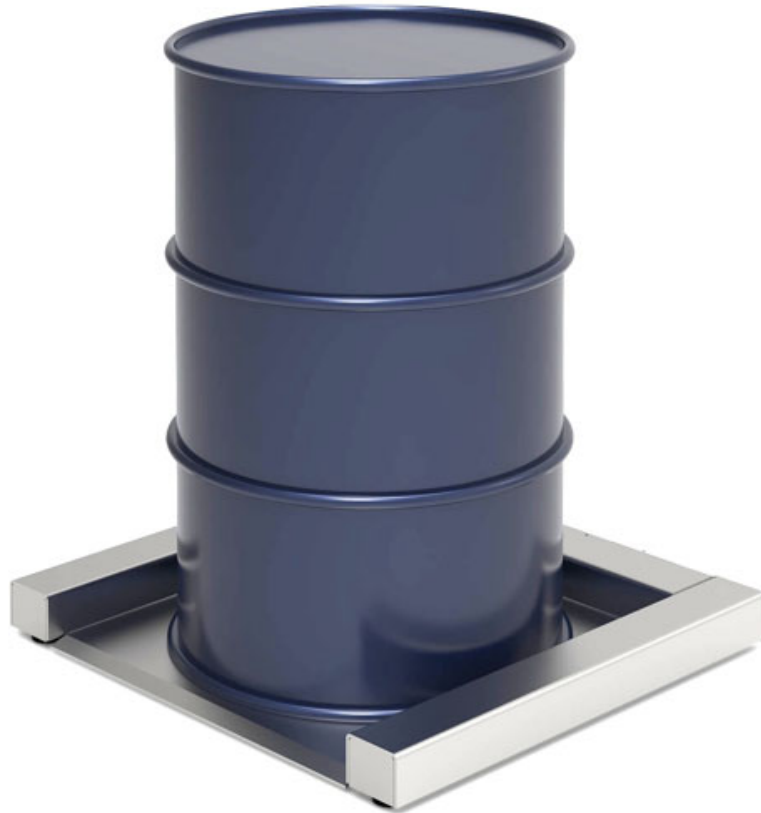


## Barrel Scale FMW



**Operating manual**  
**- Translation of the original -**  
(keep for future use)





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### **Example type plate**



The type plate is located on the side of the industrial plug connection.



## Foreword

These operating manual provide you with detailed information about the barrel scale FMW.

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. However, this means that there is no obligation to carry out retrospective modifications in this connection.



### **Danger**

**Before using the barrel scale FMW, 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 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**

Have your serial number to hand when contacting Bosche GmbH & Co. KG.

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## 1 Safety

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



**It is important to read and adhere to this mounting instructions and particularly this chapter prior to operating this barrel scale.**

### 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 device
- Instructions to operate the device
- Maintenance and care instructions
- Technical data

Always keep this operating manual and additional documents for your personnel at hand in the direct vicinity of the device.

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 device 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 device.
- Danger to the device and other assets of the owner/user
- Danger to the efficient operation of the device.

### 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.



#### **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 mounting instructions, 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 barrel scale is a weighing platform and may only be operated in conjunction with a suitable weighing terminal.

The non-automatic barrel scale is used to determine the weight of goods to be weighed. The load is carefully placed in the center of the weighing platform. Once the weight value has stabilised, it can be read.

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

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

## 1.3 Inappropriate use

- Use in explosive environments (ATEX zones).
- Do not leave a permanent load on the weighing platform. This may damage the measuring mechanism.
- Modification or opening of the barrel scale.

## 1.4 Obligations of the owner/user

The owner/user obligates himself to only instruct people to work on the barrel scale, who:

- Are familiar with the basic rules concerning safety and accident prevention and are trained in the operation of the barrel scale and
- have read and understood the operating manual, the safety chapter as well as the warning notes.

## 1.5 Obligations of the operator

All people instructed to operate the barrel scale obligate themselves:

- to always ensure the safety of other people,
- to read the operating manual, the safety chapter and the warning notes and
- to only operate the device when they are familiarised with its functions.

## 1.6 Description of the dangers

### 1.6.1 Danger of injury

- Always switch off the device for care and maintenance work.
- Never insert any pointed objects into the electric contacts.
- Do not change the contacts.
- Stop the barrel scale operation if it is damaged or malfunctions.

## 1.7 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 barrel scale
- Unintentional or mechanical damage and damage caused by media, liquids, natural wear.
- Overloading the measuring unit.

## 1.8 Testing equipment monitoring

Within the scope of quality assurance, you must inspect the measuring technology properties of the barrel scale at regular intervals.

Users must specify a suitable interval for testing as well as its scope. In this connection, you must take into consideration the frequency of use and the sensitivity of the application. In most cases, a two-year test frequency is appropriate.

## 2 Transport and disposal

### 2.1 Control

When the device is delivered, check the packaging, the device and possible accessories for visible damage.

### 2.2 Packaging and disposal

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



#### Note

Only use the original packaging if the display is returned.

Prior to the transport, disconnect/fasten all loose/moving parts of the device. Secure the parts against slipping/damage.

Dispose of the packaging and the display according to the national and/or local regulations by law valid on the installation site. Separately dispose of a defective battery according to the national and local regulations on environmental protection and recycling.

Do not treat this product as standard waste. Please dispose of via a waste management company.

### 2.3 Installation work

- Place the barrel scale on a level and stable surface.
- Loosen / remove all transport locks (e.g. cable ties).

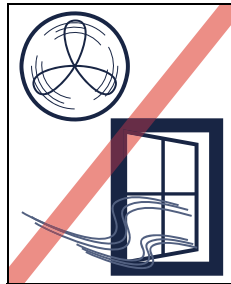
### 3 Installation

**Note**

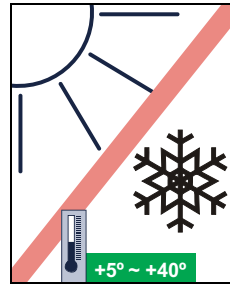
The barrel scales are legal for trade.

#### 3.1 Instructions for installation

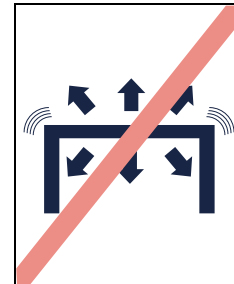
Keep the barrel scale clean and do not expose it to an environment influencing the display accuracy.



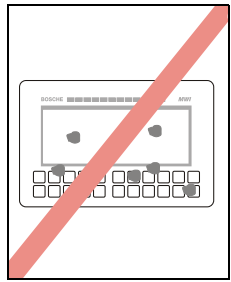
Protect against draught!



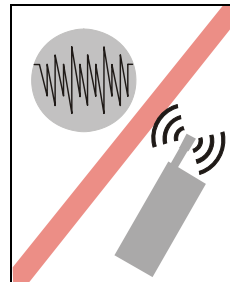
Protect against heat,  
sun and frost!



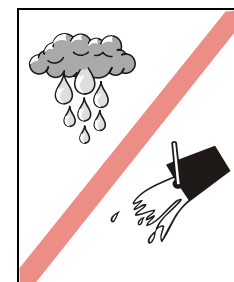
Protect against tilting  
and vibration!



Keep the unit clean



Avoid unstable  
voltage sources!



Avoid humidity!

**Note**

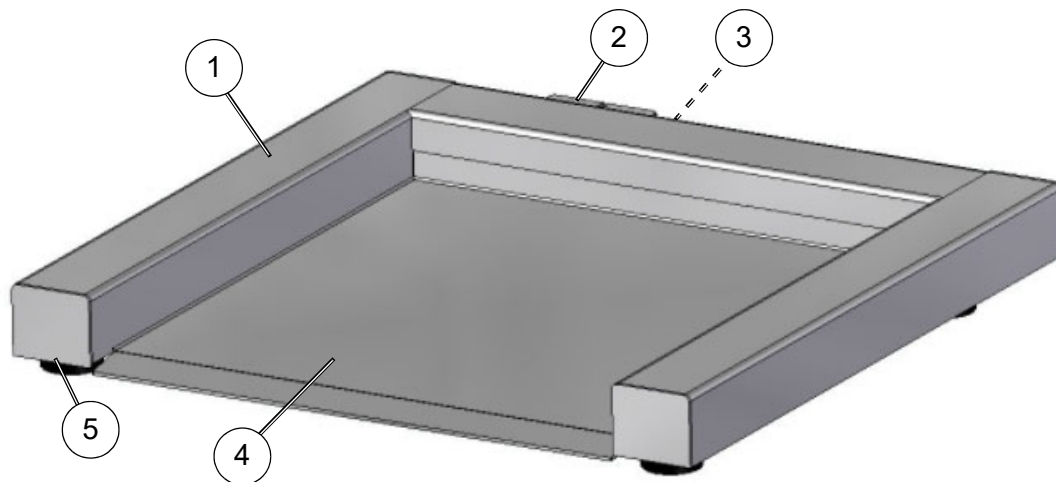
Ensure that a 230 V AC voltage supply is available on the installation site (unless operation with rechargeable batteries is intended).

3.2 Description



**Attention**

Handle the scales carefully, load cells are sensitive, electromechanical sensors.



Pos.	Bezeichnung
1	Barrel scale with four laser-welded load cells built into the frame.
2	Connection for industrial plug
3	Level, not shown (for verified scales)
4	Weighing platform with drive-on ramp
5	4 x height-adjustable feet

- Place the barrel scale on a flat surface.
  - The foundation at the installation place must be able to bear the weight of the maximum loaded weighing platform at its support points.

For verified scales:

- Level the barrel scale.
- To do this, loosen the lock nuts on the adjustable feet using an open-end spanner adjustable feet (5) and turn the adjustable feet.
  - Until the air bubble is in the prescribed circle of the level (3) for verified scales.
- Then screw the lock nuts of the adjustable feet firmly against the barrel scale frame.

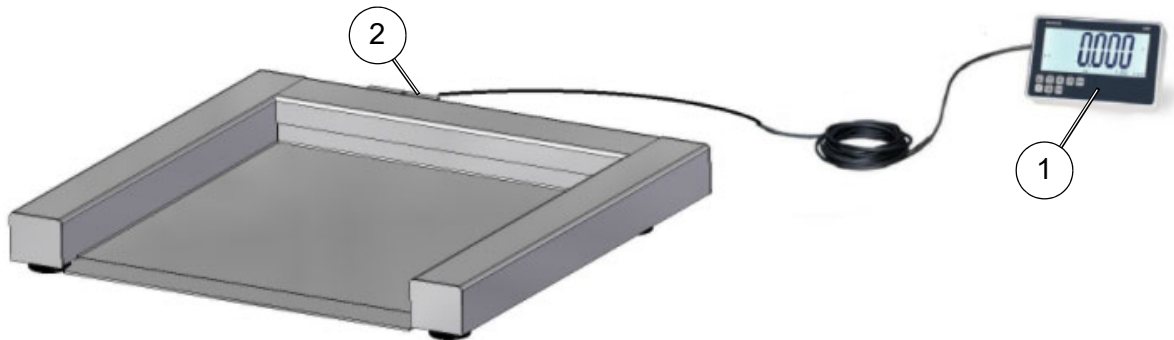
For non-verified scales:

Level the barrel scale using a spirit level.

### 3.3 Connecting the weighing terminal (scale display)

**Note**

Please observe the separately supplied operating instructions for the weighing terminal.



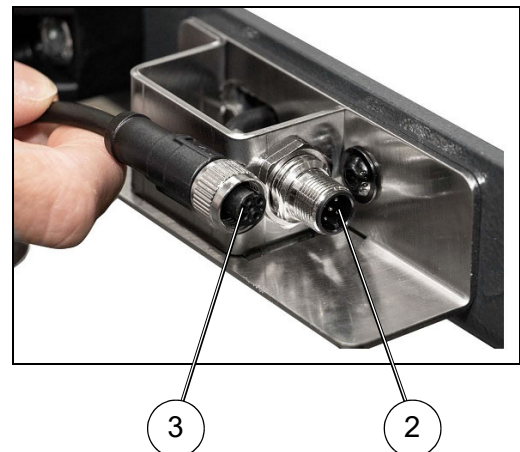
Screw the M12 industrial connector (3) of the weighing terminal (1) onto the counter-part (2).

**Note!**

Pay attention to the pin assignments when using third-party cables. Cables not supplied by BOSCHE are the responsibility of the operator.

Pin assignments:

1. EXC +
2. Signal -
3. EXC -
4. Signal +



4 Scale configurations

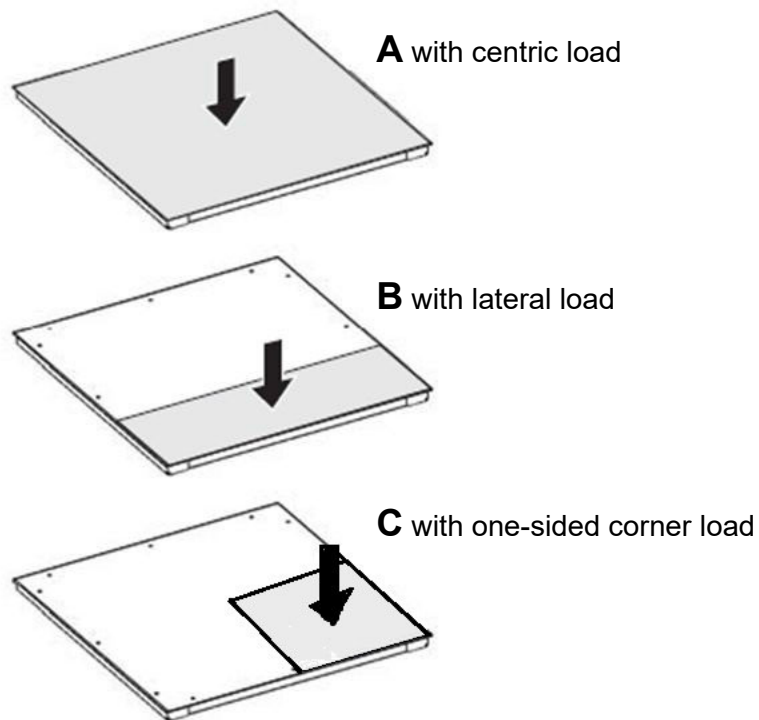
Maximum load of the scale	Readability	
	Non-verified	Legal for trade
300 kg	100 g	100 g
600 kg	100 g	200 g

4.1 Load limits



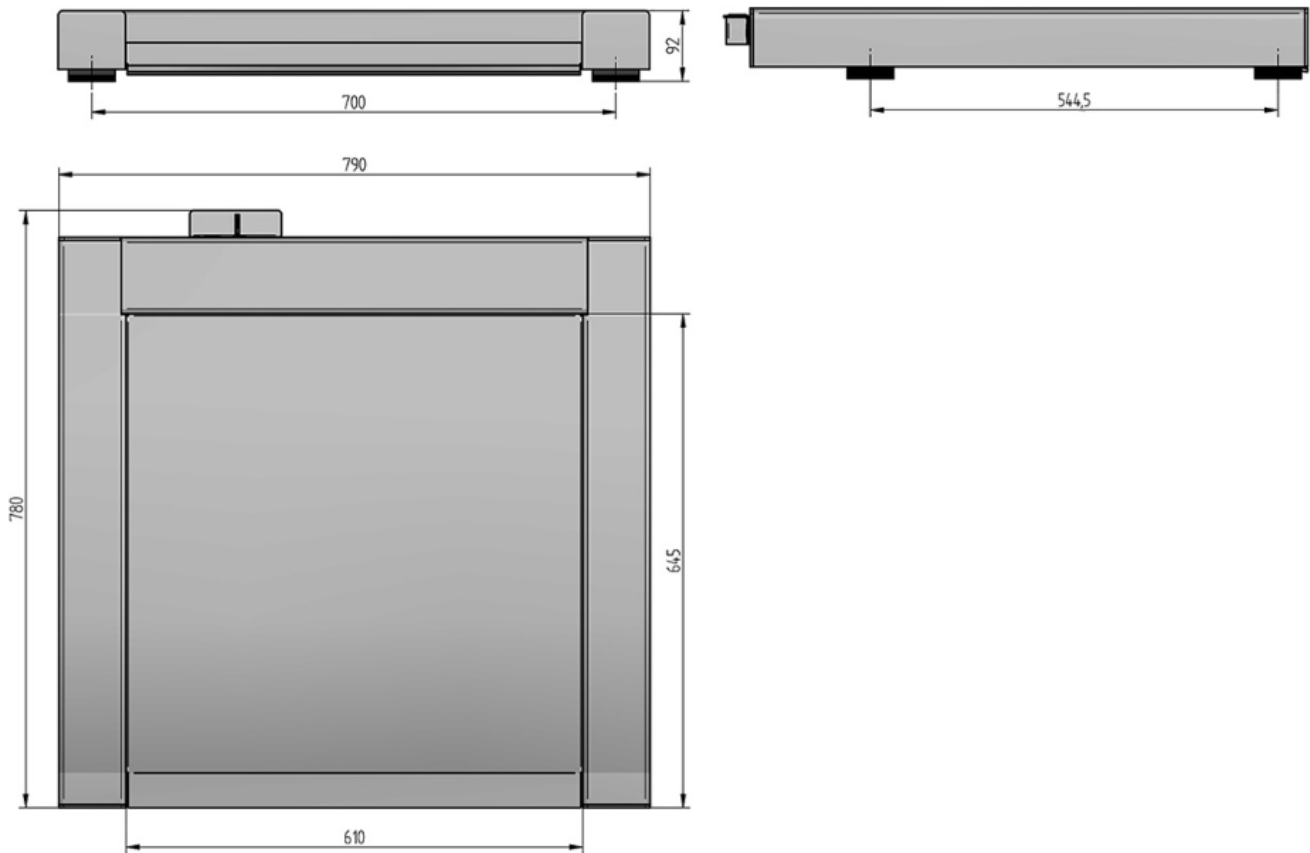
**Note**

The load limit of the barrel scale must not be exceeded!



Weighing range	300 kg	600 kg
<b>A</b>	300 kg	600 kg
<b>B</b>	200 kg	400 kg
<b>B</b>	100 kg	200 kg

## 4.2 Dimensions of the scale



## 4.3 Technical data

Feature	Value / Unit
Type	Barrel Scale FMW
Housing	Coated steel / stainless steel
Dimensions (W x H x D)	790 x 92 x 780 mm
Maximum barrel diameter	600 mm
Weight	approx. 40 kg
Nominal load scale	300 kg / 600 kg
Operating temperature	+10°C to +40°C
Relative air humidity	max. 85 %, non-condensing
Protection class	IP 65

#### 4.4 Lieferumfang

Komponente	Hinweis
Barrel Scale FMW	
Operating manual	Paper
Operating manual Weighing terminal (optional)	Download available at <a href="https://www.bosche.eu">bosche.eu</a>
Netzteil / Makita Akku und Ladege- rät (optional)	Power supply / Makita battery and charger (optional)

## 5 Maintenance and care

### 5.1 Cleaning

- Before starting cleaning, switch off the device and disconnect it from the mains.
- Do not use any aggressive cleaning agents.
- Remove dust and other dirt from the weighing platform using a damp cloth.
- Rub all the surfaces with a dry cloth.

**Attention**

No moisture must enter the barrel scale.

**Achtung**

Remove spillages immediately!

### 5.2 Regular inspections

The barrel scale must be checked by the user for obvious defects before each use.

**Attention**

Replace defective or damaged cables or cable glands as a unit.

### 5.3 Maintenance, servicing

Only trained service engineers who have been authorised by Bosche are allowed to open the barrel scale

**Danger**

**Before opening the barrel scale, you must ensure that it has been safely deenergised and disconnected from the mains.**

6 Declaration of Conformity



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

**Die alleinige Verantwortung für die Ausstellung trägt der Hersteller.**  
 The sole responsibility for the issue carries the manufacturer. • La seule responsabilité 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 Harmonisierungsrechtsvorschriften 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

<b>2014/35/EU Niederspannungsrichtlinie</b> Low voltage Directive	<b>EN 61010-1:2020</b> für / for / pour / voor / para 230/115 VAC
<b>2014/30/EU EMV-Richtlinie</b> EMC Directive	<b>EN 55022:2011</b> <b>EN 61000-6-2:2019</b> <b>EN 61000-6-4:2019</b> <b>EN 61000-4-2:2009</b> <b>EN 61000-4-3:2011</b> <b>EN 61000-4-4:2012</b> <b>EN 61000-4-5:2014</b> <b>EN 61000-4-6:2014</b>
<b>2011/65/EU RoHS</b>	<b>EN IEC 63000:2018</b>

Unterzeichnet für und im Namen von Bosche:

Damme, 25.11.2021

**Dipl. Ing. Jarmila Bosche, PhD.**  
**Geschäftsführer • Managing Director**  
 Directeur général • Directeur • Director general

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