

Industrial Compact Scales and Terminals: BBA4x2, BBA4x5, BBK4x2 and IND4x5

- Rugged industrial Design
- A Variety of Applications from Simple Weighing to multifunctional Database Applications
- One single Operating Principle from Milligrams to Tons
- Numerous Connection Options from Serial Interface to Network Integration

First Class Weighing Instruments

One Philosophy from Milligrams to Tons





Easy, effective and efficient: BBA422, BBA425, BBK422 and IND425!

The "basic" level is the ideal solution for applications in which simple weighing is key. Optimized for quick and easy weighing applications, six clearly-structured large-format keys with tactile feedback combine with the easy-to-read 7-segment backlit LC display for clear and fast results on a device which couldn't be easier to use.



You can count on it: The "count" Level

Every item counts: BBA432, BBK432 and IND435!

The "count" level has been designed for real industrial counting.

10 function keys designed specifically for reliable, easy and fast counting make counting of even small items child's play.

The analogue reference scale interface, which is available as an option, can be used to connect an analogue weighing platform in order to create a cost-effective reference scale counting system.



More than just Counting: The "count+" Level

Simple and easy to use: BBA442, BBK442 and IND445!

Counting, totalizing and checking — The "count+" level has it all in one device. The numeric keypad supports the simple direct input and storage of tare values, item weights, IDs and target values. Simple and easy to use, the 4 Series "count+" level has a solution for every requirement.



| | basic | count | count+ | smart+ |
|---|-------|-------|--------|--------|
| Areas of application | | | | |
| Industrial production | • | • | • | • |
| Incoming/outgoing goods | • | • | • | • |
| Quality control | • | • | • | • |
| Rental scale | - | - | • | • |
| Industries | | | | |
| Metalworking and electronics industries | • | • | • | • |
| Post and logistics | • | - | _ | • |
| Plastics industries | • | • | • | • |
| Banks and casinos | _ | _ | - | • |
| Catering | • | - | - | _ |

Stay flexible with the "smart+" Level

"smart+" for total flexibility: BBA462, BBK462 and IND465

However diverse and complex your everyday tasks might be, you will always have the ideal scale with the "smart+" level.

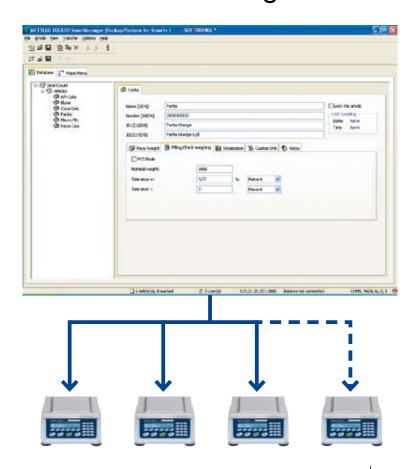
- High-resolution active dot matrix display: BIGWEIGHT® display in plain text to ensure clarity at all times.
- User-definable function keys and operating sequences to make your everyday operations easier and improve the quality of your weighing processes.
- Customer-specific unit: Simply set your own unit (e.g. m, litre, etc.).
- Efficient inventory management: Article database for more than 1500 data records, which can be individually defined and entered or called up via a barcode or using the keyboard.
- Create your own labels. Five user-definable templates are provided to meet every requirement and are compatible for use on any type of printer.
- The key to high quality: "Good parts" can be calculated easily using the upstream check function linked to the totalization function.
- Maintain an overview: The host function means that you still access
 just one central database, regardless of whether this is stored on your PC
 or in another "smart+" level.



Everything is under control: The SmartManager

Maintain an overview at all times with the SmartManager application and configuration software for the "smart+" level

- Standard PC interface for user-friendly and efficient data entry.
- Online interaction with your "smart+" level(s): SmartManager is your central database.
- More than 10000 data records enough for virtually all applications – can be administered and processed easily.
- Import and export functions from/to MS Excel for post-processing or integration into existing databases.
- It's easy to configure and set up your "smart+" level at home or in the office. All settings that can be made on the scale can also be made in comfort on a PC via a simple selection menu.
- Simply make the settings once then transfer them to all your "smart+" levels – saving you time and increasing reliability.
- Define the optimum scale configuration for your individual requirements.
 Optimize your "smart+" for your specific application.



Intelligent Precision from Milligrams to Tons

- Rugged industrial quality Die-cast aluminium housing (ALSi10Mg) combined with adherence to the most exacting EMC standards (acc. to EN 61000-6-2) and the electrical safety requirements (EN 61010-1) ensure long service life and fail safety during day-to-day production, thereby safeguarding investments.
- A single operating principle from milligrams to tons
 Reduced training time, fewer application errors and therefore reduced costs.
- A variety of connection options: From serial interface
 to network The numerous connection options (serial,
 network, USB, digital I/O, etc.) support the setting up
 of weighing systems, with the connection of analogue
 weighing platforms and even the integration of scales
 into networks.
- A variety of applications: From simple weighing to multifunctional database applications — The ideal product for every application, a solution for every weighing problem.
- MinWeigh® as standard, i.e. reliability for your weighing data The minimum weight or a warning that it

- has been undershot is displayed on the scale screen. A METTLER TOLEDO service engineer will determine the measurement uncertainty of the scale on site in accordance with DKD guidelines and calculate a minimum weight for the scale based on local conditions.
- Save time and money with ex-works-certified precision: Certified MonoBloc® scale with internal adjustment weights and temperature controlled adjusting functionality or certified scales with strain gauge weighing cells Choose rugged strain gauge weighing cells or high-precision MonoBloc® technology. Preassembled certified scales can be used immediately. There is no need for a special visit by a weights and measures official or service engineer for the second stage of official certification.
- Available for mains or battery operation You can choose to power the scale via the mains, a built-in battery or an external power supply.
- GMP-certified scale series The scales are suitable for GMP (Good Manufacturing Practice) working.

| | | | isic | | | count | | | count+ | | smart+ | | | |
|--|--------|---------|--------|--------|--------|---------|--------|--------|---------|--------|--------|---------|--------|--|
| Functions | BBA442 | BBA425 | BBK422 | IND425 | BBA432 | BBK432 | IND435 | BBA442 | BBK442 | IND445 | BBA462 | BBK62 | IND465 | |
| Simple weighing | | | • | | | • | | | • | | • | | | |
| Dynamic weighing | | | • | | | • | | | • | | • | | | |
| Zeroing | | • | | | | • | | | • | | | • | | |
| Taring | | | • | | | • | | | • | | | • | | |
| Transfer | | | • | | | • | | | • | | | • | | |
| Counting | | | _ | | | • | | | • | | | • | | |
| Totalizing | | | _ | | | - | | | • | | | • | | |
| Checking | | | _ | | | - | | | • | | | • | | |
| Dosing and counting to target value | - | | | | - | | | • | | | | | | |
| Freely configurable operating sequences | | | _ | | | - | | | _ | | • | | | |
| Freely definable units | | | _ | | | - | | | _ | | • | | | |
| Label printing | | | _ | | | | | | | | • | | | |
| Memory space for tare/APW/target values | | | _ | | | - | | • | | | • | | | |
| Internal article database | | | _ | | | - | | | - | | • | | | |
| Date/time | | | _ | | | - | | | • | | | • | | |
| Internal alibi memory 150 000 weight (opt.) | | | _ | | | - | | | _ | | | • | | |
| Interfaces (standard) | | 1 RS | S232 | | | 1 RS232 | | | 1 RS232 | | 3 RS | 232 + 1 | PS/2 | |
| RS232(add-on) (optional) | | | • | | | • | | | • | | | - | | |
| RS485 (optional) | | | • | | | • | | | • | | • | | | |
| Ethernet (optional) | • | • - • • | | | • | | | • | | | • | | | |
| USB (slave) (optional) | | | • | | • | | | • | | | • | | | |
| Digital I/O with 2 definable set points (opt.) | | | • | | | • | | • | | | • | | | |
| Analogue second scale (opt.) | | _ | | | | • | | | | | • | | | |



BBA4... Reliable Measurement

Accuracy for any Location

Conformity:

Certifiable quality/ex-works-certified model to OIML, Class III with 2× 3000e or 1× 6000e plus other non-certifiable resolutions (15000d/3000d) as options

Low voltage: EN 61010-1

EMC Directive: FN 61326-1

EN 61000-6-1/0.5 µV/e (3 V/m) EN 61000-6-2/1.3 µV/e (10 V/m)

Non automatic weighing instrument directive:

EN 45501

EC Type approval T5508

Die-cast aluminium housing (ALSi10Mg) with chrome-nickel steel load plate (AISI 304, 1.4301)

BBA425 BBA432; BBA442:

Backlit 7-digit/7-segment LC display; Height of characters:

16 mm (BBA425) or 21 mm (BBA432, BBA442)

Backlit active dot matrix display (235×64 pixels); Height of characters: max. 21 mm

Keypad:

Large, clearly-structured keypad with tactile feedback BBA422/BBA425: 6 keys: ON/OFF; Zero; Tare; Transfer;

Change unit; Clear tare

BBA432: 10 keys: ON/OFF; Zero; Tare; Transfer;

Toggle gross/net; High resolution; Toggle scale 1 and scale 2; Toggle count and weigh mode;

Ten's reference, Variable reference

BBA442: 25 keys: ON/OFF; Zero; Tare; Transfer; Info;

> Toggle scale 1 and scale 2; Toggle count and weigh mode; Display item weight; Ten's reference; Variable reference; Memory;

ID; +/-; Delete; Numeric keypad

BBA462: 25 keys: ON/OFF; Zero; Tare; Transfer;

6 freely-definable function keys (soft keys); Call database; Toggle: Upper/lower case;

Delete; Alphanumeric keypad

Units: g, kg, t, oz, lb

Power supply:

- Main connections
 - country-specific power supply: 240 V, 50 Hz, 70 mA/230 V, 50 Hz, 70 mA/120 V, 60 Hz, 90 mA/100 V, 50/60 Hz, 90 mA

Battery operation

- universal charger 90-264 V, 47-63 Hz, 300 mA
- NiMH Battery, 2800 mAh charging with max. 24 V = 1,3 A

External power supply

- BBA422, BBA425, BBA432 and BBA442:
- 12-20 V DC, max. 500 mA
- BBA462: 17-24 V DC, max. 500 mA



| | | BBA422/E | BBA432/BBA44 | 2/BBA462 | | BBA425 | | | | | | |
|--|---------|-----------|--------------|----------------|--------|---------|----------|--------|-----------------|--------|--|--|
| Model | -3 SM | -6 SM | -15 LA | -35 LA | -60 LA | -3 SM | -6 SM | -15 LA | -35 LA | -60 LA | | |
| Dimensions (mm) | 265 × 3 | 35 × 100 | ; | 360 × 370 × 11 | 5 | 265 × 3 | 35 × 100 | 3 | 360 × 370 × 115 | | | |
| Load plate (mm) | 200 | 200 × 240 | | | | 200 | × 240 | | 240 × 350 | | | |
| Capacity (kg) | 3 | 6 | 15 | 35 | 60 | 3 | 6 | 15 | 35 | 60 | | |
| Weighing range 1/2 (kg) | 1.5/3 | 3/6 | 6/15 | 15/35 | 30/60 | 1.5/3 | 3/6 | 6/15 | 15/35 | 30/60 | | |
| Readability/Verification | 0.5/3 | 1/0 | 0/5 | 5/10 | 10/00 | 0.5/3 | 1/0 | 0/5 | 5/10 | 10/00 | | |
| scale interval 1/2 (g) | 0.5/1 | 1/2 | 2/5 | 5/10 | 10/20 | 0.5/1 | 1/2 | 2/5 | 5/10 | 10/20 | | |
| Max. readability (not certifiable) (g) | 0.05 | 0.1 | 0.2 | 0.5 | 1 | 0.05 | 0.1 | 0.2 | 0.5 | 1 | | |
| Repeatability (s) (g) | 0.05 | 0.1 | 0.2 | 0.5 | 1 | 0.15 | 0.2 | 0.2 | 0.5 | 1 | | |
| Linearity (s) (g) | 0.05 | 0.1 | 0.2 | 0.5 | 1 | 0.15 | 0.2 | 0.2 | 0.5 | 1 | | |
| Min. permissible item weight (g)* | 0.010 | 0.020 | 0.050 | 0.117 | 0.200 | - | - | - | - | - | | |
| Type of protection (EN 60529) | | • | IP43** | • | • | IP65 | | | | | | |
| Stabilization time (s) (seconds)*** | | | | | ~ | 1.0 | | | | | | |

The values indicated represent the minimum permissible item weights. In order to count with maximum possible accuracy, we recommend that the item weight is set no lower than 1d of the scale (standard) and/or that the optimization function integrated as standard or a reference scale is used (not for the BBA422/ BBA425)

Not with built-in Ethernet interface

Depends on selected filter setting

BBK4..: MonoBloc® Technology —

Maximum Precision for more complex Requirements

Conformity:

Certifiable quality/ex-works-certified model with internal adjustment weight to OIML, Class II with up to 61 000e or 610 000d

Low voltage: EN 61010-1 **EMC Directive:**

EN 61326-1 EN 61000-6-1/0.5 µV/e (3 V/m) EN 61000-6-2/1.3 µV/e (10 V/m)

Non automatic weighing instrument directive:

EN 45501

EC Type approval T5627

Die-cast aluminium housing (ALSi10Mg) with chrome-nickel steel load plate (AISI 304, 1.4301)

Display:

BBK422; BBK432; BBK442:

Backlit 7-digit/7-segment LC display; Height of characters: 16 mm (BBK422) or 21 mm (BBK432, BBK442)

Backlit active dot matrix display (235×64 pixels); Height of characters: max. 21 mm

Keypad:

Large, clearly-structured keypad with tactile feedback BBK422: 6 keys: ON/OFF; Zero; Tare; Transfer;

Change unit; Clear tare

BBK432: 10 keys: ON/OFF; Zero; Tare; Transfer;

> Toggle gross/net; High resolution; Toggle scale 1 and scale 2; Toggle count and weigh mode;

Ten's reference, Variable reference

BBK442: 25 keys: ON/OFF; Zero; Tare; Transfer; Info;

Toggle scale 1 and scale 2; Toggle count and weigh mode; Display item weight; Ten's reference; Variable reference; Memory; ID; +/-; Delete; Numeric keypad

25 keys: ON/OFF; Zero; Tare; Transfer;

BBK462: 6 freely-definable function keys (soft keys);

Call database; Toggle: Upper/lower case;

Delete; Alphanumeric keypad

Units: g, kg, t, oz, lb

Power supply:

- Main connections
 - country-specific power supply:240 V, 50 Hz, 70 mA/230 V, 50 Hz, 70 mA/120 V, 60 Hz, 90 mA/100 V, 50/60 Hz, 90 mA

Battery operation

- universal charger 90–264 V, 47–63 Hz, 300 mA
- NiMH Battery, 2800 mAh charging with max. 24 V = 1,3 A

External power supply

- BBK422, BBK432 and BBK442: 12–20 V DC, max. 500 mA
- BBK462: 17-24 V DC, max. 500 mA



| | | | | | ВВ | (422/BBK432 | /BBK442/I | BBK462 | | | |
|--|------------|----------|--------|-------------|--------|-------------|-----------|------------|---------|------------|--------|
| Model | -0.6DXXS1 | -3 DXS | -3 DXS | -6 DXS | -6 XS | -6 DSM | -6 SM | -15 DLA | -15 LA | -35 DLA | -35 LA |
| Dimensions (mm) | | | 265 | × 335 × 100 |) | | | | 360 × 3 | 370 × 115 | |
| Load plate (mm) | Ø 100 | | 165 > | × 165 | | 200 × 3 | 240 | | 240 | × 350 | |
| Capacity (kg) | 120/610 | 600/3100 | 3100 | 1200/6100 | 6100 | 1200/6100 | 6100 | 3500/15100 | 15100 | 7000/35100 | 35100 |
| Readability (standard) (g) | 0.001/0.01 | 0.01/0.1 | 0.01 | 0.01/0.1 | 0.01 | 0.1/1 | 0.2 | 0.1/1 | 0.5 | 0.1/1 | 0.1 |
| Verification scale value (g) | 0.01 | 0.1 | 0.1 | 0.1 | 0.1 | 1 | 0.2 | 1 | 0.5 | 1 | 1 |
| Max. readability (not certifiable) (g) | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Repeatability (s) (g) | 0.0009 | 0.008 | 0.008 | 0.008 | 0.008 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 | 0.08 |
| Linearity (s) (g) | 0.002 | 0.005 | 0.005 | 0.01 | 0.01 | 0.02 | 0.02 | 0.03 | 0.03 | 0.05 | 0.05 |
| Min. permissible item weight (g)* | 0.00041 | 0.0020 | 0.0020 | 0.0040 | 0.0040 | 0.0040 | 0.0040 | 0.010 | 0.010 | 0.023 | 0.023 |
| Type of protection | | | | | | IP4 | 3** | | | | |
| Stabilization time (s) (seconds)*** | | | | | | ~1 | .0 | | | | |

The values indicated represent the minimum permissible item weights. In order to count with maximum possible accuracy, we recommend that the item weight is set no lower than 1d of the scale (standard) and/or that the optimization function integrated as standard or a reference scale is used (not for the BBK422).

Not with built-in Ethernet interface

^{***} Depends on selected filter setting

IND4..: For quick and easy Applications -

Flexibility is King

Conformity:

Certifiable to OIML, Class III: max. 1x 7500e, 2x 5000e

Low voltage: EN 61010-1

EMC Directive: EN 61326-1

EN 61000-3-2

EN 61000-6-1/0.5 μV/e (3 V/m) EN 61000-6-2/1.3 μV/e (10 V/m)

Non automatic weighing instrument directive:

EN 45501

EC Type approval T5819

Design

Die-cast aluminium housing (ALSi10Mg) with cable gland for connection to any weighing platform via heavy gauge screw fitting

Display:

IND425; IND435; IND445:

Backlit 7-digit/7-segment LC display; Height of characters:

16 mm (IND425); 21 mm (IND435; IND445)

IND465:

Backlit active dot matrix display (235×64 pixels);

Height of characters: max. 21 mm

Keypad:

Large, clearly-structured keypad with tactile feedback

IND425: 6 keys: ON/OFF; Zero; Tare; Transfer;

Change unit; Clear tare

IND435: 10 keys: ON/OFF; Zero; Tare; Transfer;

Toggle gross/net; High resolution;

Toggle scale 1 and scale 2; Toggle count and

weigh mode; Ten's reference, Variable reference

IND445: 25 keys: ON/OFF; Zero; Tare; Transfer; Info;

Toggle scale 1 and scale 2; Toggle count and weigh mode; Display item weight; Ten's reference; Variable reference; Memory;

ID; +/-; Delete; Numeric keypad

IND465: 25 keys: ON/OFF; Zero; Tare; Transfer;

6 freely-definable function keys (soft keys); Call database; Toggle: Upper/lower case;

Delete; Alphanumeric keypad

Units: g, kg, t, oz, lb

Power supply:

- Main connections
 - country-specific power supply: 240V, 50 Hz, 70 mA/230V, 50 Hz, 70 mA/120V, 60 Hz, 90 mA/100V, 50/60 Hz, 90 mA

Battery operation

- universal charger 90-264 V, 47-63 Hz, 300 mA
- NiMH Battery, 2800 mAh charging with max. 24 V = 1,3 A

External power supply

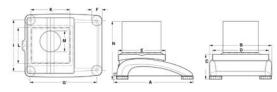
- IND425, IND435 and IND445: 12-20 V DC, max. 500 mA
- IND465: 17-24 V DC, max. 500 mA

| Model | IND425/IND435/IND445/IND465 |
|--|--|
| Dimensions (mm) | 277 × 200 × 71 |
| Dimensions of option box (mm) | 277 × 200 × 36 |
| Max. resolution (not certifiable) | 300000d |
| Max. resolution (certifiable) | 1× 7500e single range, 2× 5000e multi range/multi interval |
| Linearization | Can be set to 3-point or 5-point |
| Linearity (s) (g) | +/-0.01 % of def. max. capacity |
| A/D converter for input signal (certifiable) | 0.5 μV/e (EN 61000-6-1) |
| | 1.3 μV/e (EN 61000-6-2) |
| Output signal | 2 mV/V |
| Power supply, connected weighing cell | 8.2 V |
| Impedance | 80–1000 Ω |
| Type of protection | IP65* |





BBA4../BBK4..

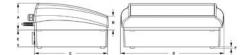


| | Α | В | С | D | E | F | G | Н | ı | K | L | М | N |
|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|
| XXS | 335 | 265 | 100 | 240 | 200 | 46 | 276 | 208 | 215 | - | - | 100 | 260 |
| XS | 335 | 265 | 100 | 240 | 200 | 46 | 276 | 208 | 215 | 165 | 165 | - | - |
| SM | 335 | 265 | 100 | 240 | 200 | 46 | 276 | 208 | 215 | - | - | - | - |
| LA | 370 | 360 | 115 | 350 | 240 | 52 | 311 | 305 | 311 | - | - | - | - |

Dimensions in mm

IND4..

| Α | В | С | D | E | F |
|----|----|-----|-----|----|-----|
| 71 | 36 | 200 | 277 | 49 | 4.5 |



Dimensions in mm

| Accessori | es | 86, | 881 881 | 8/2/2/4 88, 148 | S45,448 | 8 / 24 / 18 / 18 / 18 / 18 / 18 / 18 / 18 / 1 | M2-24-50M | Marcia Marcia |
|-----------|--|-----|---------|--------------------|---------|---|-----------|------------------|
| 21203207 | Protective cover PVC small | | | | | | | |
| 21203206 | Protective cover PVC large | | | | | | | |
| 21255045 | Protective cover PVC | | | | | | | |
| 21253399 | Printer "Sprinter 1" Euro | | | | | | | |
| 21253745 | Printer "Sprinter 1" UK | | | | | | | |
| 22009327 | Printer "Zebra LP 2844" | | | | | | | |
| 22009328 | Printer "Zebra LP 2824" | | | | | | | |
| 21252588 | RS232 cable for "Zebra LP 2824/2844" (1.8 m) | | | | | | | |
| 22009329 | Labels for "Zebra LP 2844" (102×102 mm, 1 roll, 380 labels) | | | | | | | |
| 22009330 | Labels for "Zebra LP 2824" (57×102mm, 1 roll, 380 labels) | | | | | | | |
| 22013978 | 2nd display ADI412 | | | | | | | |
| 22013977 | 2nd display ADI412 (backlit) | | | | | | | |
| 21901297 | PS/2 Barcode reader MT Heron-G D130 | | | | | | | |
| 21901308 | Y-cable for PS/2 barcode reader | | | | | | | |
| 21900944 | Mini keyboard PS/2 (USA) | | | | | | | |
| 21900945 | Cover for mini keyboard | | | | | | | |
| 22011967 | Relay box 4 | | | | | | | |
| 21202217 | Relay box LC-I/O | | | | | | | |
| 22011304 | Adapter for draft shield PG for XS size | | | | | | | |
| 00225269 | Draft shield PG | | | | | | | |
| 21254225 | RS232 cable for relay box 4 | | | | | | | |
| 21253677 | RS232 cable for "Sprinter 1" (1.8 m) | | | | | | | |
| 21252588 | RS232 cable for 2nd scale or ADI412 (1.8 m) | | | | | | | |
| 00410024 | RS232 cable for PC (1.8 m) | | | | | | | |
| 22013451 | Special load plate 186×186 mm for BBK4XS | | | | | | | |
| 22018833 | Counting tweezers for BBK40.6 DXXS, stainless steel, anti-magnetic | | | | | | | |
| 22011469 | Column, 330mm for PBA330 (includes 22011471) | | | | | | | |
| 22011470 | Column, 660 mm for PBA330 (includes 22011471) | | | | | | | |
| 22011471 | Wall/Stand mount | | | | | | | |
| 21255259 | Connection plate for PBA330, Size A, BB, B, BC | | | | | | | |
| 22011459 | SICS Manual 4 Series (English) | | | | | | | |
| | SmartManager software (full version) | | | | | | | |

Available

Available only on application level Smart+ (462/465)

■ Not available

www.mt.com

For more information





Quality certification. Development, production and testing to ISO 9001. Environmental management system to ISO14001.



Global service. Our extensive service network is one of the best in the world



and is your guarantee of optimum product availability and service life.



Certified version available

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