BOSCHE

# Bending beam load cell
# B10S / B10N

## Operating and Installation Manual

### - Translation of the original -

(keep for future use)

Status: 2025-03-26

**Bosche GmbH & Co. KG**

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This manual has been created on: 2025-03-14

## Copyright

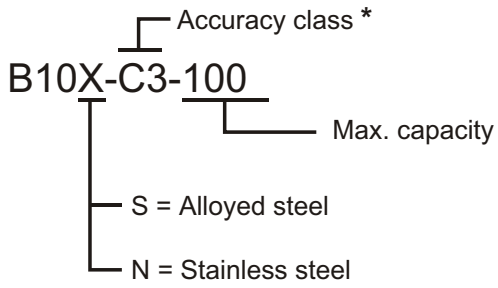


## Type plate

The following data is engraved/ lasered on the side of the bending bar body:

**BOSCHE**
Type B10S-C3-0100
Capacity 100 kg
Sensitivity 1.9993 mV/V
S/N: XXXXXX

The respective type information means:




***** C3 - according to OIML R60
G3 - complies with class C3 according to OIML R60 (not certified)

# Foreword

These operating and installation manual provide you with detailed information about the bending beam load cell B10S / B10N. It will instruct you on installation, connection and use.

These instructions contain safety instructions to guarantee safe use.

The manufacturer strives to improve their products on an ongoing basis. They reserve the right to carry out any and all modifications and improvements that they consider to be necessary. There is no obligation to retrofit already delivered load cells afterward.

**Danger**
**Before using the bending beam load cell, you must have read and understood the operating instructions and the safety regulations that they contain.**

**Note**
Errors and omissions in the documentation reserved. If necessary, please inform the Bosche GmbH & Co. KG of any errors in the documentation. We would also be grateful for any suggestions for improvements that you may have.

The manufacturer's contact data is listed on the reverse of the title page. If you have any queries or problems, please contact the manufacturer without delay.

**Note**
If you have any questions for Bosche GmbH & Co. KG, please have the serial number to hand.

## Table of contents

# 1 Safety

This chapter warns against possible risks when handling the load cell. The information for detection of risks contained in this chapter is intended to allow a save and correct operation.

**It is important to read and adhere to this operating manual and particularly this chapter prior to operating this device.**

## 1.1 For your safety

### 1.1.1 General

In addition to safety information, the operating manual includes:

- A general product description
- Information about installation and connection of the load cell
- Instructions to operate the load cell
- Maintenance and care instructions
- Troubleshooting and remedy instructions
- Technical data

Always keep this operating and installation manual and additional documents for your personnel at hand in the direct vicinity of the bending beam load cell.

Always adhere to all information, notes, instructions and explanations contained in this manual! Avoid accidents caused by incorrect operations! Also adhere strictly to the valid legal regulations in addition to the safety instructions specified in this manual.

Prior to commissioning/start-up read the safety information/instructions and familiarise yourself with dangerous areas.

The load cell is constructed according to the current state of art and the valid safety regulations. However, there are risks in the event of incorrect operation or non-observance of the safety regulations:

- Danger to limb and life of operators, third persons and animals staying in the vicinity of the load cell.
- Danger to the load cell and other assets of the owner/user
- Danger to the efficient operation of the bending beam load cell.

### 1.1.2 Safety symbols in this manual

The following symbols are used on all important positions in this manual. Particularly observe these notes and treat very carefully.

**Electricity**
**This notice indicates a risk of injury and/or danger to life in connection with live components if certain behavioral rules are not followed. If you see this symbol in the documentation, please take all necessary safety precautions.**

**Danger**
**This note indicates the danger of injuries and/or danger to life, if specific behaviour rules are not observed.**
**When this symbol appears in the operating manual, please take all required safety measures.**

**Attention**
This note warns against damage to assets as well as financial disadvantages and responsibility under criminal law (e.g. loss of the warranty, cases of third party risks, etc.).

**Note**
Important notes and information about efficient, economic and environmental friendly handling are specified here.

## 1.2 Intended use

The bending beam load cell B10S / B10N is designed for installation in industrial scales (mechanical engineering, agriculture or similar application).

Any further use is considered as not in accordance with the intended use. The manufacturer does not assume any liability for resulting damage.

The intended use also includes:

- Observance of all notes, information, instructions contained in the documentation as well as in all manuals supplied by the manufacturer.
- Adherence of the maintenance and service conditions and intervals prescribed by the manufacturer and
- Observance of technical data.

Adhere to the attendant accident prevention regulations as well as other generally approved technical safety rules.

## 1.3 Reasonably foreseeable misuse

Ensure that the bending beam load cell is used exclusively in the prescribed load direction. Otherwise, measurement results may be distorted, and the load cell's lifespan may be affected. Avoid lateral forces and torsional moments.

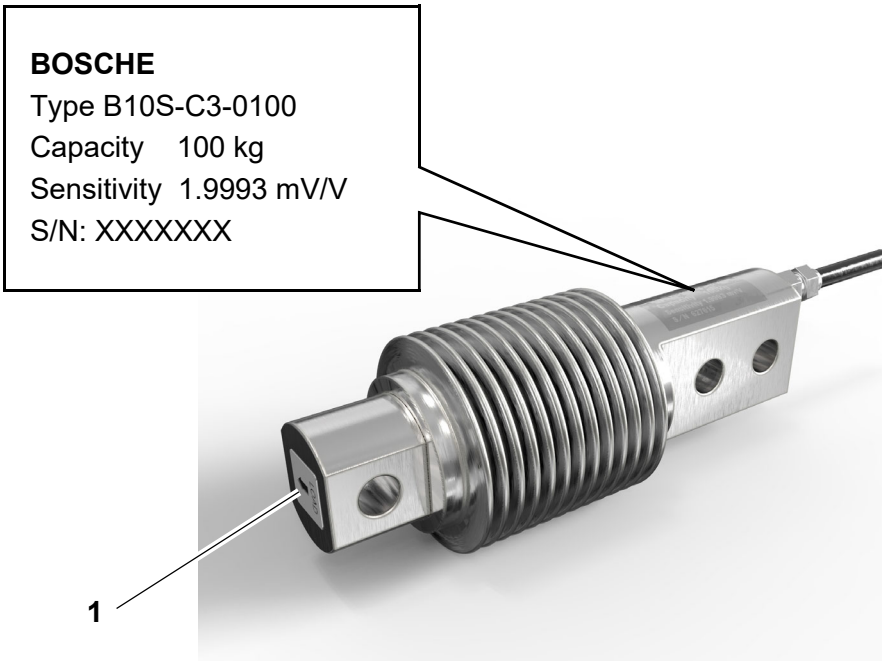
The bending beam load cell B10S / B10N is **NOT** suitable for:

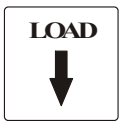
- Installation in explosive environments (except for the corresponding ATEX versions)
- Safety-critical applications

## 1.4 Type and information labels on the bending beam load cell B10S / B10N

The bending beam load cell is equipped with type and information labels. Ensure that all labels remain in a readable condition.

The following data is engraved on the load cell by the manufacturer.




(1) Prescribed load direction

If the load direction is correct, the load cell output signal shows a positive value.

**Note**
Always refer to the serial number of your load cell when making inquiries, orders, or service requests. This facilitates communication with the manufacturer and helps prevent processing errors.

## 1.5 Obligations of the owner/user

The owner/user obligates himself to only instruct people to work on the bending beam load cell, who:

- are familiar with the basic rules concerning safety and accident prevention and are trained in the operation of the shear beam load cell K30S / K30N. Even if the specified nominal load in the destruction range is a multiple of the full-scale value, the relevant accident prevention regulations of the professional associations must be strictly observed.
- have read and understood the operating and installation manual, the safety chapter as well as the warning notes.

**Danger**
**The operator bears the ultimate responsibility for safety. This responsibility cannot be delegated.**

## 1.6 Obligations of the operator

All people instructed to operate the shear beam load cell obligate themselves:

- to always ensure the safety of other people and that appropriate safety measures (e.g. fall protection, overload protection, etc.) are in place.
- to read the operating manual, the safety chapter and the warning notes and
- to only operate the bending beam load cell B10S / B10N when they are familiarised with its functions.

The operating personnel must devote their full attention to working with the bending beam load cell.

**Danger**
**It is about the safety of yourself, your colleagues, and any bystanders near the shear beam load cell K30S / K30N.**

## 1.7 Description of the dangers

### 1.7.1 Danger of injury

- Before cleaning and maintenance work, the load cell must always be disconnected from the evaluation electronics and protected from overload.
- Do not change the contacts.
- Do not continue operating the bending beam load cell if it is damaged or experiencing a malfunction.
- Do not operate the load cells in explosive environments (except for the corresponding ATEX versions).

### 1.7.2 Danger of damage

Ensure that the load cell is used exclusively in the prescribed load direction. Otherwise, measurement results may be distorted, and the load cell's lifespan may be affected. Avoid lateral forces and torsional moments.

The bending beam load cell B10S / B10N is **NOT** suitable for:

- Safety-critical applications

## 1.8 Liability and warranty

The BOSCHE company offers a restricted warranty for components, which became faulty due to strain or material faults. The warranty starts with the date of delivery. The BOSCHE company retains the right to repair or replace components. Repair work executed during the warranty period will not extend the period of warranty. The warranty becomes null and void:

- In the event of incorrect use / use other than the intended use or incorrect installation
- Non-observance of the specifications in the operating manual
- Use outside the applications described
- Conversion, modification or opening of the bending beam load cell
- Unintentional or mechanical damage and damage caused by media, liquids, natural wear.
- Improper mounting or electrical installation
- Overloading the measuring unit.

**Prohibition of unauthorised conversions and modifications!**

The load cells must not be modified in terms of design or safety without our express consent. Any modification excludes liability on our part for any resulting damage.

# 2 Description

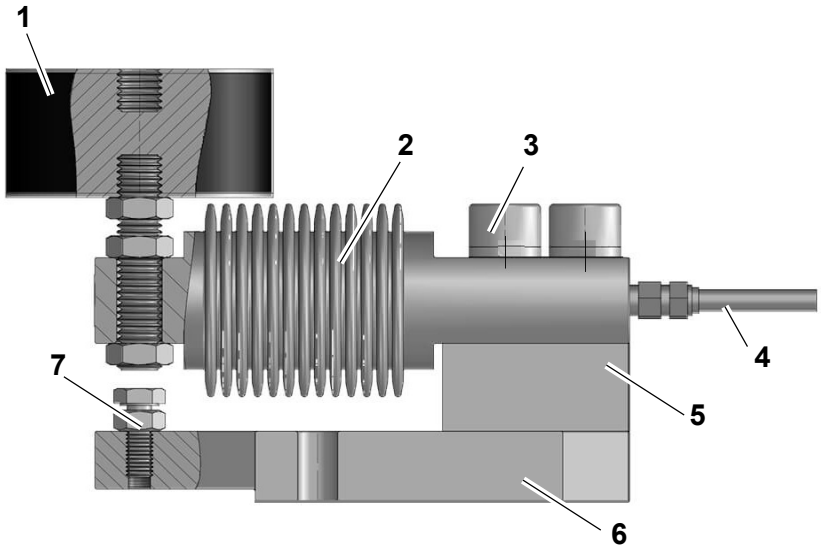
## 2.1 General

The bending beam load cell B10S / B10N is used as a sensor in industrial scales (e.g. platform scales, floor scales, silo scales) to determine the weight of placed products.

The bending beam load cell B10**S** is made of alloyed steel, nickel-plated.

The bending beam load cell B10**N** cell is made of stainless steel.

## 2.2 Mounting example




The construction consists of the following components:

(**1**) Elastomeric bearing
(**2**) Load cell
(**3**) Fixing screws / washers (if necessary)
(**4**) Connecting cable
(**5**) Distance plate
(**6**) Baseplate with overload screw (7)

**Note**
See chapter 7.6 for possible accessories.

**Attention**
Observe the permissible screw tightening torques, use washer(s) if necessary.

## 2.3 Functionality

The bending beam load cell are designed for installation in industrial scales and are used for the precise weighing of the product loaded onto the scale.

The load cells have a rated output of 2 mV/V.

*Example:*
*Under nominal load and a supply voltage of 10 V, the output signal is:*

$$10\ V \times \frac{2\ mV}{V} = 20\ mV$$

*At 1/2 of the nominal load, the output signal is 10 mV.*

The bending beam load cell B10S / B10N only functions with suitable evaluation electronics.

**Note**
Using a load cell testing device (load cell tester, available from Bosche), you can check whether the load cell is measuring correctly.

# 3 Installation, connection

## 3.1 Control

When the bending beam load cell is delivered, check the packaging, the load cell and possible accessories for visible damage.

## 3.2 Packaging and disposal

Keep all parts of the original packaging for a possible return.

**Note**
Only use the original packaging if the load cell is returned.
Prior to the transport, disconnect/fasten all loose/moving parts of the bending beam load cell. Secure the parts against slipping/damage.

Be sure to follow any instructions and notices attached to the packaging (if available).

## 3.3 Installation of the bending beam load cell

**Attention**
Failure to comply with the installation regulations is considered improper use of the load cell.

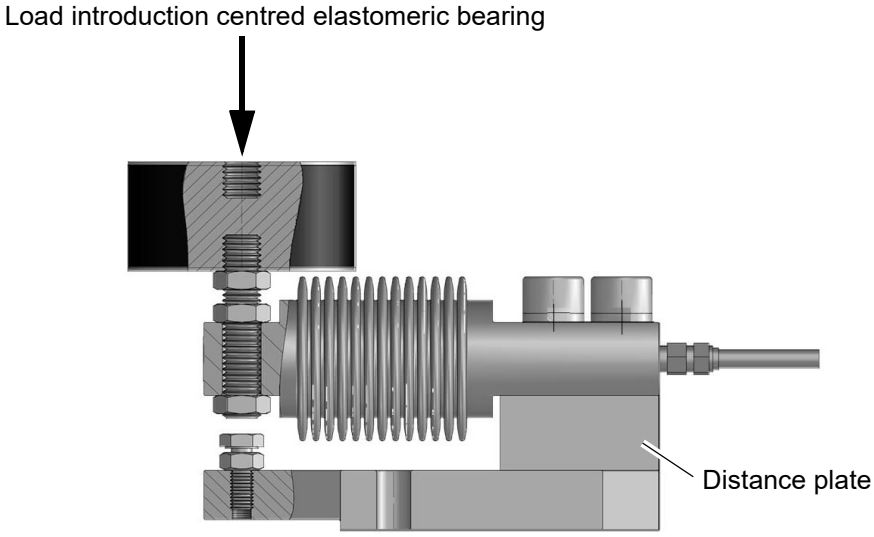
### 3.3.1 Dimensions

For the dimensions / space requirements of the B10S / B10N bending beam load cell, refer to chapter 7.1 ‘Mechanical data’.

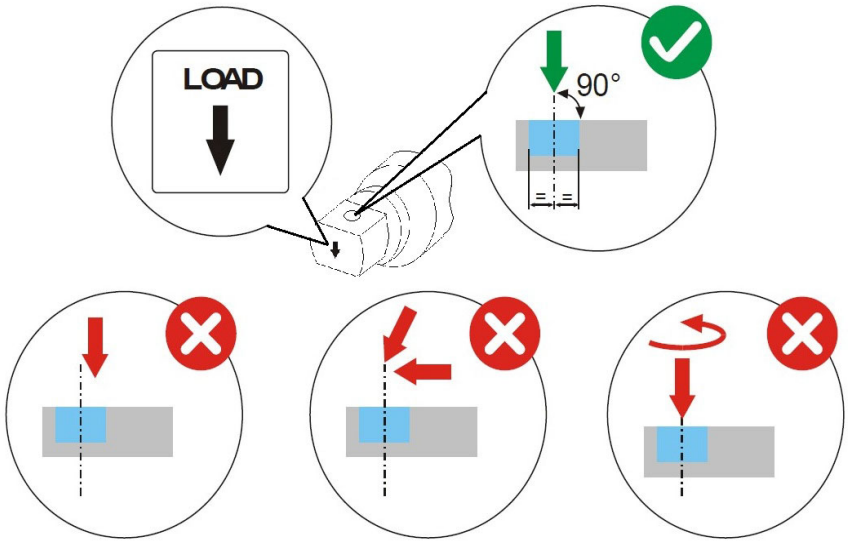
### 3.3.2 Mounting

**Attention**
A missing shim and insufficient distance plate thickness (the mounting plate must be rigid) cause errors when using load cells!

The load cell's connection cable must be installed in a way that any condensation or moisture does not move toward the load cell, but can drip off freely. It must also be ensured that no moisture can enter the open end of the cable.




The illustration below schematically represents the correct centrical load introduction. Below it, examples of incorrect loading conditions are shown, which must be strictly avoided.The following points must be observed during



**Attention**
Ensure that the bending beam load cell B10S / B10N is used exclusively in the prescribed load direction (see arrow on the load application face of the load cell). Otherwise, measurement results may be distorted, and the load cell's lifespan may be affected. Avoid lateral forces and torsional moments.

**Note**
For the operating instructions of the evaluation electronics, please refer to the separate documentation of the evaluation electronics.

The following points must be observed during installation:

**Attention**
Never overload the load cell, even temporarily, as this can lead to permanent damage.

- The load cells, especially the thin-walled bellows, must be handled with care.
- The support surfaces of the load cells must be coplanar (aligned in one plane) and sufficiently rigid. To compensate for parallelism deviations of the support surfaces, suitable mounting accessories must be used (see chapter 7.6).

**Attention**
Observe the permissible screw tightening torques and use washer(s) if necessary.

| Thread | Tightening torques in Nm |
|---|---|
| M8 - 8.8 (250 kg nominal load) | 25 |
| M10 - 8.8 (500 kg nominal load) | 49 |

- The mounting surface must be horizontal, flat, and clean. Dust, dirt, and other foreign objects must not accumulate, as they can restrict the load cell's movement and distort measurement results.
- Position the load cells using a spirit level. Ensure that the specified load direction is followed during installation.
- Protect the load cells from chemicals that could damage the steel of the load cell body or the cable.
- Do not shorten the load cell cable, as its length is considered during calibration.
- Install load buffers and shims if necessary (see Chapter 7.6).
- Do not lift or pull the load cell by the cable.
- Avoid impact loads (e.g., dropping, hard shocks).
- Welding or lightning currents can damage the load cell, so perform all necessary welding work on the equipment before installing the load cells.

- If the load cells are used permanently in an aggressive environment, they should be equipped with additional mechanical protection (e.g., a metal cover).
- Avoid force shunts, meaning all supply and discharge lines (such as hoses, pipes, and cables) should be as flexible as possible and coupled to the measuring object.
- Connect load cells in parallel in the junction box according to the wiring diagram (solder the connections). Do not shorten the load cell cables; instead, coil any excess length and connect the prepared end. Route the load cell wiring separately from high-voltage cables (e.g., motor supply lines) to avoid interference.
- If necessary, seal the cable entry points of the junction box with a suitable sealing compound to prevent moisture ingress. Keep the junction box closed to protect the internal components.

**Temperature effects**

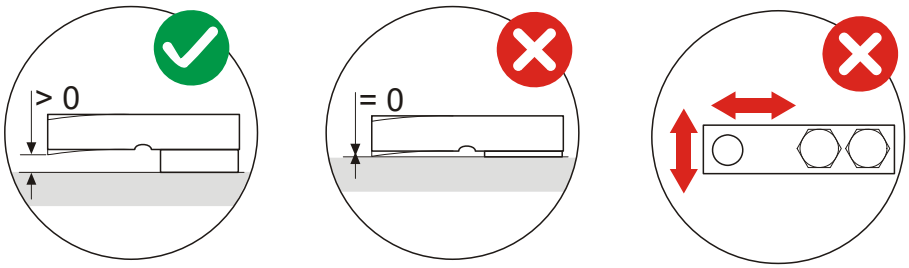
Significant temperature fluctuations can cause measurement deviations. Solution: Protect the load cell from wind, sunlight, and/or heat radiation using protective covers, plates, or enclosures.

## 3.4 Connection

### 3.4.1 Mechanical connections

Mounting surfaces must be smooth, flat, and as parallel as possible to the body of the bending beam load cell.

The load cell should be installed in a way that allows it to bend freely without mechanical interference. Avoid force shunts, ensuring that no external mechanical influences affect the measurement..




**Attention**
Observe the permissible screw tightening torques and use washer(s) if necessary.

### 3.4.2 Welding connections

It is strongly recommended not to perform welding when load cells are already installed. If welding is unavoidable, position the ground clamp of the welding device as close as possible to the intended welding point. This prevents electric current from passing through the load cell housing, which could cause damage.

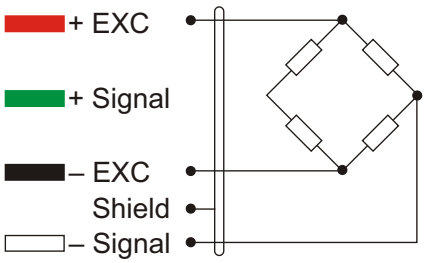
### 3.4.3 Electrical connections

**Note**
Each load cell comes with a precisely matched cable, and its length has already been considered in the factory calibration.

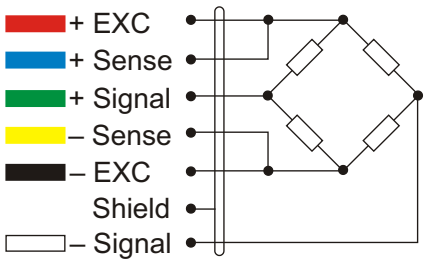
The cable cross-section should be selected according to the required cable length (between the junction box and the evaluation electronics). When routing the connection cable, maintain a safe distance from high-voltage cables to avoid interference. Do not use additional intermediate terminals to ensure signal integrity.

The connection cable to the evaluation electronics is four-core, shielded as standard. An optional six-core connection cable is available.

Four-core cable




Six-core cable




**Cable extensions**
Use only shielded, low-capacitance measurement cables, ensuring a proper connection with minimal contact resistance.

**Cable cuts**
Do not shorten the load cell cable (four-core),as this directly affects the measurement accuracy, calibration, and electrical properties of the load cell.

**Note**
Shortening the cable alters the technical specifications of the load cell (four-core)!

**Note**
A 6-wire load cell does not achieve the specified accuracy if the sense wires are not used.

### 3.4.4 Parallel connection of multiple load cells

To connect multiple cells in parallel, a sealed junction box with a terminal board must be used if necessary. The extension connection cables of the load cells must be shielded, placed individually in cable ducts or pipes, and routed as far away as possible from the power cables.

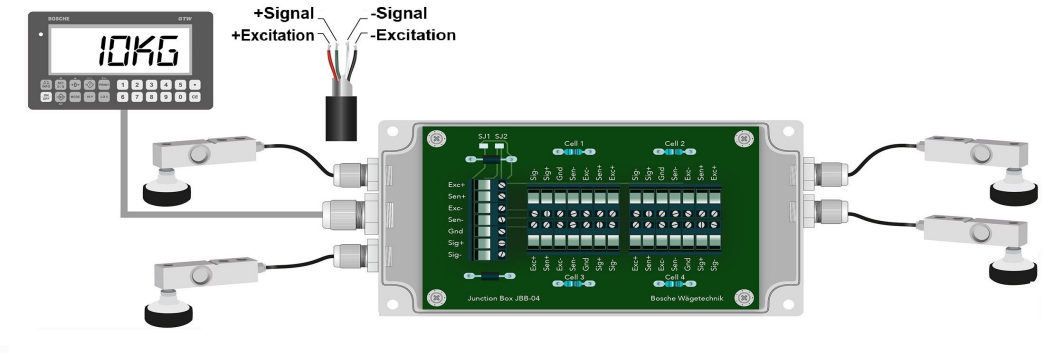
If several load cells are connected in parallel, an overload of a single load cell cannot be detected via the output signal.

**Attention**
For legal-for-trade load cells, the cable must not be shortened. The cable lengths should be equal.

**Note**
Special cable length available upon request.

For the protection of the load cell cables, sealed cable sheaths and connectors must be used.

**Attention**
Standard cables are not suitable for drag chain applications.




### 3.4.5 Wind / shocks / vibration

Suitable mounting accessories are available for all load cells (see Chapter 7.6). These help compensate for flatness deviations of the support surfaces.

The system designer must take additional measures to prevent lateral displacement and tipping hazards concerning the following aspects:

- Shocks and vibrations
- Wind pressure
- Seismic classification of the installation area
- Consistency of the support surface

### 3.4.6 Grounding Connection of the Weighed Structure

**Step 1** Connect the upper mounting plate of each individual load cell to the corresponding lower plate of each load cell using a copper conductor of suitable cross-section.

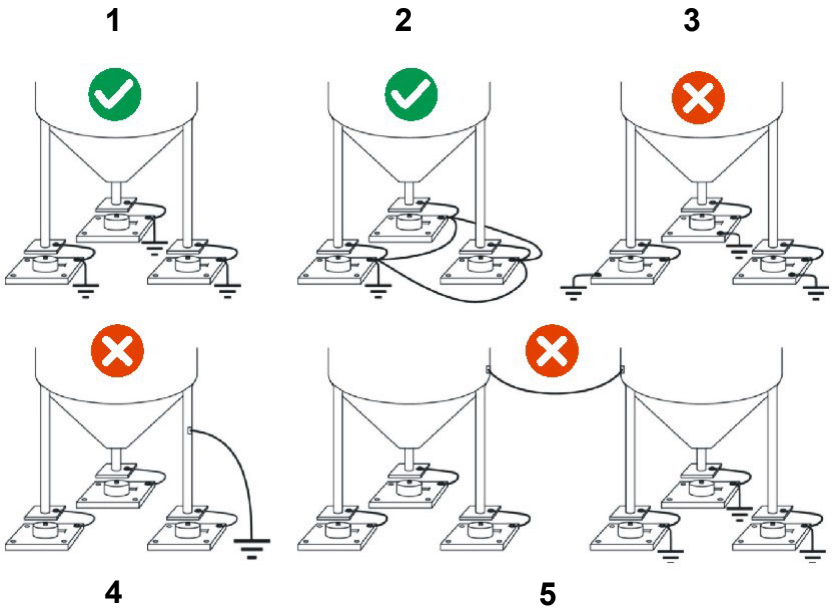
**Step 2** Then, either connect each individual plate to the grounding system (Method 1) or connect all lower plates together and connect one plate to the grounding system (Method 2).

**Attention**
Only connection methods 1 and 2 are permitted.

The electrostatic charge that accumulates due to the friction of the product against hoses and the walls of the weighed container, is discharged to ground without passing through the load cells, preventing damage.

Without a proper grounding connection, the operation of the weighing system will not be affected; however, the possibility of damage to the load cells and the connected evaluation electronics cannot be ruled out. The continuity of the grounding system must not be ensured through metal parts of the weighed structure.

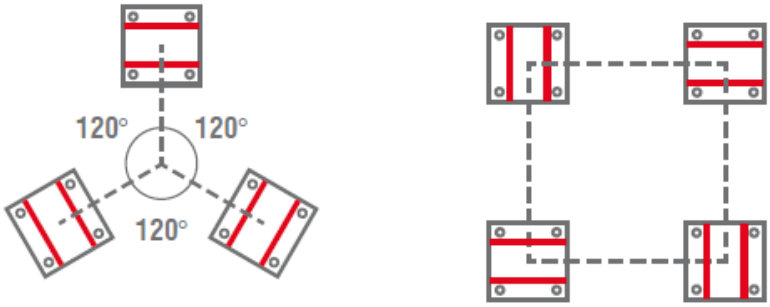
**Connection methods:**



### 3.4.7 Measures against lateral displacement

**Attention**
Necessary measures must be taken to prevent lateral displacement and tipping, depending on impacts and vibrations, wind load, seismic classification, and ground conditions.

Alignment of Weighing Modules



# 4 Operation

## 4.1 General

The bending beam load cell B10S / B10N only functions with suitable evaluation electronics.

**Note**
For the operation description of the evaluation electronics, the separate documentation of the evaluation electronics must be observed.

## 4.2 Warm-up time

The minimum warm-up time for the bending beam load cell before starting the measurement (calibration) is approximately 20 minutes.

## 4.3 Checking the load cells with a multimeter

**Note**
Using a load cell tester (available from Bosche Wägetechnik), check whether the load cell is measuring correctly.

Before using the bending beam load cell, check whether it provides correct measurement values. Perform this check as described below using a digital multimeter. In this case, the load cell tester from Bosche was used.


Attention
The load cell tester must be properly connected to the load cell before starting the inspection. The inspector must be trained in the use of the load cell tester.

### 4.3.1 Test of load cell input (Quick access) via resistance measurement

- Turn off the load cell tester.
- Disconnect the cells from the instrument and check whether the junction box shows any signs of moisture, which may indicate condensation or water ingress. If this is the case, the system must be repaired or replaced if necessary.
- Measure the resistance between the positive signal wire and the negative signal wire. The measured value should be similar to the output resistance specified in the load cell datasheet.
- Measure the resistance between the positive excitation wire and the negative excitation wire. The measured value should be similar to the input resistance specified in the load cell datasheet.
- Check whether the insulation resistance between the shield and any other conductor of the load cell, as well as between any other conductor of the load cell and the load cell housing, is greater than 5 MΩ at a 50V DC test voltage.

### 4.3.2 Voltage measurement on load cells

- Turn on the load cell tester.
- Remove the load cell to be tested from under the container or lift the container support.
- Check the supply voltage at the power cables of the load cell connected to the instrument (or extension). Ensure that a voltage of 5 VDC ±3% is present.
- Measure the load cell’s response signal between the positive signal wire and the negative signal wire by connecting them directly to the measuring device. Verify that the measured value is between 0 and ±0.5 mV.
- Apply a load to the load cell and check whether the signal increases.

**Note**
If none of the specified values are achieved, please contact the Technical Customer Service of BOSCHE Weighing Systems.

## 4.4 Dimensioning the load cell nominal load

For safety reasons, it is recommended to use load cells at a maximum of 70-80% of their rated capacity for dead load (static), assuming that the load is evenly distributed across the entire weighing system.

Depending on how the load is handled, it may be necessary to further reduce the percentage of the load in relation to the nominal load (e.g., when moved using a forklift, overhead crane, etc.).

For payload applications, the installer is responsible for calculating shear force, acceleration, frequency, and other relevant factors.

**Attention**
Ensure that changing loads are only max. 35% and pulsating loads are only max. 30% of the nominal load in order to avoid material fatigue.

## 4.5 Functional testing of a load cell

QR code for video "Load Cell Functional Test"

# 5 Troubleshooting

## 5.1 In case of malfunction

In the event of a malfunction, the bending beam load cell B10S / B10N does not function, or an error message appears on the evaluation electronics.

**Note**
For error messages of the evaluation electronics and troubleshooting/error correction of the evaluation electronics, refer to the documentation for the evaluation electronics.

After replacing the load cell(s), follow the installation and connection requirements (see Chapter 3 "Installation, connection").

## 5.2 Troubleshooting information

If uncertain or incorrect measurement values occur, the following points should be considered.

**Note**
Each of these points can have a significant impact on the measurement result.

- Check if the scale is free and not obstructed by unwanted force shunts (caused by pipes, cables, etc.).
- Check if the verify external conditions, such as contamination or heat radiation, that might affect measurements.
- Check if the proper installation of the load cells and the load introduction point, confirming their correct functionality.
- Check for moisture inside the junction boxes and check if the cables are damaged or incorrectly connected.
- Perform a corner test by applying weight directly over each individual load cell to identify a faulty load cell or narrow down the cause of the issue.
- If possible, desolder each load cell from the junction box and use a multimeter to check the correct input and output resistance and and to zero signal (and if possible also to signal).

## 5.3 Contacting customer service

Bosche GmbH & Co. KG
Reselager Rieden 3
49401 Damme

Phone +49 (0)5491 9996890
Fax +49 (0)5491 9996899
E-mail info@bosche.eu

## 5.4 Information needed when contacting customer service

| Opersting company | Information |
|---|---|
| Name of your company | |
| Name of a contact | |
| Contactdata<br>Phone<br>Fax<br>E-mail | |

| Product | Information |
|---|---|
| Model name | |
| Serial number | |
| Date of purchase | |
| Name and location of supplier | |

**Note**
Fill in the tables that are shown when you receive the bending beam load cell so you can easily refer back to them at any time

Always return defective load cells with a clear and detailed error description.

**Information about the problem:**

Examples of necessary information that supports troubleshooting:

- Has the load cell worked since being supplied?
- Has the load cell been in contact with water?
- Has there been fire damage?
- Has there been a thunderstorm before/during the fault?

**Note**
Please include the entire prior history of the bending beam load cell B10S / B10N.

# 6 Maintenance, care, disposal

## 6.1 Cleaning

**Attention**
Do not use aggressive cleaning agents.

- Regularly remove contaminants from the load cells, mounting components, and freely moving parts of the scale.
- Remove dust and other dirt from the load cell using a damp cloth.
- Dust deposits can also be blown off with low-pressure compressed air.
- Rub all the surfaces with a dry cloth.

**Note**
Observe the cleaning instructions for protection class IP 65.

## 6.2 Maintenance, servicing

The bending beam load cell B10S / B10N requires minimal maintenance. However, contaminants on the load cells and accessories should be regularly removed as described in chapter 6.1.

The bending beam load cell B10S / B10N may only be serviced by trained and authorized service technicians.

If maintenance or welding work is required after installing the bending beam load cell B10S / B10N, it is essential to disconnect the connections from the evaluation electronics beforehand.

**Achtung**
To avoid overloading the load cells, they should either be removed for the duration of maintenance or modification work or be protected from overload by effective mechanical measures.

**Maintenance schedule**

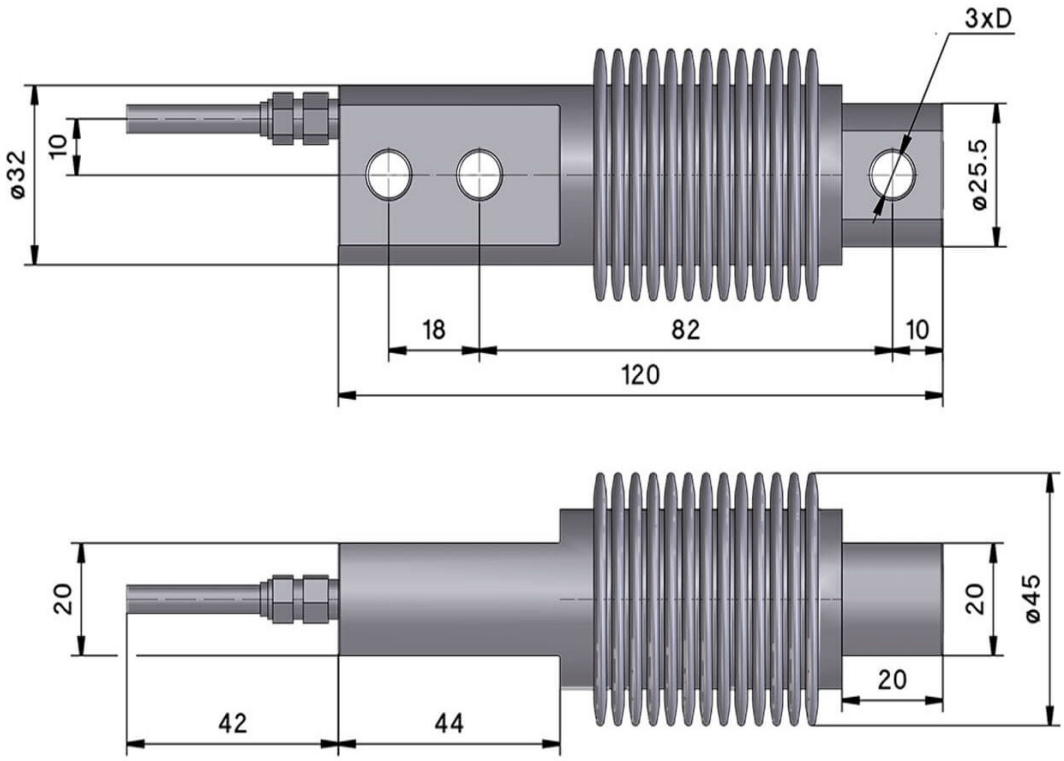
**Note**
The inspection interval for load cell accuracy (for legal-for-trade load cells) can be determined by the customer's internal quality assurance.

## 6.3 Disposal

The bending beam load cell B10S / B10N, any accessories, and their packaging must be disposed of in accordance with the applicable national and regional regulations.

# 7 Technical data

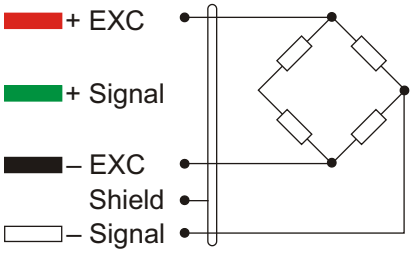
## 7.1 Mechanical data



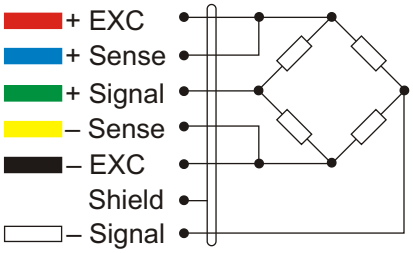

Dimensions in mm

| Load | Ø D |
|---|---|
| 5 - 250 kg | 8,2 mm |
| 300 - 500 kg | 10,2 mm |

## 7.2 Connection data




four-core cable




six-core cable

| Feature | Value/Unit |
|---|---|
| Recommended supply voltage $U_{ref}$ | 5 to 12 V DC |
| Max. supply voltage $U_{max}$ | 15 V DC |
| Input resistance $R_{LC}$ | 400 ± 20 Ω |
| Output resistance $R_{out}$ | 352 ± 3 Ω |
| Insulation resistance | ≥ 5000 MΩ |

## 7.3 Measuring range / Legal-for-trade

| Range | Remark | |
|---|---|---|
| | B10S | B10N |
| 50 bis 250 kg | verifiable | |
| 500 kg | non verifiable | |
| 5 bis 75 kg | | non verifiable |
| 100 bis 500 kg | | verifiable |

## 7.4 Ambient conditions

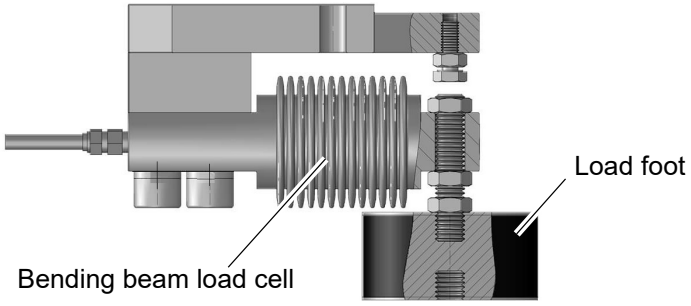
| Feature | Value/Unit |
|---|---|
| Nominal temperature range $B_T$ | - 10 to + 40 °C |
| Operating temperature range $B_{tu}$ | - 30 to + 70 °C |
| Relative air humidity | max. 80 %, non-condensing |
| Protection class | IP 65 |

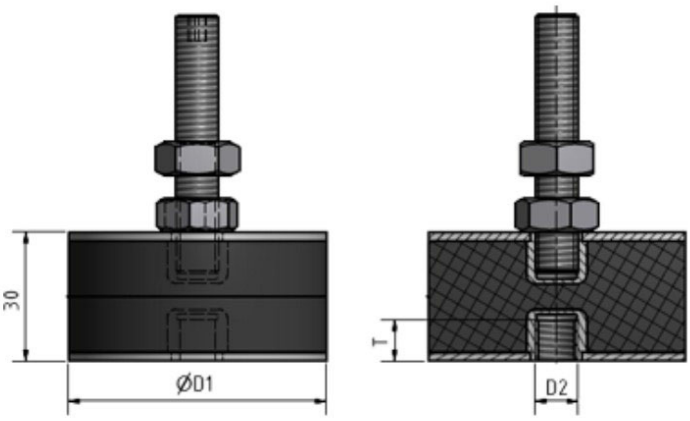
## 7.5 Metrological data of verifiable load cell

| Feature | Value/Unit | |
|---|---|---|
| | B10S | B10N |
| Accuracy class according to OIML R60 | C3 | |
| Number of division values $n_{LC}$ | 3.000 | |
| Nominal load $E_{max}$ | 50 - 500 kg | 5 - 500 kg |
| Error rate $p_{LC}$ | 0,7 | |
| Minimum division value of the load cell $v_{min}$ | 0,010 % $E_{max}$ | |
| Rated value of the relative minimum division value of the load cell $Y = E_{max} / v_{min}$ | 10.000 | |
| Nominal value $C_n$ | 2 mV/V | |
| Minimum preload $E_{min} / E_{max}$ | 0 % | |
| Limit load $E_{lim}$ | 120 % $E_{max}$ | |
| Breaking load $E_d$ | 150 % $E_{max}$ | |

## 7.6 Accessories

### 7.6.1 Load foot GML-B10



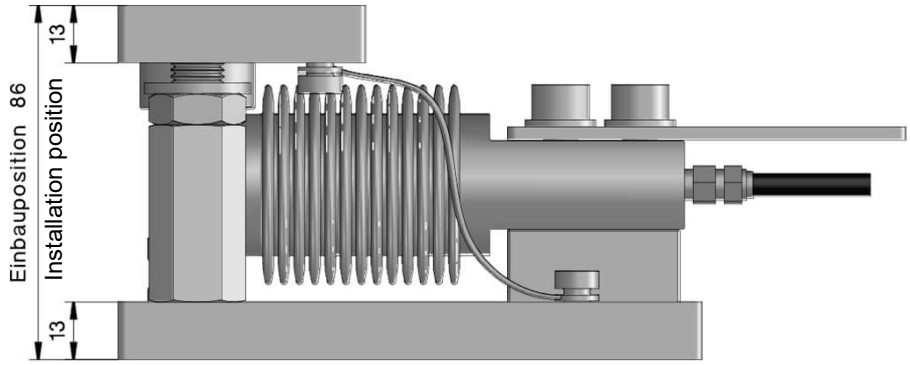



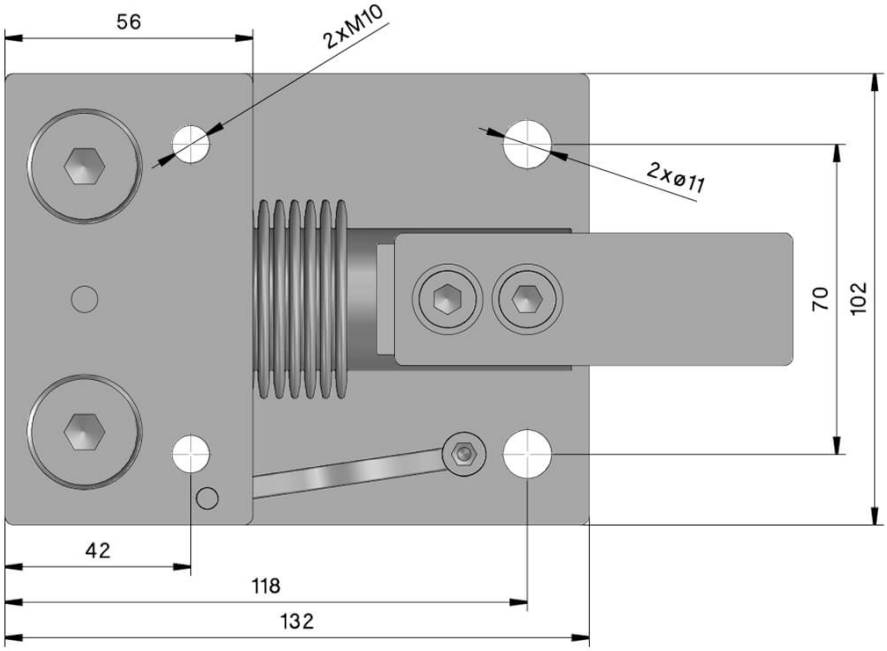

| Type | Nominal load | Ø D1 | D2 | T |
|---|---|---|---|---|
| GML-B10-0050 | 10 - 50 kg | 40 | M8 | 8 |
| GML-B10-0250 | 100 - 250 kg | 40 | M8 | 8 |
| GML-B10-0500 | 500 kg | 60 | M10 | 10 |

Dimensions in mm

### 7.6.2 Weighing module B10-MA

The ball-pan system ensures optimum load transfer. The integrated lift-off prevention ensures that the base and floor plate are mechanically securely connected.



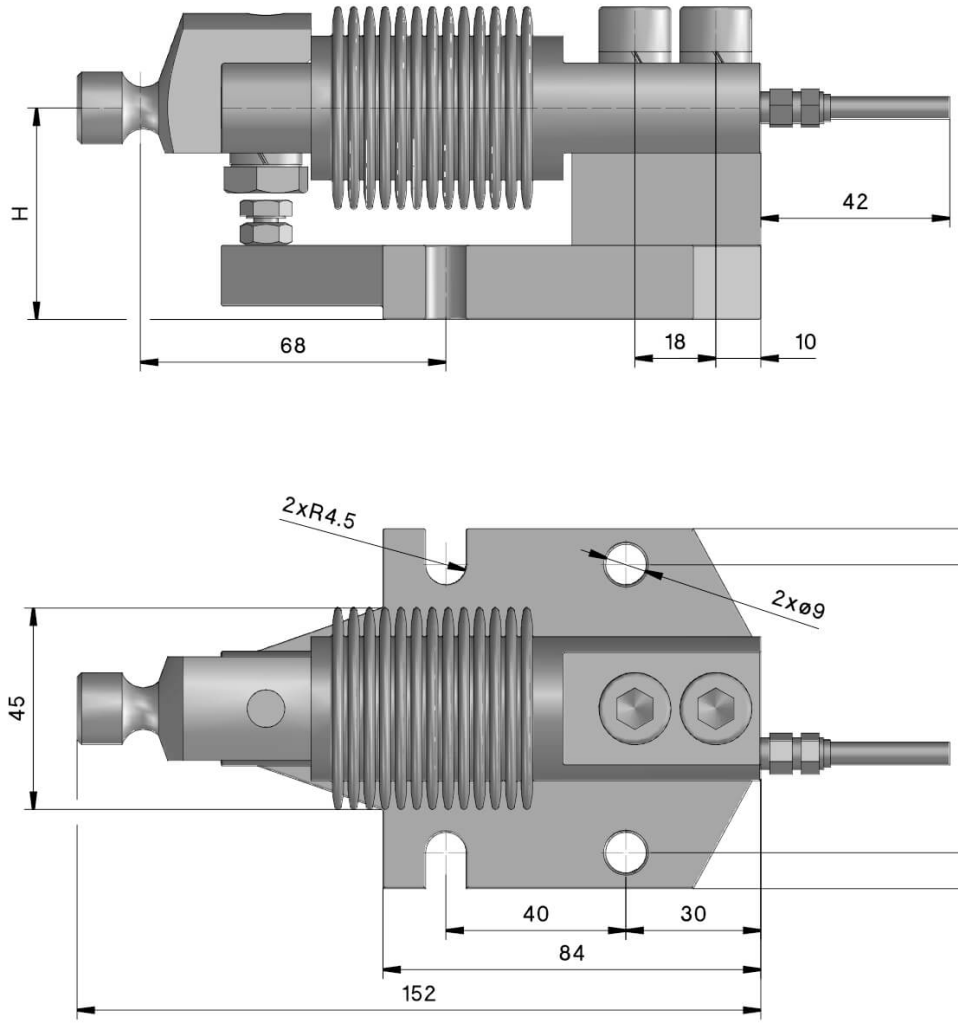




Dimensions in mm

**Note**
The weighing module is lift-proof!

### 7.6.3 Weighing module B10- MH

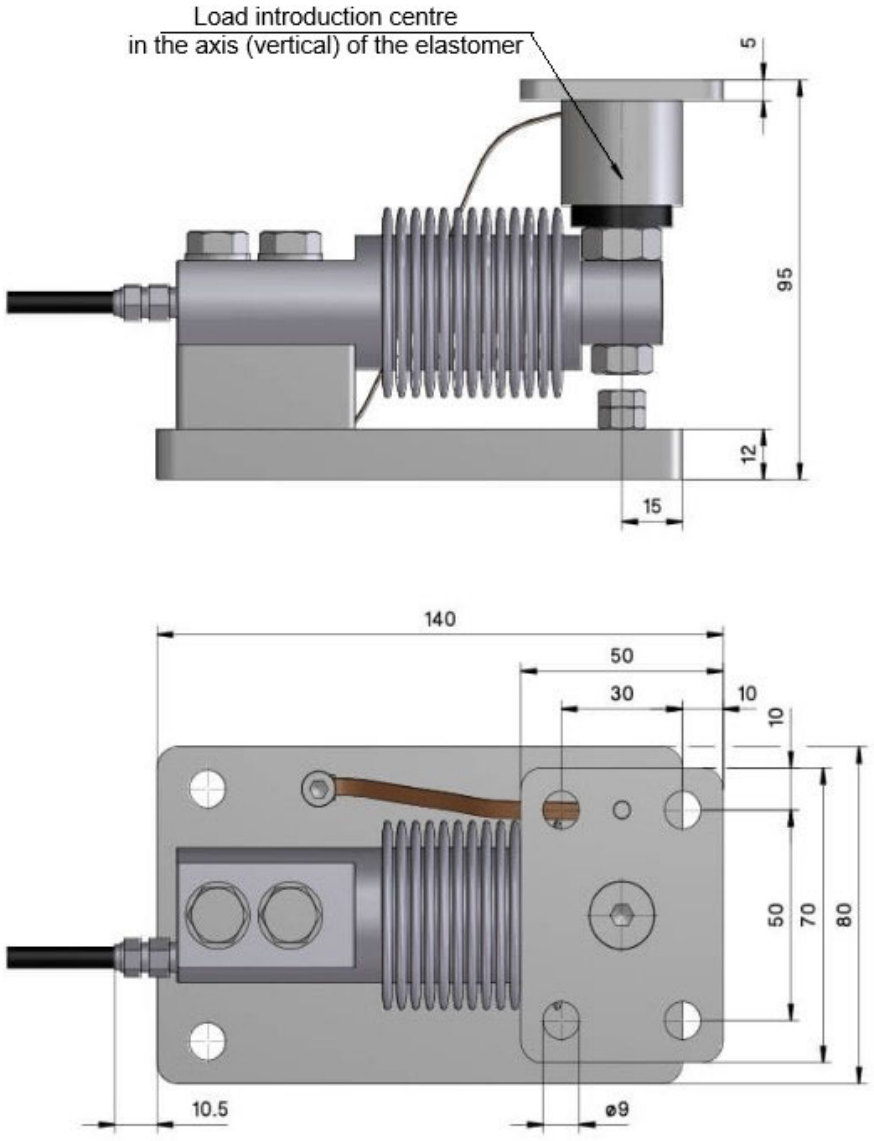
The B10-MH weighing module was specially designed for hanging applications.




Dimensions in mm

### 7.6.4 Weighing module B10-MB

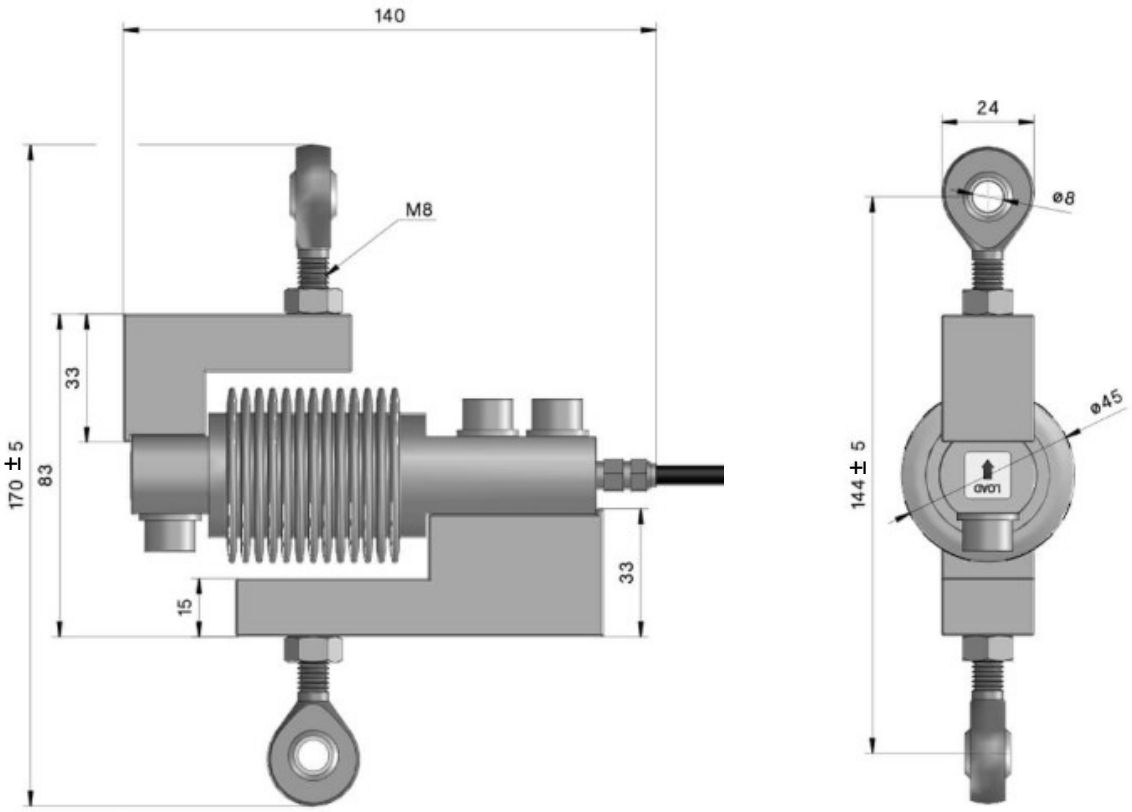
The force is introduced via the elastomer, ensuring optimal load transmission. The base and floor plates are made of stainless steel. The elastomer bearing compensates for misalignments, absorbs shock loads, and dampens minor vibrations. At the same time, the elastic restoring force provides a self-centering effect.




Abmessungen in mm

### 7.6.5 Weighing module B10-MZ

The B10-MH weighing module was specially designed for tension applications.




Abmessungen in mm

# 8 Declaration of Conformity

Bosche GmbH & Co. KG
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Telefon: 0 54 91 / 999 689 - 0
Telefax: 0 54 91 / 999 689 - 9
E-Mail: info@bosche.eu
Internet: www.bosche.eu

| | |
|---|---|
| **EU-Konformitätserklärung**<br>Declaration of conformity • Déclaration de conformité<br>Conformiteitsverklaring • Declaración de conformidad | |
| **Typ / Modell**<br>Type /Model • Modèle<br>Model • Tipo / Modelo | **Bending beam load cell B10S / B10N**<br>für nicht selbsttätige, geeichte Waagen<br>for non-automatic, calibrated scales<br>pour balances non automatiques et étalonnées<br>voor niet-automatische, gekalibreerde weegschalen<br>para básculas no automáticas y calibrar |
| **Seriennummer siehe Typenschild.**<br>For the serial number, see the nameplate.• Pour le numéro de série, voir la plaque signalétique.<br>Voor het serienummer, zie het typeplaatje. • Para el número de serie, consulte la placa de identificación. | |
| **Hersteller**<br>Manufacturer • Fabricant<br>Fabrikant • Fabrikante | **Bosche GmbH & Co. KG** |

**Die alleinige Verantwortung für die Ausstellung trägt der Hersteller.**
The sole responsibility for the issue carries the manufacturer. • La seule responsibilité de l'exposition porte le fabricant. • De verantwoordelijkheid voor de uitgifte draagt de fabrikant. • El único responsable de la publicación lleva el fabricante.

**Der oben genannte Gegenstand der Erklärung erfüllt die einschlägigen Harmonisierungs-rechtsvorschriften der Union:**
The above-mentioned object of the declaration complies with the relevant harmonization legislation of the Union • L'objet de la déclaration susmentionné est conforme à la législation d'harmonisation pertinente de l'Union • Het bovengenoemde voorwerp van de verklaring voldoet aan de relevante harmonisatiewetgeving van de Unie • El objeto de la declaración mencionado anteriormente cumple con la legislación de armonización pertinente de la Unión

| | |
|---|---|
| **2014/30/EU**<br>**EMV-Richtlinie**<br>EMC Directive | **EN IEC 61326-1:2021**<br>**EN IEC 61326-2-3:2021**<br>**EN IEC 61000-6-3:2021**<br>**EN IEC 61000-6-1:2019** |
| **2011/65/EU RoHS** | **EN IEC 63000:2018** |
| **2014/31/EU NAWID gilt für:**<br>**B10S 50-250 kg**<br>**B10N 100-500 kg** | **EN 45501:1992 (§ 8.1+3.5.4) / OIML R60:2000/ WELMEC 2.4: 2001** |

**Die notifizierte Stelle DELTA (0199) hat eine Baumusterprüfung durchgeführt und folgende Bescheinigung ausgestellt: DK0199-R60-12.09 für B10S + DK0199-R60-12.08 für B10N**
The notified body DELTA (0199) carried out a design type test and issued the certificate: DK0199-R60-12.09 for B10S + DK0199-R60-12.08 for B10N • L'organisme notifié DELTA (0199) effectue un test de type de construction et a publié le certificat suivant: DK0199-R60-12.09 pour B10S + DK0199-R60-12.08 pour B10N • De aangemelde instantie DELTA (0199) uitgevoerd beproeving en legde de volgende verklaring: DK0199-R60-12.09 voor B10S + DK0199-R60-12.08 voor B10N • El organismo notificado DELTA (0199) llevó a cabo un ensayo de modelo tipo y emitió el siguiente certificado: DK0199-R60-12.09 para B10S + DK0199-R60-12.08 para B10N

**Unterzeichnet für und im Namen von Bosche:**

Damme, 15.02.2023

**Dr. Jarmila Bosche**
**Geschäftsführer** • Managing Director
Directeur général • Directeur • Director general

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