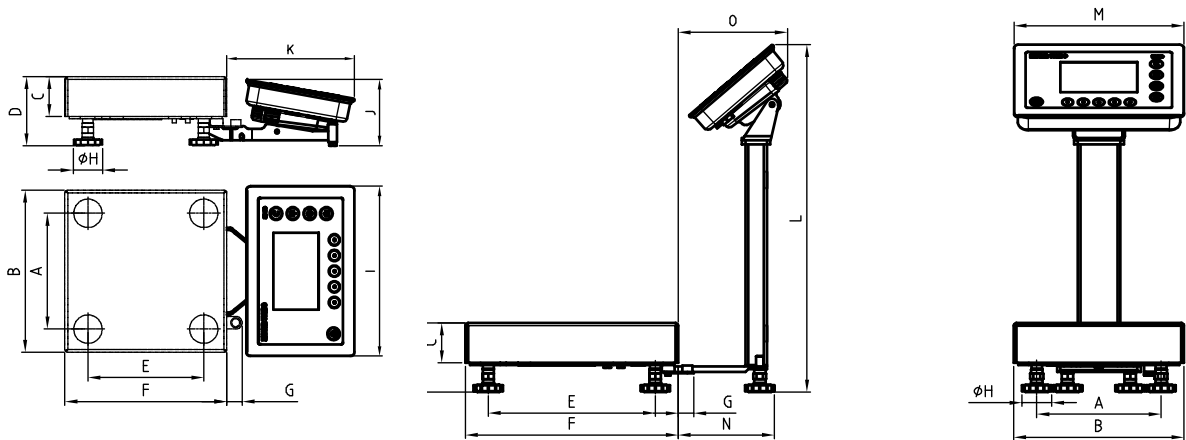
Technical Specifications - Bench Scale

BBA436 and BBA439 – Standard Configurations

Metric (kg/m)										
Model	Platform Size	Maximum Capacity								Column Height
BBA436/BBA439 QA	228*228 [mm]	3kg	6kg	-	-	-	-	-	-	330 mm
BBA436/BBA439 A	240*300 [mm]	3kg	6kg	15kg	-	-	-	-	-	330 mm
BBA436/BBA439 QB	305*305 [mm]	-	-	15kg	30kg	60kg	-	-	-	330 mm
BBA436/BBA439 BB	300*400 [mm]	-	-	-	30kg	60kg	-	-	-	330 mm
BBA436/BBA439 B	400*500 [mm]	-	-	-	30kg	60kg	150kg	-	-	660 mm
BBA436/BBA439 BC	500*650 [mm]	-	-	-	-	60kg	150kg	300kg	-	900 mm
BBA436/BBA439 CC	600*800 [mm]	-	-	-	-	60kg	150kg	300kg	600kg	900 mm

Notes: load cell cable length has option 2.5m or 5m cable for BBA439; Standard cable length for BBA436 (QA/A is 1.5m; QB/BB is 2m; B/BC/CC is 3m).

BBA436 and BBA439 – Bench Scale Dimensions



Model	Platform Dimensions									Front Mount Installation			Column Installation			
Dimensions	mm	A	B	C	D min.	E	F	G	H	I	J	K max.	L max.	M	*N max.	*O max.
QA	mm	163	228	56	85.6	163	228	21	42	239	93	180	489	239	135	154
A	mm	175	240	56	85.6	235	300	21	42	239	93	180	489	239	135	154
QB	mm	240	305	57	96.6	253	305	18	42	239	93	180	489	239	135	154
BB	mm	235	300	57	96.6	335	400	18	42	239	93	180	489	239	135	154
B	mm	335	400	59	100.1	435	500	18	42	No front mount configuration			809	239	135	154
BC	mm	437	500	73	106.8	584	650	17	42				1053	239	135	154
CC	mm	503	600	85	128.3	724	800	18	42				1053	239	135	154

*Non-hygienic kits dimension. For hygienic kits, the height of the platform increases 12 mm.

* O dimension will refer to different indicator

Technical Specifications - Bench Scale

Weighing Platforms

		BBA436	BBA439
Platform model		PBA436	PBA439
Approved resolution Class III	OIML	3,000e; 2 x 3,000e	3,000e
	NTEP	5,000d	5,000d
Readabilities at max. resolution	-	15,000d	15,000d
Ingress protection	-	IP65	IP68/IP69k
Scale interface	-	Analog	
Materials	-	Frame and plate: Stainless steel (AISI 304) Feet: rubber / Load Cell Cable: PVC	
Surface		Load plate: Ra≤1.6um	
Load Cell		Aluminum, potted	Stainless Steel, hermetically sealed
Ambient conditions	Compensated	-10 to 40 °C / 14 to 104 °F	
	Operation (Safe area)	-20 to 65°C / -4°F to 149°F	
Power supply	-	6 to 18 VDC	

Weights and Measures - Legal for Trade Data

OIML (International Organization of Legal Metrology)

OIML certification provides confidence that a weighing device complies with the OIML R76 regulation, which establishes the metrological characteristics required for weighing instruments and specifies methods and equipment for checking their conformity.

OIML/Metric (kg/m)	Maximum Capacity							
	3 kg	6 kg	15 kg	30 kg	60 kg	150 kg	300 kg	600 kg
Approved resolution Class III single range - 1x3,000e for PBA436 and PBA439								
Approved readability (e min.)	[g]	1	2	5	10	20	50	100
Minimum capacity	[g]	20	40	100	200	400	1,000	2,000
Approved resolution Class III multi-range - 2x3,000e for PBA436								
Approved readability (Max 1/e1)	[g]	n/a	3/1	6/2	15/5	30/10	60/20	150/50
Approved readability (Max 2/e2)	[g]	n/a	6/2	15/5	30/10	60/20	150/50	300/100
Minimum capacity	[g]	n/a	20	40	100	200	400	1,000



For additional legal-for-trade information (OIML, NTEP, CE, CPA), refer to the documentation for each component – linked on page 11.

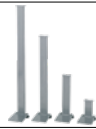




Technical Specifications - Weighing Indicator

IND400 - Touchscreen Weighing Indicator

Specifications	
Enclosure Type and Dimensions	Stainless Electropolished enclosure, steel type 304 stainless steel 239 x 155 x 77 mm (9.4 x 6.1 x 3.0 in), VESA75, VESA100
Keypad	Membrane keyboard for Print, Tare, Clear, Zero and 5 Softkeys
Display	High-resolution capacitive touch graphic display, TFT anti-glare 127 mm (5 in), 800 x 480 px
Clock Accuracy	< 1 second / day (without time server access) at 25° C consistent room temperature
Shipping Weight	2.4 kg / 5.3 lb (net weight)
Environment Protection	IP69k (Stainless enclosure)
Power	Wide range power supply 100 - 240 VAC 50/60 Hz
Supported Scale Types	1 scale interface for Analog or Digital (SICSpro) platform
Analog/Digital Update Rates	Internal: Analog: ≥400 Hz; SICSpro: 50 Hz for scale that include Advanced Setup Mode
Weight Display	Display resolution of 100,000 d for analog load cell scale Display resolution for ISICSpro bases is determined by the specific base used
Applications	Basic weighing, counting, Over/under checkweighing, Animal weighing, Manual filling, Totalizing, Data integrity
Optional Interfaces	Discrete I/O interface with 4 inputs and 4 outputs RS-232 serial port (300 to 115,200 baud) RS-232 with 5V serial port (300 to 115,200 baud) and with 5V output RS-485 serial port (300 to 115,200 baud) USB OTG with USB 2.0 up to 12Mbit/s support USB stick, USB scanner, etc. Ethernet TCP/IP with 10/100 Mbps auto-negotiation Wi-Fi 4, 2.4 GHz / 5 GHz (supporting 802.11 a,b,g,n)
Protocols	ASCII commands for CTPZ (Clear, Tare, Print, Zero), SICS commands and Shared Data Server Access Continuous or Transfer with up to ten configurable print templates or remote scale protocols PSCP for pharma bioreactors Modbus TCP/Modbus RTU: Modbus protocols for weighing data and CTPZ command MQTT client protocols support Cloud connections, Open API protocol for external systems FTP/FTPs client protocols for files transfer, VNC server is also supported LDAP protocol for remote user access
Interface and Function Update Rates	Weight display: 20 Hz Internal discrete I/O: 50 Hz SICS continuous (SIR): up to 20 Hz Modbus response time: < 50 mS MT Continuous Output: up to 20 Hz
Approvals	Weights and Measures USA: NTEP Class II 100,000d; Class III/IIIL 10,000d Canada: Class II 100,000d; Class III 10,000d; Class IIIHD, 10,000d Europe: OIML R76 Class II approved divisions determined by platform; Class II 100,000e, Class III 10,000e and Class IIII 1,000e
Operating Environment	Application: Indoor use only Altitude: Up to 2,000 m Temperature range Class III: -10 to 40 °C / 14 to 104 °F Overvoltage category: II Pollution degree: 2 Humidity range: 10 to 95% relative humidity, non-condensing

Accessories

Compatible with BBA436 and BBA439 Series

Article #	Designation	Description	Picture
72229393	Column open 120mm/4.7"	Fits for all platform size.	
72198702	Column open 330mm/13"	Fits for all platform size.	
72198703	Column open 660mm/26"	Fits for all platform size.	
72198704	Column open 900mm/35.4"	Fits for all platform size larger than A-size.	
30934086	Front mount bracket for BBA436/BBA439	Fit for IND400 terminal front mount	
30674166	APR320 Ticket Printer	Print out as data record	
30722021	APR430 Label Printer	Print out as label	
30722022	APR530 Label Printer	Print out as label	
30452312	APR331 stainless steel Label Printer	Print out as label	
30253326	Roller track 400 × 500 mm / 15.7" × 19.7" stainless steel	Fits for B-size platform. Roll to short side of platform	
30253328	Roller track 500 × 650 mm / 19.7" × 25.6" stainless steel	Fits for BC-size platform. Roll to short side of platform	
30253330	Roller track 600 × 800 mm / 23.6" × 31.5" stainless steel	Fits for CC-size platform. Roll to short side of platform	
30253327	Roller track 400 × 500 mm / 15.7" × 19.7" stainless steel	Fits for B-size platform. Roll to long side of platform	
30253329	Roller track 500 × 650 mm / 19.7" × 25.6" stainless steel	Fits for BC-size platform. Roll to long side of platform	
30253331	Roller track 600 × 800 mm / 23.6" × 31.5" stainless steel	Fits for CC-size platform. Roll to long side of platform	
72225939	Stainless steel cart BC	Fits for BC-size platform	
72225940	Stainless steel cart CC	Fits for CC-size platform	

Additional Documentation

For additional technical specifications, legal-for-trade information, or installation and operation instructions, please refer to the detailed product documentation linked below.

BBA436 and BBA439 – Industrial Bench Scale




www.mt.com/BBA436-BBA439-downloads

PBA436 – Analog Weighing Platform






www.mt.com/PBA436-downloads

IND400 Weighing Indicator




www.mt.com/IND400-downloads

PBA439 – Analog Weighing Platform

www.mt.com/PBA439-downloads

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Tailored to Fit Your Equipment Needs

METTLER TOLEDO Service delivers resources to enhance your efficiency, performance, and productivity by providing service packages that fit your operational needs, maximize your equipment lifetime, and protect your investment.

► www.mt.com/IND-Service



Optimize Performance with Professional Installation

Setup your equipment to operate efficiently with our installation and qualification services, complete with professional documentation and user training.



Calibrate for Quality and Compliance

Achieve measurement accuracy and receive documentation with our tiered calibration offering tailored to your requirements, such as compliance with OIML R76 and NTEP HB44.



Maintain Accuracy with a Quality Assurance Plan

Receive professional guidance (GWP® Verification™), including a routine testing plan that specifies four key factors to maximize your efficiency and ensure quality:

- Tests to perform
- Testing frequency
- Weights to use
- Tolerances to apply



Protect Your Investment from the Start

With our Extended Care service package, receive 24 months of full coverage following installation, including two preventive maintenance visits and cost coverage for labor and replacement parts.



Maximize Equipment Reliability and Longevity

Optimize your equipment's performance with our preventive maintenance plans that include inspections, functional testing, and proactive parts replacement.



How-To Videos: Enhance Your Weighing Experience

Discover our range of how-to videos at

www.mt.com/ind-youtube

for tips and techniques to best utilize your equipment.

www.mt.com/BBA4-BBD6

For more information

METTLER TOLEDO Group

Industrial Division

Local contact: www.mt.com/contacts

Subject to technical changes

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