

Installation Manual

Compact Compression Load Cell PR 6211



Foreword

Must be followed!

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Note

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1 Introduction

1.1 Read the manual

- Please read this manual carefully and completely before using the product.
- This manual is part of the product. Keep it in a safe and easily accessible location.

1.2 This is what operating instructions look like

1. - n. are placed before steps that must be done in sequence.
 - ▶ is placed before a step.
 - ▷ describes the result of a step.

1.3 This is what lists look like

- indicates an item in a list.

1.4 This is what menu items and softkeys look like

[] frame menu items and softkeys.

Example:

[Start]- [Applications]- [Excel]

1.5 This is what the safety instructions look like

Signal words indicate the severity of the danger involved when measures for preventing hazards are not followed.

DANGER

Warning of personal injury

DANGER indicates death or severe, irreversible personal injury which will occur if the corresponding safety measures are not observed.

- ▶ Take the corresponding safety precautions.

WARNING

Warning of hazardous area and/or personal injury

WARNING indicates that death or severe, irreversible injury may occur if appropriate safety measures are not observed.

- ▶ Take the corresponding safety precautions.

CAUTION

Warning of personal injury.

CAUTION indicates that minor, reversible injury may occur if appropriate safety measures are not observed.

- ▶ Take the corresponding safety precautions.

NOTICE**Warning of damage to property and/or the environment.**

NOTICE indicates that damage to property and/or the environment may occur if appropriate safety measures are not observed.

- ▶ Take the corresponding safety precautions.
-

Note:

User tips, useful information, and notes.

1.6 Hotline

Phone: +49.40.67960.444

Fax: +49.40.67960.474

eMail: help@minebea-intec.com

2 Safety instructions

2.1 General notes

NOTICE

Warning of damage to property and/or the environment.

The product was in perfect condition with regard to safety features when it left the factory.

- ▶ To maintain this condition and to ensure safe operation, the user must follow the instructions and observe the warnings in this manual.

2.2 Intended use

The load cell PR 6211 has been designed especially for weighing silos and process vessels.

The load cell PR 6211 may only be used as intended for weighing tasks.

The dimensions of all mounting and structural components must be calculated so that sufficient overload capacity is ensured for all loads which may occur while taking the relevant standards into account. In particular, upright weighing objects must be safeguarded against the weighing installation turning over or being shifted, thus eliminating danger to people, animals, or goods even in the case of a break in a load cell or mounting element.

Installation and repair work must only be carried out by expert/qualified personnel.

The load cell reflects the state of the art. The manufacturer does not accept any liability for damage caused by third-party system components or due to incorrect use of the product.

2.3 Initial inspection

Check the contents of the consignment for completeness. Check the contents visually to determine whether any damage has occurred during transport. If there are grounds for rejection of the goods, a claim must be filed with the carrier immediately. The Minebea Intec sales or service organization must also be notified.

2.4 Before operational startup

NOTICE

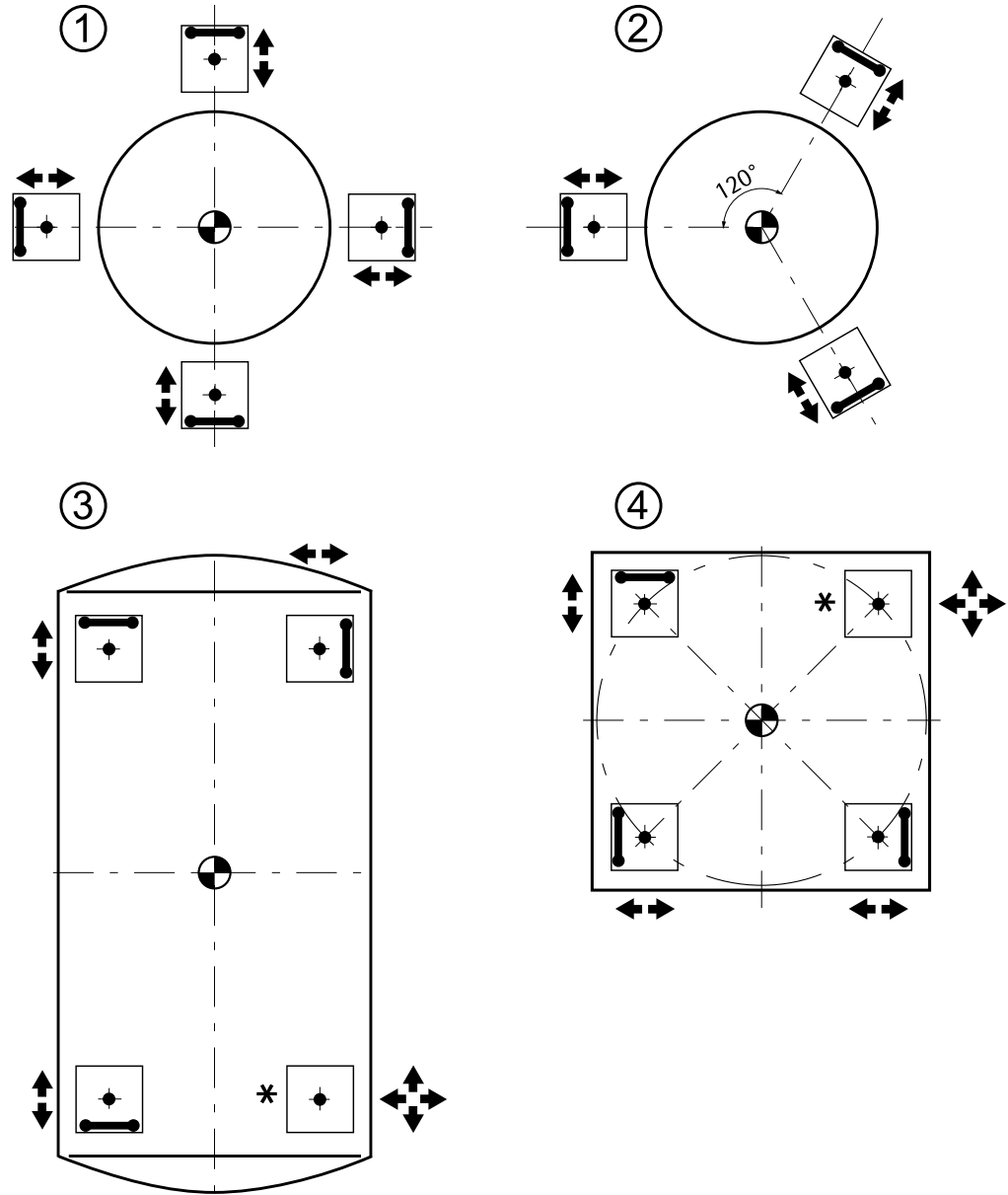
Perform visual inspection.

- ▶ Before operational startup as well as after storage or transport, inspect the load cell visually for signs of mechanical damage.

3 Recommendations for installation

3.1 Load cell and constrainer arrangement

Examples:



Key

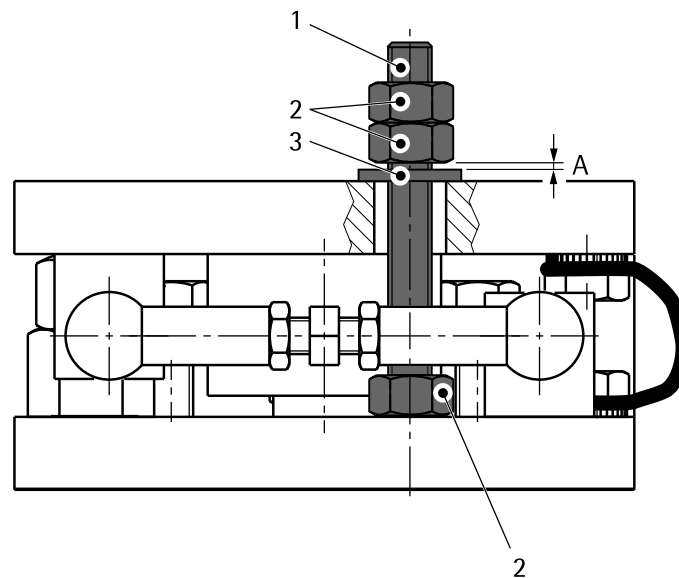
*	Do not constrain this position.
	Constrainer
	Load application
	Possible direction of movement

- The supporting structure of the scale (i.e. the load cell support) and the vessel must be stable enough to withstand the specified loads, be horizontal (water level!) and flat.
- Vessels should preferably be supported by 3 load cells, platforms by 4 or 6 load cells (see figure).
- Transverse and/or horizontal forces and torques exceeding the permissible limits are disturbances which can generate measuring errors and, in the worst case, may damage the load cell.
- If the object to be measured is constrained properly, damage and measuring errors can be prevented without affecting the required space for movement in the direction of the measurement.

Consideration should be given to the fact that thermal expansion and contractions may constrict the required space for movement of the object to be weighed and could thereby lead to significant falsification of the measuring results.

Therefore, special attention should be paid to the design, arrangement, and condition of the constrainers.

3.2 Additional lift-off protection



For safety reasons, a lift-off protection has to be generally provided on vessels. This can be constructed separately or additionally installed in the mounting kit (see Chapter [11.2.1](#)).

For this purpose, the simplest version requires the following components:

- 1x threaded bar (1)
- 3x nut (2)
- 1x washer (3)

Assembly:

- Mount the threaded bar (1) so that it has sufficient free moving space in the drill hole.
- Lock the nuts (2) so that there is a remaining distance A^* from the washer (3).

$$* A = 1-2 \text{ mm}$$

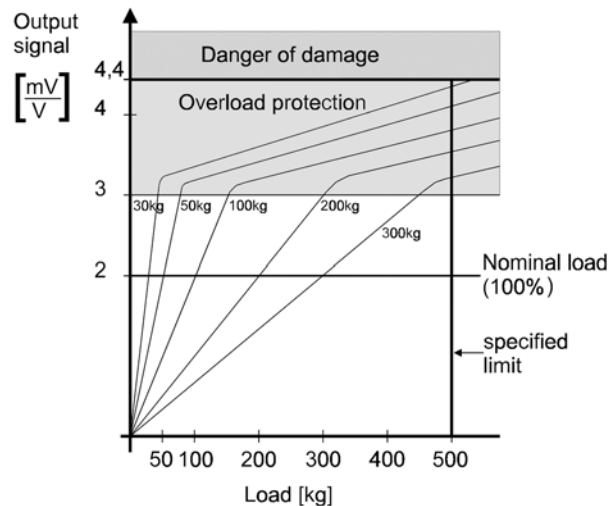
This distance is essential to avoid force shunts.

3.3 Overload protection

The resistance level of 1300 Ω has a minimal power consumption that is especially important for high stability.

Forces exceeding the max. load in the measuring direction may change the characteristics of the load cell or damage it. If the destructive load of the load cell is exceeded, there is a danger of mechanical destruction.

If there is a risk of the maximum usable load being exceeded (even only temporarily, e.g. by falling loads), mechanical limiting in load direction is required or an appropriate rubber damping mechanism must be provided (elastomer support; see Chapter [11.2.1](#)).



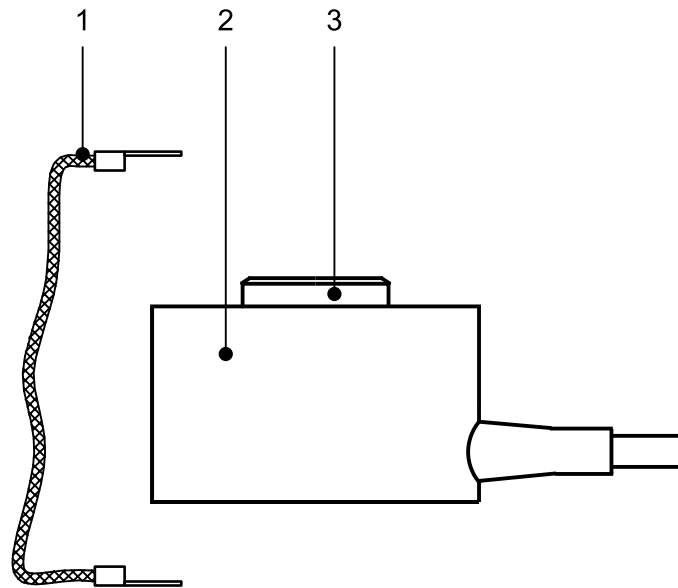
The load cells PR 6211 (30...300 kg) feature built-in overload protection. If the load cell is overloaded by more than 150 % of the nominal load, this causes a significant flattening of the characteristic curve.

The figure shows the typical characteristic curve for the different load levels:

If the load cell is loaded with a maximum of 500 kg, it reverts back to its specified data after being unloaded.

4 Specifications

4.1 Equipment supplied with the load cell



No.	Description
-----	-------------

1	Flexible copper strap
---	-----------------------

2	Load cell
---	-----------

3	Load disc
---	-----------

The following are not shown:

4	Quick guide
---	-------------

5	Calibration Certificate
---	-------------------------

6	Only with Ex-load cells: Safety information for Ex-load cells
---	--

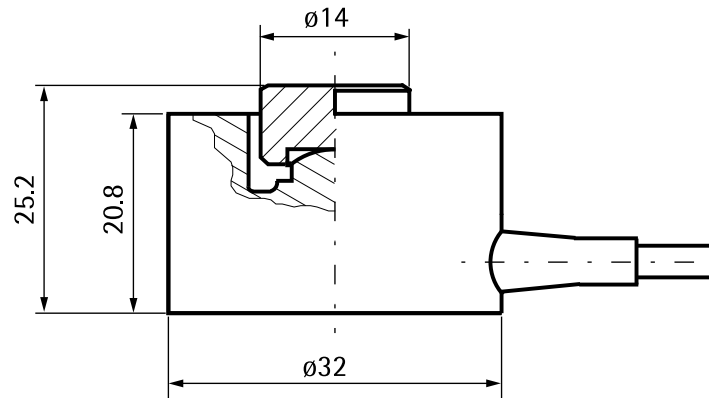
4.2 General information

Material (Sensor)	Stainless steel 1.4542 acc. to DIN EN 10088-3
Protection against environmental influences	Hermetically sealed by welding. Filled with polyurethane.
Protection classes	in compliance with IEC 529 or DIN EN 60529 IP66/IP68/IP69: Dust-proof and leak-tight against water, with harmful effects when immersed, (1.5 m water depth, 10,000 h) and water jets (high pressure and temperature).
Ambient temperature in the Ex area	see additional information "safety instructions for Ex load cells"
Cable diameter	3 mm
Cable length	3 m
Cable gauge	4×0.087 mm ²
Cable bend radius	≥15.5 mm (fixed installation) ≥46.5 mm (flexible installation)
Cable sheath material	Thermoplastic elastomer (TPE)
Cable sheath color	Gray (standard version)

4.3 Possible marking of the load cell for the Ex area

Zone	Marking	Certificate no.	for
2	II 3G Ex nA IIC T6 Gc	MIN17ATEX005X	all PR 6211 without /..E
22	II 3D Ex tc IIIC T85 °C Dc	MIN17ATEX005X	all PR 6211 without /..E
	IS CL I, II, III, DIV 1, GP A, B, C, D, E, F, G Entity - 4012 101 5688 NI CL I, II, III, DIV 2, GP A, B, C, D, E, F, G - 4012 101 5688; NIFW T4A Ta= -40°C to 70°C; T5 Ta= -40°C to 55°C	FM17US0276	all PR 6211 without /..E
	IS CL I, II, III, DIV 1, GP A, B, C, D, E, F, G Entity - 4012 101 5688 NI CL I, II, III, DIV 2, GP A, B, C, D, E, F, G - 4012 101 5688; NIFW T4A Ta= -40°C to 70°C; T5 Ta= -40°C to 55°C	FM17CA0138	all PR 6211 without /..E

4.4 Dimensions



all dimensions in mm

4.5 Ordering information

Model	Max. capacity E_{\max}	Type
PR 6211/31	30 kg	..D1
PR 6211/51	50 kg	..D1
PR 6211/12	100 kg	..D1
PR 6211/22	200 kg	..D1
PR 6211/32	300 kg	..D1

4.6 Technical data

Designation	Description	Abbr.	D1	Unit
Accuracy class			0.05	% E_{max}
Minimum dead load	lowest limit of specified measuring range	E_{min}	0	% E_{max}
Maximum capacity	highest limit of specified measuring range	E_{max}	See Chapter 4.5	
Safe load limit	maximum load without irreversible damage	E_{lim}	500	kg
Destructive load	danger of mechanical destruction	E_d	1000	kg
Minimum LC verification	minimum load cell scale interval, $v_{min} = E_{max}/Y$			
	% $E_{max} = 50...300$ kg	Y	3333	
	% $E_{max} = 30$ kg	Y	2500	
Rated output	relative output at maximum capacity	C_n	2	mV/V
Tolerance on rated output	permissible deviation from rated output C_n	d_c	<0.25	% C_n
Zero output signal	load cell output signal under unloaded condition	S_{min}	0...2.0	% C_n
Repeatability	max. change in load cell output for repeated loading	ϵ_R	<0.01	% C_n
Creep	max. change of output signal at E_{max} during 30 minutes	d_{cr}	<0.03	% C_n
Non-linearity ¹⁾	deviation from best straight line through zero	d_{Lin}	<0.05	% C_n
Hysteresis ¹⁾	max. difference in LC output between loading and unloading	d_{hy}	<0.05	% C_n
Temperature effect on S_{min}	max. change of S_{min} in B_T	$TK_{S_{min}}$	<0.042	% $C_n/10$ K
Temperature effect on $C^1)$	max. change of C in B_T	TK_C	<0.03	% $C_n/10$ K
Input impedance	between supply terminals	R_{LC}	1300 ± 12	Ω
Output impedance	between measuring terminals	R_O	1200 ± 2	Ω
Insulation impedance	between measuring circuit and housing, $U_{DC} = 100$ V	R_{IS}	>5000	$M\Omega$
Recommended supply voltage	to hold the specified performance	B_u	4...24	V
Max. supply voltage	permissible for continuous operation without damage	U_{max}	32	V
Nominal ambient temp. range	to hold the specified performance	B_T	-10...+85	$^{\circ}C$

Designation	Description	Abbr.	D1	Unit
Usable ambient temp. range	permissible for continuous operation without damage	B _{Tu}	-30...+95	°C
Storage temperature range	without electrical and mechanical stress	B _{Ti}	-40...+95	°C
Permissible eccentricity	permissible displacement from nominal load line	S _{ex}	3.0	mm
Vibration resistance	resistance against oscillations (IEC 60068-2-6-Fc)		20 g, 100 h, 10...150 Hz	
Barometric pressure influence	influence of barometric pressure on output	PK _{Smin}	≤12	g/kPa
Nominal deflection	elastic deformation under maximum capacity	S _{nom}	<0.1	mm

- 1) The data for non-linearity (d_{Lin}), hysteresis (d_{hy}) and temperature effect on C (TK_C) are typical values.
For OIML R60 or NTEP approved load cells the sum of these values is within the permissible cumulative error limits.

Definitions acc. to OIML R60

The technical data given are intended solely as a product description and should not be interpreted as guaranteed properties in the legal sense.

5 Installation

5.1 Safety instructions

NOTICE

Welding or lightning strike current flowing through the cell can damage it.

All electrical welding on the weighing system must be finished before mounting the load cells.

- ▶ When installing the load cell, immediately bypass the load cell with the flexible copper strap provided for this purpose (included in the equipment supplied, see Chapter 4.1).

During any additional electrical welding work near the load cell:

- Disconnect the load cell cables.
- Bypass the load cell using the flexible copper strap.
- Make sure that the grounding clamp of the welding set is fitted as closely as possible to the welding joint.

The following must be observed during installation:

- Do not lift or transport the load cell by pulling on the cable.
- Avoid shock stress (falling down, hard shocks).
- The load cell must be installed vertically and centrally in the mounting kit.
- Load forces must act in the measuring direction of the load cell.
- The load disc must not be subjected to transverse forces.
- The membrane on the underside of the load cell is thin and, consequently, sensitive. The surface in the mounting plate supporting the load cell must be clean, i.e., free of grains of sand, material residues, etc.

NOTICE

Changes of temperature >15 K/h may influence the measuring accuracy.

- ▶ Make sure to protect the load cells from direct heating or cooling effects (sun, wind, heat radiation, fan heaters), e.g., heat protection screens or heat protection housings are to be installed if necessary.

NOTICE

Force shunts may cause measuring errors.

- ▶ All incoming and outgoing lines (hoses, pipes, cables) must be coupled to the measured object as flexibly as possible.

6 Connection

6.1 General information

- Protect the cable ends against contamination. Moisture must not get into the open end of the cable.
- Do not shorten the load cell connecting cable. Connect the prepared cable end and roll up the remaining cable.
- The cable screen may be connected only to the connecting terminals of the indicator.
- Keep the load cell cables away from power cables.
- The distance between measurement cables and power cables and/or components under high voltage should be at least 1 m (reference value).
- We recommend laying the load cell cables in separate cable trays or armored steel pipes.
- Power cables should be crossed at right angles while taking into account the minimum distance of 1 m (reference value).

Note:

If hum interference occurs, the cable screens should only be connected on one side.

Depending on the design of the cable junction box used, either the jumper J3 must be removed or the cable screens must be disconnected from the terminal contacts highlighted in yellow.

 WARNING**When installing in potentially explosive atmospheres:**

It is imperative that you follow the application-dependent installation instructions!

- ▶ Always check whether it is permissible to bilaterally connect the screens to the equipotential bonding.
-

6.2 Load cell

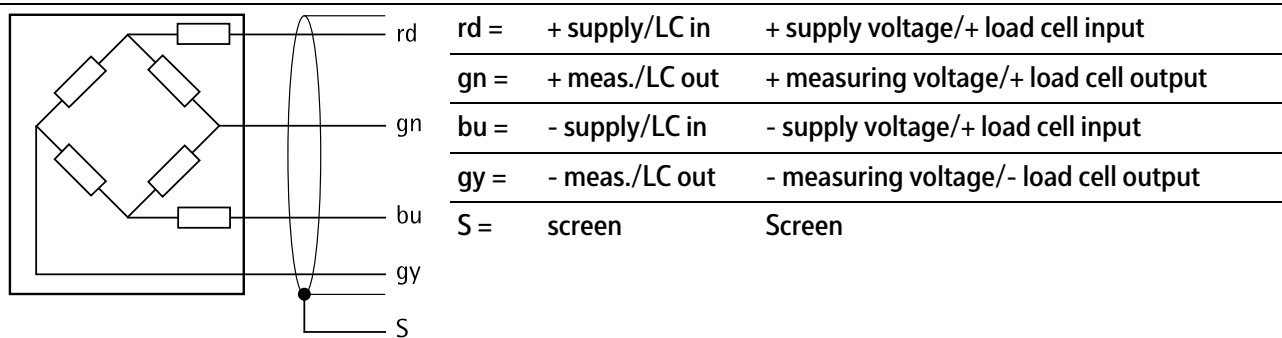
Color Code

rd	=	red
----	---	-----

gn	=	green
----	---	-------

bu	=	blue
----	---	------

gy	=	gray
----	---	------



6.3 Cable connections

Note:

All components are only shown schematically.

Color code

bk	=	black
----	---	-------

bu	=	blue
----	---	------

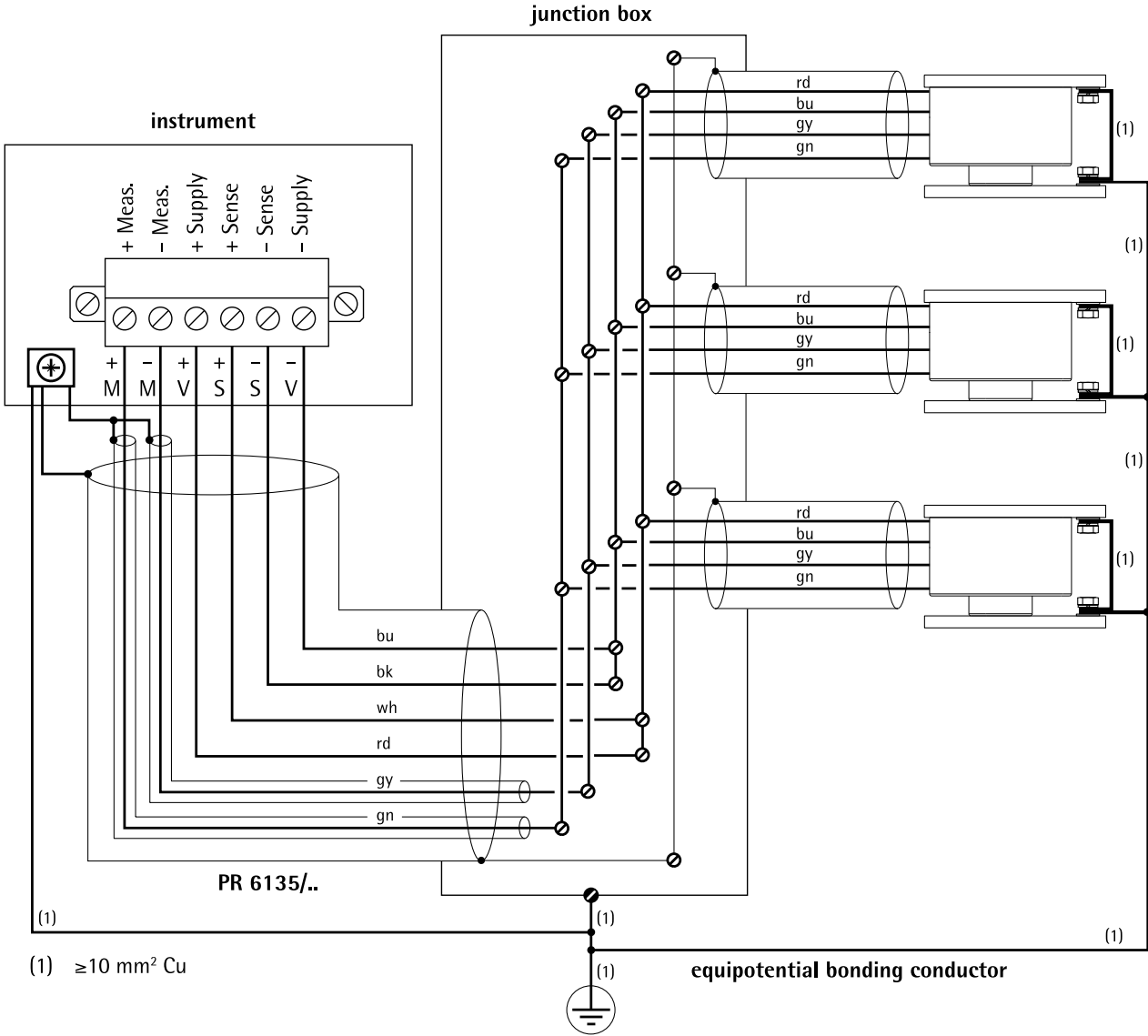
gn	=	green
----	---	-------

gy	=	gray
----	---	------

rd	=	red
----	---	-----

wh	=	white
----	---	-------

Connection example



7 Preparing for calibration

7.1 General notes

Note:

For calibration of the measuring system, please refer to the manual of the corresponding indicator.

7.2 Smart Calibration

When using Minebea Intec devices, we recommend always running "Smart Calibration" first.

This allows all required values to be extracted from the Calibration Certificate supplied.

- The "Hysteresis correction values for Smart Calibration" listed on the Calibration Certificate are entered for [Correction A] and [Correction B] under [Hysteresis error] - [specified] in the indicator.

If the values are not available on the Calibration Certificate, [Hysteresis error] - [not specified] must be selected.

- The value listed under "Output at max. capacity" on the Calibration Certificate is entered in the indicator under [LC output at max. capacity].
- The value listed under "Output impedance" on the Calibration Certificate is entered in the indicator under [LC output impedance].

By performing these steps, a logical and highly accurate reading (typically better than 0.1%) is generated before the scale is even loaded for the first time.

7.3 Mechanical height adaptation

To distribute the load over the load cells as evenly as possible, height adaptation is required in systems with more than 3 load cells prior to calibration.

Procedure:

1. Place the dead load (e.g. empty vessel) onto the load cells of the scale structure.
2. Energize the load cells in parallel with a stabilized voltage (e.g.: $U_{DC} = 12\text{ V}$).
3. Measure the output voltages of each individual load cell by means of a digital voltmeter and compare the individual values.
 - ▷ Given deviation between the output voltages of the load cells, the load on the load cell with the lowest output voltage must be increased by putting shims between mounting plate and weighing construction.
4. Lift the weighing object immediately beside the affected load cell.
5. Place thin, deburred sheets of metal (0.5–2 mm thick) between the upper mounting plate and the scale structure.
6. Measure the output voltages of the load cells again and adjust the height of this load cell or of another one.

8 Troubleshooting

8.1 General Notes

The following hints will enable a technician to do an initial diagnostic or help in case of incorrect or non-reproducible weighing results after commissioning and calibration.

8.2 Visual inspection

Component	Possible errors
Weighing object	Are all pipes, hoses and cables free from shunt forces? Are the connections pliable and connected horizontally? Are elements with a solid connection to the scale in direct contact with the surroundings? Has friction developed between the weighing object and its surroundings (e. g. dusty openings, ...)?
Cable junction box	Has moisture intruded? Do all soldering and screw connections have secure contact?
Connecting cables	Is the sheath damaged? Has moisture intruded?
Mounting kit	Is the lift-off protection in contact with the scale? Are the constrainers stuck?
Load cell	Is the load cell parallel to the contact area? Is the sheath of the load cell cable damaged? Has moisture penetrated into the load cell cable?

8.3 Metrological controls

8.3.1 Checking the zero output signal of the load cell

- Unload load cell.
- Disconnect the load cell measuring outputs.
- Check whether the output voltage without load is within the limits.

Type	Output voltage
D1	0... +0.04 mV/V

8.3.2 Checking the strain gauge bridge of the load cell

- Do not exceed the test voltage.
- Check whether the values of the resistors are within the permissible limits.

Max. test voltageStandard version $U_{DC} = 32\text{ V}$

Type	Input impedance (red core, blue core)	Output impedance (green core, gray core)
D1	$1300\ \Omega \pm 12\ \Omega$	$1200\ \Omega \pm 2\ \Omega$

8.3.3 Checking the insulation impedance of the load cell**NOTICE****Possible destruction of load cell**

- ▶ Never apply test voltage between two cores of the load cell cable.
- ▶ Insulate the load cell cores.

Max. test voltageStandard version $U_{DC} = 100\text{ V}$

Insulation impedance	Core – housing	>5000 M Ω
	Core – screen	>5000 M Ω
	Screen – housing	>5000 M Ω

8.3.4 Checking the insulation impedance of the connecting cable

- Disconnect connecting cable from measuring instrument and load cells.
- Insulate the cores of the connecting cable.

Insulation impedance	Core – core	>120 M $\Omega \times \text{km}$
	Core – screen	>120 M $\Omega \times \text{km}$

9 Maintenance/repairs/cleaning

9.1 Maintenance

The load cell PR 6211 is maintenance-free.

Load cell grease must be applied to the load disc and the tip of the load cell.

The load cell can be extensively sprayed with off-shore all-weather protection spray in aggressive environments.

Load cell grease specification

- good water/media resistance
- good corrosion protection properties
- good oxidization and aging stability
- good temperature resistance
- and, where appropriate, good compatibility with foodstuffs

The requirements referred to apply when taking into account the specific operating/usage conditions.

The grease also serves as protection against wear (low friction).

9.2 Repairs

The load cell PR 6211 is designed to be as robust as possible for the required measuring accuracy and is highly reliable.

Should an electrical or mechanical defect nevertheless occur, the load cell must be replaced.

Load cell repair is not possible.

9.3 Cleaning

Dirt on the load cell and movable parts of the scale must be cleaned as quickly as possible

- if it influences weighing, or
- if it is corrosive to the cell or cable material.

NOTICE

Some cleaning agents may not be compatible with the load cell material.

- ▶ When using cleaning agents, ensure that their compatibility with the load cell material has been tested and approved (see Chapter [4.2](#)).

The free space around the load disc must be maintained.

10 Disposal

Our products and their packaging should not be disposed of in municipal waste (e.g. garbage can for recyclable packaging, garbage can for paper packaging, etc.). They can either be recycled by the customer themselves, providing this complies with requirements set out by electrical or electronic waste or packaging waste laws, or sent back to Minebea Intec at a charge.

This option of returning the product is intended to provide proper recycling or reuse in a manner that is collected separately from municipal waste.

Before disposing of or scrapping the old products, any single-use or rechargeable batteries should be removed and taken to a suitable collection point. The type of battery used is specified in the technical data.

Please see our General Terms and Conditions for further information.

Service addresses for repair acceptance and collection points can be found on the product information enclosed with the product as well as on our website (www.minebea-intec.com).

Should you have any further questions, please contact your local service representative or our service center.

Minebea Intec GmbH

Repair center

Meiendorfer Strasse 205 A

22145 Hamburg, Germany

Phone: +49.40.67960.333

service.HH@minebea-intec.com

We reserve the right not to accept products that are contaminated with hazardous substances (ABC contamination).

11 Spare parts and accessories

11.1 Replacement parts

No.	Description	Max. capacity	Order no.
1	Flexible copper strap, 100 mm long		5312 321 28055
2	Load disc (D1)	30...300 kg	5312 693 98136

11.2 Accessories

11.2.1 Mounting kits

To install the load cell, the following mounting kits / pivots are recommended:

No.	Description	Perm. horizontal force	Order no.
1	PR 6011/00S mounting kit (without constrainer)		9405 360 11002
2	Mini FLEXLOCK PR 6011/20S	450 N	9405 360 11202
3	PR 6012/00S mounting kit		9405 360 12002
4	Maxi FLEXLOCK PR 6012/20S		9405 360 12202
5	Elastomer support PR 6011/03	Max. usable load: 450 kg	9405 360 11031
6	Installation adapter PR 6011/09S (for installation in PR 6012/01, ../02, ../3x, ../4x mounting kits)		9405 360 11092

N = steel zinc plated, passivated and sealed (RoHS-compliant)

S = stainless steel

11.2.2 Connecting cables

To connect the junction box to the weighing electronics, we recommend using the following connecting cables:

No.	Description	Order no.
1	PR 6135/xx	9405 361 35xx2
2	PR 6135/01A (armored)	9405 361 35019

11.2.3 Cable junction boxes

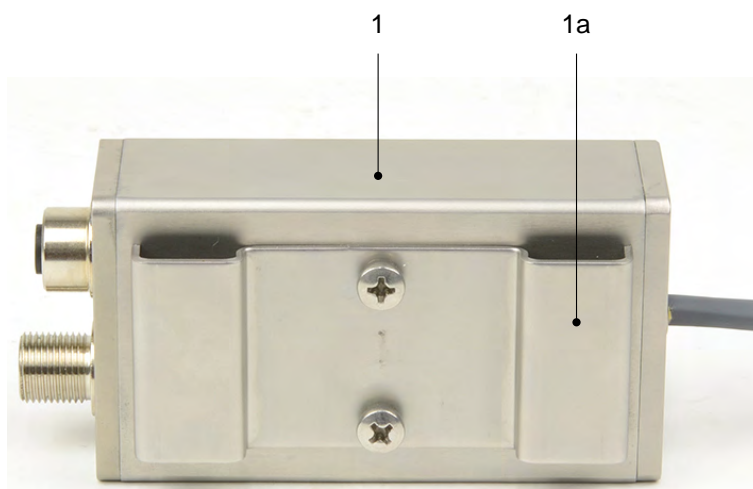
We recommend using the following junction boxes:

No.	Description	Order no.
1	PR 6130/34Sa (1.4301, 1–4 load cells, IP68, IP69, verifiable)	9405 361 30344
2	PR 6130/35S (1.4301, 1–4 load cells, IP68, IP69, verifiable)	9405 361 30354
3	PR 6130/38S (1.4404, 1–8 load cells, IP68, IP69, verifiable)	9405 361 30384

11.2.4 Connex module

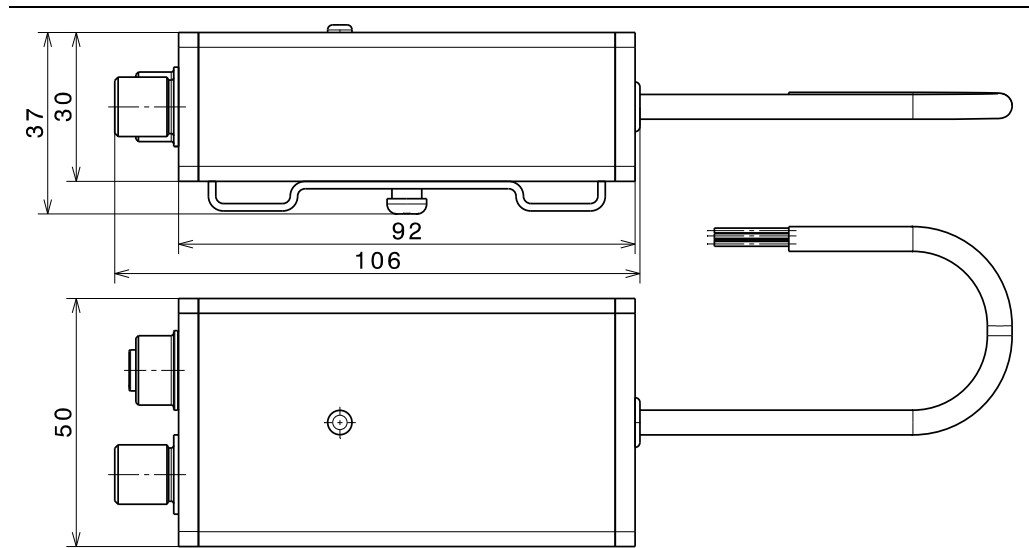
11.2.4.1 Specifications

11.2.4.1.1 Equipment supplied



No.	Description
1	Connex module incl. retaining plate (1a)
Not shown:	
2	Fixing bracket incl. knurled screw
3	Washers (4x; for various screw sizes)
4	Rail holder

11.2.4.1.2 Dimensions



All dimensions in mm

11.2.4.1.3 Technical data

Designation	Description	Abbr.	Temperature
Nominal ambient temp. range	to hold the specified performance	B _T	-10...+40 °C
Usable ambient temp. range	permissible for continuous operation without damage	B _{Tu}	-30...+60 °C
Storage temperature range	without electrical and mechanical stress	B _{Ti}	-30...+70 °C

11.2.4.2 Connection of Connex modules

The load cell is firmly attached to the Connex module.

The load cell cable is 0.7...1.0 m long.

The mounting options for the module are described in Chapter [11.2.4.3](#).

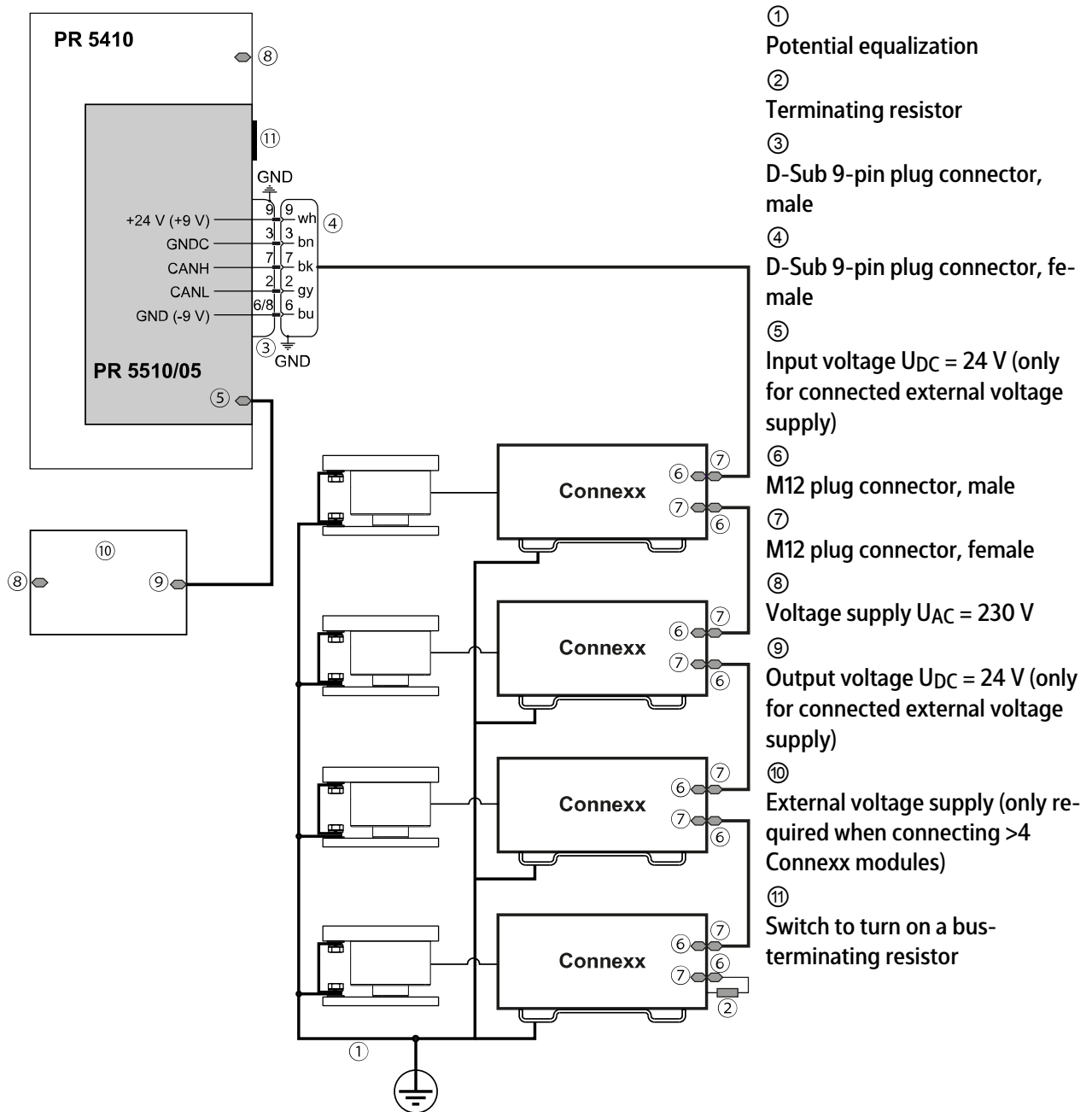
Cable lengths

Connecting part	Recommended length
Between the individual Connex modules	max. 10 m

Connections

Color abbreviations	Color	Description
wh	white	+ Supply voltage
bu	blue	- Supply voltage
bn	brown	GNDC
gy	gray	CAN_L bus signal (material PUR)
gr/ye	green/yellow	CAN_L bus signal (material PVC)
bk	black	CAN_H bus signal

Connection example, shown as a diagram



11.2.4.3 Mounting options

The Connexx module is delivered with mounting elements.

It is possible to mount the Connexx module in the following ways:

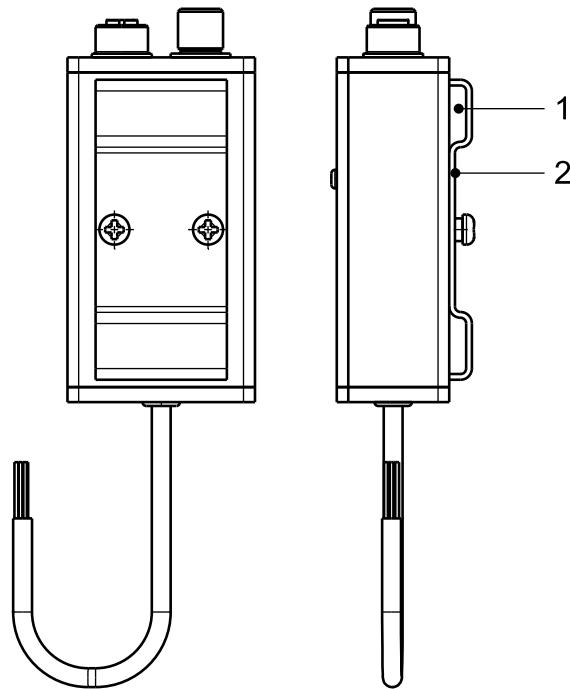
- Mounting using a retaining plate, see Chapter [11.2.4.3.1](#)
- Mounting using a mounting bracket, see Chapter [11.2.4.3.2](#)
- Mounting using a mounting rail holder, see Chapter [11.2.4.3.3](#)

11.2.4.3.1 Mounting using a retaining plate

When using a retaining plate, the Connexx module is attached to the weighing device (e.g. the leg of a container).

Note:

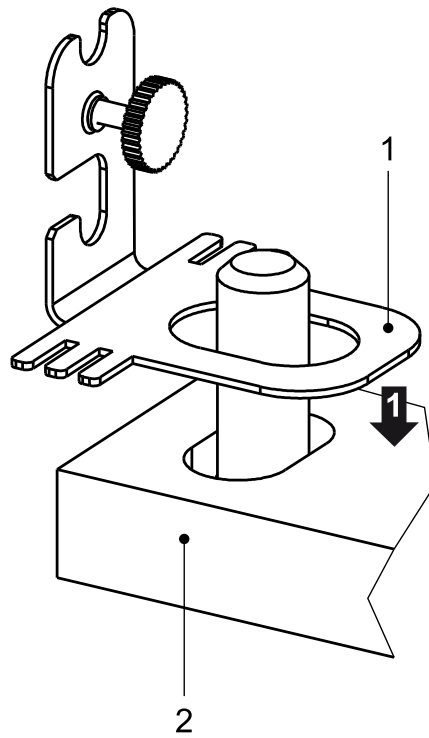
Minebea Intec recommends using a stainless-steel cable tie when mounting using a retaining plate.



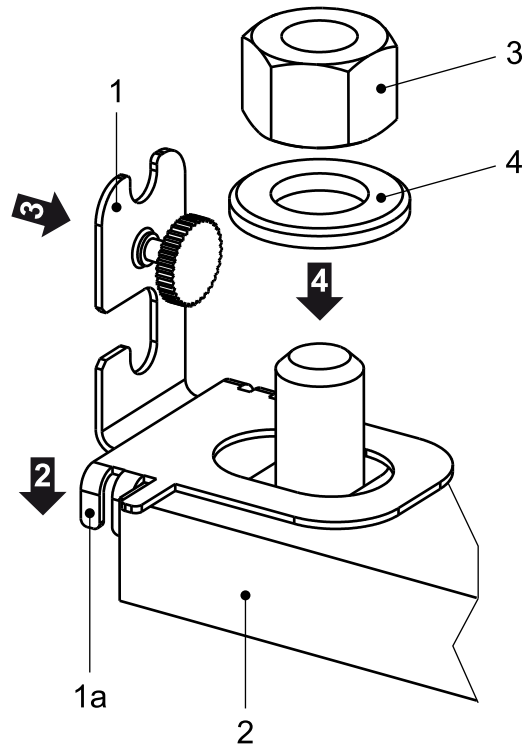
- ▶ Thread the stainless-steel cable tie through the lugs (1) on the retaining plate (2) and attach to the weighing device.

11.2.4.3.2 Mounting using a fixing bracket

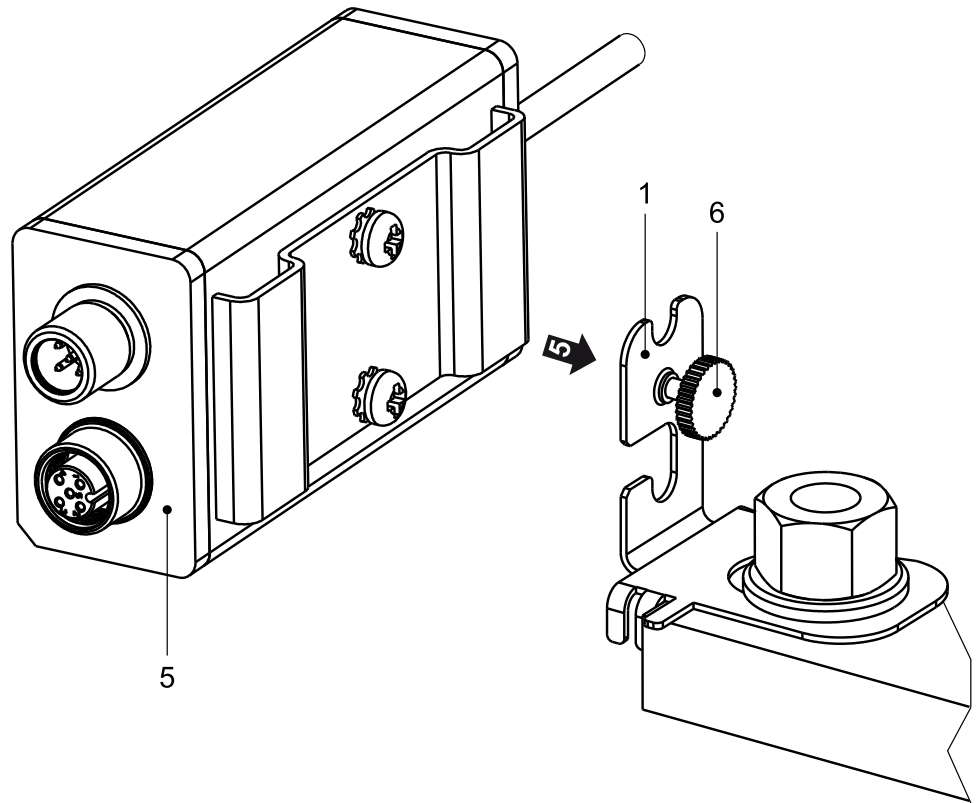
When using a fixing bracket, the Connexx module is attached to the mounting kit.



1. Place the fixing bracket (1) on the lower plate (2) of the mounting kit.



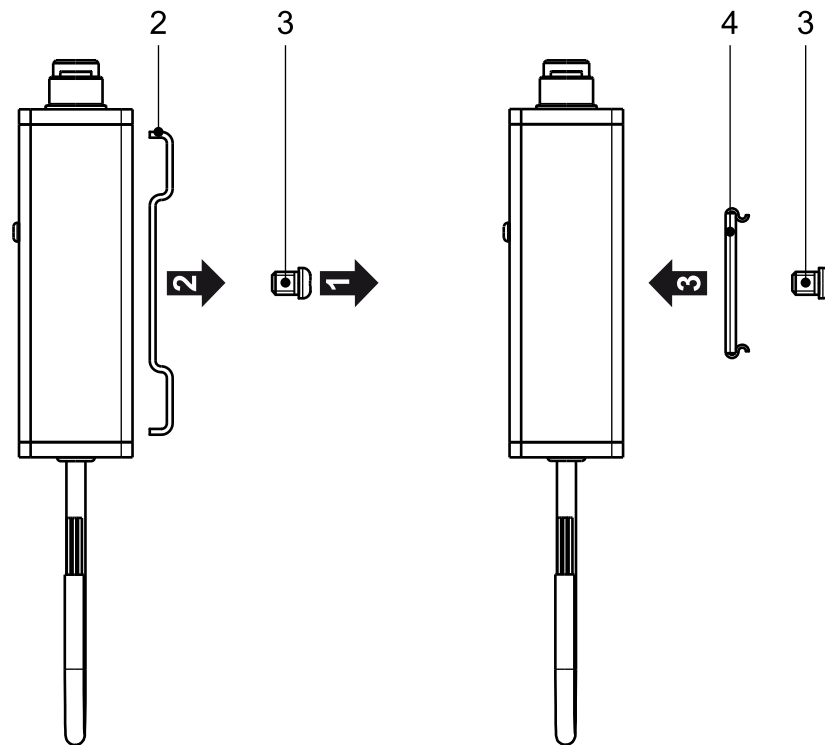
2. Depending on the mounting kit, bend the appropriate lugs (1a) downwards using a tool to prevent the fixing bracket from twisting.
 3. Slide the fixing bracket (1) onto the lower plate (2) of the mounting kit.
 4. Place one of the enclosed washers (4) over the bolt and tighten the nut (3).
- The fixing bracket is now secured against twisting.



5. Mount the Connex module (5) on the fixing bracket (1).
6. Tighten the knurled screw (6) by hand to fix the module in place.

11.2.4.3.3 Mounting using a mounting rail holder

When using a mounting rail holder, the Connexx module is attached to the weighing device (e.g. frame with a mounting rail).



1. Remove the screw (3).
2. Remove the retaining plate (2).
3. Install the rail holder (4) and tighten the screws (3).
4. Click the Connexx Module into the rail holder.

11.2.4.4 Connecting parts for the Connexx module





To connect the Connexx module, the following connecting parts are required:

No.	Description	Order no.
1	PR 5510/05 CANopen interface for PR 5410	9405 355 10051
2	PR 6154/03 Connexx connecting kit for three load cells (comprising: 2× PR 6155/05, 1× PR 6152/25, 1× PR 6153/99)	9405 361 54031
3	PR 6154/04 Connexx connecting kit for four load cells (comprising: 3× PR 6155/05, 1× PR 6152/25, 1× PR 6153/99)	9405 361 54041
4	PR 6154/06 Connexx connecting kit for six load cells (comprising: 5× PR 6155/10, 1× PR 6152/25, 1× PR 6153/99)	9405 361 54061
5	PR 6154/08 Connexx connecting kit for eight load cells (comprising: 7× PR 6155/10, 1× PR 6152/25, 1× PR 6153/99)	9405 361 54081
6	PR 6155/05 Connecting cable between individual Connexx modules (M12 plug connector, male → M12 plug connector, female); 5 m	9405 361 55051
7	PR 6155/10 Connecting cable between individual Connexx modules (M12 plug connector, male → M12 plug connector, female); 10 m	9405 361 55101
8	PR 6152/10 Connecting cable between Connexx module and CANopen interface (M12 plug connector, female → D-Sub 9-pin plug connector, female); 10 m	9405 361 52101
9	PR 6152/11 Connecting cable between Connexx module and CANopen interface (M12 female → open cable ends incl. D-Sub 9-pin plug connector, female with screw connectors); 10 m	9405 361 52111
10	PR 6152/25 Connecting cable between Connexx module and CANopen interface (M12 plug connector, female → D-Sub 9-pin plug connector, female); 25 m	9405 361 52251
11	PR 6152/26 Connecting cable between Connexx module and CANopen interface (M12 plug connector, female → open cable ends incl. D-Sub 9-pin plug connector, female with screw connectors); 25 m	9405 361 52261
12	PR 6152/40 Connecting cable between Connexx module and CANopen interface (M12 plug connector, female → D-Sub 9-pin plug connector, female); 40 m	9405 361 52401
13	PR 6152/41 Connecting cable between Connexx module and CANopen interface (M12 plug connector, female → open cable ends incl. D-Sub 9-pin plug connector, female with screw connectors); 40 m	9405 361 52411
14	PR 6153/98 Split cable gland for connecting cable PR 6152/.. with D-Sub plug connector, female	9405 361 53981
15	PR 6153/ 99 Terminating resistor for Connexx module (M12 plug connector, male)	9405 361 53991

12 Certificates/safety instructions/control drawing

Ser. no.	Description	Document no.	see Chapter
1	Manufacturer's Certificate	MIN17ATEX005X	12.1
2	Certificate of Conformity FM	FM17CA0138 FM17US0276	12.2 12.3
3	Control drawing FM	4012 101 5688	12.4
4	EU-Declaration of Conformity	MEU17057	12.5
5	Certificate of Conformity TR CU 020	RU Д-DE.A301.B.05345	12.6
6	Test Certificate (PTB)	D09-96.40	12.7

12.1 MIN17ATEX005X

	Herstellerbescheinigung Manufacturer's certificate	
Nummer Number	MIN17ATEX005X	
Hersteller Manufacturer	Minebea Intec GmbH Meiendorfer Straße 205A 22145 Hamburg, Germany	
	erklärt in alleiniger Verantwortung, dass das Produkt <i>declares under sole responsibility that the product</i>	
Geräteart Device type	Wägezelle <i>Load cell</i>	
Baureihe Type series	PR 6211 (30 kg-300 kg)	
	auf das sich diese Bescheinigung bezieht, mit der/den folgenden Norm(en) oder normativen Dokument(en) übereinstimmt (siehe Seite 2) gemäß den Bestimmungen der „Richtlinie 2014/34/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014 zur Harmonisierung der Rechtsvorschriften der Mitgliedstaaten für Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen“. Das Produkt wird wie folgt gekennzeichnet: <i>to which this certification relates is in conformity with the following standard(s) or other normative document(s) (see page 2) pursuant to the provisions of the "Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to equipment and protective systems intended for use in potentially explosive atmospheres". This product is labelled as follows:</i>	
Kennzeichnung Marking	II 3G Ex nA IIC T6 Gc II 3D Ex tc IIIC T85°C Dc MIN17ATEX005X Limited to 100 V proof voltage	
	Minebea Intec GmbH Hamburg, 13.09.2017	
	 ----- Kay von der Heydt EX Approval Manager	 ----- Torben Hiller Certification Management
	Diese Erklärung bescheinigt die Übereinstimmung mit den genannten EU-Richtlinien, ist jedoch keine Zusicherung von Eigenschaften. Bei einer mit uns nicht abgestimmten Änderung des Produktes verliert diese Erklärung ihre Gültigkeit. Die Sicherheitshinweise der zugehörigen Produktdokumentation sind zu beachten. <i>This declaration certifies conformity with the above mentioned EC Directives, but does not guarantee product attributes. Unauthorized product modifications make this declaration invalid. The safety information in the associated product documentation must be observed.</i>	
	1/2	



Herstellerbescheinigung Manufacturer's certificate





Die grundlegenden Sicherheits- und Gesundheitsanforderungen werden erfüllt durch Übereinstimmung mit:

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

Normen Standards	<p>EN 60079-0:2012 + A11:2013 Explosionsgefährdete Bereiche – Teil 0: Geräte - Allgemeine Anforderungen <i>Explosive atmospheres – Part 0: Equipment – General requirements</i></p> <p>EN 60079-15:2010 Explosionsfähige Atmosphäre – Teil 15: Geräteschutz durch Zündschutzart „n“ <i>Explosive atmospheres – Part 15: Equipment protection by type of protection „n“</i></p> <p>EN 60079-31:2014 Explosionsfähige Atmosphäre – Teil 31: Geräte-Staubexplosionsschutz durch Gehäuse „t“ <i>Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure „t“</i></p> <p>Diese Bescheinigung wurde auf Basis des folgenden Prüfberichts erstellt: <i>This certificate was drawn on the basis of the following test report:</i></p>
Prüfbericht Test Report	<p>MTR0001 Minebea Intec GmbH, Hamburg, Germany</p>
Sicherheitshinweise Safety instructions	<p>949905947901</p>
Umgebungstemperatur Ambient temperature	<p>-30°C ... +55°C</p>
IP-Schutz IP protection	<p>IP6X</p>
besondere Bedingungen special Conditions	<p>Für diese Produkt gelten folgende besonderen Bedingungen für den sicheren Gebrauch: <i>For this product the following special conditions for safe use apply:</i></p> <p>Für Anwendungen in Umgebungen mit brennbaren Stäuben ist eine elektrostatische Aufladung zu vermeiden. <i>For application in environments with combustible dust, electrostatic charging shall be avoided.</i></p> <p>Bei Verwendung der Zündschutzart "Ex nA" ist eine Transientenschutzvorrichtung vorzusehen, welche einen Maximalwert der Spitzenspannung von 100 V sicherstellt. <i>When applied in type of protection non sparking "Ex nA", a transient protection device shall be set to limit the peak rated voltage value to 100 V.</i></p>

12.2 FM17CA0138

CERTIFICATE OF CONFORMITY		
1.	HAZARDOUS LOCATION ELECTRICAL EQUIPMENT PER CANADIAN REQUIREMENTS	
2.	Certificate No:	FM17CA0138
3.	Equipment: (Type Reference and Name)	Model PR 6201, PR 6202, PR 6203, PR 6211, PR 6212, PR 6221, PR 6241, PR 6246, PR 6251, PR 6261 Load Cells
4.	Name of Listing Company:	Minebea Intec GmbH
5.	Address of Listing Company:	Meien dorfer Str. 205A 22145 Hamburg Germany
6.	The examination and test results are recorded in confidential report number: 3053046 dated 22 nd July 2014	
7.	FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents: CAN/CSA-C22.2 No. 213: 2013, CAN-C22.2 No. 157-92: 2012, CSA-C22.2 No. 1010.1: 2004, CAN/CSA-C22.2 No. 25: 2009	
8.	If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.	
9.	This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.	
10.	Equipment Ratings: Intrinsically safe (Entity) for use in Class I, II and III Division 1, Groups A, B, C, D, E, F and G indoor and outdoor Hazardous Locations, Temperature Class T4A Ta= -40°C to +70°C and T5 Ta= -40°C to +55°C when installed per Control Drawing 4012-101-5688. Nonincendive (NIFW) for use in Class I, Division 2, Groups A, B, C, and D indoor and outdoor Hazardous Locations, Temperature Class T4A Ta= -40°C to +70°C and T5 Ta= -40°C to +55°C when installed per Control Drawing 4012-101-5688.	
Certificate issued by:		
 J.E. Marquardt VP, Manager - Electrical Systems		30 July 2020 Date
To verify the availability of the Approved product, please refer to www.fmaprovalsguide.com		
<u>THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE</u>		
FM Approvals LLC, 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: inquiries@fmaprovals.com , www.fmaprovals.com		
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<u>SCHEDULE</u>	
	
Canadian Certificate Of Conformity No: FM17CA0138	
Dust Ignition protected for Class II, III Division 2, Groups E, F and G indoor and outdoor Hazardous Locations, Temperature Class T4A Ta= -40°C to +70°C and T5 Ta= -40°C to +55°C when installed per Control Drawing 4012 101 5688	
11. The marking of the equipment shall include:	IS CL I, II, III, DIV 1, GP A,B,C,D,E,F,G Entity - 4012 101 5688 NI CL I, II, III, DIV 2, GP A,B,C,D, E, F, G - 4012 101 5688; NIFW T4A Ta= -40°C to 70°C; T5 Ta= -40°C to 55°C
12. Description of Equipment:	<p>General - The Model PR 62xx Series Load Cells are precision compression load cells designed to meet the specific requirements of a wide range of weighing installations.</p> <p>Construction - The Model PR 62xx Series Load Cells are constructed of welded stainless steel, hermetically sealed, and filled with inert gas.</p> <p>Ratings - The Model PR 62xx Series Load Cells are rated for an operating temperature range of -40°C to 70°C. Entity and Nonincendive Field Wiring parameters are as defined below.</p> <p>PR 62a/bc d e. Load Cell.</p> <p>Entity/Nonincendive Field Wiring Parameters: Ui = 25 V, li = 160 mA, Pi = 2 W; Ci= 0 μF, Li= 0 mH.</p> <p>a = 01, 02, 03, 11, 12, 21, 41, 46, 51, 61 b = up to three numbers denoting the maximum capacity (may be separated by a dot) c = Unit of measurement: blank or t d = Accuracy: up to three numbers or letters (may be separated by dots) e = Special: F or blank</p>
13. Specific Conditions of Use:	None
14. Test and Assessment Procedure and Conditions:	This Certificate has been issued in accordance with FM Approvals Canadian Certification Scheme.
15. Schedule Drawings	A copy of the technical documentation has been kept by FM Approvals.
16. Certificate History	Details of the supplements to this certificate are described below:
<u>THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE</u>	
FM Approvals LLC, 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: information@fmapprovals.com www.fmapprovals.com	
F 348 (Mar 16)	Page 2 of 3

SCHEDULE

Canadian Certificate Of Conformity No: FM17CA0138



Member of the FM Global Group

Date	Description
22 nd July 2014	Original Issue.
6 th October 2017	<u>Supplement 3:</u> Report Reference: – RR210028 dated 6 th October 2017. Description of the Change: Company name change from Sartorius Mechatronics T&H GmbH. Certificate reformed.
10 th November 2017	<u>Supplement 4:</u> Report Reference: – RR211742 dated 10 th November 2017. Description of the Change: Addition of option a = 03.
24 th October 2018	<u>Supplement 5:</u> Report Reference: – RR215447 dated 24 th October 2018 . Description of the Change: Update lower operating temperatures from -30°C to -40°C.
30 th July 2020	<u>Supplement 6:</u> Report Reference: – RR224030 dated 30 th July 2020. Description of the Change: Added load cell variation PR 6261.




THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals LLC, 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA
 T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: information@fmaprovals.com www.fmaprovals.com

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12.3 FM17US0276



CERTIFICATE OF CONFORMITY

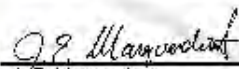
1. HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS
2. Certificate No: FM17US0276
3. Equipment: Model PR 6201, PR 6202, PR 6203, PR 6211, PR 6212, PR 6221, PR 6241, PR 6246, PR 6251, PR 6261 Load Cells
(Type Reference and Name)
4. Name of Listing Company: Minebea Intec GmbH
5. Address of Listing Company: Mejendorfer Str. 205A
22145 Hamburg
Germany
6. The examination and test results are recorded in confidential report number:

3001200 dated 12th August 1999
7. FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

FM Class 3600:2016, FM Class 3610:2010, FM Class 3611:2004, FM Class 3810:2005
8. If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.
9. This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.
10. Equipment Ratings:

Intrinsically safe (Entity) for use in Class I, II and III Division 1, Groups A, B, C, D, E, F and G indoor and outdoor Hazardous (Classified) Locations, Temperature Class T4A Ta= -40°C to +70°C and T5 Ta= -40°C to +55°C when installed per Control Drawing 4012 101 5688.
Nonincendive (NIFW) for use in Class I, II and III Division 2, Groups A, B, C, D, E, F and G indoor and outdoor Hazardous (Classified) Locations, Temperature Class T4A Ta= -40°C to +70°C and T5 Ta= -40°C to +55°C when installed per Control Drawing 4012 101 5688.

Certificate issued by:



J.E. Marquardt
VP, Manager - Electrical Systems

30 July 2020
Date

To verify the availability of the Approved product, please refer to www.approvalsusa.com

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals LLC, 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA
T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: info@fmapprovals.com www.fmapprovals.com

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<u>SCHEDULE</u>	
US Certificate Of Conformity No: FM17US0276	
11.	<p>The marking of the equipment shall include:</p> <p>IS CL I, II, III, DIV 1, GP A,B,C,D,E,F,G Entity - 4012 101 5688 NI CL I, II, III, DIV 2, GP A,B,C,D,E,F,G - 4012 101 5688; NIFW T4A Ta= -40°C to 70°C; T5 Ta= -40°C to 55°C</p>
12.	<p>Description of Equipment:</p> <p>General - The Model PR 62xx Series Load Cells are precision compression load cells designed to meet the specific requirements of a wide range of weighing installations.</p> <p>Construction - The Model PR 62xx Series Load Cells are constructed of welded stainless steel, hermetically sealed, and filled with inert gas.</p> <p>Ratings - The Model PR 62xx Series Load Cells are rated for an operating temperature range of -40°C to 70°C. Entity and Nonincendive Field Wiring parameters are as defined below.</p> <p>PR 62a/bc d e. Load Cell.</p> <p>Entity/Nonincendive Field Wiring Parameters: Ui = 25 V, li = 160 mA, Pi = 2 W; Ci= 0 µF, Li= 0 mH.</p> <p>a = 01, 02, 03, 11, 12, 21, 41, 46, 51, 61 b = up to three numbers denoting the maximum capacity (may be separated by a dot) c = Unit of measurement: blank or t d = Accuracy: up to three numbers or letters (may be separated by dots) e = Special: F or blank</p>
13.	<p>Specific Conditions of Use:</p> <p>None</p>
14.	<p>Test and Assessment Procedure and Conditions:</p> <p>This Certificate has been issued in accordance with FM Approvals US Certification Requirements.</p>
15.	<p>Schedule Drawings</p> <p>A copy of the technical documentation has been kept by FM Approvals.</p>
<u>THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE</u>	
<p>FM Approvals LLC, 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: information@fmapprovals.com www.fmapprovals.com</p>	
F 347 (Mar 16)	Page 2 of 3

SCHEDULE

US Certificate Of Conformity No: FM17US0276



Member of the FM Global Group

16. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
12 th August 1999	Original Issue.
6 th October 2017	<u>Supplement 7:</u> Report Reference: – RR210028 dated 6 th October 2017. Description of the Change: Company name change from Sartorius Mechatronics T&H GmbH. Certificate reformed.
10 th November 2017	<u>Supplement 8:</u> Report Reference: – RR211742 dated 10 th November 2017. Description of the Change: Addition of option a = 03.
24 th October 2018	<u>Supplement 9:</u> Report Reference: – RR215447 dated 24 th October 2018. Description of the Change: Update lower operating temperatures from -30°C to -40°C. Update FM Class 3600 from 2011 to 2018.
30 th July 2020	<u>Supplement 10:</u> Report Reference: – RR224030 dated 30 th July 2020. Description of the Change: Added load cell variation PR 6261.

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals LLC, 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA
T: +1 (1) 781 762 4300 F: +1 (1) 781 762 9375 E-mail: information@fmaprovals.com www.fmaprovals.com

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12.4 4012 101 5688

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Hazardous (Classified) Location
Class I, II, III, Division 1, Groups A,B,C,D,E,F,G

Minebea Intec
Load Cell Series PR62..

$U_i = 25V, l_i = 0.16A$
 $P_i = 2W$
 $L_i = 0, C_i = 0$

Hazardous (Classified) Location
Class I, II, III, Division 2, Groups A,B,C,D,E,F,G

Minebea Intec
Load Cell Series PR62..


$V_{max} = 25V$

Notes

- 1) In the **USA**: The installation must be in accordance with the National Electrical Code[®], NFPA 70 and ANSI / ISA-RP 12.06.01.
In **Canada**: The installation must be in accordance with the Canadian Electrical Code[®], Part 1.
- 2) The apparatus must not be connected to any device that uses or generates in excess of 250Vrms or DC.
 $U_{0i} = 250V$.
- 3) In the **USA**: The Apparatus must be connected to a suitable ground electrode per National Electrical Code[®], NFPA 70, Article 504. The resistance of the ground pad must be less than 1 ohm.
In **Canada**: The Apparatus must be connected to a suitable ground electrode per Canadian Electrical Code[®], Part 1. The resistance of the ground pad must be less than 1 ohm.
The load cell ground (housing) must be insulated from the surface on which it is mounted or be at the same potential of the NRTL approved apparatus ground as per installation drawings.
- 4) **Connection must be made in accordance with the manufacturer's instructions** of the NRTL approved apparatus.
- 5) The Entity Concept allows interconnection of intrinsically safe apparatus with associated apparatus not specifically examined in combination as a system when the approved values of V_0 and I_0 of the associated apparatus are less than or equal to V_i and I_i of the intrinsically safe apparatus and the approved values of C_0 and L_0 of the associated apparatus are greater than C_i and L_i of the intrinsically safe apparatus plus all cable parameters
- 7) Ambient temperature range:
-40°C ... +55°C (-40°F ... +131°F) for T5 and -40°C ... +70°C (-40°F ... +158°F) for T4A.
- 8) **WARNING:** SUBSTITUTION OF COMPONENTS MAY IMPAIR INTRINSIC SAFETY
AVERTISSEMENT: LA SUBSTITUTION DE COMPOSANTS PEUT COMPROMETTRE LA SÉCURITÉ INTRINSÈQUE


	Datum Date	Name	Material		Maßstab / Scale	
Erstellt Written by	20.08.18	Schallhorn	Minebea intec		Benennung / Title Load Cells Series PR62..	
Geprüft Reviewed by	20.08.18	Hiller			Zeichnungs-Nr. / Drawing number 4012 101 5688	Teildok. Nr. / Part doc. no 592
Freigegeben Released by	20.08.18	Schallhorn	Ausgabe / Revision 04	Änderung / Alteration PA50180542	Maßstab / Scale 1:1	
					1	1

12.5 MEU17057



EU-Declaration of Conformity
(in accordance with ISO/IEC 17050-1)

MEU17057 Rev. 2



Minebea
intec
The true measure

1. Product model | product number | solely valid for project number:
 - 1.1 Compact Compression Type Load Cell | PR 6211/31, /51, /12, /22, /32 | —
 - 1.2 Compact Compression Type Load Cell + Converter Connexx @ | PR 6211/(31, 51, 12, 22, 32) + PR 6150 | —

2. Name and address of the manufacturer (2.1) and his authorized representative (2.2):
 - 2.1 Minebea Intec GmbH, Meiendorfer Straße 205 A, 22145 Hamburg, Germany
 - 2.2 /

3. This declaration of conformity is issued under the sole responsibility of the manufacturer.

4. Object(s) of the declaration:
 - 4.1 PR 6211/___D1; PR 6211/___D1 + PR 6150
 - 4.2 PR 6211/___D1 (A.1)

5. The object(s) of the declaration described above is in conformity with the relevant Union harmonization legislation:

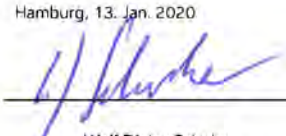
	(4.1)	(4.2)
5.1 2014/30/EU	(6.1)	(6.1)
5.2 2011/65/EU	(6.2)	(6.2)
5.3 2014/34/EU	(6.3)	(6.3)

6. References to the relevant harmonized standards used or references to the other technical specifications in relation to which conformity is declared:
 - 6.1 2014/30/EU EN 61326-1:2013
 - 6.2 2011/65/EU EN 50581:2012
 - 6.3 2014/34/EU EN 60079-0:2012+A11:2013, EN 60079-15:2010, EN 60079-31:2014

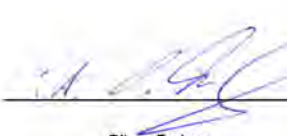
7. The notified body w performed x and issued the certificate y relevant for z:

	w	x	y	z
7.1 /		Manufacturer's Certificate	MIN17ATEX005X	(4.2)

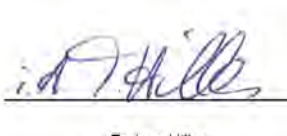
Minebea Intec GmbH
Hamburg, 13. Jan. 2020



Wolf Dieter Schulze
Managing Director



Oliver Freitag
CE Certification



Torben Hiller
Ex Approval Manager

1/6



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A. Additional information on ():

A.1 (4.2) Marking



II 3G Ex nA IIC T6 Gc
II 3D Ex tc IIC T85°C Dc
MIN17ATEX005X
Limited to 100 V proof voltage



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Български (bg)
Декларация за съответствие
1. Модел на продукта / Номер на продукта / валидно само за номера на проекта.
2. Наименование и адрес на производителя (2.1) и на неговия упълномощен представител (2.2).
3. Настоящата декларация за съответствие е издадена на отговорността на производителя.
4. Предмет(и) на декларацията:
5. Предмет(и) на декларацията, съгласно (и) по-горе отговаря(т) на съответното законодателство на Съюза за хармонизация.
6. Положения на използваните хармонизирани стандарти или положения на други технически спецификации, по отношение на които се декларира съответствие.
7. Нотифицираното орган в извърши X и издаде сертификата Y, отнасящ се за Z:
A. Допълнителна информация за ():
A.1 Маркировка

Čeština (cs)
Prohlášení o shodě
1. Model výrobku / číslo výrobku / platné pouze pro číslo projektu.
2. Jméno a adresa výrobce (2.1) a jeho zplnomocněného zástupce (2.2).
3. Toto prohlášení o shodě se vydává na výhradní odpovědnost výrobce.
4. Předměty (y) prohlášení:
5. Vyšše popsaný předmět / Vyšše popsané předměty prohlášení je jsou ve shodě s příslušnými harmonizačními právními předpisy UE.
6. odkazy na příslušné harmonizační normy, které byly použity, nebo na jiné technické specifikace, na jejichž základě se shoda prohlašuje.
7. Oznámený subjekt v provedl X a vydal certifikát Y relevantní z hlediska Z:
A. Další informace o ():
A.1 Označení

dansk (da)
Overensstemmelseserklæring
1. Produktmodel / produktnummer / gælder kun for projektnummer.
2. Fabrikantens (2.1) og dennes bemyndigede repræsentants (2.2) navn og adresse.
3. Denne overensstemmelseserklæring udstedes på fabrikantens ansvar.
4. Genstand(ene) for erklæringen:
5. Genstand(ene) for erklæringen, som beskrevet ovenfor, er i overensstemmelse med den relevante EU-harmoniseringslovgivning.
6. Referencer til de relevante anvendte harmoniserede standarder eller til de andre tekniske specifikationer, som der erklæres overensstemmelse med.
7. Det bemyndigede organ har foretaget X og udstedt attesten Y, der gælder for Z:
A. Supplerende oplysninger om ():
A.1 Mærkning

Deutsch (de)
Konformitätserklärung
1. Produktmodell / Produktnummer / gilt ausschließlich für Projekt-Nr.
2. Name und Anschrift des Herstellers (2.1) und seines Bevollmächtigten (2.2).
3. Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller.
4. Gegenstände der Erklärung:
5. Die oben beschriebenen Gegenstände der Erklärung erfüllen die einschlägigen Harmonisierungsrechtsvorschriften der Union.
6. Angabe der einschlägigen harmonisierten Normen oder der anderen technischen Spezifikationen, die der Konformitätserklärung zugrunde gelegt wurden.
7. Die notifizierte Stelle W hat X ausd die für Z relevante Bescheinigung Y ausgestellt.
A. Zusatzangaben zu ():
A.1 Kennzeichnung

Ελληνικό (el)
Δήλωση συμμόρφωσης
1. Μοντέλο προϊόντος / αριθμός προϊόντος / ισχύει μόνο για τον αριθμό του έργου.
2. Όνομα και διεύθυνση του κατασκευαστή (2.1) και του εξουσιοδοτημένου αντιπροσώπου του (2.2).
3. Η παρούσα δήλωση συμμόρφωσης εκδίδεται με αποκλειστική ευθύνη του κατασκευαστή.
4. Στόχος της δήλωσης.
5. Ο στόχος της δήλωσης που περιγράφεται παραπάνω είναι σύμφωνος με τη σχετική ενωσιακή νομοθεσία εναρμόνισης.
6. Παραπομπές, στα σχετικά εναρμονισμένα πρότυπα που χρησιμοποιήθηκαν ή παραπομπές στις λοιπές τεχνικές προδιαγραφές σε σχέση με τις οποίες δηλώνεται η συμμόρφωση.
7. Ο κοινοποιημένος οργανισμός W διεξήγαγε X και εξέδωσε το πιστοποιητικό Y όσον αφορά το Z.
A. Πρόσθετες πληροφορίες σχετικά με ():
A.1 Σήμανση

español (es)
Declaración de conformidad
1. Modelo de producto/número de producto / únicamente válido para el número de proyecto.
2. Nombre y dirección del fabricante (2.1) y de su representante autorizado (2.2).
3. La presente declaración de conformidad se expide bajo la exclusiva responsabilidad del fabricante.
4. Objeto(s) de la declaración:
5. El/Los objeto(s) de la declaración descritos anteriormente son conformes con la legislación de armonización pertinente de la Unión Europea.
6. Referencias a las normas armonizadas pertinentes utilizadas o referencias a las otras especificaciones técnicas respecto a las cuales se declara la conformidad.
7. El organismo notificado W ha efectuado X y expedido el certificado Y relevante para Z.
A. Información adicional en ():
A.1 Marcado



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vešni keel (et)

Vastavusdeklaratsioon
1. Tootemudel / tootenumber / kalibri väärt järgmise projekti järgi.
2. Tootja nimi ja aadress (2.1) ning tema volitatud esindaja (2.2).
3. Käesolev vastavusdeklaratsioon on välja antud tootja ainsustutuseel.
4. Deklareeritav toode:
5. Üllalkeereldatud deklareeritav toode on kooskõlas asjaomaste liidu ühildatavustähtsusega viitades nimele tehniliste spetsifikatsioonidele, millele vastavus deklareeritakse:
6. Viited kasutatud harmoneeritud standarditele või viited nimele tehniliste spetsifikatsioonidele, millele vastavus deklareeritakse:
7. Teavitatud asutus w loomas x ja andis välja loendi z, mis on asjakohane y-le:
A. Lisateave järgmise kohta ()
A.1 Märksused

français (fr)

Déclaration de conformité
1. Modèle / numéro de produit / valeur uniquement pour le numéro de projet.
2. Nom et adresse du fabricant (2.1) et de son mandataire (2.2).
3. La présente déclaration de conformité est établie sous la seule responsabilité du fabricant.
4. Objet(s) de la déclaration.
5. Le ou les objets de la déclaration décrit ci-dessous est/sont conforme(s) à la législation d'harmonisation de l'Union applicable.
6. Références des normes harmonisées pertinentes appliquées ou des autres spécifications techniques par rapport auxquelles la conformité est déclarée.
7. L'organisme notifié w a effectué x et a établi l'attestation y applicable à z:
A. Informations complémentaires relatives à ()
A.1 Marquage

hrvatski (hr)

Izjava o sukladnosti
1. Model proizvoda / broj proizvoda / vrijedi samo za broj projekta.
2. Naziv i adresa proizvođača (2.1) i njegovog ovlaštenog zastupnika (2.2).
3. Za izdavanje ove izjave o sukladnosti odgovoran je isključivo proizvođač.
4. Predmet(i) izjave:
5. Predmet(i) navedene izjave je/su u skladu s navedenim zakonodavstvom Unije o usklađivanju.
6. Pozivajući na relevantne primjenjene usklađene norme ili pozivajući na ostale tehničke specifikacije u vezi s kojima se izjavljuje sukladnost.
7. Prijavljeno tijelo w provelo je x i izdalo certifikat y koji je relevantan za z:
A. Dodatne informacije o proizvodu ()
A.1 Označavanje

magyar (hu)

Megfelelőségi nyilatkozat
1. Termékmodell / termékszám / kizárólag az alábbi projektszámhoz érvényes.
2. A gyártó (2.1) vagy adott esetben meghatalmazott képviselőjének (2.2) neve és címe.
3. Ezt a megfelelőségi nyilatkozatot a gyártó kizárólagos felelősége mellett adják ki.
4. A nyilatkozat tárgya(i).
5. A felet ismertetett nyilatkozat tárgya megfelel a vonatkozó uniós harmonizációs jogszabályoknak.
6. Az alkalmazott harmonizált szabványokra való hivatkozás vagy az azokra az egyéb műszaki leírásokra való hivatkozás, amelyekkel kapcsolatban megfelelőségi nyilatkozatot tettek.
7. A(z) w bejelölt szervezet elvégezte az(x) x eljárást, és kiállította az(z) z kapcsolódó y tanúsítványt.
A. További információk ()
A.1 Jelölés

italiano (it)

Dichiarazione di conformità
1. Modello di prodotto / numero di prodotto / valido unicamente per numero di progetto.
2. Nome e indirizzo del fabbricante (2.1) e del relativo rappresentante autorizzato (2.2).
3. La presente dichiarazione di conformità è rilasciata sotto la responsabilità esclusiva del fabbricante.
4. Oggetto/i della dichiarazione.
5. L'oggetto o gli oggetti della dichiarazione di cui sopra sono conformi alla pertinente normativa di armonizzazione dell'Unione.
6. Riferimento alle pertinenti norme armonizzate applicate o riferimenti alle altre specifiche tecniche in relazione alle quali è dichiarata la conformità.
7. L'organismo notificato w ha effettuato x e rilasciato il certificato y pertinente a z:
A. Informazioni aggiuntive su ()
A.1 Marcatura

latvian (lv)

Aitifikācijas deklarācija
1. Gaminis modelis / gaminis numurs / gūtiņa tik projekta numuram.
2. Gaminis (2.1) ir jāizgatavo atbilstoši (2.2) pavadināmas i / adresei.
3. Šī aitifikācijas deklarācija izdotā tik gaminiojo atskaitībe.
4. Deklarācijas objekts (objekti).
5. Pirmā atbilstības deklarācijas objekts (objekti) atbilstoši susijusies derīgumposms - Sājūmos tiešas atbilst.
6. Susijusij i / kaitijū dārnijū standartijū norādosis arba kaitijū tehnijū spicifikācijū, pēgal kurais buvo deklarācija aitifikācija, norādosis.
7. Notifikātsioji istāniz w atliko x ir izdāve sertifikāta y dēļ z:
A. Papildoma informācija ()
A.1 Zēnkārnāms



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latvisku valoda (lv)

- Atbilstības deklarācija
1. Produkta nosaukums / produkta numurs / derīguma termiņš projekta Nr.:
 2. Ražotāja (2.1.) un tā pilnvarotā pārstāvja (2.2.) nosaukums un adrese:
 3. Šī atbilstības deklarācija ir izdota vienīgi ar ražotāja atbildību.
 4. Deklarācijas priekšmets vai priekšmets:
 5. Iepriekš aprakstītais deklarācijas priekšmets vai priekšmets atbilst attiecīgajam Savienības saskaņotības tiesību aktam:
 6. Atsauces uz attiecīgajiem izstrādājumiem saskaņotajiem standartiem vai uz citām tehniskajām specifikācijām, attiecībā uz ko tiek deklarēta atbilstība:
 7. Paziņotā struktūra w ir veikusi x un izstrādājusi sertifikātu y, kas attiecas uz z:
- A. Papildu informācija par ():
- A.1. Marķējums

mali (mt)

- Dikjarazzjoni ta' konformità
1. Model tal-prodott / numru tal-prodott / validu biss għan-numru tal-progett:
 2. L-isem u l-indirizz tal-manifattur (2.1) u (ir-) rappreżentant awtorizzat (iegħu) (2.2):
 3. Din id-dikjarazzjoni ta' konformità (infereg- fatt) ir-responsabbiltà unika tal-manifattur:
 4. L-għan(jiet) tad-dikjarazzjoni:
 5. L-għan(jiet) tad-dikjarazzjoni deskritt(i) hawn fuq hawn(jenna) korriforju mal-legiżlazzjoni ta' armonizzazzjoni rilevanti (tal-Unjoni):
 6. Ir-referenzi għall-standards armonizzati rilevanti li nużaw, jow ir-referenzi għall-ispjefifikazzjonijiet tekniki l-oħra li skonhom qed- tigi ddikjarata l-konformità:
 7. Il-korp notifikat w wettaq x u harrag le- certifikat y rilevanti għal z:
- A. Informazzjoni addizzjonali fuq ():
- A.1. Immarkar

nederland (nl)

- Conformiteitsverklaring
1. Productmodel / productnummer / uitstaand- geldig voor projectnummer:
 2. Naam en adres van de fabrikant (2.1) en zijn gemachtigde (2.2):
 3. Deze conformiteitsverklaring wordt verstrekt onder volledige verantwoordelijkheid van de fabrikant.
 4. Voorwerpen van de verklaring:
 5. Het (de) hierboven beschreven voorwerpen (is (zijn)) in overeenstemming met de desbetreffende harmonisatiewetgeving van de Unie:
 6. Vermelding van de toepasselijke relevante geharmoniseerde normen of van de overige technische specificaties waarop de conformiteitsverklaring betrekking heeft:
 7. De aangemelde instantie w heeft een x uitgevoerd en het certificaat y verstrekt dat relevant is voor z:
- A. Aanvullende informatie over ():
- A.1. Markering

polski (pl)

- Deklaracja zgodności
1. Model produktu / numer produktu / ważny wyłącznie dla projektu o numerze:
 2. Nazwa i adres producenta (2.1) oraz jego upoważnionego przedstawiciela (2.2):
 3. Niniejsza deklaracja zgodności wydana zostaje na wyłączną odpowiedzialność producenta.
 4. Przedmiot(-y) deklaracji:
 5. Wymieniony powyżej przedmiot (lub przedmioty) niniejszej deklaracji jest zgodny z odnoszonymi wymaganiami unijnego powołania w harmonizacyjnego:
 6. Odwołania do odnoszących norm harmonizacyjnych, które zastosowano, lub do innych specyfikacji technicznych, w stosunku do których deklaratorem jest zgodność:
 7. Jednostka notyfikowana w przeprowadziła x i wydała certyfikat y odpowiedni dla z:
- A. Informacje dodatkowe o ():
- A.1. Oznakowanie

português (pt)

- Declaração de conformidade
1. Modelo do produto / número do produto / somente válido para o número de projeto:
 2. Nome e endereço do fabricante (2.1) e do seu mandatário (2.2):
 3. A presente declaração de conformidade é emitida sob a exclusiva responsabilidade do fabricante.
 4. Objeto(s) da declaração:
 5. O(s) objeto(s) da declaração acima descrito(s) está(ão) em conformidade com a legislação aplicável de harmonização da União:
 6. Referências às normas harmonizadas aplicáveis utilizadas ou às outras especificações técnicas em relação às quais é declarada a conformidade:
 7. O organismo notificado w realizou x e emitiu o certificado y relevante para z:
- A. Informações complementares relativa a ():
- A.1. Marcação

română (ro)

- Declarație de conformitate
1. Modelul de produs / Număr produs / valabil numai pentru numărul proiectului:
 2. Denumirea și adresa producătorului (2.1) și a reprezentantului său autorizat (2.2):
 3. Prezenta declarație de conformitate este emisă pe răspunderea exclusivă a producătorului.
 4. Obiectul (obiectele) declarației:
 5. Obiectul (obiectele) declarației desemnează sau sunt în conformitate cu legislația relevantă de armonizare a Uniunii:
 6. Trimiteri la standardele armonizate relevante folosite sau trimiteri la celelalte specificații tehnice în legislația în care se declară conformitatea:
 7. Organismul notificat w a efectuat x și a emis certificatul y corespunzător pentru z:
- A. Informații suplimentare despre ():
- A.1. Marcă



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slovenščina (sl)

Vyhlasenie o zhode
1. Model výrobku / číslo výrobku / platná len pre číslo projektu.
2. Meno názov a adresa výrobcu (2.1) a jeho splnomocneného zástupcu (2.2).
3. Toto vyhlásenie o zhode sa vydáva na vlastnú zodpovednosť výrobcu.
4. Predmet(-y) vyhlásenia:
5. Uvedený predmet či uvedené predmety vyhlásenia sú v zhode s príslušnými harmonizačnými právnymi predpismi Únie.
6. Odkazy na príslušné použité harmonizačné normy alebo odkazy na iné technické špecifikácie, v súvislosti s ktorými sa zhoda vyhlasuje.
7. Notifikovaný orgán v vykonaní a á vydal certifikát y relevantný pre z:
A. Doplňujúce informácie o ():
A.1 Označenie

slovenščina (sl)

Izjava o skladnosti
1. Model proizvoda / serijska številka proizvoda / veljavno samo za številko projekta.
2. Ime in naslov proizvajalca (2.1) ter njegovega pooblaščenega zastopnika (2.2).
3. Za izdajo te izjave o skladnosti je odgovoren izključno proizvajalec.
4. Predmet(i) izjave:
5. Predmet(i) navedeno izjave je (so) v skladu z ustreznimi zakonodajno Úniji o harmonizaciji.
6. Sklepevanja na uporabljene ustrezne harmonizirane standarde ali sklepevanja na druge tehnične specifikacije v zvezi s skladnostjo, ki je navedena v izjavi.
7. Priglaseni organ v je izvedel a in izdal certifikat y, pomemben za z:
A. Dodalne informacije o ():
A.1 Oznaka

suomi (fi)

Vaatimustenmukaisuusvakuutus
1. Tuotemalli / tuotenimi / koskee vain projektinumeroa.
2. Valmistajan (2.1) ja valtuutetun edustajan (2.2) nimi ja osoite.
3. Tämä vaatimustenmukaisuusvakuutus on annettu valmistajan yksinomaanella vastuulla.
4. Vakuutuksen kohde (kohteet):
5. Edellä kuvattu (kuvatut) vakuutuksen kohde (kohteet) on (ovat) asiaa koskevan unionin yhdenmukaistamislainsäädännön vaatimusten mukainen (mukaisia).
6. Viittaus niihin asiaa koskeviin yhdenmukaistettuihin standardeihin, joita on käytetty, tai viittaus muihin teknisiin eritelmiin, joiden perusteella vaatimustenmukaisuusvakuutus on annettu.
7. Ilmoitettu laitos on suorittanut ja antanut todistuksen y liittyen z:
A. Lisätietoja ():
A.1 Merkintä

svenska (sv)

Försäkran om överensstämmelse
1. Produktmodell / produktnummer / gäller endast för projektnummer.
2. Tillverkarens namn och adress (2.1) och dess auktoriserade representant (2.2).
3. Denna försäkran om överensstämmelse utfärdas på tillverkarens eget ansvar.
4. Föremål för försäkran:
5. Föremålet/föremålen för försäkran ovan överensstämmer med den relevanta harmoniserade unionslagstiftningen.
6. Hänvisningar till de relevanta harmoniserade standarder som använts eller hänvisningar till de andra tekniska specifikationerna enligt vilka överensstämmelsen försäkras.
7. Det samtycka organet w har utfört x och utfärdat intyget y relevant för z:
A. Ytterligare information om ():
A.1 Märkning

12.6 RU Д-DE.A301.B.05345

	ЕВРАЗИЙСКИЙ ЭКОНОМИЧЕСКИЙ СОЮЗ ДЕКЛАРАЦИЯ О СООТВЕТСТВИИ
<p>Заявитель Общество с ограниченной ответственностью «ДС Компания». Основной государственный регистрационный номер: 1107746937374. Место нахождения: 105037, Российская Федерация, город Москва, улица 3-я Парковая, дом 9, квартира 18 Телефон: 89660273663, адрес электронной почты: dc.company2000@gmail.com в лице Генерального директора Ежова Олега Олеговича</p>	
<p>заявляет, что Тензодатчики типов: PR6201, PR6202, PR6211, PR6212, PR6251, PR6221, PR6261, PR6224, PR6204, PR6246, PR6241, PR6207 Продукция изготовлена в соответствии с Директивой 2014/30/ЕС «Электромагнитная совместимость» изготовитель Minebea Intec GmbH. Место нахождения: ГЕРМАНИЯ, Meindorfer Strasse 205, 22145 Hamburg</p>	
<p>код ТН ВЭД ЕАЭС 9031 80 380 0</p>	
<p>Серийный выпуск соответствует требованиям Технического регламента Таможенного союза ТР ТС 020/2011 "Электромагнитная совместимость технических средств"</p>	
<p>Декларация о соответствии принята на основании протокола испытаний № 314-04/12-СТ от 13.04.2017 года, выданного испытательной лабораторией «Серт-Тест» Общества с ограниченной ответственностью «Серт и Ко», регистрационный № РОСС RU.04ИДЮ0.002; руководства по эксплуатации; паспорта</p>	
<p>Схема декларирования: Id</p>	
<p>Дополнительная информация Условия хранения продукции в соответствии с требованиями ГОСТ 15150-69. Срок хранения (службы, годности) указан в прилагаемой к продукции эксплуатационной документации. Стандарты, обеспечивающие соблюдение требований Технического регламента Таможенного союза ТР ТС 020/2011 "Электромагнитная совместимость технических средств": ГОСТ 30804.3.2-2013 "Совместимость технических средств электромагнитная. Эмиссия гармонических составляющих тока техническими средствами с потребляемым током не более 16 А (в одной фазе). Нормы и методы испытаний", ГОСТ 30804.3.3-2013 "Совместимость технических средств электромагнитная. Ограничение изменений напряжения, колебаний напряжения и фликера в низковольтных системах электроснабжения общего назначения. Технические средства с потребляемым током не более 16 А (в одной фазе), подключаемые к электрической сети при несоблюдении определенных условий подключения. Нормы и методы испытаний"</p>	
<p>Декларация о соответствии действительна с даты регистрации по 12.04.2022 включительно.</p>	
	<p>Ежов Олег Олегович <small>генеральный директор ООО «ДС Компания»</small></p>
<p>Сведения о регистрации декларации о соответствии: Регистрационный номер декларации о соответствии: ЕАЭС № RU Д-DE.A301.B.05345 Дата регистрации декларации о соответствии 13.04.2017</p>	

12.7 D09-96.40

Physikalisch-Technische Bundesanstalt		PTB
Braunschweig und Berlin		
		
Prüfschein <i>Test certificate</i>		
Ausgestellt für: <i>Issued to:</i>	GWT GLOBAL Weighing Technologies GmbH Meiendorfer Straße 205 24145 Hamburg Deutschland	
Prüfgrundlage: <i>In accordance with:</i>	EN 45501 (1992), para. 8.1 & 3.5.4 mit Fehleranteil / <i>with fraction</i> $p_{LC} = 0,7$ OIML R60 (2000), WELMEC 2.4	
Gegenstand: <i>Object</i>	Kompakt Drucklast-Wägezelle / compact compression load cell	
	Typ / <i>type</i>	PR6211
	E_{max}	30 kg ... 10000 kg
	Genauigkeitsklasse <i>accuracy class</i>	D1
Kennnummer: <i>Serial number:</i>	---	
Prüfscheinnummer: <i>Test certificate number:</i>	D09-96.40 Rev.2	
Datum der Prüfung: <i>Date of Test:</i>	---	
Anzahl der Seiten: <i>Number of pages:</i>	8	
Geschäftszeichen: <i>Reference No.:</i>	1.14 – 00042921	
Benannte Stelle <i>Notified Body</i>	102	
Im Auftrag <i>By order</i>		Braunschweig, 30. Juni 2000
 Dr. Meißner		Siegel <i>Seal</i>
<hr/>		
Hinweise siehe letzte Seite der Anlage, die Bestandteil des Prüfscheines ist. <i>For notes, see last page of the Annex which forms an integral part of the test certificate.</i>		



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Anlage zum Prüfschein

Annex to test certificate

vom 30. Juni 2000, Prüfscheinnummer: D09-96.40 Rev. 2
dated 30. June 2000, test certificate number: D09-96.40 Rev. 2

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1. Technische Daten / Technical Data

Die metrologischen Kenndaten der Wägezellen (WZ) sind in Tabelle 1 angegeben, weitere technische Daten sind dem Datenblatt des Herstellers, Seite 6 bis 8 dieser Anlage, zu entnehmen.

The metrological characteristics of the load cells are listed in Table 1, further technical data are listed in the data sheet of the manufacturer at page 6 to 8 of this annex.

Tabelle 1: Wesentliche Kenndaten / Table 1: Essential data

Genauigkeitsklasse Accuracy class		D1		D1
Maximal zul. Anzahl der Teilungswerte Maximum number of load cell intervals	n_{LC}	1000		1000
Kennwert Rated output		2 mV / V ¹⁾		1 mV / V ²⁾ 2 mV / V ³⁾
Nennlast Maximum capacity	in kg	E_{max}	30 / 50 / 100 / 200 / 300	1 mV/V: 250 / 500 / 1000 / 1500 / 2500 / 5000 2 mV/V: 500 / 1000 / 2000 / 3000 / 5000 / 10000
Mindestteilungswert der Wägezelle Minimum load cell verification interval	v_{min}	$E_{max} / 2500$	$E_{max} / 3333$	1 mV/V: $E_{max} / 2500$ 2 mV/V: $E_{max} / 5000$

Vorlast / Dead load: 0% • E_{max} , Grenzlaster / Safe overloads: ¹⁾ 500 kg, ²⁾ 300% • E_{max} bei / at 1 mV/V, ³⁾ 150% • E_{max} bei / at 2 mV/V

2. Prüfungen / Tests

In Absprache mit der PTB wurden beim Hersteller die Richtigkeitsprüfungen, die Untersuchungen der Stabilität des Nullsignals, der Reproduzierbarkeit, des Kriechverhaltens und der Nullrückkehr im Temperaturbereich von -10 °C bis +40 °C nach OIML R60 und zusätzlich an 30 kg - 300 kg bis 85 °C und an 250 kg - 5000 kg bis + 55 °C an Mustern der Klasse D1 bzw C1 mit den folgenden Serien-Nrn. und Nennlasten ausgeführt:

With the agreement of the PTB the determination of load cell error, repeatability error, temperature effect on minimum dead load output, creep and minimum dead load output return in the temperature range of -10°C to +40°C according OIML R60 and additional for 30 kg - 300 kg at 85°C and for 250 kg - 5000 kg at 55°C have been performed at the manufacturer with patterns of class D1 and C1. The tests have been carried out with the following load cells, SN / E_{max} :

D1: 3100118 / 30 kg & 3100119 / 30 kg; 5100366 / 50 kg & 5100805 / 50 kg; 1200651 / 100 kg & 1200656 / 100 kg; 2200610 / 200 kg & 2200351 / 200 kg; 3200256 / 300 kg & 3200262 / 300 kg.
C1: 52-5 / 500 kg; 13-3 / 1000 kg; 23-6 / 2000 kg; 33-3 / 3000 kg; 53-3 / 5000 kg.

Tabelle 2: Ausgeführte Prüfungen / Table 2: Tests performed

Prüfung / Test	R60/R60A, N°	Institut / institute	Ergebnis result	
Temperaturprüf. und Wiederholbarkeit bei Temperature test and repeatability at (20 / -10 / 40, [55/85]* / 20 °C)	15.1 & 5.1 & 9.0	Hersteller / manufacturer	+	
Temperatureinfluß auf Vorlastsignal bei Temperature effect on min. dead load output at (20 / -10 / 40, [55/85]* / 20 °C)	15.1 & 10.1.3	Hersteller / manufacturer	+	
Kriechprüfung bei / creep test at (20 / -10 / 40, [55/85]* °C)	15.2 & 7.1	Hersteller / manufacturer	+	
Mindestvorlastsignalrückkehr bei / Minimum dead load output return at (20 / -10 / 40, [55/85]* °C)	15.3 & 7.2	Hersteller / manufacturer	+	
Auswirkung des Luftdrucks bei Umgebungstemperatur Barometric pressure effects at room temperature	15.4 & 10.2	Hersteller / manufacturer	+	
Feuchteprüfung, zyklisch Humidity test, cyclic	Kennzeichnung CH oder ohne marking CH or without	15.5 & 7.3	Hersteller / manufacturer	+

* zusätzliche, über Anforderung von R60 hinausgehende Prüfung / additional test, more than requirement of R60

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Das Qualitätssicherungssystem des Herstellers entspricht der Norm DIN ISO 9001 und ist DQS-zertifiziert unter REG.NR 14310-1.

The quality assurance system of the manufacturer is in accordance with DIN ISO 9001 as certified by DQS under REG. N° 14310-1.

3. Beschreibung der Wägezelle / Description of the load cell

Die Wägezellen der Baureihe PR 6211.. sind kompakte Drucklast- Wägezellen aus rostfreiem Edelstahl. Der DMS-Applikationsraum ist hermetisch gekapselt. Die wesentlichen Betriebsdaten sind im Datenblatt Seite 5 bis 8 angegeben.

Load cells of the series PR 6211 are compact compression load cells made of stainless steel. The strain gauge application is sealed hermetically. Further essential characteristics are given in the data sheet, see page 5 to 8.



Bild 1: Wägezelle Typ PR 6211/12 D1 und/33 D1 mit Druckstücken

Figure 1: Load cell type PR 6211/12 D1 and/33 D1 with upper load transmissions

Die Kurzkenzeichnung erfolgt entsprechend dem Beispiel.

The complete type designation is indicated as follows.

PR 6211 / 33 D1



für Waagen Klasse (III), zulässige Anzahl der Teilungswerte in $n_{LC} / 1000$
for weighing instruments class (III), max. number of load cell intervals in $n_{LC} / 1000$

Nennlast E_{max} / maximum capacity E_{max} 3000 kg

Wägezellen Typ / load cell type



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4. Dokumentation / Documentation

Die Messergebnisse und die nachfolgend aufgeführten Zeichnungen sind in der PTB hinterlegt:

The test results and the following drawings are kept at the PTB:

Wägezellen Zeichn. Nr. / Principle drawing N°:

40012 101 4569	WZ PR 6211, 30 kg - 300 kg	Aufbau und Applikation Dimensions and application
9405 262 11521 510-01	WZ PR 6211, 250 kg - 10000 kg	Abmessungen Dimensions
9405 262 11521 110-01	WZ PR 6211, 250 kg - 10000 kg	Meßelement, Kapselung Load cell body, housing

Datenblatt Nr. / Data sheet N°:

9498 744 12231 - 9505 1.0	WZ PR 6211, 30 kg - 300 kg 500 kg - 10000 kg	Datenblatt, Abmessungen, Kraft- einleitungen und Brückenfesselung Data, dimensions, load application and load receptor constraining
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5. Weitere Informationen / Further informations

Revisionsumfang. Erweiterung des Nennlastbereiches bis 10t. Änderung der Form des Prüfscheins und seiner Anlage.

Gültigkeit des Prüfberichtes. Fertigungsverfahren, Werkstoffe und Abdichtungen müssen den vorgestellten Mustern und der in der PTB hinterlegten Dokumentation entsprechen; wesentliche Änderungen sind nur mit Zustimmung der PTB erlaubt.

Die im Datenblatt hinsichtlich Linearität, Umkehrspanne und Temperaturgang angegebenen Fehlergrenzen begrenzen maximale Einzelfehler eines Musters; der für jedes Muster zulässige Gesamtfehler aus diesen Größen ist durch die Fehlergrenze nach OIML R60 Nr 5.1 (Hüllkurve) vorgegeben.

Die technischen Daten sowie die Abmessungen der Wägezellen und die Prinzipien der Krafteinleitung sind auf den Seiten 5 bis 8 in dieser Anlage enthalten und müssen beachtet werden. Die Wägezellen können nach DIN/EN 45501 Nr. 4.12 in Waagen der Klasse (III) eingesetzt werden.

Scope of revision. Extension of the maximum capacity up to 10t. Change of the lay out of the test certificate and the annex.

Validity of this test certificate. The manufacturing process, material and sealings of the produced load cells have to be in accordance with the tested patterns; essential changes are only allowed with the permission of the PTB.

The typical errors related to linearity, hysteresis and temperature coefficient as indicated in the data sheet point out possible single errors of a pattern; however the overall error of each pattern is determined by the maximum permissible error according OIML R60 No 5.1.

The technical data, the dimensions of the load cell and the principle of load transmission are given on page 5 to 8 of this annex, have to be complied with. The load cells can be used in weighing applications class (III) in accordance with DIN/EN 45501 No. 4.12.

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6. Datenblatt, Abmessungen und Kräfteinleitung / Data sheet, dimensions and load transmissions

Technische Daten Technical Data		LT		D1	
		500kg ... 5t	30 ... 300kg	500kg ... 10t	
Fehlerklasse / Accuracy class		0,25	0,05	0,04	% E _{max}
Mindestvorlast <i>Minimum dead load</i>	untere Grenze des spezifizierten Meßbereichs <i>lowest limit of specified measuring range</i>	E _{min}	0	0	% E _{max}
Nennlast <i>Maximum capacity</i>	obere Grenze des spezifizierten Meßbereichs <i>highest limit of specified measuring range</i>	E _{max}	s. Tabelle		
Gebrauchslast <i>Max. usable load</i>	obere Grenze für Messungen <i>upper limit for measurements</i>	E _u	150	150	% E _{max}
Grenzlaster <i>Max. load without damage</i>	höchste Belastung ohne irreversiblen Schaden <i>highest limit without irreversible effects</i>	E _L	-	500	kg
Bruchlast <i>Destructive load</i>	Gefahr mechanischer Zerstörung <i>danger of mechanical destruction</i>	E _d	> 300	-	>300 % E _{max}
Grenzquerbelastung <i>Max. side load</i>	obere Grenze für statische Last (horizontal) <i>highest limit of static load in the horizontal direction</i>	E _{iq}	5	2	5 kN
Mindestteilwert <i>Min. LC verification interval</i>	kleinster Teilwert der Wägezelle, v _{min} = E _{max} /Y <i>minimum load cell verification interval</i>	Y			
	E _{max} = 500 - 10000kg	Y		5000	
	E _{max} = 50 - 300kg	Y	3333		
	E _{max} = 30kg	Y	2500		
Nennkennwert <i>Rated output</i>	relatives Ausgangssignal bei Nennlast <i>relative output at nominal load</i>	C _n	2,0	2,0	2,0 mV/V
Rel. Kennwertabweichung <i>Tolerance on rated output</i>	zulässige Abweichung vom Nennkennwert <i>permissible deviation from rated output</i>	d _c	< 1,5	< 0,25	< 0,25 % C _n
Nullsignal <i>Zero output signal</i>	Ausgangssignal der WZ im unbelasteten Zustand <i>load cell output signal under unloaded condition</i>	S ₀	0...2	0...2	0...2 % C _n
Reproduzierbarkeit <i>Repeatability error</i>	max. Meßsignaländerung bei wiederholten Belastungen <i>max. change in load cell output for repeated loading</i>	d _{Reo}	< 0,1	< 0,01	< 0,01 % C _n
Belastungskriechen <i>Creep, during 30 min</i>	max. Ausgangssignaländer. bei E _{max} während 30min <i>max. change in load cell output under nominal load</i>	d _{cr}	< 0,1	< 0,03	< 0,035 % C _n
Linearitätsabweichung <i>Non - Linearity</i>	Abweichung von der besten Geraden durch Null <i>max. deviation from best straight line through zero</i>	d _{lin}	< 0,25	< 0,05	< 0,03 % C _n
Relative Umkehrspanne <i>Hysteresis</i>	max. Differenz zwischen Auf- und Abwärtskennlinie <i>max. difference in load cell output when loading from zero to nominal load and unloading back to zero</i>	d _{hy}	< 0,25	< 0,05	< 0,04 % C _n
TK des Mindestvorlastsign. <i>Temperature effect S_{min}</i>	max. auf C _n bezogene Änderung von S _{min} /10K ΔT im B _T <i>max. change of S_{min}/10K ΔT over B_T referred to C_n</i>	TK _{Smin}	< 0,1	< 0,042	< 0,028 % C _n /10K
TK des Kennwertes <i>Temperature effect C</i>	max. auf C _n bezogene Änderung von C/10K ΔT im B _T <i>max. change of C/10K ΔT over B_T referred to C_n</i>	TK _C	< 0,07	< 0,03	< 0,03 % C _n /10K
Eingangswiderstand <i>Input impedance</i>	zwischen den Speiseanschlüssen <i>between supply terminals</i>	R _{ic}	1200±200	1300±12	650±6 Ω
Ausgangswiderstand <i>Output impedance</i>	zwischen den Meßanschlüssen <i>between measuring terminals</i>	R _{oc}	1200±6	1200±2	610±1 Ω
Isolationswiderstand <i>Insulation impedance</i>	zwischen Innenschaltung und Gehäuse, 100V DC <i>between measuring circuit and housing 100V DC</i>	R _{is}	>5000 x 10 ⁶		Ω
Isolationsfestigkeit	zwischen Schaltung und Gehäuse, nur bei PR 6211/...E				500 V
Nennversorgungsbereich <i>Recommended supply voltage</i>	unter Einhaltung der technischen Daten <i>to hold the specified performance</i>	B _u		4...24	V
Max. Speisespannung <i>Max. supply voltage</i>	Dauerbetrieb ohne Schaden <i>permissible for continuous operation without damage</i>	U _{max}		32	V
Nennumgebungstemp.ber. <i>Nominal ambient temp. range</i>	unter Einhaltung der technischen Daten <i>to hold the specified performance</i>	B _T	-10...+155	-10...+85	-10...+55 °C
Gebrauchstemperaturbereich <i>Usable ambient temp. range</i>	Dauerbetrieb ohne Schaden <i>permissible for continuous operation without damage</i>	B _{Tu}	-30...+180	-30...+90	-30...+95 °C
Lagerungstemperaturbereich <i>Storage temperature range</i>	ohne elektrische und mechanische Beanspruchung <i>Transportation and storage</i>	B _{Tl}	-40...+180	-40...+90	-40...+95 °C
Grenzzentrität <i>Permissible eccentricity</i>	zulässiger Abstand von der Meßachse <i>permissible displacement from nominal load line</i>	S _{ex}		3	mm
Vibrationsbeständigkeit <i>Vibration resistance</i>	Meßbeständigkeit gegen Schwingungen (IEC68-2-6 Fc) <i>resistance against oscillation</i>			20g, 100h, 10...150Hz	
Umgebungsdruckeinfluß <i>Air pressure effects</i>	Luftdruckeinfluß auf das Mindestvorlastsignal S _{min} <i>influence of ambient air pressure on S_{min}</i>	PK _{Smin}	≤70	≤12	≤60g/10h Pa
Nennmeßweg <i>Nominal deflection</i>	max. elastische Verformung bei Nennlast <i>max. elastic deformation under nominal load</i>	S _{nom}	bis / up to 300kg : < 0,1 / 10t : < 0,2mm		

Definitionen nach VDI / VDE 2637 / Definitions to VDI / VDE 2637

Die angegebenen technischen Daten dienen allein der Produktbeschreibung und sind nicht als zugesicherte Eigenschaften im Rechtssinne aufzufassen.
The technical data given here serve only as a product description and must not be interpreted as guaranteed characteristic in the legal sense

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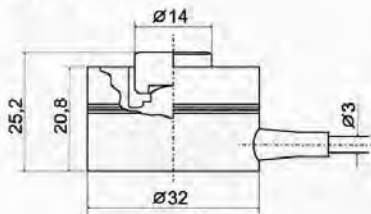
dated 30. June 2000, test certificate number: D09-96.40 Rev. 2

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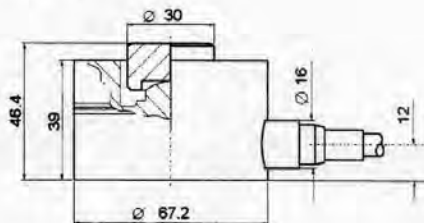
Nennlast/Nominal Load F _{max}	Bestellnummern / Order codes		Verpackungsmaß / Packing Size mm	Gewicht / Weight	
	Typ / Type	Versionen / Versions		Netto / net	Versand / shipping
30kg	PR 6211/31	/..D1	230 x 165 x 65	0,14kg	0,31kg
50kg	PR 6211/51	/..D1	230 x 165 x 65	0,14kg	0,31kg
100kg	PR 6211/12	/..D1	230 x 165 x 65	0,14kg	0,31kg
200kg	PR 6211/22	/..D1	230 x 165 x 65	0,14kg	0,31kg
300kg	PR 6211/32	/..D1	230 x 165 x 65	0,14kg	0,31kg
500kg	PR 6211/52	/..LT /..D1	220 x 215 x 135	0,9kg	1,2kg
1t	PR 6211/13	/..LT /..D1	220 x 215 x 135	0,9kg	1,2kg
2t	PR 6211/23	/..LT /..D1	220 x 215 x 135	0,9kg	1,2kg
3t	PR 6211/33	/..LT /..D1	220 x 215 x 135	0,9kg	1,2kg
5t	PR 6211/53	/..LT /..D1	220 x 215 x 135	0,9kg	1,2kg
10t	PR 6211/14	/..D1	220 x 215 x 135	0,9kg	1,2kg

Wägezellen-Abmessungen in mm / Load cell dimensions in mm

30kg ... 300kg



500kg ... 10t



Wägezellenkonstruktion

Schweißkonstruktion, rostfreier Stahl, hermetisch geschlossen, mit Polyurethan vergossen, schutzgasgefüllt.

Material: 1.4542 (DIN 17 440) bzw. S604 S622 (B.S.)

Load cell construction

Hermetically sealed, welded stainless steel construction, filled with polyurethane and inert gas

Material: 1.4542 (DIN 17 440) acc. to S604 S622 (B.S.)

Konformitätsbescheinigung PR 6211 /...D1E (500kg...10t)

Kennzeichen: EEx ib IIC T6
 Nummer: PTB Nr. Ex-97.D.2043

Certificate of conformity

PR 6211 /...D1E

Class: EEx ib IIC T6
 Number: PTB Nr. Ex-97.D.2043

Schutzart

IP68, IEC 529. Die Wägezelle kann in 1,5m Wassertiefe für 10.000 Stunden eingetaucht werden

Protection

IP68, IEC 529. The load cell can be submerged in water to a depth of 1.5m for 10,000 hours.

Kabel

robust, flexibel, geschirmt
 Mantel: Thermopl. Elastomer, Farbe: grau
 PR 6211 /...D1E, Farbe: blau

Cable

robust, flexible, screened
 sheath: Thermopl. Elastomer, color: grey
 PR 6211 /...D1E, color: blue

Durchmesser:

PR 6211 30 ... 300kg: 3mm, Leitung 4x 0,13mm²
 PR 6211 500kg ... 10t: 6mm, Leitung 4x 0,35mm²

diameter:

PR 6211 30 ... 300kg: 3mm, wires 4x 0,13mm²
 PR 6211 500kg ... 10t: 6mm, wires 4x 0,35mm²

Länge:

PR 6211 30 ... 300kg: 3m
 PR 6211 500kg ... 10t: 5m

length:

PR 6211 30 ... 300kg: 3m
 PR 6211 500kg ... 10t: 5m

Mantel:

PFA Thermoplastic,
 PR 6211 LT; Farbe: rot

sheath:

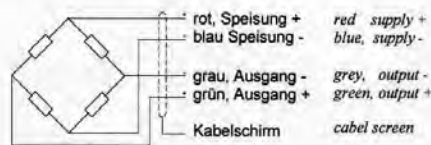
PFA Thermoplastic,
 PR 6211 LT; color: red

Biegeradius:

feste Verlegung ≥ 50mm
 flexible Verlegung ≥ 150mm

bending radius:

fixed installation ≥ 50mm
 with repeated bending ≥ 150mm





Physikalisch-Technische Bundesanstalt

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Annex to test certificate

vom 30. Juni 2000, Prüfscheinnummer: D09-96.40 Rev. 2

dated 30. June 2000, test certificate number: D09-96.40 Rev. 2

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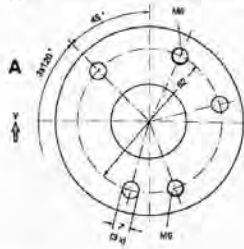
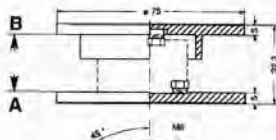
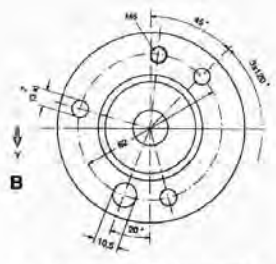
Krafteinleitung

Load transmission

30kg ... 300kg

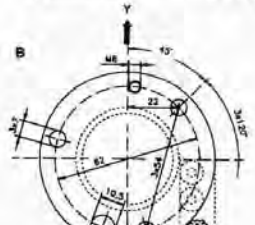
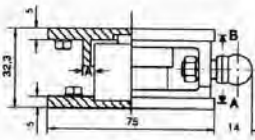
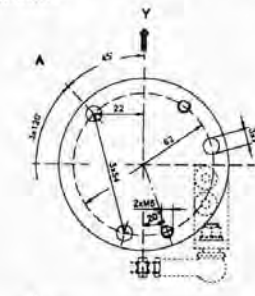
Einbausatz PR6011/00

Application kit PR6011/00



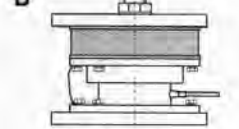
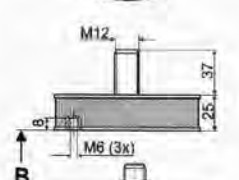
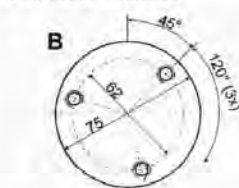
Mini Flexlock PR6011/20

mit eingebauter Fesselung
Mini Flexlock PR6011/20 with built-in
constrainer

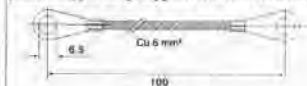


Hartgummidämpfer PR6011/03

zur Montage auf PR6011/00 oder
PR 6011/20
Rubber mounting kit PR6011/03 to mount
on PR6011/00 or PR6011/20



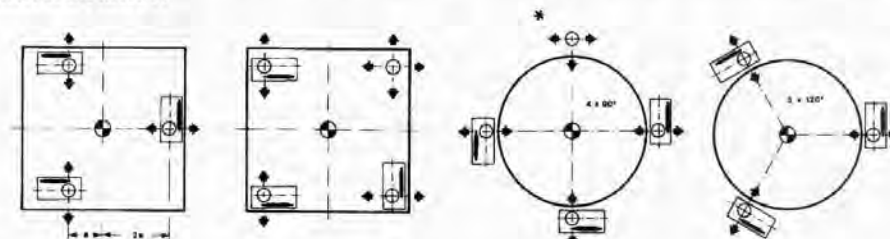
Flexibles Kupferkabel, wird mit jeder
Wägezelle mitgeliefert
flexible copper strap, supplied with each load cell



Anordnung von Wägezellen und Fesselungen (Beispiele für alle Nennlasten)

* Dieser Wägpunkt darf nicht gefesselt werden, Montageplatten PR6011/00 oder PR 6011/10 benutzen

Location of load cells and constrainers (examples for all capacities). * This weighing point must not be constrained, use mounting plate kit PR6011/00 or PR6011/10





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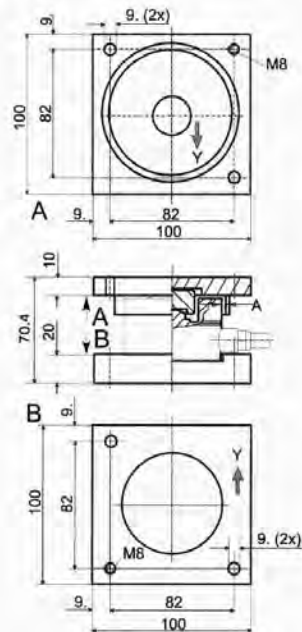
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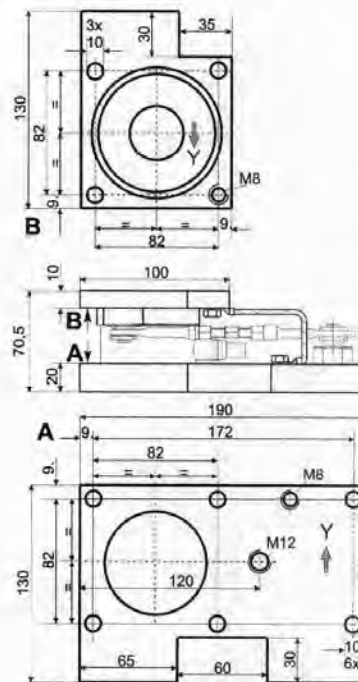
Krafteinleitung / Load transmission

500kg ... 10t

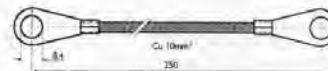
Einbausatz PR6011/00
Application kit PR6011/00



Mini Flexlock PR6011/20 mit eingebauter Fesselung und Gewinde M12 für separaten Abhebesicherungsbolzen
Mini Flexlock PR6011/20 with built-in constrainer and thread M12 for separate bolt against horizontal displacement



Flexibles Kupferkabel, wird mit jeder Wägezelle mitgeliefert
flexible copper strap, supplied with each load cell



Hinweise

Prüfscheine ohne Unterschrift und Siegel haben keine Gültigkeit. Dieser Prüfschein darf nur unverändert weiterverbreitet werden. Auszüge bedürfen der Genehmigung der Physikalisch-Technischen Bundesanstalt.

Notes

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Physikalisch-Technische Bundesanstalt

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