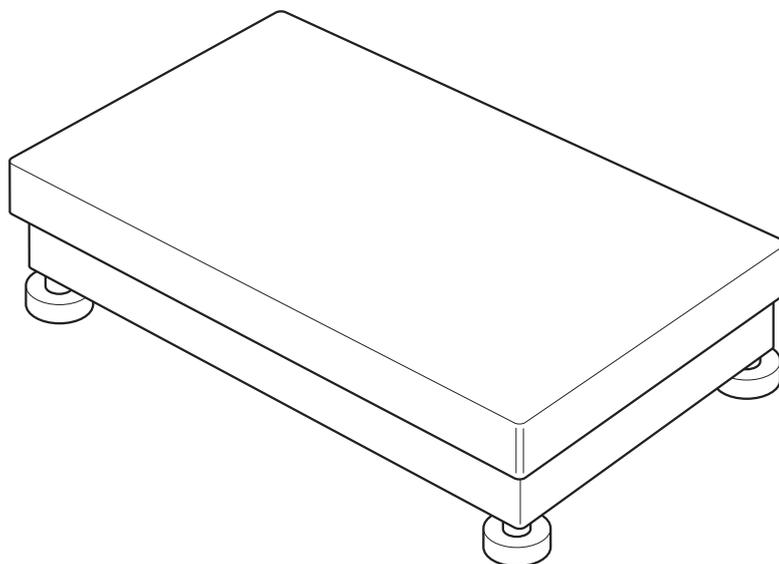


Installation information

METTLER TOLEDO MultiRange
Table and stand scales
For hazardous areas

METTLER TOLEDO

KA15sx-T4/KA32sx-T4
KB60..x-T4/KCC150..x-T4/KCC300..x-T4



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1 Safety precautions



There is an increased danger of injuries and damage when using the K...x-line weighing platforms in hazardous areas.

Special care must be taken when working in such hazardous areas. The code of practice is oriented to the "Safe Distribution" concept drawn up by METTLER TOLEDO. The K...x-line weighing platforms with the measuring cells TBrick 15-Ex or TBrick 32-Ex are admitted when using in the following domains:

Classification according to CENELEC

II 2 G/D EEx ib IIC T4

Classification according to FM

Class I, II, III Division 1, Group A – G

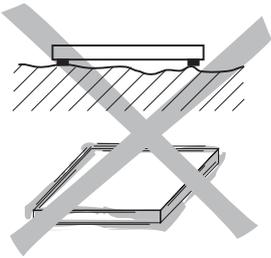
- Competence** ▲ The K...x-line weighing platforms may only be installed, maintained and repaired by authorised METTLER TOLEDO service personnel.
- Ex approval** ▲ No modifications may be made to the device and no repair work may be performed on the modules. Any weighing platforms or system modules that are used must comply with the specifications. Non-compliant equipment jeopardises the intrinsic safety of the system, cancels the Ex approval and renders any warranty or product liability claims null and void.
- ▲ The safety of the weighing system is only guaranteed when the weighing system is operated, installed and maintained in accordance with the respective instructions.
- ▲ Also comply with the following:
- the instructions for the system modules,
 - the relevant national regulations and standards,
 - the applicable statutory requirements for electrical equipment installed in hazardous areas in the respective country,
 - all instructions related to safety issued by the owner.
- ▲ The explosion-proof weighing system must be checked to ensure compliance with the safety requirements before being put into service for the first time, following any service work and at least every 3 years.
- Operation** ▲ Prevent the build-up of static electricity. Always wear suitable working clothes when operating or performing service work in a hazardous area.
- ▲ Do not use protective covers with the devices.
- ▲ Any protective foils possibly present on the load plate have to be removed prior to the first startup.
- ▲ Prevent damage to the weighing platforms.

- Installation**
- ▲ Only install or perform maintenance work on the weighing system in the hazardous area if the following conditions are fulfilled:
 - the owner has issued a permit ("spark permit" or "fire permit"),
 - the area has been rendered safe and the owner's safety co-ordinator has confirmed that there is no danger,
 - the necessary tools and any required protective clothing are provided (danger of the build-up of static electricity).
 - ▲ The certification papers (certificates, manufacturer's declarations) must be present.
 - ▲ Lay cables in such a way that they are protected from damage.
 - ▲ Only route cables into the housing of the system modules via the suitable gland and ensure proper seating of the seals.

2 Installation

2.1 Preparatory work

2.1.1 Selecting installation location



- ▲ The foundation at the installation location must be capable of safely support the weight of the weighing platform at its support points when it carries the maximum load. At the same time, it should be so stable that no vibrations occur during weighing operations. These requirements also apply when the weighing platform is integrated in conveying systems and the like.
- ▲ Ensure that vibrations due to machines near the installation site are kept to a minimum.

2.1.2 Ambient conditions

- Use powder-coated/enamelled weighing platforms only in a dry environment.
- In a damp environment, in wet operation or when working with chemicals: Use stainless-steel weighing platforms.

2.1.3 Accessories

- Completely unpack the accessories provided with the weighing platform.
 - 1 Identcard
 - 1 Set of signs for selectable configurations

2.2 Setting up and levelling

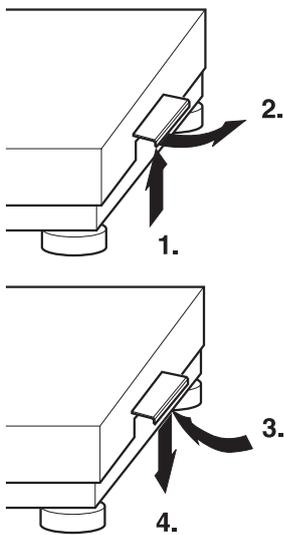
2.2.1 Setting up KA...x

1. Remove the weighing platform from the packing.
2. Place the load plate on the weighing platform.

2.2.2 Setting up KB...x

1. Lift the weighing platform out of the transport packing and set it down at the installation location.
2. Remove the 4 corner padding pieces between the load plate and the frame.
3. Lift off the load plate and remove the 4 pieces of cardboard.
4. Mount the load plate again.

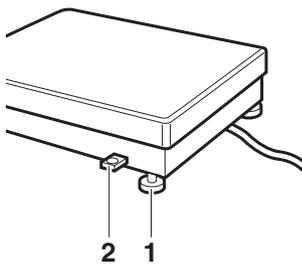
2.2.3 Setting up KCC...x



1. Lift the weighing platform out of the transport packing and set it down at the installation location.
2. Remove the 4 corner padding pieces between the load plate and the frame.
3. Remove the load plate by lifting the two side handles vertically (1.) and pivoting outward (2.).
4. Remove the 4 pieces of cardboard.
5. Remount the load plate by swinging the handles inward (3.) and reengaging in initial position (4.), i.e. the handles must be in the bottom position and vertical.

When the handles are correctly engaged, it should not be possible to lift off the load plate.

2.2.4 Levelling



1. Level the weighing platform with the 4 foot bolts (1) using the level indicator (2): The air bubble of the level indicator must come to rest within the ring marking.
2. Ensure even contact of the foot bolts. Check the stability of the weighing platform by pressing down on or rocking it at the corners.
3. Lock the foot bolts with the nuts.

2.3 Installing connection cable

- Route the connection cable to the terminal so that it is protected from possible damage.

CAUTION

- If the cable is laid in a pipe, ensure that the pipe is of a sufficient diameter or is slit open. The cable may not be cut through.

Extension of connection cable

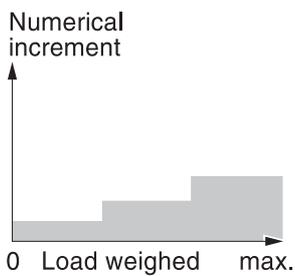
- ▲ An extension of the connection cable is only permitted according to the guide for installers for the explosion-protected weighing system.



3 Configuration possibilities

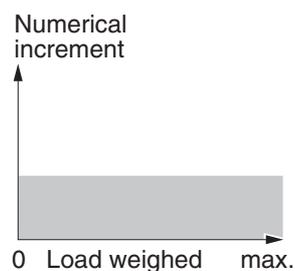
3.1 General information

3.1.1 MultiInterval



- MultiInterval precision means automatic switchover of the numerical increment (readability) in dependence on the applied load.

3.1.2 Single Range and High Resolution



- Single Range and High Resolution mean that the numerical increments (readability) remain the same across the entire weighing range.

3.1.3 Additional setting options

- All other adjustment variables (adjustment to the weighing process and vibrations, as well as adjustment of stability monitoring and the zero point correction) are adjusted to the usual user conditions, however can be changed in the master mode of the weighing terminal if necessary.
- The Identcard provided is labelled with the standard configuration. Mount the Identcard in accordance with the installation instructions of the weighing terminal concerned.
- If the standard configuration does not meet your needs, it is possible to reconfigure the weighing platform with the terminal. To do this, see the terminal operating instructions or the Service Manual for the TBrick Service Mode.
- A set of measuring data signs is provided with the weighing platform. Apply the selected configuration corresponding to the factory-mounted measuring data sign to the Identcard, and the Max-Min sign near the terminal display.
- When the configuration is changed, it is also possible to change the preload range in addition to the weighing range and the readability.

3.2 Configuration data

3.2.1 Configuration data for KA...x, factory setting

Standard configuration	KA15sx	KA32sx
Maximum load	15 kg	32 kg
Readability	0 ... 15 kg 0.1 g	0 ... 32 kg 0.1 g
Tare range, subtractive	15 kg	32 kg
Preload range Zero-set range Zero-set range (typ.)	± 0.3 kg 6.0 kg	± 0.64 kg 3.0 kg
Calibration data as per OIML Calibration class Calibration value Minimum load Temperature range	II 0.001 kg 0.005 kg 0 °C ... +40 °C	II 0.001 kg 0.005 kg 0 °C ... +40 °C

3.2.2 Configuration data for KB...x/KCC...x, factory setting

Standard configuration	KB60..x	KCC150..x	KCC300..x
Maximum load	60 kg	150 kg	300 kg
Readability	0 ... 60 kg 0.001 kg	0 ... 150 kg 0.001 kg	0 ... 300 kg 0.002 kg
Tare range, subtractive	60 kg	150 kg	300 kg
Preload range Zero-set range Zero-set range (typ.)	± 1.2 kg 25 kg	± 3 kg 64 kg	± 6 kg 120 kg
Calibration data as per OIML Calibration class Calibration value Minimum load Temperature range	II 0.01 kg 0.05 kg 0 °C ... +40 °C	II 0.01 kg 0.05 kg 0 °C ... +40 °C	III 0.05 kg 1.0 kg -10 °C ... +40 °C

4 Planning assemblies

4.1 Notes on planning

Due to their design characteristics, the weighing platforms are suitable for installation in conveying systems. The following specifications and dimensional drawings form the basis for the design of the required assemblies.

- The weighing platform may only be supported by the support feet, and never by the frame or lever parts.
- The weighing platform may only be permanently installed on the support feet.
- Moving or rotating parts on the weighing platform must be designed so that they do not affect the weighing result. Balance rotating parts.
- The load plate must be free on all sides so that not connection between the load plate and permanently mounted parts is made, even by falling parts or dirt deposits.
- Lay cables or hoses between the weighing platform and other machine parts so that they do not exert any force on the weighing platform.

EXPLOSION RISK

The assemblies are also part of the explosion-protected weighing system.



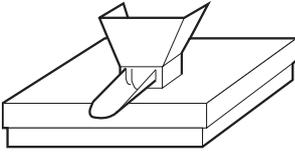
- Use only assemblies which are suitable for the application in hazardous areas.
- Make sure that there is no increased risk due to electrostatic charge of the assemblies.

CAUTION

When mounting assemblies, make sure that no metal chips get into the weighing platform.

- Remove the load plate to machine the weighing platform.

4.2 Preload range



The weight of the structural parts permanently mounted on the weighing platform is referred to as "preload". The preload is electrically compensated in the weighing platform so that the full weighing range is available.

The maximum preload (or the zero-set range) that can be compensated is dependent on the configured weighing range.

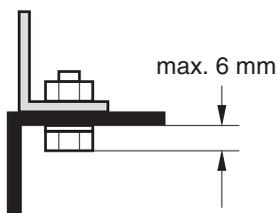
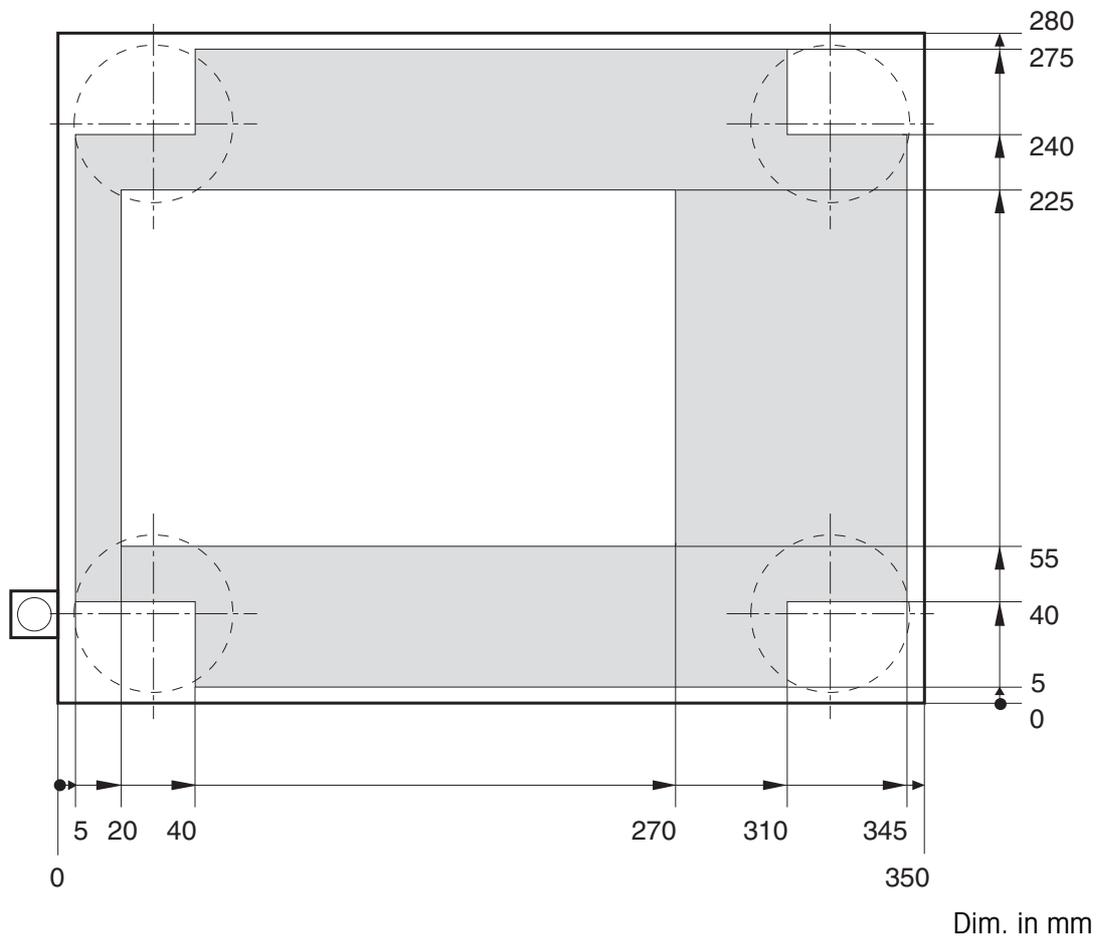
CAUTION

The assemblies must already be mounted when connecting the weighing platform.

Model	Weighing range	Max. preload
KA15sx	15 kg	6 kg
KA32sx	32 kg	3 kg
KB60..x	60 kg	25 kg
KCC150..x	150 kg	64 kg
KCC300..x	300 kg	120 kg

4.3 Mounting possibilities

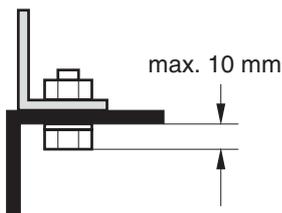
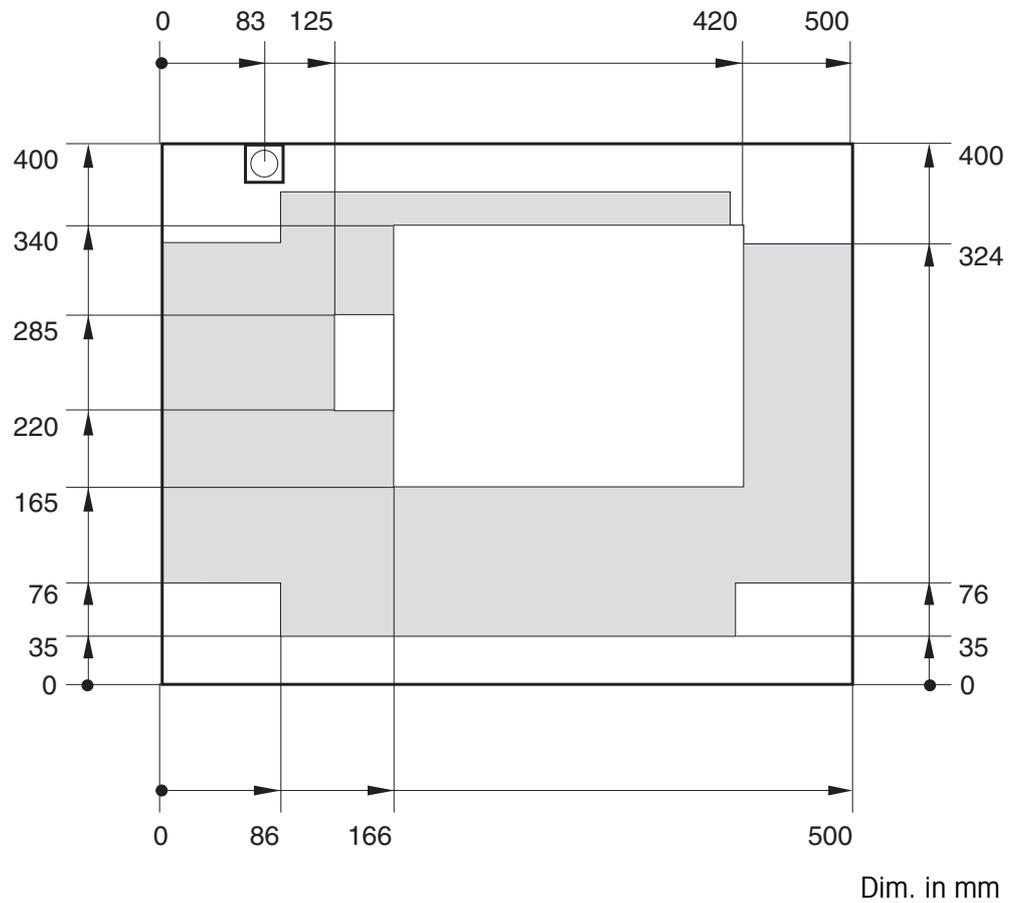
4.3.1 Mounting possibilities for KA...x



- Bridge assemblies can be mounted in the shaded areas.
- Recommended mounting type: Bolting on, welding on.
Remove the load plate and drill through for this purpose.
- Mounting parts (e.g. bolts and nuts) may extend a maximum of 6 mm beyond the underside of the load plate.

Technical version: 08/2000

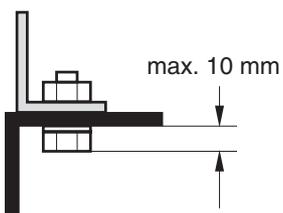
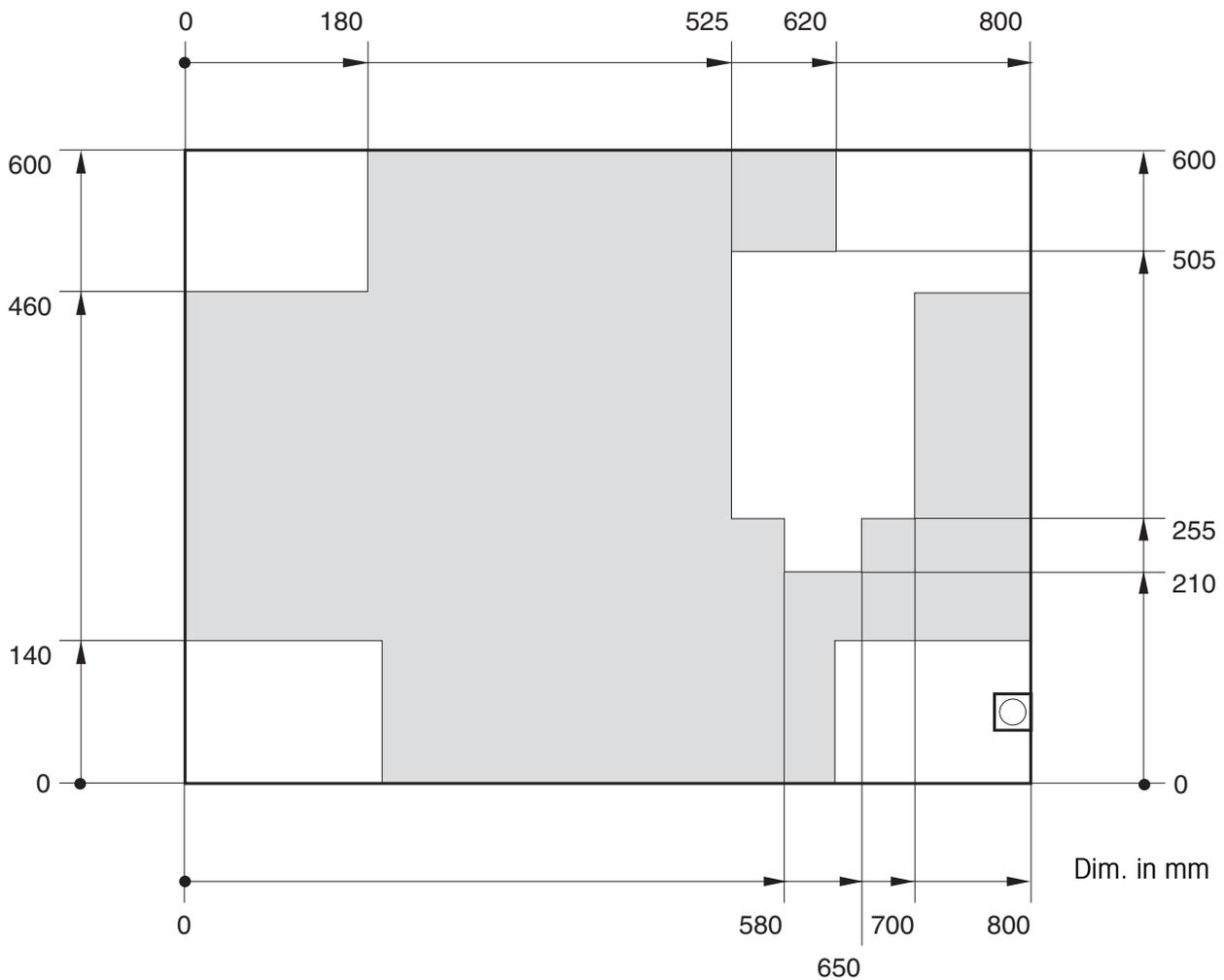
4.3.2 Mounting possibilities for KB...x



- Bridge assemblies can be mounted in the shaded areas.
- Recommended mounting type: Bolting on.
Remove the load plate and drill through for this purpose.
- Mounting parts (e.g. bolts and nuts) may extend a maximum of 10 mm beyond the underside of the load plate.

Technical version: 08/2000

4.3.3 Mounting possibilities for KCC...x

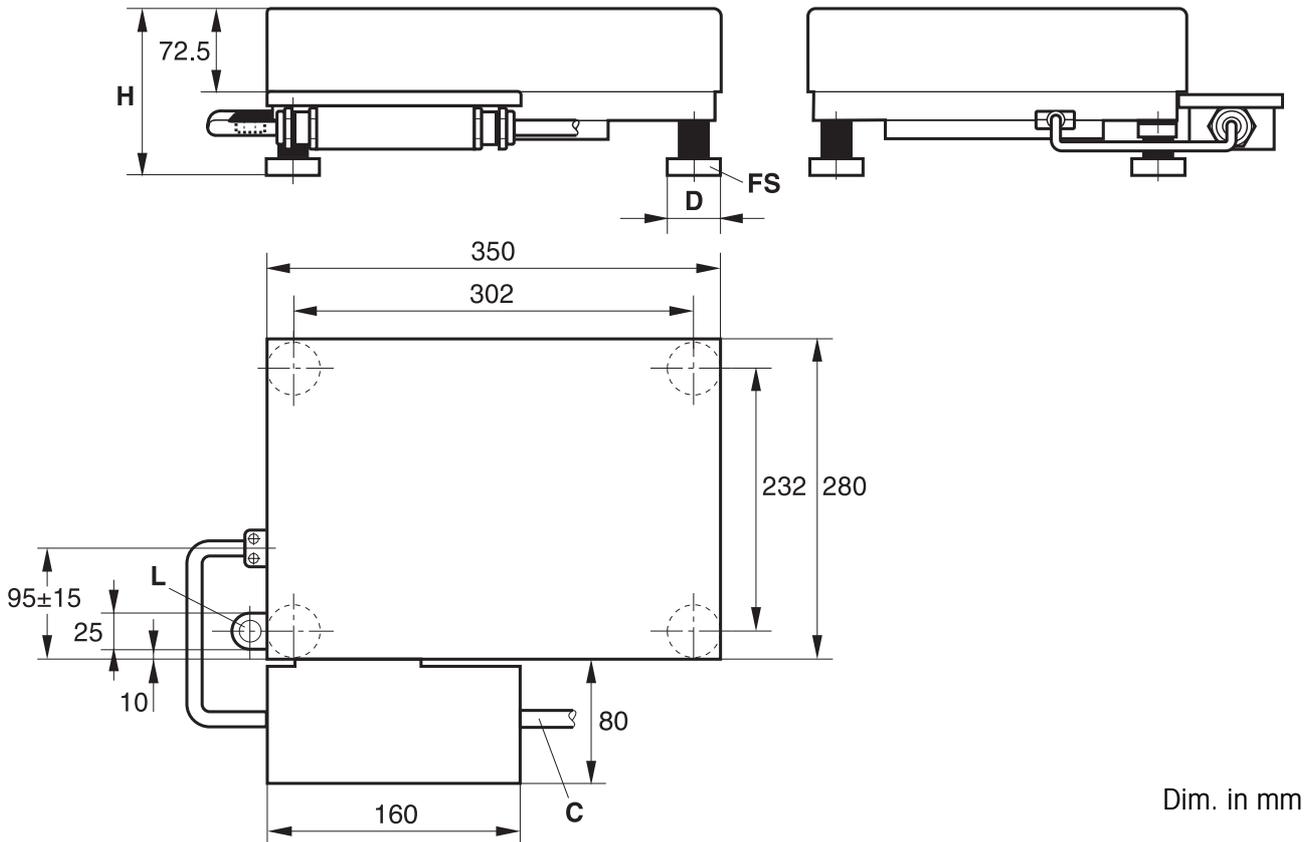


- Bridge assemblies can be mounted in the shaded areas.
- Recommended mounting type: Bolting on.
Remove the load plate and drill through for this purpose.
- Mounting parts (e.g. bolts and nuts) may extend a maximum of 10 mm beyond the underside of the load plate.

Technical version: 08/2000

5 Dimensions

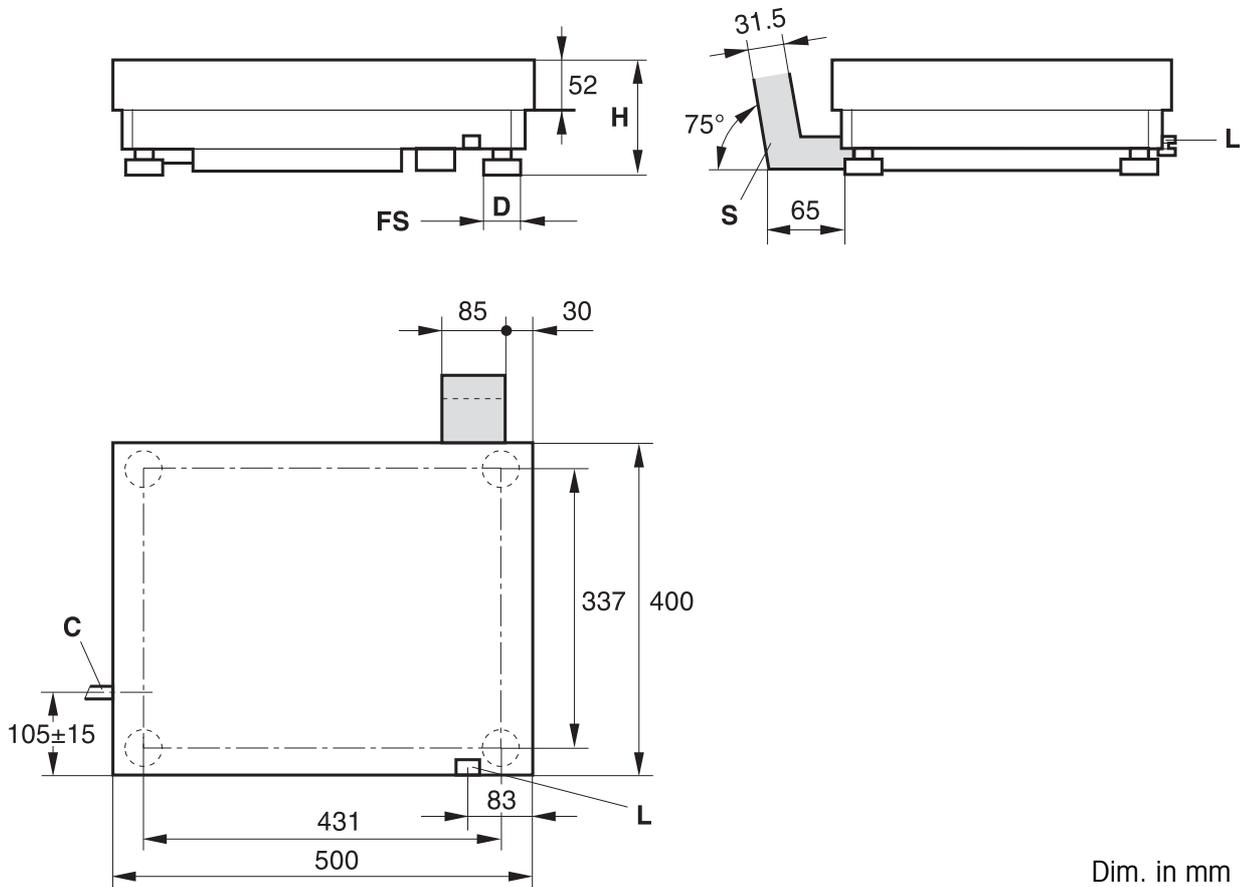
Dimensions of KA...x



- H Adjustable with 4 foot bolts
Min. H = 117 mm
Max. H = 130 mm
- FS Foot bolt
Spanner size = 17 mm
Thread = M10
Required area D = 35 mm dia.
- S Tripod
- L Level indicator
- C Cable connection

Technical version: 08/2000

Dimensions of KB...x

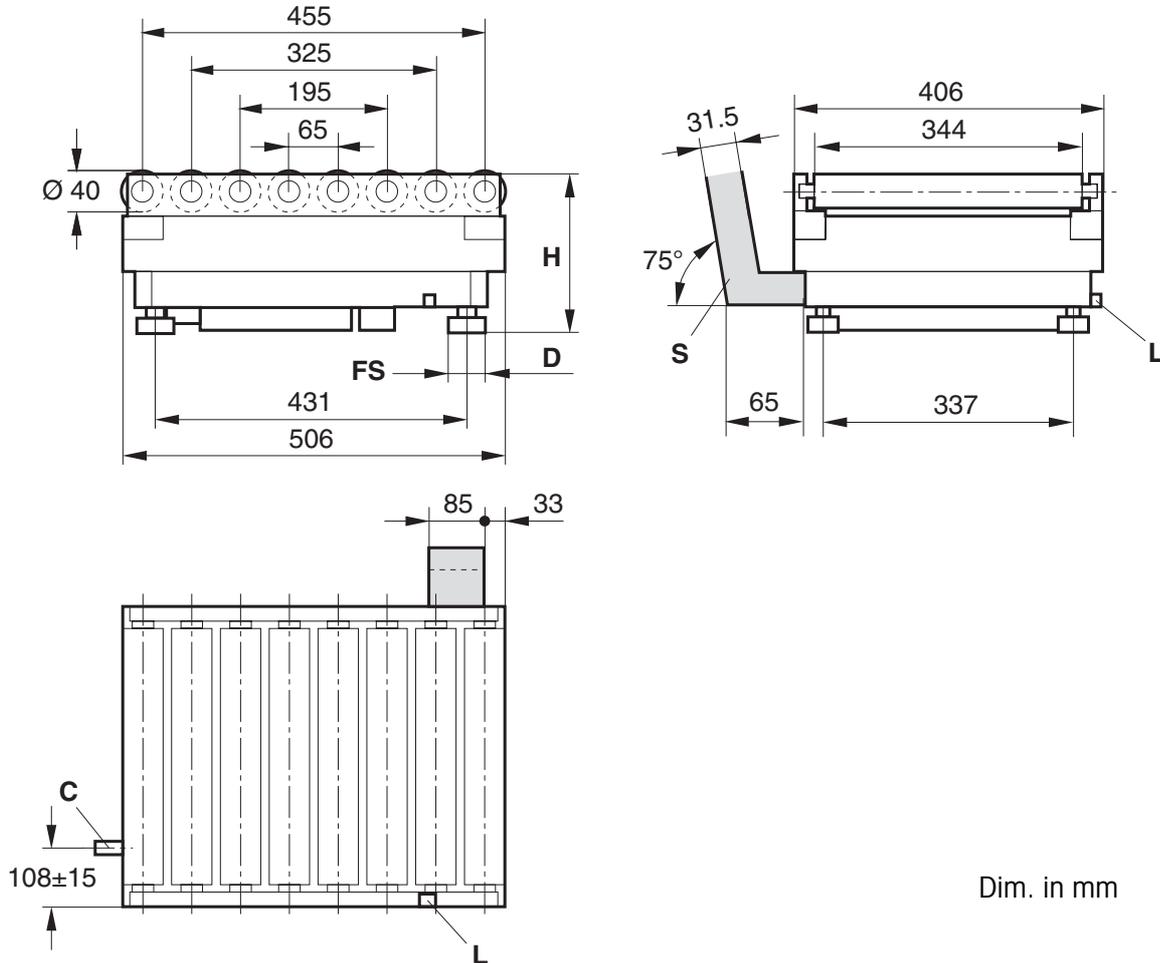


Dim. in mm

- H Adjustable with 4 foot bolts
Min. H = 123 mm
Max. H = 148 mm
- FS Foot bolt
Spanner size = 17 mm
Thread = M10
Required area D = 35 mm dia.
- S Tripod
- L Level indicator
- C Cable connection

Technical version: 08/2000

Dimensions of KB...x roller conveyor (order no. 00503640)

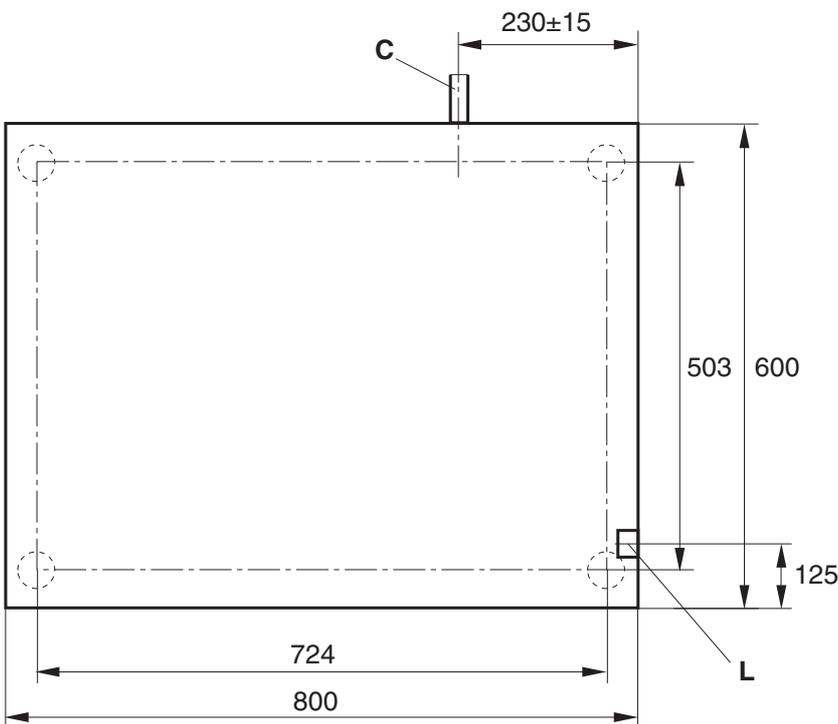
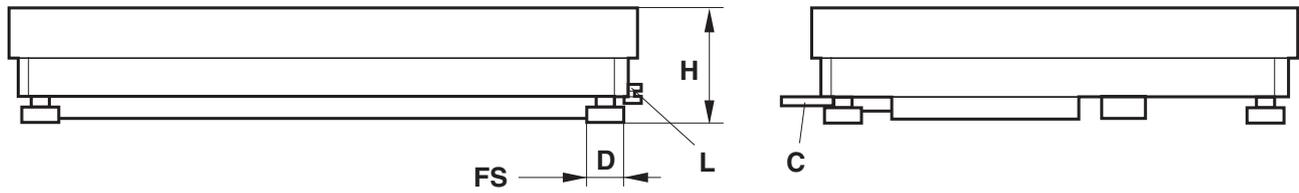


Dim. in mm

- H Adjustable with 4 foot bolts
Min. H = 170 mm
Max. H = 195 mm
 - FS Foot bolt
Spanner size = 17 mm
Thread = M10
Required area D = 35 mm dia.
 - S Tripod
 - L Level indicator
 - C Cable connection
- Weight of roller conveyor = 9.0 kg net

Technical version: 08/2000

Dimensions of KCC...x

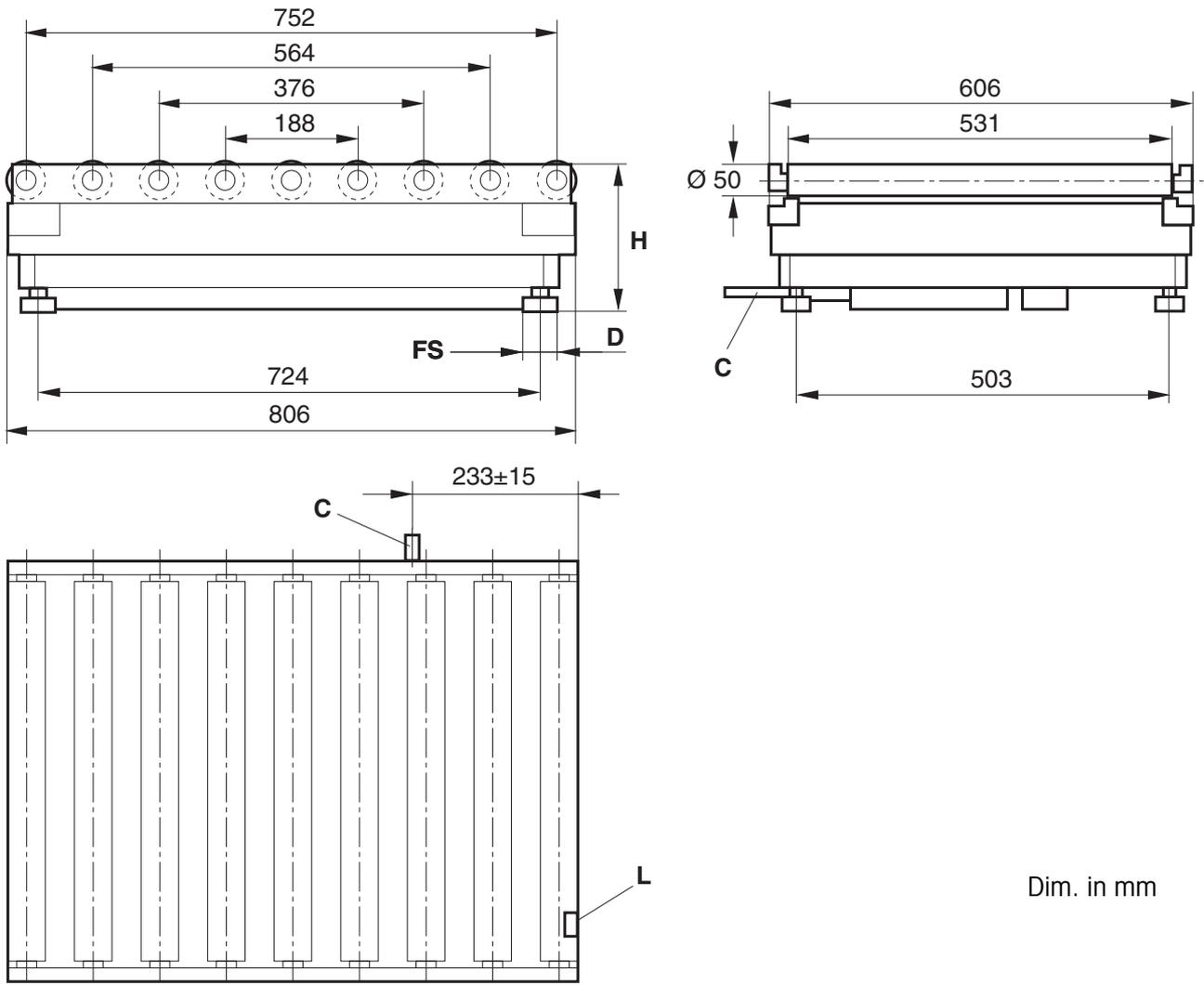


Dim. in mm

- H Adjustable with 4 foot bolts
Min. H = 130 mm
Max. H = 155 mm
- FS Foot bolt
Spanner size = 17 mm
Thread = M10
Required area D = 35 mm dia.
- L Level indicator
- C Cable connection

Technical version: 08/2000

Dimensions of KCC...x roller conveyor (order no. 00504852)



Dim. in mm

- H Adjustable with 4 foot bolts
Min. H = 185 mm
Max. H = 210 mm
 - FS Foot bolt
Spanner size = 17 mm
Thread = M10
Required area D = 35 mm dia.
 - L Level indicator
 - C Cable
- Weight of roller conveyor = 22.0 kg net

Technical version: 08/2000



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