

Installation Manual

Hygienic Compression Load Cell PR 6202



Foreword

Must be followed!

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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 6202 has been designed especially for weighing process vessels in the food, pharmaceutical, and chemical industries.

The load cell PR 6202 may only be used as intended for weighing tasks.

In intrinsically safe circuits, only load cells PR 6202/..E may be used.

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

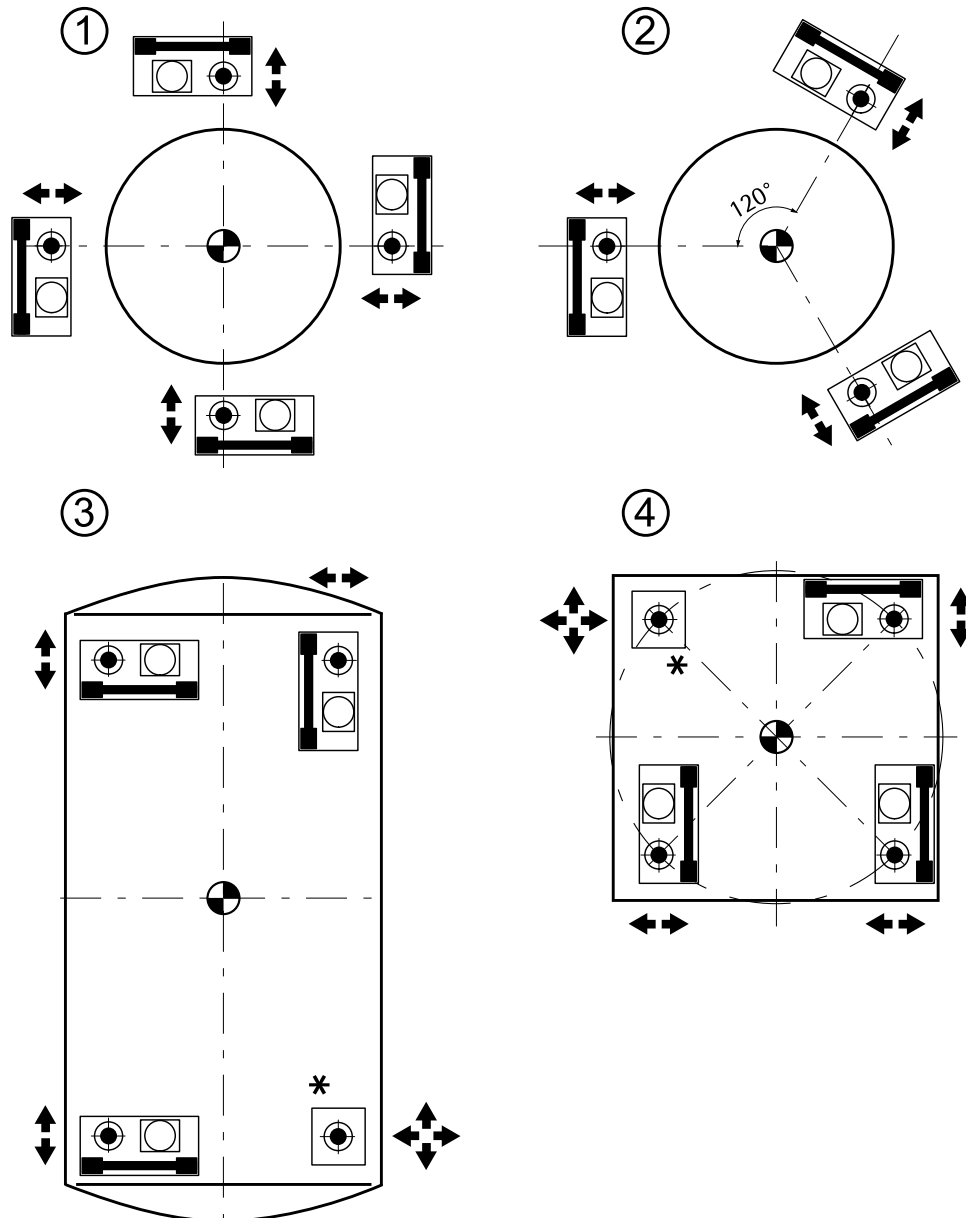
Perform visual inspection.

- ▶ 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

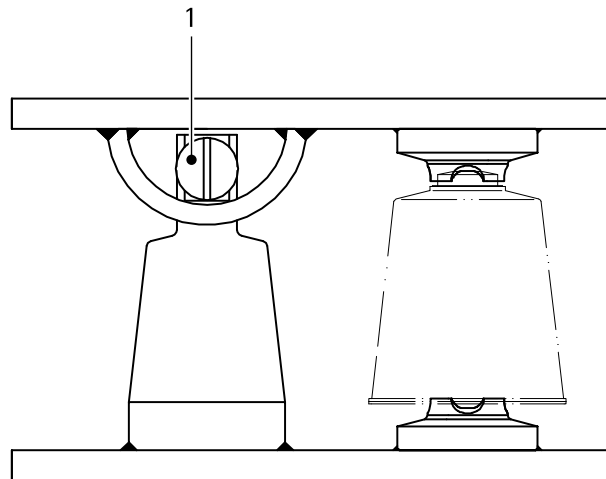
*	Do not constrain this position.
	Constrainer
	Load application
	Possible direction of movement

- 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).
- 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 Lift-off protection



For safety reasons, a lift-off protection (1) has to be generally provided on vessels. This is integrated in the mounting kits, see also Chapter [11.2.1](#).

3.3 Selecting maximum capacity

The load cell PR 6202 has a high overload capacity due to its high-quality material. Forces exceeding the safe load limit E_{lim} in the measuring direction may change the characteristics of the load cell or damage it.

If the safe load limit E_{lim} of the load cell can be exceeded, e.g. by falling loads, then mechanical limiting in load direction is strongly recommended.

If the destructive load E_d of the load cell is exceeded, there is danger of mechanical destruction.

4 Specifications

4.1 Equipment supplied with the load cell

No.	Description
1	Load cell
2	Quick guide
3	Calibration Certificate
4	Only with Ex-load cells: Safety information for Ex-load cells

4.2 General information

Restoring force	For each mm of displacement that the top of the load cell is shifted from the vertical axis, a horizontal restoring force is generated: $E_{\max} \leq 6$ t: 0.65% of the load resting vertically on the load cell $E_{\max} = 10$ t: 0.76% of the load resting vertically on the load cell $E_{\max} \geq 25$ t: 1.58% of the load resting vertically on the load cell
Material for load cell housing	Stainless steel 1.4404 acc. to DIN EN 10088-3 (corresponds to 316L AISI/SAE)
Protection against environmental influences	Hermetically sealed by welding. Filled with inert gas.
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). Explosion: Suitable for explosion subgroup IIC.
Ambient temperature in the Ex area	see additional information "safety instructions for Ex load cells"
Cable diameter	5 mm
Cable length	$E_{\max} \leq 10$ t: 5 m $E_{\max} > 10$ t: 12 m
Cable gauge	$4 \times 0.35 \text{ mm}^2$
Cable bend radius	≥ 25 mm (fixed installation) ≥ 75 mm (flexible installation)
Cable sheath material	Thermoplastic elastomer (TPE)
Cable sheath color	Gray (standard version) Blue (Ex version)

4.3 Possible marking of the load cell for the Ex area

Zone	Marking	Certificate no.	for
0 and 1	II 1G Ex ia IIC T6 Ga Ex ia IIC T6 Ga	BVS 16 ATEX E 005 IECEX BVS 16.0005	only PR 6202/..E
20 and 21	II 1D Ex ta IIIC T160 °C Da Ex ta IIIC T160 °C Da	TÜV 03 ATEX 2301X IECEX TUN 17.0025X	all PR 6202 without /..E
2	II 3G Ex nA IIC T6 Gc	MIN16ATEX001X	all PR 6202 without /..E
22	II 3D Ex tc IIIC T85 °C Dc	MIN16ATEX001X	all PR 6202 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 6202 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 6202 without /..E

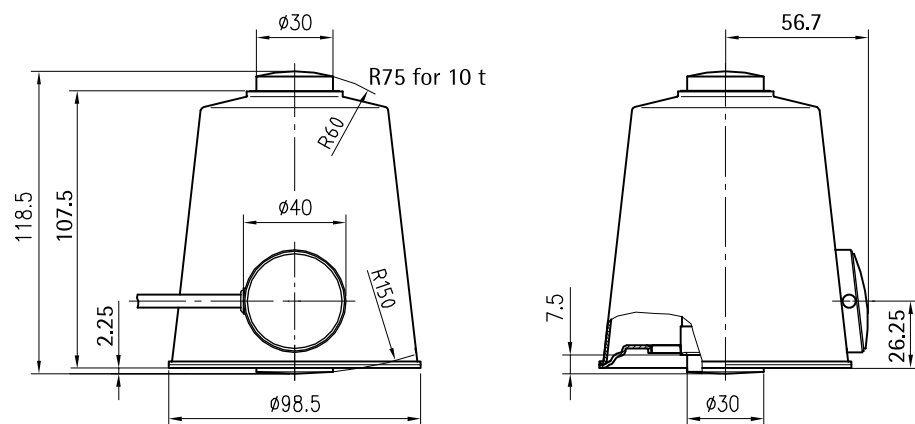
NOTICE

Installation in the Ex area

- For installations in the Ex area, it is imperative to observe the Ex safety instructions in the installation manuals.

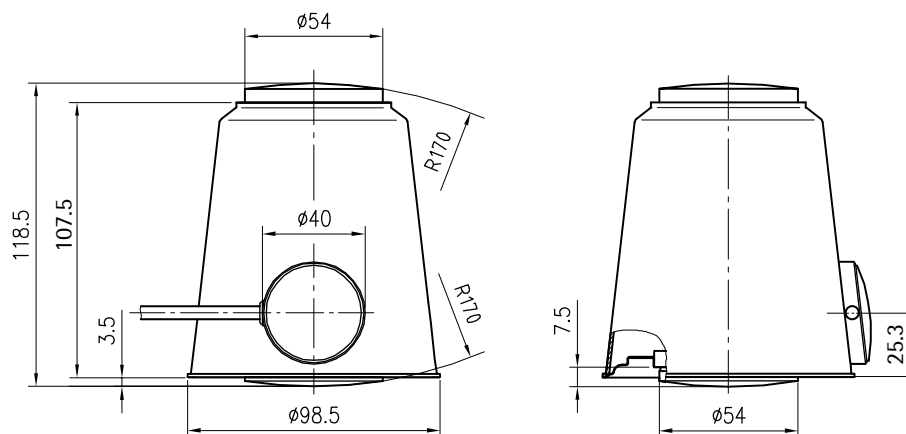
4.4 Dimensions

4.4.1 Load cells PR 6202/1t...10t



all dimensions in mm

4.4.2 Load cells PR 6202/25t, 50t



all dimensions in mm

4.5 Ordering information

Model	Max. capacity E_{max}	Type
PR 6202/1 t	1 t	..C1/C1E
PR 6202/2 t	2 t	..C1/C1E/C3/C3E
PR 6202/4 t	4 t	..C1/C1E/C3/C3E/C4/C4E
PR 6202/6 t	6 t	..C1/C1E/C3/C3E/C4/C4E
PR 6202/10 t	10 t	..C1/C1E/C3/C3E/C4/C4E
PR 6202/25 t	25 t	..C1/C1E/C3/C3E/C4/C4E
PR 6202/50 t	50 t	..C1/C1E/C3/C3E/C4/C4E

4.6 Technical data

Designation	Description	Abbr.	C1	C3	C4	Unit
Accuracy class			0.03	0.015	0.012	% 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}		150		% E_{max}
Destructive load	danger of mechanical destruction	E_d		>300		% E_{max}
Minimum LC verification	minimum load cell scale interval, $v_{min} = E_{max}/Y$	Y	5000	14000	16000	
	for $E_{max} = 1 t$	Y	5000	

Designation	Description	Abbr.	C1	C3	C4	Unit
	for $E_{\max} = 2 \text{ t}$	Y	5000	10000	...	
Minimum preload signal recurrence	recurrence of the minimum preload signal ($DR = \frac{1}{2} \times E_{\max} / Z$)	Z	1000	3000	4000	
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	<0.07	<0.07	% C_n
Zero output signal	load cell output signal under unloaded condition	S_{\min}		0 ± 1.0		% C_n
Repeatability	max. change in load cell output for repeated loading	ϵ_R	<0.01	<0.005	<0.005	% C_n
Creep	max. change of output signal at E_{\max} during 30 minutes	d_{cr}	<0.03	<0.015	<0.0125	% C_n
Non-linearity ¹⁾	deviation from best straight line through zero	d_{Lin}	<0.03	<0.01	<0.01	% C_n
Hysteresis ¹⁾	max. difference in LC output between loading and unloading	d_{hy}	<0.04	<0.015	<0.0125	% C_n
Temperature effect on S_{\min}	max. change of S_{\min} in ambient temperature range	$TK_{S_{\min}}$	<0.028	<0.01	<0.007	% $C_n / 10 \text{ K}$
Temperature effect on $C^1)$	max. change of C in ambient temperature range	TK_C	<0.02	<0.01	<0.008	% $C_n / 10 \text{ K}$
Input impedance	between supply terminals	R_{LC}		1080 ± 10		Ω
Output impedance	between measuring terminals	R_O	1010 ± 2	1010 ± 1		Ω
Insulation impedance	between measuring circuit and housing, $U_{DC} = 100 \text{ V}$	R_{IS}		>5000		$M\Omega$
Insulation voltage	between circuit and housing (PR 6202/..E only)			500		V
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
	for PR 6202/..E:	U_{\max}		25		V
Nominal ambient temp. range	to hold the specified performance	B_T	-10...+70	-10...+55	-10...+55	$^{\circ}\text{C}$
Usable ambient temp. range	permissible for continuous operation without damage	B_{Tu}		-40...+95		$^{\circ}\text{C}$
Storage temperature range	without electrical and mechanical stress	B_{Ti}		-40...+95		$^{\circ}\text{C}$

Designation	Description	Abbr.	C1	C3	C4	Unit
Permissible eccentricity	permissible displacement from nominal load line at the head of the load cell	S_{ex}		10		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					
	for $E_{max} = 1...10$ t	PK_{Smin}		190		g/kPa
	for $E_{max} = 25$ t, 50 t	PK_{Smin}		390		g/kPa
Nominal deflection	elastic deformation under maximum capacity					
	for $E_{max} = 1...6$ t	S_{nom}		<0.3		mm
	for $E_{max} = 25$ t	S_{nom}		<0.5		mm
	for $E_{max} = 50$ t	S_{nom}		<0.8		mm

1) The data for non-linearity (d_{Lin}), hysteresis (d_{hy}) and temperature effect on C (TKC) 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.

- ▶ If the load cells are not set up in the hygienic area (e.g., outdoor applications), the upper and lower mounting plates must be connected with each other using flexible copper straps.

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.
- All contact points between load cell and load disc must be adequately greased.
Load cell grease order no., see Chapter [11.1](#).

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 screen of the load cell cable and the screen of the connecting cable must not be connected inside the cable junction box if connection of both ends is not permissible according to the regulations for installation in the explosion-prone area.
- 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:**

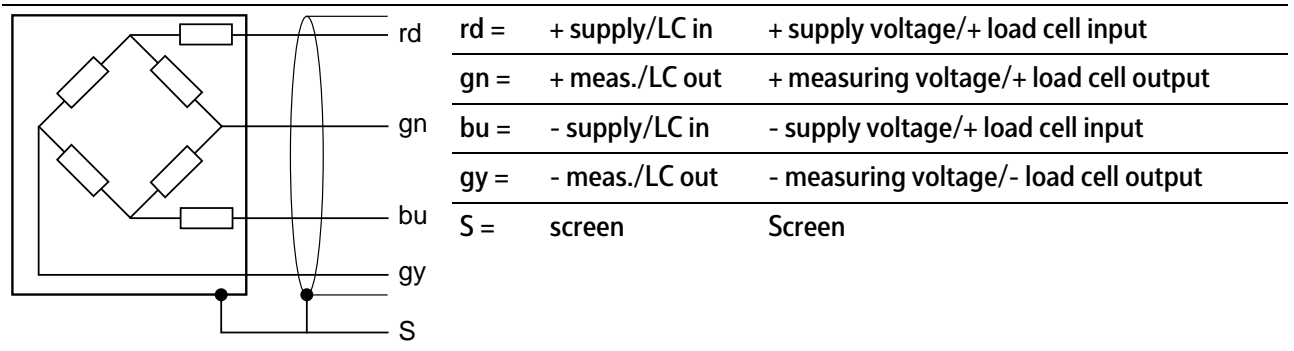
It is imperative that you follow the application-dependent installation instructions!

- ▶ 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



6.2.1 Load cell cable

The load cell cables are inseparably connected to the load cells in the factory and their individual resistance and temperature effect are equalized with the load cells.

Therefore, never shorten the cables, rather simply roll up the extra length and secure it.

The special sheathing material and the integrated strain relief with Kevlar thread ensure extremely long service life even under difficult operating conditions.

However, despite the robust nature of the materials used, the cable should be protected from excessive chemical and mechanical stresses. Preventing water from penetrating the end of the cable is also important "life insurance" for the system.

6.3 Cable connections

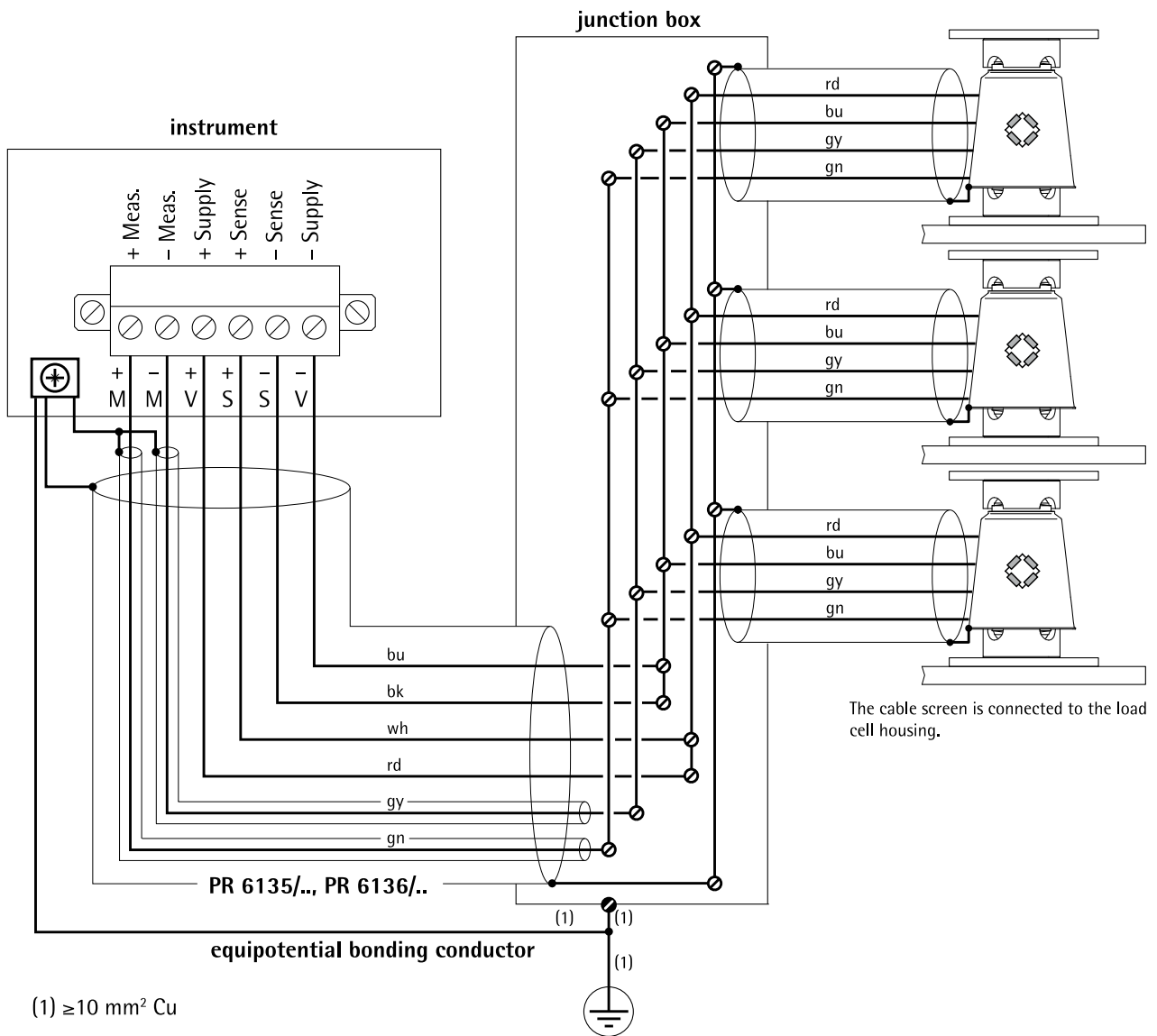
Note:

All components are only shown schematically.

Color code

bk	=	black
bu	=	blue
gn	=	green
gy	=	gray
rd	=	red
wh	=	white

Connection example in the hygienic area



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 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 vertical? Is the adjustment chamber cover damaged? 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
C1, C3, C4	0 mV \pm 0.02 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 voltage

- Standard version $U_{DC} = 32\text{ V}$
- Intrinsically safe version (PR ../..E) $U_{DC} = 25\text{ V}$

Type	Input impedance (red core, blue core)	Output impedance (green core, gray core)
C1	1080 $\Omega \pm 10 \Omega$	1010 $\Omega \pm 2 \Omega$
C3, C4	1080 $\Omega \pm 10 \Omega$	1010 $\Omega \pm 1 \Omega$

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 voltage

- Standard version $U_{DC} = 100 \text{ V}$
- Intrinsically safe version (PR ../..E) $U_{AC} = 500 \text{ V}$

Insulation impedance	Core – housing	>5000 M Ω
	Core – screen	>5000 M Ω
	Screen – housing	<0.2 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 6202 is maintenance-free.

Load cell grease must be applied to the contact surfaces between the load cell and load discs. Load cell grease order number, see Chapter [11.1](#).

The load cell can be extensively sprayed with off-shore all-weather protection spray in aggressive environment in non-hygienic areas.

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 6202 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](#)).

10 Disposal

If the packaging is no longer required, please take it to your local waste disposal facility and/or a reputable disposal company or collection point. The packaging largely consists of environmentally friendly materials which can be used as secondary raw materials.

It is not permitted—even for small businesses—to dispose of this product with the regular household waste or at collection points run by local public waste disposal companies.

EU legislation requires its Member States to collect electrical and electronic equipment and dispose of it separately from other unsorted municipal waste so that it can then be recycled.

Before disposing of or scrapping the product, any batteries should be removed and taken to a suitable collection point.

Please see our T&Cs for further information.

Service addresses for repairs are listed in the product information supplied with the product and on our website (www.minebea-intec.com).

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

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: +49.40.67960.666

service.HH@minebea-intec.com

11 Spare parts and accessories

11.1 Replacement parts

No.	Description	Max. capacity	Order no.
1	Mounting aid	1...10 t	5312 693 98117
2	Mounting aid	25...50 t	5312 693 98118
3	Load cell grease 4x 5 g		5312 390 12001

11.2 Accessories

11.2.1 Mounting kits

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

No.	Description	Max. capacity	Order no.
1	Mounting kit PR 6002/02S with upper and lower load disc	1–10 t	9405 360 02022
2	Mounting kit PR 6002/03S with upper and lower load disc	25 t, 50 t	9405 360 02032
3	Mounting kit PR 6002/04S with upper and lower load disc, lift-off protection, fall protection, dummy function and overload protection using limit stop	1–10 t	9405 360 02042
4	Mounting kit PR 6002/05S with upper and lower load disc, lift-off protection, fall protection, dummy function and overload protection using limit stop	25 t, 50 t	9405 360 02052
5	Mounting kit PR 6002/10S with upper and lower load disc, lift-off protection, fall protection, dummy function and overload protection using limit stop and restrained with constrainer against horizontal forces up to 25 kN	1–10 t	9405 360 02102
6	Mounting kit PR 6002/11S with upper and lower load disc, lift-off protection, fall protection, dummy function, overload protection using limit stop and restrained with constrainer against horizontal forces up to 25 kN	25 t, 50 t	9405 360 02112

S = stainless steel

11.2.2 Load discs

To install the load cell, the following load discs are recommended:

No.	Description	Max. capacity	Order no.
1	Load disc kit PR 6002/00S	1–10 t	9405 360 02002
2	Load disc kit PR 6002/01S	25–50 t	9405 360 02012

S = stainless steel

11.2.3 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
3	PR 6136/xx (for installation inside the explosion-hazarded area)	9405 361 36xx1
4	PR 6136/01A (armored, for installation inside the explosion-hazarded area)	9405 361 36019

11.2.4 Cable junction boxes

We recommend using the following junction boxes:

No.	Description	Order no.
1	PR 6130/04 (aluminum, 1–4 load cells, IP67; not for PR 6202/..E)	9405 361 30044
2	PR 6130/08 (polycarbonate, 1–8 load cells, IP65; not for PR 6202/..E)	9405 361 30084
3	PR 6130/34Sa (1.4301, 1–4 load cells, IP68, IP69, verifiable; not for PR 6202/..E)	9405 361 30344
4	PR 6130/35S (1.4301, 1–4 load cells, IP68, IP69, verifiable; not for PR 6202/..E)	9405 361 30354
5	PR 6130/38S (1.4404, 1–8 load cells, IP68, IP69, verifiable; not for PR 6202/..E)	9405 361 30384
6	PR 6130/64Sa (1.4301, 1–4 load cells, IP68, IP69, verifiable, ATEX, IECEx, FM)	9405 361 30644
7	PR 6130/65S (1.4301, 1–4 load cells, IP68, IP69, verifiable, ATEX, IECEx, FM)	9405 361 30654
8	PR 6130/68S (1.4404, 1–8 load cells, IP68, IP69, verifiable, ATEX, IECEx, FM)	9405 361 30684

12 Certificates/safety instructions/control drawing

Ser. no.	Description	Document no.	see Chapter
1	EC-Type Examination Certificate	BVS 16 ATEX E 005	12.1
2	Certificate of Conformity	IECEX BVS 16.0005	12.2
3	EU-Type Examination Certificate	TÜV 03 ATEX 2301X	12.3
4	Certificate of Conformity	IECEX TUN 17.0025X	12.4
5	Manufacturer's Certificate	MIN16ATEX001X	12.5
6	Certificate of Conformity FM	FM17CA0138 FM17US0276	12.6 12.7
7	Control drawing FM	4012 101 5688	12.8
8	EU-Declaration of Conformity	MEU17039	12.9
9	Certificate of Conformity TR CU 020	RU Д-DE.A301.B.05345	12.10
10	Test Certificate (PTB)	D09-05.29	12.11

12.1 BVS 16 ATEX E 005



(1) **EG-Baumusterprüfbescheinigung**

(2) Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen - Richtlinie 94/9/EG

(3) Nr. der EG-Baumusterprüfbescheinigung: **BVS 16 ATEX E 005**

(4) Gerät: **Wägezelle Typ PR62**/*E**

(5) Hersteller: **Sartorius Mechatronics T&H GmbH**

(6) Anschrift: **Meiendorfer Straße 205, 22145 Hamburg**

(7) Die Bauart dieses Gerätes sowie die verschiedenen zulässigen Ausführungen sind in der Anlage zu dieser Baumusterprüfbescheinigung festgelegt.

(8) Die Zertifizierungsstelle der DEKRA EXAM GmbH, benannte Stelle Nr. 0158 gemäß Artikel 9 der Richtlinie 94/9/EG des Europäischen Parlaments und des Rates vom 23. März 1994, bescheinigt, dass das Gerät die grundlegenden Sicherheits- und Gesundheitsanforderungen für die Konzeption und den Bau von Geräten und Schutzsystemen zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen gemäß Anhang II der Richtlinie erfüllt. Die Ergebnisse der Prüfung sind in dem Prüfprotokoll BVS PP 16.2012 EG niedergelegt.

(9) Die grundlegenden Sicherheits- und Gesundheitsanforderungen werden erfüllt durch Übereinstimmung mit

EN 60079-0:2012 + A11:2013 Allgemeine Anforderungen
EN 60079-11:2012 Eigensicherheit „I“

(10) Falls das Zeichen „X“ hinter der Bescheinigungsnummer steht, wird in der Anlage zu dieser Bescheinigung auf besondere Bedingungen für die sichere Anwendung des Gerätes hingewiesen.

(11) Diese EG-Baumusterprüfbescheinigung bezieht sich nur auf die Konzeption und die Baumusterprüfung des beschriebenen Gerätes in Übereinstimmung mit der Richtlinie 94/9/EG. Für Herstellung und Inverkehrbringen des Gerätes sind weitere Anforderungen der Richtlinie zu erfüllen, die nicht durch diese Bescheinigung abgedeckt sind.

(12) Die Kennzeichnung des Gerätes muss die folgenden Angaben enthalten:

Ex II 1G Ex ia IIC T6 Ga

DEKRA EXAM GmbH
Bochum, den 20.01.2016



 Zertifizierungsstelle



 Fachbereich

Seite 1 von 2 zu BVS 16 ATEX E 005
Dieses Zertifikat darf nur vollständig und unverändert weiterverbreitet werden.

DEKRA EXAM GmbH, Dinnendahlstraße 9, 44809 Bochum, Deutschland
Telefon +49.234.3696-105, Telefax +49.234.3696-110, zs-exam@dekra.com



- (13) Anlage zur
- (14) **EG-Baumusterprüfbescheinigung
BVS 16 ATEX E 005**
- (15) 15.1 Gegenstand und Typ

Wägezelle Typ PR62**/**E

Anstelle der *** werden in der vollständigen Benennung Buchstaben und Ziffern eingefügt, die unterschiedliche Typen kennzeichnen:

Wägezelle Typ PR62 * * / * * E

Unterschiedliche Ausführungen (01, 02, 11, 12, 21, 41, 46, 51, 61), die sich elektrisch und / oder mechanisch unterscheiden

Laststufe (nicht Ex-relevant, nur für Informationszwecke)

15.2 Beschreibung

Die Wägezellen dienen zur Umwandlung von Kraft in ein elektrisches Signal. Die Zellen haben ein Metallgehäuse mit eingebauten Dehnungsmessstreifen. Der elektrische Anschluss erfolgt über eine fest angeschlossene Leitung. Die Zellen sind „einfache elektrische Betriebsmittel“.

15.3 Kenngrößen

Spannung	Ui	DC	25	V
Strom	Ii		160	mA
Leistung	Pi		2	W
Umgebungstemperaturbereich	Ta		-30 °C bis +55 °C	

- (16) Prüfprotokoll
BVS PP 16.2012 EG, Stand 20.01.2016
- (17) Besondere Bedingungen für die sichere Anwendung
Keine



Seite 2 von 2 zu BVS 16 ATEX E 005
 Dieses Zertifikat darf nur vollständig und unverändert weiterverbreitet werden.
 DEKRA EXAM GmbH, Dinnendahlstraße 9, 44809 Bochum, Deutschland
 Telefon +49.234.3696-105, Telefax +49.234.3696-110, zs-exam@dekra.com



Translation

EC-Type Examination Certificate

- (1) **EC-Type Examination Certificate**
- (2) Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC
- (3) No. of EC-Type Examination Certificate: **BVS 16 ATEX E 005**
- (4) Equipment: **Load cell type PR62**/**E**
- (5) Manufacturer: **Sartorius Mechatronics T&H GmbH**
- (6) Address: **Meiendorfer Straße 205, 22145 Hamburg, Germany**
- (7) The design and construction of this equipment and any acceptable variation thereto are specified in the appendix to this type examination certificate.
- (8) The certification body of DEKRA EXAM GmbH, notified body no. 0158 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament and the Council of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive. The examination and test results are recorded in the Test and Assessment Report BVS PP 16.2012 EG.
- (9) The Essential Health and Safety Requirements are assured by compliance with:
EN 60079-0:2012 + A11:2013 General requirements
EN 60079-11:2012 Intrinsic Safety "i"
- (10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the appendix to this certificate.
- (11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.
- (12) The marking of the equipment shall include the following:

 **II 1G Ex ia IIC T6 Ga**

DEKRA EXAM GmbH
 Bochum, dated 2016-01-20

Signed: Dr. Eickhoff

 Certification body


Signed: Dr. Wittler

 Special services unit



Page 1 of 2 of BVS 16 ATEX E 005
 This certificate may only be reproduced in its entirety and without any change.

DEKRA EXAM GmbH, Dinnendahlstrasse 9, 44809 Bochum, Germany,
 telephone +49 234.3696-105, Fax +49.234.3696-110, zs-exam@dekra.com



(13) Appendix to

(14) **EC-Type Examination Certificate**
BVS 16 ATEX E 005

(15) 15.1 Subject and type

Load cell type PR62**/**E

Instead of the *** in the complete denomination letters and numerals will be inserted which characterize different cell types:


Load cell type PR62

*	*
---	---

 /

*	*
---	---

 E



Different versions (01, 02, 11, 12, 21, 41, 46, 51, 61) which differ electrically and / or mechanically

Load level (not Ex relevant, for information purposes only)

15.2 Description

The load cells are used for converting a load into an electrical signal. The cells have a metal enclosure with inside fixed resistance strain gauges. The electrical connection is carried out by a permanently connected cable. The cells are "simple apparatus".

15.3 Parameters

Voltage	Ui	DC	25	V
Current	li		160	mA
Power	Pi		2	W
Ambient temperature range	Ta		-30 °C up to +55 °C	

(16) Test and Assessment Report

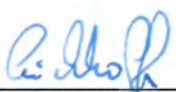
BVS PP 16.2012 EG as of 2016-01-20

(17) Special conditions for safe use


None

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA EXAM GmbH
44809 Bochum, 2016-01-20
BVS-/Hil/Schu/Mu A 20150360



 Certification body



 Special services unit

Page 2 of 2 of BVS 16 ATEX E 005
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telephone +49.234.3696-105, Fax +49.234.3696-110, zs-exam@dekra.com

12.2 IECEx BVS 16.0005

		<h2 style="text-align: right;">IECEX Certificate of Conformity</h2>	
INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres <small>for rules and details of the IECEx Scheme visit www.iecex.com</small>			
Certificate No.:	IECEX BVS 16.0005	Issue No.:	1
Status:	Current	<small>Certificate history: Issue No. 1 (2017-7-6) Issue No. 0 (2016-1-21)</small>	
Date of Issue:	2017-07-06	Page 1 of 4	
Applicant:	Minebea Intec GmbH Meiendorfer Straße 205 22145 Hamburg Germany		
Equipment:	Load cell type PR 62**/*E		
Optional accessory:			
Type of Protection:	Equipment protection by intrinsic safety "I"		
Marking:	Ex ia IIC T6 Ga		
Approved for issue on behalf of the IECEx Certification Body:	Dr. F. Eickhoff		
Position:	Deputy Head of Certification Body		
Signature: (for printed version)			
Date:	2017-07-06		
1. This certificate and schedule may only be reproduced in full. 2. This certificate is not transferable and remains the property of the issuing body. 3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.			
Certificate issued by:			
DEKRA EXAM GmbH Dinnendahlstrasse 9 44809 Bochum Germany		On the safe side.	



IECEX Certificate of Conformity

Certificate No.: IECEx BVS 16.0005

Date of Issue: 2017-07-06

Issue No.: 1

Page 2 of 4

Manufacturer: **Minebea Intec GmbH**
Meiendorfer Straße 205
22145 Hamburg
Germany

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Explosive atmospheres - Part 0: General requirements
Edition: 6.0

IEC 60079-11 : 2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition: 6.0

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:



A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in.

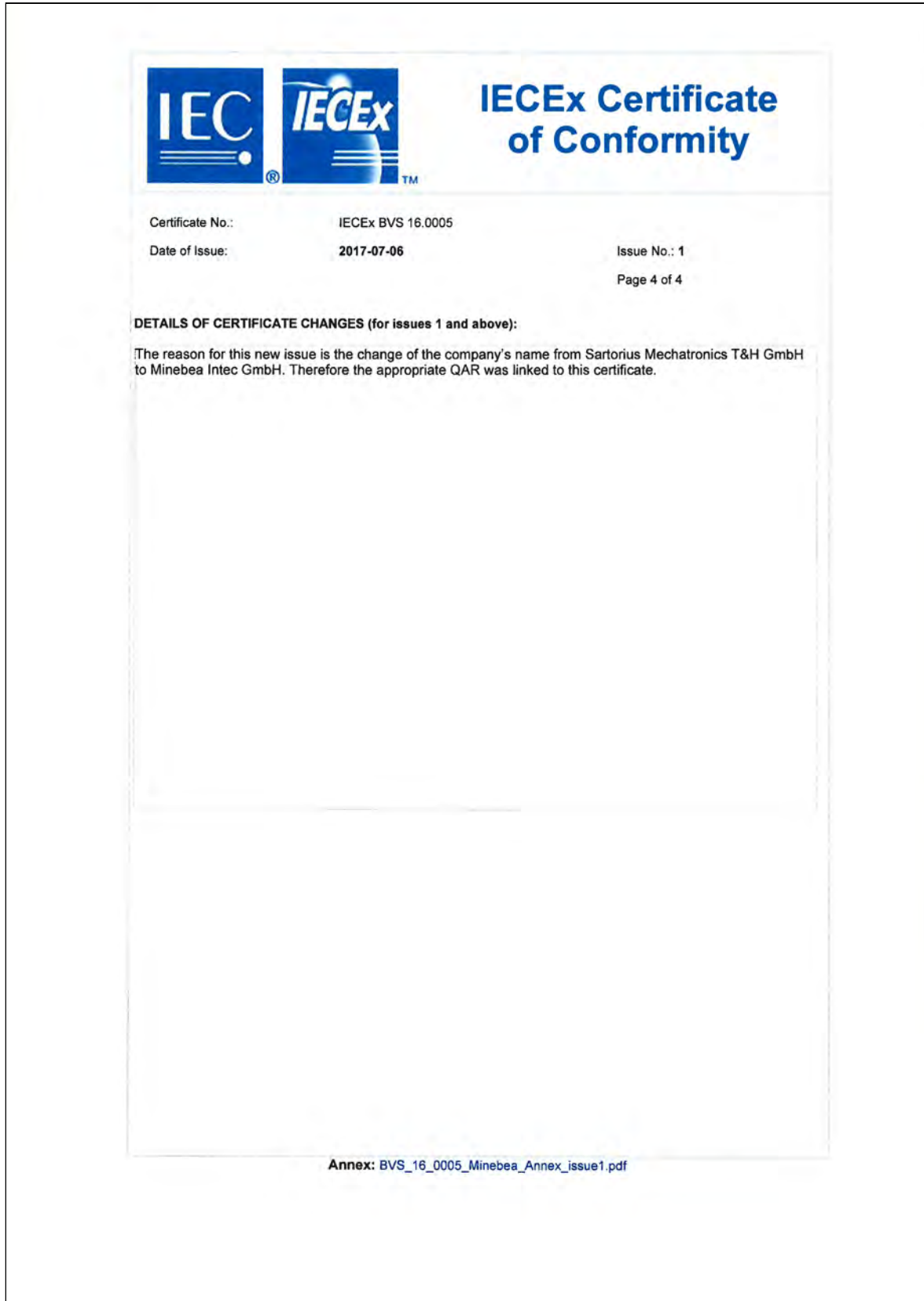
Test Report:

DE/BVS/ExTR16.0007/00


Quality Assessment Report:


DE/PTB/QAR13.0007/02

		IECEX Certificate of Conformity
Certificate No.:	IECEX BVS 16.0005	
Date of Issue:	2017-07-06	Issue No.: 1
		Page 3 of 4
Schedule		
EQUIPMENT: <i>Equipment and systems covered by this certificate are as follows:</i>		
General product information: The load cells are used for converting a load into an electrical signal. The cells have a metal enclosure with inside fixed resistance strain gauges. The electrical connection is carried out by a permanently connected cable. The cells are "simple apparatus".		
Technical parameters		
Voltage	Ui	DC 25 V
Current	Ii	160 mA
Power	Pi	2 W
Ambient temperature range	Ta	-30 °C up to +55 °C
Type Designation See Annex		
SPECIFIC CONDITIONS OF USE: NO		



12.3 TÜV 03 ATEX 2301X





(1) **EU-Baumusterprüfbescheinigung**

(2) Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen, Richtlinie 2014/34/EU

(3) **Bescheinigungsnummer:** TÜV 03 ATEX 2301 X **Ausgabe:** 00

(4) für das Produkt: Wägezellen Typ PR 62.../.. und MP76/...

(5) des Herstellers: Minebea Intec GmbH

(6) Anschrift: Meiendorfer Str. 205 A, 22145 Hamburg

Auftragsnummer: 8000475687

Ausstellungsdatum: 14.11.2017

(7) Die Bauart dieses Produktes sowie die verschiedenen zulässigen Ausführungen sind in der Anlage und den darin aufgeführten Unterlagen zu dieser EU-Baumusterprüfbescheinigung festgelegt.


(8) Die TÜV NORD CERT GmbH bescheinigt als notifizierte Stelle Nr. 0044 nach Artikel 17 der Richtlinie 2014/34/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014 die Erfüllung der wesentlichen Gesundheits- und Sicherheitsanforderungen für die Konzeption und den Bau dieses Produktes zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen gemäß Anhang II der Richtlinie.
Die Ergebnisse der Prüfung sind in dem vertraulichen ATEX Prüfungsbericht Nr. 17 203 206448 festgelegt.

9) Die wesentlichen Gesundheits- und Sicherheitsanforderungen werden erfüllt durch Übereinstimmung mit:
EN 60079-0:2012+A11:2013 EN 60079-31:2014
ausgenommen die unter Abschnitt 18 der Anlage gelisteten Anforderungen.

(10) Falls das Zeichen "X" hinter der Bescheinigungsnummer steht, wird auf die Besonderen Bedingungen für die Verwendung des Produktes in der Anlage zu dieser Bescheinigung hingewiesen.

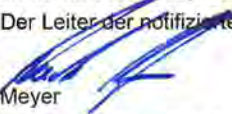
(11) Diese EU-Baumusterprüfbescheinigung bezieht sich nur auf Konzeption und Prüfung des festgelegten Produktes. Weitere Anforderungen dieser Richtlinie gelten für die Herstellung und das Bereitstellen dieses Produktes. Diese Anforderungen werden nicht durch diese Bescheinigung abgedeckt.

(12) Die Kennzeichnung des Produktes muss die folgenden Angaben enthalten:

 II 1 D Ex ta IIIC T160 °C Da

TÜV NORD CERT GmbH, Langemarckstraße 20, 45141 Essen, notifiziert durch die Zentralstelle der Länder für Sicherheitstechnik (ZLS), Ident. Nr. 0044, Rechtsnachfolger der TÜV NORD CERT GmbH & Co. KG Ident. Nr. 0032

Der Leiter der notifizierten Stelle


Meyer

Geschäftsstelle Hannover, Am TÜV 1, 30519 Hannover, Tel. +49 511 998-61455, Fax +49 511 998-61590

Diese Bescheinigung darf nur unverändert weiterverbreitet werden.
Auszüge oder Änderungen bedürfen der Genehmigung der TÜV NORD CERT GmbH

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(13) **ANLAGE**(14) **EU-Baumusterprüfbescheinigung Nr. TÜV 03 ATEX 2301 X Ausgabe 00**

(15) Beschreibung des Produktes

Die Wägezellen Typen PR62../... und MP76../... gemäß der unten aufgeführten Tabelle dienen zur Messung von Kräften mittels einer DMS Brücke mit Kompensations- und Abgleichwiderständen. Die Gehäuse der Wägezellen sowie die eingesetzten Membranen bestehen aus Edelstahl. Alle Gehäuseteile und die Membranen sind gasdicht verschweißt. Die Wägezellen dürfen in durch Staub explosionsgefährdeten Bereichen für EPL Da-Betriebsmittel bzw. EPL Db-Betriebsmittel installiert werden.

Der zulässige Umgebungstemperaturbereich beträgt -20 °C ... 55°C.

Auflistung der Typen und Gehäuseformen

Typen	Gehäuseform
PR 6201/...	Zylinder
PR 6202/...	Zylinder
PR 6203/...	Zylinder
PR 6221/...	Zylinder
PR 6211/...	Kreisplatte
PR 6212/...	Kreisplatte
PR 6251/...	Kreisplatte
PR 6261/...	Kreisplatte
PR 6241/...	S-Form
PR 6246/...	S-Form
MP 76/...	S-Form

Elektrische Daten

Versorgungs- und
Signalstromkreis
(fest angeschlossenes Kabel)

nur zum Anschluss an einen bescheinigten
eigensicheren Stromkreis

Höchstwert:

$P_i = 2 \text{ W}$

Die wirksame innere Induktivität und Kapazität sind vernachlässigbar klein.

Verwendung als EPL Da-Betriebsmittel

Schutzniveau des Stromkreises: ia

Verwendung als EPL Db-Betriebsmittel

Schutzniveau des Stromkreises: ia oder ib

(16) Zeichnungen und Dokumente sind im ATEX Prüfungsbericht Nr. 17 203 206448 aufgelistet.



Anlage zur EU-Baumusterprüfbescheinigung Nr. TÜV 03 ATEX 2103 X Ausgabe 00

(17) Besondere Bedingungen für die Verwendung

1. Die freien Leitungsenden der Anschlüsse sind außerhalb des explosionsgefährdeten Bereiches oder in einem geeigneten, für den Einsatz in durch Staub explosionsgefährdeten Bereichen bescheinigten Klemmenkasten zu verdrahten.

2. Der Anschluss von nichteigensicheren Stromkreisen

- mit einer sicheren Begrenzung der verfügbaren Leistung auf 2W und
- einer sicheren galvanischen Trennung vom Erdpotential (für Wägezellen ohne zusätzlichen Erdanschluss erforderlich)



an die Wägezellen mit EPL Db ist zulässig.


3. Die Wägezellen sind so zu errichten, dass die Gehäuse sicher mit Erdpotential verbunden sind (z. B. über die Erdungsklemme; die Betriebsanleitung des Herstellers ist zu beachten).

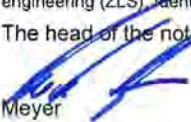
(18) Wesentliche Gesundheits- und Sicherheitsanforderungen

keine zusätzlichen

- Ende der Bescheinigung -

<p>(1) Translation EU-Type Examination Certificate</p> <p>(2) Equipment and protective systems intended for use in potentially explosive atmospheres, Directive 2014/34/EU</p> <p>(3) Certificate Number TÜV 03 ATEX 2301 X issue: 00</p> <p>(4) for the product: Load cell type PR 62.../... and MP76/...</p> <p>(5) of the manufacturer: Minebea Intec GmbH</p> <p>(6) Address: Meiendorfer Str. 205 A, 22145 Hamburg</p> <p>Order number: 8000475687</p> <p>Date of issue: 2017-11-14</p> <p>(7) The design of this product and any acceptable variation thereto are specified in the schedule to this EU-Type Examination Certificate and the documents therein referred to.</p> <p>(8) The TÜV NORD CERT GmbH, Notified Body No. 0044, in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive. The examination and test results are recorded in the confidential ATEX Assessment Report No. 17 203 206448.</p> <p>(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with: EN 60079-0:2012+A11:2013 EN 60079-31:2012 except in respect of those requirements listed at item 18 of the schedule.</p> <p>(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions for Use specified in the schedule to this certificate.</p> <p>11) This EU-Type Examination Certificate relates only to the design, and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.</p> <p>(12) The marking of the product shall include the following:</p>	 
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------

 II 1 D Ex ta IIIC T160 °C Da

TÜV NORD CERT GmbH, Langemarckstraße 20, 45141 Essen, notified by the central office of the countries for safety engineering (ZLS) Ident. Nr. 0044, legal successor of the TÜV NORD CERT GmbH & Co. KG Ident. Nr. 0032
 The head of the notified body

 Meyer

Hanover office, Am TÜV 1, 30519 Hannover, Tel. +49 511 998-61455, Fax +49 511 998-61590

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 Excerpts or changes shall be allowed by the TÜV NORD CERT GmbH

P17-F-011 Rev. 01/04.16
page 1/3



(13) **SCHEDULE**

(14) **EU-Type Examination Certificate No. TÜV 03 ATEX 2301 X issue 00**

(15) Description of product

The load cells type PR62../... and MP76/... according to the table mentioned below are used for measuring forces by means of a strain gauge with resistors for compensation and adjustment.

The housings of the load cells as well as the used membranes consist of stainless steel. All parts of the housing and the membranes are welded gas-tight.

The load cells are allowed to be installed in explosion hazardous areas caused by dust for EPL Da apparatus resp. for EPL Db apparatus.

The permissible ambient temperature range is -20 °C ... 55 °C.

Listing of types and shape of housings

Types	Shape of housing
PR 6201/...	Cylinder
PR 6202/...	Cylinder
PR 6203/...	Cylinder
PR 6221/...	Cylinder
PR 6211/...	Circle plate
PR 6212/...	Circle plate
PR 6251/...	Circle plate
PR 6261/...	Circle plate
PR 6241/...	S-shape
PR 6246/...	S-shape
MP 76/...	S-shape

Supply- and signal circuit
(Cable connected fixed)

only for connection to a certified intrinsically safe circuit

Maximum value:

$P_i = 2 \text{ W}$

The effective internal inductance and capacitance are negligibly small.

Use as EPL Da apparatus

Level of protection of the circuit: ia

Use as EPL Db apparatus

Level of protection of the circuit: ia or ib

(16) Drawings and documents are listed in the ATEX Assessment Report No. 17 203 206448



Schedule to EU-Type Examination Certificate No. TÜV 03 ATEX 2301 X issue 00

(17) Specific Conditions for Use

1. The free cable ends of the connections have to be wired outside of the explosion hazardous area or in a suitable terminal box, suitably certified for the application in explosion hazardous areas caused by dust.

2. The connection of non-intrinsically safe circuits

- with a safe limitation of the available power of 2 W and

- a safe galvanic separation from earth potential (necessary for load cells without an additional earth connection)

to the load cells of EPL Db is permissible.

3. The load cells have to be installed in such a way, that the housings are safely connected with earth potential (e. g. via the earth terminal; observe manual of the manufacturer).



(18) Essential Health and Safety Requirements



no additional ones

- End of Certificate -

12.4 IECEx TUN 17.0025X

		<h2 style="text-align: right;">IECEX Certificate of Conformity</h2>	
INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres <small>for rules and details of the IECEx Scheme visit www.iecex.com</small>			
Certificate No.:	IECEX TUN 17.0025X	issue No.:0	Certificate history:
Status:	Current		
Date of Issue:	2017-11-14	Page 1 of 3	
Applicant:	Minebea Intec GmbH Meiendorfer Str. 205 22145 Hamburg Germany		
Equipment: Optional accessory:	Weighing cells type PR 62.. /... and MP76/...		
Type of Protection:	Equipment dust ignition protection by enclosure "t"		
Marking:	Ex ta IIIC T160°C Da		
Approved for issue on behalf of the IECEx Certification Body:	Andreas Meyer		
Position:	Head of IECEx Certification Body		
Signature: (for printed version)			
Date:	<u>2017-11-14</u>		
<ol style="list-style-type: none"> 1. This certificate and schedule may only be reproduced in full. 2. This certificate is not transferable and remains the property of the issuing body. 3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website. 			
Certificate issued by:			
TÜV NORD CERT GmbH Hanover Office Am TÜV 1, 30519 Hannover Germany			

		IECEX Certificate of Conformity
Certificate No.:	IECEX TUN 17.0025X	
Date of Issue:	2017-11-14	Issue No.: 0
		Page 2 of 3
Manufacturer:	Minebea Intec GmbH Meiendorfer Str. 205 22145 Hamburg Germany	
Additional Manufacturing location(s):		
<p>This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEX Quality system requirements. This certificate is granted subject to the conditions as set out in IECEX Scheme Rules. IECEX 02 and Operational Documents as amended.</p>		
STANDARDS: The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:		
IEC 60079-0 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements	
IEC 60079-31 : 2013 Edition: 2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"	
<p><i>This Certificate does not indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.</i></p>		
TEST & ASSESSMENT REPORTS: <i>A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in</i>		
<u>Test Report:</u> DE/TUN/ExTR17.0023/00		
<u>Quality Assessment Report:</u> DE/PTB/QAR13.0007/02		

		IECEX Certificate of Conformity
Certificate No.:	IECEX TUN 17.0025X	Issue No.: 0
Date of Issue:	2017-11-14	Page 3 of 3
Schedule		
EQUIPMENT: <i>Equipment and systems covered by this certificate are as follows:</i>		
<p>The load cells type PR62../... and MP76/... according to the table mentioned below are used for measuring forces by means of a strain gauge with resistors for compensation and adjustment. The housings of the load cells as well as the used membranes consist of stainless steel. All parts of the housing and the membranes are welded gas-tight. The load cells are allowed to be installed in explosion hazardous areas caused by dust for EPL Da apparatus resp. for EPL Db apparatus. The permissible ambient temperature range is -20 °C ... +55 °C.</p> <p>See attachment for further details.</p>		
SPECIFIC CONDITIONS OF USE: YES as shown below:		
<ol style="list-style-type: none">1.The free cable ends of the connections have to be wired outside of the explosion hazardous area or in a suitable terminal box, certified for the application in explosion hazardous areas caused by dust.2.The connection of non intrinsically safe circuits - with a safe limitation of the available power of 2W and - a safe galvanic separation from earth potential (necessary for load cells without an additional earth connection) to the load cells of the category 2 is permissible.3.The load cells have to be installed in such a way, that the housings are connected with earth potential.		
Annex: _Attachment_load cells TUN 17.0025 X (2).pdf		

TÜV NORD CERT GmbH
 Hanover Office
 Am TÜV 1
 30519 Hannover
 Germany



Page 1 of 1
 Attachment to IECEx TUN 17.0025 X issue 00

The load cells type PR62./... and MP76/... according to the table mentioned below are used for measuring forces by means of a strain gauge with resistors for compensation and adjustment. The housings of the load cells as well as the used membranes consist of stainless steel. All parts of the housing and the membranes are welded gas-tight. The load cells are allowed to be installed in explosion hazardous areas caused by dust for category 1 apparatus resp. for category 2 apparatus. The permissible ambient temperature range is -20 °C ... 55 °C.

Listing of types and shape of housings

Types	Shape of housing
PR 6201/...	Cylinder
PR 6202/...	Cylinder
PR 6203/...	Cylinder
PR 6221/...	Cylinder
PR 6211/...	Circle plate
PR 6212/...	Circle plate
PR 6251/...	Circle plate
PR 6261/...	Circle plate
PR 6241/...	S-shape
PR 6246/...	S-shape
MP 76/...	S-shape

Supply- and signal circuit
 (Cable connected fixed)

only for connection to a certified intrinsically safe circuit

Maximum value:
 $P_i = 2 \text{ W}$

The effective internal inductance and capacitance are negligibly small.

Use as category 1 apparatus

Level of protection of the circuit: ia

Use as category 2 apparatus

Level of protection of the circuit: ia or ib

Specific Conditions of Use

1. The free cable ends of the connections have to be wired outside of the explosion hazardous area or in a suitable terminal box, suitably certified for the application in explosion hazardous areas caused by dust.
2. The connection of non intrinsically safe circuits
 - with a safe limitation of the available power of 2 W and
 - a safe galvanic separation from earth potential (necessary for load cells without an additional earth connection)
 to the load cells of the category 2 is permissible.
3. The load cells have to be installed in such a way, that the housings are safely connected with earth potential (e. g. via the earth terminal; observe manual of the manufacturer).

12.5 MIN16ATEX001X

	Herstellerbescheinigung Manufacturer's certificate	
Nummer Number	MIN16ATEX001X	
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 6201, PR 6202, PR 6203, PR 6207, PR 6211 D1(500kg-10t), PR 6212, PR 6221, PR 6241, PR 6246, PR 6251, PR 6261, MP 76 (ohne Typ / without type LA or LT)	
	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 MIN16ATEX001X	
	Minebea Intec GmbH Hamburg, 09.03.2020	
		
	W.D. Schulze Managing Director	Torben Hiller EX Approval Manager
	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 MIN16ATEX001X Rev. 3	



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**

EN 60079-0:2012 + A11:2013

Explosionsgefährdete Bereiche – Teil 0: Geräte – Allgemeine Anforderungen
Explosive atmospheres – Part 0: Equipment – General requirements

EN 60079-15:2010

Explosionsfähige Atmosphäre – Teil 15: Geräteschutz durch Zündschutzart „n“
Explosive atmospheres – Part 15: Equipment protection by type of protection „n“

EN 60079-31:2014

Explosionsfähige Atmosphäre – Teil 31: Geräte-Staubexplosionsschutz durch Gehäuse „t“
Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure „t“

Diese Bescheinigung wurde auf Basis des folgenden Prüfberichts erstellt:
This certificate was drawn on the basis of the following test report:

**Prüfbericht
Test Report**

MTR0001

Minebea Intec GmbH, Hamburg, Germany

**Sicherheitshinweise
Safety instructions**

949905947901

**Umgebungstemperatur
Ambient temperature**

-30°C ... +55°C

**IP-Schutz
IP protection**

IP6X

Für diese Produkt gelten folgende besonderen Bedingungen für den sicheren Gebrauch:
For this product the following special conditions for safe use apply:


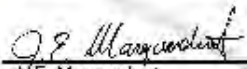
**besondere Bedingungen
special Conditions**


Für Anwendungen in Umgebungen mit brennbaren Stäuben ist eine elektrostatische Aufladung zu vermeiden.
For application in environments with combustible dust, electrostatic charging shall be avoided.

Bei Verwendung der Zündschutzart "Ex nA" ist eine Transientenschutzvorrichtung vorzusehen welche einen Maximalwert von 140% des Spitzenspannungswertes von 85V sicherstellt.

When applied in type of protection non sparking "Ex nA", a transient protection device shall be set at a level not exceeding 140% of the peak rated voltage value of 85 V.

12.6 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		
F 349 (Mar 16)		Page 1 of 3

<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@fmaprovals.com www.fmaprovals.com	
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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.

FM Approvals


FM Approvals

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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12.7 FM17US0276



CERTIFICATE OF CONFORMITY

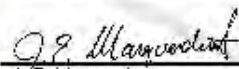
1. HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS
2. Certificate No: FM17US0276
3. Equipment:
(Type Reference and Name) Model PR 6201, PR 6202, PR 6203, PR 6211, PR 6212, PR 6221, PR 6241, PR 6246, PR 6251, PR 6261 Load Cells
4. Name of Listing Company: Minebea Intec GmbH
5. Address of Listing Company: 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>		 Member of the FM Global Group
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

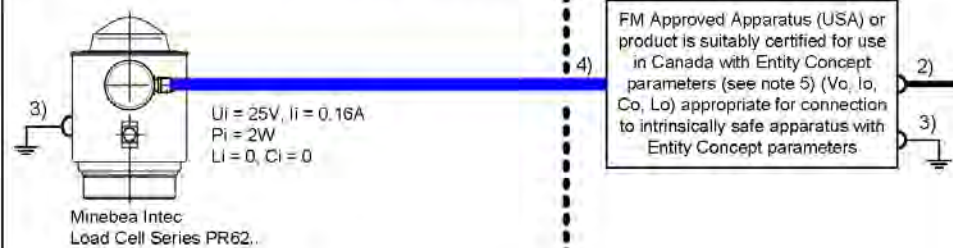
F 347 (Mar 16)
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12.8 4012 101 5688

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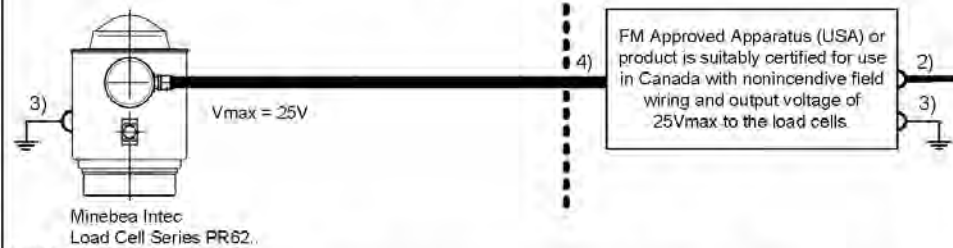
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Hazardous (Classified) Location
Class I, II, III, Division 1, Groups A,B,C,D,E,F,G



Minebea Intec
Load Cell Series PR62..

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




Minebea Intec
Load Cell Series PR62..

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

12.9 MEU17039



EU-Declaration of Conformity

MEU17039



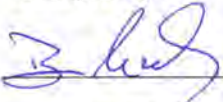
**Minebea
intec**
The true measure


1. Product model / product number / solely valid for project number:
 Hygienic Compression Type Load Cell / PR 6202 / —
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 6202
 4.2 PR 6202 (A.1)
 4.3 PR 6202 (A.2)
 4.4 PR 6202/ — E
5. The object(s) of the declaration described above is in conformity with the relevant Union harmonization legislation:

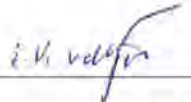
	(4.1)	(4.2)	(4.3)	(4.4)
5.1 2014/30/EU	(6.1)	(6.1)	(6.1)	(6.1)
5.2 2011/65/EU	(6.2)	(6.2)	(6.2)	(6.2)
5.3 2014/34/EU	(6.3)	(6.3)	(6.4)	(6.5)
6. References to the relevant harmonized standards used or references to the other technical specifications in relation to which conformity is declared:
 6.1 2014/30/EU EN 61326-1:2013, EN 61000-4-20:2010
 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
 6.4 2014/34/EU EN 60079-0:2012+A11:2013, EN 60079-31:2014
 6.5 2014/34/EU EN 60079-0:2012+A11:2013, EN 60079-11:2012
7. The notified body w performed x and issued the certificate y relevant for z:

	w	x	y	z
7.1 /		Manufacturer's certificate	MIN16ATEX001X	(4.2)
7.2 0032		EC-Type Examination Certificate	TÜV 03 ATEX 2301 X	(4.3)
7.3 0158		EC-Type Examination Certificate	BVS 16 ATEX E 005	(4.4)
7.4 0102		Production Quality Assessment Notification	PTB 02 ATEX Q010	(4.3), (4.4)

Minebea Intec GmbH
Hamburg, 29. May. 2017


 Dr. Bodo Krebs
President


 Oliver Freitag
CE Certification


 Kay v.d. Heydt
Ex Approval Manager

1/6



EU-Declaration of Conformity



A. Additional information on ():

A.1	(7.1)	Marking		II 3G Ex nA IIC T6 Gc II 3D Ex tc IIIC T85°C Dc MIN.16.ATEX.001 X
A.2	(7.2)	Marking		II 1 D Ex t IIIC T ₃₀₀ 77 °C Da IP 65 TÜV 03 ATEX 2301 X
A.3	(7.3)	Marking		II 1G Ex ia IIC T6 Ga BVS 16 ATEX E 005
A.4	(6.4)	The above-mentioned product is in line with the requirements of the directive 2014/34/EU. One or more of the European Standards mentioned are already replaced by new editions. The manufacturer declares that the product also complies with these new editions, as the changed requirements of the new Standards do not affect the product.		



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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 провайдера
 4. Предмет(и) на декларацията:
 5. Предметът (ите) на декларацията, описан(и) по-горе отговаря(ят) на съответното законодателство на Съюза за хармонизиране.
 6. Позоваване на приложимите хармонизирани стандарти или позоваване на други технически спецификации, по отношение на които се декларира съответствие:
 7. Нотифицираният орган в извършил X и издаде сертификата у, описан се да з:
 A. Допълнителна информация за ():
 A.1 Маркировка
 A.2 Маркировка
 A.3 Маркировка
 A.4 Върху описания продукт съответствие на изискванията на Директива 2014/34/ЕС. Един или повече от упоменатите европейски стандарти вече са заменени от нови издания. Производителът декларира, че продуктът съответства и на тези нови издания, тъй като промените изисквания на новите стандарти не засягат продукта.

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. Předmět(y) prohlášení:
 5. Výše popsaný předmět / Výše popsané předměty prohlášení je/ jsou ve shodě s příslušnými harmonizačními právními předpisy Unie.
 6. Odkazy na příslušné harmonizační normy, které byly použity, nebo na jiné technické specifikace, na jejichž základě se shoda prohlašuje.
 7. Oznamovaný subjekt v provedl X a vydal certifikát y relevantní z hlediska z:
 A. Další informace o ():
 A.1 Označení
 A.2 Označení
 A.3 Označení
 A.4 Výše uvedený výrobek je v souladu s požadavky směrnice Evropského parlamentu a Rady 2014/34/EU. Jedna nebo více uvedených evropských norem již byly nahrazeny novými vydáními. Výrobce prohlašuje, že výrobek je v souladu s těmito novými vydáními, neboť upravené požadavky těchto nových norem nemají na výrobek vliv.

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(e) 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 v har foretaget X og udstedt attesten y, der gælder for z:
 A. Supplerende oplysninger om ():
 A.1 Mærkning
 A.2 Mærkning
 A.3 Mærkning
 A.4 Ovenstående produkt opfylder kravene i direktiv 2014/34/EU. En eller flere af de anvendte europæiske standarder er allerede blevet erstattet af nye udgaver. Fabrikanten erklærer, at produktet også er i overensstemmelse med de nye udgaver, idet de ændrede krav i de nye standarder ikke berører produktet.

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. Angaben der einschlägigen harmonisierten Normen oder der anderen technischen Spezifikationen, die der Konformitätserklärung zugrunde gelegt wurden.
 7. Die notifizierte Stelle w hat X und die für z relevante Bescheinigung y ausgestellt.
 A. Zusatzangaben zu ():
 A.1 Kennzeichnung
 A.2 Kennzeichnung
 A.3 Kennzeichnung
 A.4 Das oben genannte Produkt erfüllt die Anforderungen der Richtlinie 2014/34/EU. Mindestens eine der aufgeführten europäischen Normen ist bereits durch eine neue Ausgabe ersetzt worden. Der Hersteller erklärt, dass das Produkt mit diesen neuen Ausgaben ebenfalls konform ist, da die geänderten Anforderungen der neuen Normen das Produkt nicht betreffen.

Ελληνικά (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 αναπαραστάτη 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 ενισχυτική νομοθεσία ενωμοσύνης.
 6. Παραπομπές στα σχετικά ενωμοσιωμένα πρότυπα που χρησιμοποιήθηκαν ή παραπομπές στις λοιπές τεχνικές προδιαγραφές σε σχέση με τις οποίες δηλώνεται η συμμόρφωση.
 7. Ο κοινοποιημένος οργανισμός w διεξήγγε X και εξέδωσε το πιστοποιητικό y όπως απαιτείται για z:
 A. Προσέχετε πληροφορίες σχετικά με ():
 A.1 Σήμανση
 A.2 Σήμανση
 A.3 Σήμανση
 A.4 Το προαναφερθέν προϊόν συμμορφώνεται με τις απαιτήσεις της οδηγίας 2014/34/ΕΕ. Ένα ή περισσότερα από τα αναφερόμενα ευρωπαϊκά πρότυπα έχουν αντικατασταθεί ήδη από νέες εκδόσεις. Ο κατασκευαστής δηλώνει ότι το προϊόν συμμορφώνεται επίσης με τις εν λόγω νέες εκδόσεις, καθώς οι τροποποιημένες απαιτήσεις των νέων προτύπων δεν επηρεάζουν το προϊόν.

español (es)

Declaración de conformidad
 1. Modelo de producto/número de producto / únicamente válido para el número de proyecto / 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
 A.2 Marcado
 A.3 Marcado
 A.4 El producto mencionado anteriormente cumple con los requisitos de la directiva 2014/34/UE. Una o más de las normas europeas mencionadas ya se han substituido por nuevas ediciones. El fabricante declara que el producto también cumple con estas nuevas ediciones, ya que los requisitos modificados de las nuevas normas no afectan al producto.



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esti keel (et)

Vastavusdeklaratsioon
1. Tootemudel / tootenumber / kehtiv vaid järgmise projekti puhul:
2. Tootja nimi ja aadress (2.1) ning tema volitatud esindaja (2.2);
3. Käesolev vastavusdeklaratsioon on välja antud tootja aumustatuseel.
4. Deklareeritud toode:
5. Üllalrreeldatud deklareeritud toode on kooskõlas asjaomaste liidu üllustamisaktidega;
6. Viited kasutatud harmoneeritud standarditele või viited muudele tehnilistele spetsifikatsioonidele, millele vastavus deklareeritakse;
7. Teavitatud asutus w teostas s ja andis välja tõendi z, mis on asjakohane y-de:
A. Lisateave järgmise kohta ():
A.1 Märgistus
A.2 Märgistus
A.3 Märgistus
A.4 Üllalrreeldatud toode on kooskõlas direktiivi 2014/34/EÜ nõuetega. Üks või mitu sumetatud Euroopa standardit on asendatud juba nite vllajamatega. Tootja kinnitab, et toode on kooskõlas ka nende nite vllajamatega, kuna nite standardite muudetud nõuded ei mõjuta toodet.

frança (fr)

Déclaration de conformité
1. Modèle / numéro de produit / valable 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 décrite ci-dessus 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
A.2 Marquage
A.3 Marquage
A.4 Le produit mentionné est conforme aux exigences de la directive 2014/34/UE. Une ou plusieurs des normes européennes mentionnées ont déjà été remplacées par de nouvelles éditions. Le fabricant déclare que le produit est également conforme à ces nouvelles éditions, dans la mesure où les exigences modifiées des nouvelles normes n'affectent pas le produit.

hvvnska (hr)

Izjava o skladnosti
1. Model proizvoda / broj proizvoda / važi samo za broj projekta;
2. Naziv i adresa proizvođača (2.1) i njegovog ovlaštenog zastupnika (2.2);
3. Za izdavanje ove izjave o skladnosti odgovoran je isključivo proizvođač;
4. Predmet(i) izjave;
5. Predmet(i) navedene izjave jesu u skladu s mjerodavnim zakonodavstvom Unije o usklađivanju;
6. Pozivanja na relevantne primjenjene nadležne norme ili pozivanja na ostale tehničke specifikacije u vezi s kojima se izjavioje skladnost;
7. Pojavljeno tijelo w proveto je x i izdalo certifikat y koji je relevantan za z:
A. Dodatne informacije o proizvodu ():
A.1 Označavanje
A.2 Označavanje
A.3 Označavanje
A.4 Prethodno navedeni proizvod u skladu je sa zahtjevima Direktive 2014/34/EU. Jedna ili više navedenih europskih normi već je zamjenjeno novim izdanjima. Proizvođač izjavljuje da je proizvod u skladu s tim novim izdanjima, jer ne izmjenjeni zahtjevi ili novi normi ne odnose na proizvod.

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 adja ki;
4. A nyilatkozat tárgya(i);
5. A fent 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 bejelentett szervezet elvégezte a(z) x eljárást, és kiállította a(z) y kapcsolódó tanúsítványt;
A. További információk ():
A.1 Jelölés
A.2 Jelölés
A.3 Jelölés
A.4 A fentebb megnevezett termék megfelel a 2014/34/EU irányelvben foglalt követelményeknek. Egy vagy több említett európai szabvány a kiállítás óta frissült. A gyártó kijelenti, hogy a termék megfelel a szabványok legújabb kiadásában foglalt követelményeknek, mivel a szabvány módosításai nem érintik az adott terméket.

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 utilizzate 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
A.2 Marcatura
A.3 Marcatura
A.4 Il prodotto menzionato in precedenza è conforme alle prescrizioni della direttiva 2014/34/UE. Una o più norme UE menzionate sono già state sostituite da nuove versioni. Il fabbricante dichiara che il prodotto è conforme anche alle nuove versioni in quanto le prescrizioni modificate delle nuove norme non interessano il prodotto.

Lietuvių kalba (lt)

Atitikties deklaracija
1. Gaminių modelis / gaminių numeris / galioja tik projekto numerui;
2. Gamintojo (2.1) ir jo įgaliotojo atstovo (2.2) pavadinimas ir adresas;
3. Ši atitikties deklaracija išduota tik gamintojo atsakomybe;
4. Deklaracijos objektai;
5. Pirminis aprašytas deklaracijos objektas (objektai) atitinka susijusių derinamųjų Sąjungos teisės aktus;
6. Susijusių taisyklių darnių standartų nuorodos arba kitų techninių specifikacijų, pagal kurias buvo deklaruota atitiktis, nuorodos;
7. Notifikuotoji įstaiga w atliko x ir išdavė sertifikatą y dėl z:
A. Papildoma informacija ():
A.1 Ženklinimas
A.2 Ženklinimas
A.3 Ženklinimas
A.4 Pirminis nurodytas gaminyje atitinka Direktyvos 2014/34/ES reikalavimus. Vienas ar keli nurodyti Europos standartai jau pakeisti nauji redakcija. Gamintojas patvirtina, kad gaminyje taip pat atitinka naująją redakciją, nes pakeistų naujųjų standartų reikalavimai gaminiui poveikio neturi.



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slovenščina (sl)

Vyhlašenje o zhlode
1. Model vstrobu / číslo vstrobu / plame len pre číslo projekta.
2. Meno/názov a adresa vstrobu (2.1) a jeho splošnoereňného zistupcu (2.2).
3. Toto vyhlášení o zhlode sa vydáva na vlastnú zodpovednosť vstrobu.
4. Predmet(-y) vyhlášení.
5. Uvedený predmet či uvedené predmety vyhlášení sú v zhlode s prislúšnými harmonizačnými právnymi predpismi Únie.
6. Odkazy na prislúšné použité harmonizované normy alebo odkazy na iné technické špecifikácie, v súvislosti s ktorými sa zhlode vyhlášeje.
7. Notifikovaný orgán v zhlode X a vydal certifikát y relevantný pre z:
A. Doplňujúce informácie o ():
A.1 Označenie
A.2 Označenie
A.3 Označenie
A.4 Vyššie uvedení vstrobu je v súlade s požiadavkami smernice 2014/34/EU. Jedna alebo viaceré z uvedených európskych noriem sú už nahradené novými vydaniami. Vstrobu vyhlášeje, že vstrobu je v zhlode aj s týmito novými vydaniami, pretože zmena požiadavky nových noriem nemá na vstrobu vplyv.

slovenščina (sl)

Izjava o skladnosti
1. Model proizvoda / serijska številka proizvoda / valjavo 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) navedene izjave je (so) v skladu z ustrezno zakonodajo Unije o harmonizaciji.
6. Sklicevanja na uporabljene ustrezne harmonizirane standarde ali sklicevanja na druge tehnične špecifikacije v zvezi s skladnostjo, ki je navedena v izjavi.
7. Priglaseni orgán v je izvedel X in izdal certifikat y, pomemben za z:
A. Dodatne informacije o ():
A.1 Označba
A.2 Označba
A.3 Označba
A.4 Zgoraj navedeni proizvod je v skladu z zahtevami direktive 2014/34/EU. Enega ali več omenjenih evropskih standardov so že nadomestile nove izdaje. Proizvajalec izjavlja, da je proizvod skladen s temi novimi izdanji, saj spremenjene zahteve novih standardov ne vplivajo na proizvod.

slovenščina (sl)

Vaatimistennähtösuksenvalitus
1. Tuotemalli / tuotenumero / koskee vain projektinumeroa.
2. Valmistajan (2.1) ja valittuun edustajaan (2.2) nimi ja osoite.
3. Tämä vaatimistennähtösuksenvalitus on annettu valmistajan yksinomaisella vastuulla.
4. Vakuumuksen kohde (kohteet).
5. Edellä kuvattu (kuvatut) vakuumuksen kohde (kohteet) on (ovat) asiaa koskevan unionin ykkösmuokausnormistonsäädännön vaatimisten mukainen (mukaisia).
6. Viittaus niihin asiaa koskeviin yhdenmukaistetuihin standardeihin, joita on käytetty, tai viittaus muihin teknisiin etelmitiin, joiden perusteella vaatimistennähtösuksenvalitus on annettu.
7. Ilmoitettu laitos on suorittanut ja on antanut todistuksen y liittyen z:
A. Lisätietoja ():
A.1 Merkintä
A.2 Merkintä
A.3 Merkintä
A.4 Yllä mainittu tuote vastaa direktiivin 2014/34/EU vaatimuksia. Yksi tai useampi mainittuista eurooppalaisista standardeista on jo korvattu uusilla painoksilla. Valmistaja vakuuttaa, että tuote vastaa myös näitä uusia painoksia, koska niiden standardien muutokset määrityksi eivät vaikuta tuotteeseen.

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 övnt 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 nämnda organet har utfört X och utfärdat intygget y relevant för z:
A. Ytterligare information om ():
A.1 Märkning
A.2 Märkning
A.3 Märkning
A.4 Övan nämnda produkt är i linje med kraven i direktiv 2014/34/EU. En eller flera av de nämnda europeiska standarderna har redan ersatts av nya upplagor. Tillverkaren försäkrar att produkten även överensstämmer med dessa nya upplagor, då de ändrade kraven i de nya standarderna inte påverkar produkten.

12.10 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.companu2000@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» или филиала (и/или подразделения) заявителя индивидуального предпринимателя</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>	

12.11 D09-05.29

Physikalisch-Technische Bundesanstalt		
Braunschweig und Berlin		
		
Prüfschein		
<i>Test certificate</i>		
Ausgestellt für: <i>Issued to:</i>	Sartorius Hamburg GmbH	
	Meiendorfer Straße 205 22145 Hamburg	
Prüfgrundlage: <i>In accordance with:</i>	EN 45501 (1992), para. 8.1 & 3.5.4, Fehleranteil / fraction p = 0,7 OIML R60 (2000), WELMEC 2.1 (2001)	
Gegenstand: <i>Object:</i>	Wägezelle DMS-Druckkraftwägezelle / <i>strain gauge compression load cell</i>	
Typ / Type:	PR6202	
	E_{max}	0,5t ... 75 t
	Genauigkeitsklasse <i>Accuracy class</i>	D1 ... C6
Kennnummer: <i>Serial number:</i>		
Prüfscheinnummer: <i>Test certificate number:</i>	D09-05.29 1. Revision D09-05.29 Revision 1	
Datum der Prüfung: <i>Date of Test:</i>		
Anzahl der Seiten: <i>Number of pages:</i>	7	
Geschäftszeichen: <i>Reference No.:</i>	PTB-1.12-4027110	
Benannte Stelle: <i>Notified Body:</i>	0102	
Im Auftrag <i>By order</i>		Braunschweig, 25.01.2007
 Dr. Oliver Mack		Siegel <i>Seal</i>
R3-0025	<hr/> <small>Hinweise siehe erste Seite der Anlage, die Bestandteil des Prüfscheines ist. For notes, see first page of the Annex which forms an integral part of the test certificate.</small>	

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1. Technische Daten / Technical Data

Die metrologischen Kenndaten der Wägezellen sind in Tabelle 1 angegeben, weitere technische Daten sind dem Datenblatt des Herstellers, Seite 5 bis 7 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 pages 5 to 7 of this annex.

Tabelle 1: Metrologische Kenndaten / Table 1: Metrological data

Genauigkeitsklasse Accuracy		D1	C1	C3	C4	C6
Max. Anzahl d. Teilungswerte Max. number of load cell intervals	n_{LC}	1000	1000	3000	4000	6000
Vorlastsignallrückkehr Minimum dead load output return	DR ($\frac{1}{2} E_{max} / Z$)	$\frac{1}{2} E_{max} / 1000$	$\frac{1}{2} E_{max} / 1000$	$\frac{1}{2} E_{max} / 3000$	$\frac{1}{2} E_{max} / 4000$	$\frac{1}{2} E_{max} / 6000$
Mindeststellungswert der WZ Minimum load cell verification interval	V_{min} (E_{max} / Y)	$E_{max} / 2500$ $E_{max} / 5000$	$E_{max} / 2500$ $E_{max} / 5000$	$E_{max} / 10000$ $E_{max} / 14000$	$E_{max} / 10000$ $E_{max} / 16000$	$E_{max} / 20000$
Nennlast Maximum capacity	E_{max}	0,5t 1t + 75t	0,5t 1t + 75t	2t 4t + 75t	2t 4t + 75t	4t + 75t
Temperaturbereich Temperature range		-10°C ... +70°C		-10°C ... +55°C		-10°C ... +40°C

Vorlast: / minimum dead load: 0% E_{max} ; Grenzlast: / safe load: $\geq 150\% E_{max}$; Eingangswiderstand: / input resistance: 1080Ω

2. Prüfungen / Tests

Die metrologischen Prüfungen nach OIML R60 wie die Richtigkeitsprüfungen und die Untersuchungen der Stabilität des Nullsignals, der Reproduzierbarkeit und des Kriechverhaltens im erweiterten Temperaturbereich von -10 °C bis +55 °C bzw. für Klasse D1 und C1 bis +70 °C, weiterhin die barometrischen Prüfungen und der Nachweis der Messbeständigkeit nach Beaufschlagung mit zyklischer Temperatur-Feuchte (CH) wurden beim Hersteller durchgeführt.

Diese Prüfungen werden akzeptiert, da der Hersteller über ein anerkanntes Qualitätsmanagement System nach ISO 9001 verfügt (DQS Zert. Nr.: 000310 QM). Das Prüflabor erfüllt die Anforderungen nach ISO/IEC 17025 und den relevanten OIML Empfehlungen, welches durch regelmäßige Begutachtung durch die PTB überprüft wird (letzte Inspektion 19.04.2005).

The metrological tests according to OIML R60 as the determination of the load cell error, the stability of the dead load output, repeatability and creep in the extended temperature range of -10 °C to 55 °C respectively 70°C for class D1 and C1 , as well as tests of barometric pressure effects and the determination of effects of temperature cycles and simultaneous humidity (CH) are applied by the manufacturer.

The results have been accepted because the manufacturer disposes of an accredited quality management system according to ISO 9001 (DQS Cert. No.: 000310 QM). The test laboratory meets the demand of ISO/IEC 17025 and the relevant OIML recommendations which are ensured by regular inspection of PTB (last inspection date 2005-04-19).

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

Test certificates without signature are not valid. This test certificate may not be reproduced other than in full. Extracts may be taken only with the permission of the Physikalisch-Technische Bundesanstalt.

Physikalisch-Technische Bundesanstalt

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DEUTSCHLAND

Physikalisch-Technische Bundesanstalt



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Geprüfte Muster: / tested pattern:

1. PR6202/0.5t, SN 20742, C1, Y=2 500;
2. PR6202/1t, SN 20721, C1, Y=5 000;
3. PR6202/2t, SN 222479, C4, Y=10 000;
4. PR6202/4t, SN 205656, C6, Y=20 000;
5. PR6202/25t, SN 211716, C6, Y= 20 000;

Tabelle 2: Ausgeführte Prüfungen / Table 2: Tests performed

Prüfung / Test	R60 (2000)	gepr.Muster / tested pattern	Ergebnis / result
Temperaturprüfung und Wiederholbarkeit bei Temperature test and repeatability at (20 / -10 / 70* / 55* / 40 / 20 °C)	5.1.1, 5.4; A.4.1	1, 2, 3, 4, 5	+
Temperatureinfluß auf Vorlastsignal bei Temperature effect on minimum dead load output at (20 / -10 / 70* / 55* / 40 / 20 °C)	5.5.1.3; A.4.1.16	1, 2, 3, 4, 5	+
Kriechprüfung bei Creep test at (20 / -10 / 70* / 55* / 40 °C)	5.3.1; A.4.2	1, 2, 3, 4, 5	+
Mindestvorlastsignalrückkehr bei Minimum dead load output return at (20 / -10 / 70* / 55* / 40 °C)	5.3.2; A.4.3	1, 2, 3, 4, 5	+
Auswirkung des Luftdrucks bei Umgebungstemperatur Barometric pressure effects at room temperature	5.5.2; A.4.4	1, 2, 3, 4, 5	+
Feuchteprüfung, zyklisch / Kennzeichnung CH oder ohne Damp heat test, cyclic marked CH or (not marked)	5.5.3.1; A.4.5	1, 2, 4, 5	+

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

3. Beschreibung der Wägezelle / Description of the load cell

Die Wägezellen der Baureihe PR 6202 sind kompakte Druckkraftwägezellen für selbstzentrierenden pendelförmigen Einbau. Der DMS-Applikationsraum ist hermetisch metallisch gekapselt; das tiefgezogene Gehäuse der Wägezelle aus rostfreiem Edelstahl ist Mikroplasma gasdicht geschweißt und mit Schutzgas gefüllt. Die wesentlichen Betriebsdaten sind im Datenblatt Seiten 5 bis 7 unter Nr. 6 angegeben.

Load cells of the series PR 6202 are compact compression load cells for self-centering pendulum applications. The strain gauge application is hermetically sealed; the deep-drawn and micro plasma welded housing is made of stainless steel and filled with inert gas. Further essential characteristics are given in the data sheet, see No. 6 on pages 5 to 7.



Bild 1: Wägezelle Typ PR 6202/.. C3 /

Figure 1: Load cell type PR 6202/.. C3

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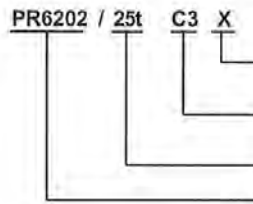
vom 25.01.2007 Prüfscheinnummer: D09-05.29 1. Revision
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Die Kurzkennzeichnung auf dem Typenschild erfolgt entsprechend dem Beispiel:

Example of a complete type designation on the identification plate:



besondere Ausführung:

E: Ex-Version

für Waagen der Klasse (III), zulässige
Anzahl der Teilungswerte in $n_{LC} / 1000$

Nennlast E_{max}

Wägezellen Typ

special request:

E: ex-version

for weighing instruments class (III), max.
number of load cell intervals in $n_{LC} / 1000$

maximum capacity E_{max}

load cell type

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.

Datenblatt PR6202:
Data sheet PR6202:

9498 762 02013
9498 762 02013

Technischen Daten
Technical Data

Prinzipzeichnungen Nr:
Principle drawing No:

4012 101 71941
Blatt: / Sheet: 510, 110, 130

Abmessungen, Prinzip, Stromlaufplan
Dimensions, principle, circuit diagram

5. Weitere Informationen

/ Further informations

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 sind typische Werte 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 Kräfteinleitung sind auf den Seiten 5 bis 7 in dieser Anlage enthalten und müssen beachtet werden. Die Wägezellen können nach DIN/EN 45501 Nr.: 4.12 in Waagen der Klasse (III) und (III) eingesetzt werden.

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 pages 5 to 7 of this annex, have to be complied with. The load cells can be used in weighing applications class (III) and (III) in accordance with DIN/EN 45501 No.: 4.12.

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6. Datenblatt und Abmessungen / Data sheet and dimensions (in english see next page)

Auszug aus dem Datenblatt des Herstellers mit Daten und Abmessungen

Genauigkeitsklasse gemäß OIML R60			%E _{max}	D1	C1	C3	C4	C6				
Fehlerklasse			%E _{max}	0,04	0,03	0,015	0,012	0,008				
Mindestvorlast	untere Grenze des spez. Messbereichs	E _{min}	%E _{max}	0								
Nennlast	obere Grenze des spez. Messbereichs	E _{max}	l	0,5	1...75	0,5	1...75	2	4...75	2	4...75	4...75
Gebrauchslast	obere Grenze für Messungen	E ₀	%E _{max}	> 150								
Bruchlast	Gefahr mechanischer Zerstörung	E ₀	%E _{max}	> 300								
Nennkennwert	relatives Ausgangssignal bei Nennlast	C _n	mV/V	2								
Mindestteilungswert	kleinster Teilungswert der Wägezelle	Y	E _{max} /V _{min}	2500	5000	2500	5000	10000	14000	10000	18000	20000
Kriech-Teilungsfaktor	Nullp.-Rückkehr nach 30 min. Nennl.	Z	1/2 E _{max} /Z	1000		3000		4000		6000		
Rel. Kennwertabw.	zulässige Abw. vom Nennkennwert	d _c	% C _n	< 0,25			< 0,07					
Nullsignal	Ausgangssignal im unbel. Zustand	S _{min}	% C _n	< 1,0								
Reproduzierbarkeit	max. Messsignaländerung bei wiederholten Belastungen	r _n	% C _n	< 0,01			< 0,005					
Belastungskriechen	max. Ausgangssignaländerung bei E _{max} während 30 Min.	d _{cT}	% C _n	< 0,03			< 0,015		< 0,0125		< 0,0083	
Linearitätsabweichung	Abw. von der besten Geraden d. Null	d _{lin}	% C _n	< 0,03			< 0,01					
Relative Umkehrspanne	maximale Differenz zwischen Auf- und Abwärtskennlinie	d _{rel}	% C _n	< 0,04		< 0,03		< 0,015		< 0,0125		< 0,0083
Temperaturkoeff. (TK) des Mindestvorlastsignals	max. Änderung von S _{min} pro 10K im B _T	TK _{Smin}	% C _n /10K	< 0,028			< 0,010		< 0,0070			
TK des Kennwertes	max. Änderung von C _n pro 10K im B _T	TK _{Cn}	% C _n /10K	< 0,020		< 0,014		< 0,010		< 0,0075		< 0,0050
Eingangswiderstand	zwischen den Speiseanschlüssen	R _{LE}	Ω	1080 ± 10								
Ausgangswiderstand	zwischen den Messanschlüssen	R ₀	Ω	1010 ± 2			1010 ± 1					
Isolationswiderstand	zwischen Innenschaltung und Gehäuse bei 100V _{DC}	R ₀₂	Ω	> 5000 · 10 ⁶								
Isolationsfestigkeit	zwischen Schaltung und Gehäuse (nur für PR6202/...E)		V _{DC}	500								
Nennspannungsbereich	unter Einhaltung der technischen Daten	B _V	V	4 ... 24								
Max. Speisespannung	Dauerbetrieb ohne Schaden	U _{max}	V	32								
Nenntemperaturbereich	unter Einhaltung der technischen Daten	B _T	°C	-10 ... +70			-10 ... +55		-10 ... +40			
Gebrauchstemperaturber.	Dauerbetrieb ohne Schaden	B _{T0}	°C	-40 ... +95								
Lagerungstemperaturber.	ohne elektr. und mech. Beanspruchung	B _{T1}	°C	-40 ... +95								
Grenzexzentrizität	zulässiger Abstand von der Messachse	S _{ex}	mm	10								
Vibrationsbeständigkeit	Beständigk. geg. Schwingungen (IEC68-2-6 Fc)			20 g, 100 h, 10 ... 150 Hz								
Umgebungsdruckeinfluss	Luftdruckeinfluss auf das Mindestvorlastsignal S _{min}	PK _{Smin}	g/MPa	0,5 t ... 10 t: 190		25 t ... 75 t: 390						
Nennmessweg	max. elast. Verformung bei Nennlast	S _{nom}	mm	bis 6t: <0,3 / 25t: 0,5 / 50t: 0,8 / 60t: 1,0								

Definitionen nach VDI / VDE 2637

Die angegebenen technischen Daten dienen allein der Produktbeschreibung und sind nicht als zugesicherte Eigenschaften im Rechtssinne aufzufassen.

Gehäusekonstruktion

Tiefziehgehäuse mit Membrandeckel und Messelement hermetisch geschlossen, verschweißt, mit Schutzgas gefüllt.

Material-Nr.: 1.4404 (DIN 17440) entspricht 316 L (AISI / SAE)

Rückstellkraft

Bei einer Auslenkung der Wägezelle aus der Vertikalen wird je Millimeter Auslenkung (gemessen am Wägezellenkopf) eine horizontal wirkende Rückstellkraft wirksam von

E_{max} ≤ 6 t: 0,65% / E_{max} = 10 t: 0,76% / E_{max} ≥ 25 t: 1,58%
 der vertikal auf der Wägezelle ruhenden Last.

Schutzart

IP68, IEC 529 / EN 60529: 1,5m Wassersäule / 10.000 h,
 IP69K, DIN 40 050: Hochdruckwasser, Dampfstrahlreinigung

Konformitätsbescheinigung

Gellungsbereich: PR 6202/... E
 Zündschutzart: Eigensicherheil
 Kennzeichnung: II 1G EEx ia IIC T9, II ID IP65 T85°C
 Zul.-Nummer: PTB 02 ATEX 2059
 TÜV 03 ATEX 2301

Kabel

robust, flexibel, geschirmt
 Mantel: TPE
 Farbe: grau (blau für PR 6202/... E)
 Durchmesser: 5mm
 Leitung: 4x AWG22
 Länge: 5m (E_{max} ≤ 10t) bzw. 12m (E_{max} ≥ 25t)

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Summary of the data sheet of the manufacturer with data and dimensions

Accuracy class according to OIML R60			%E _{max}	D1	C1	C3	C4	C6				
Accuracy class			%E _{max}	0.04	0.03	0.015	0.012	0.008				
Minimum dead load	lowest limit of specified meas. range	E _{min}	%E _{max}	0								
Maximum capacity	highest limit of specified meas. range	E _{max}	I	0.5	1...75	0.5	1...75	2	4...75	4...75		
Max. usable load	upper limit for measurements	E _u	%E _{max}	> 150								
Destructive load	danger of mechanical destruction	E _d	%E _{max}	> 300								
Rated output	relative output signal at nominal load	C _N	mV/V	2								
Minimum LC verification	minimum load cell verification interval	Y	E _{max} /N _{min}	2500	5000	2500	6000	10000	14000	10000	16000	20000
Creep divisions factor	factor for min. dead load output return	Z	1/2 E _{max} /Z	1000			3000		4000		6000	
Tolerance on rated output	permissible deviation from rated output	d _c	% C _N	< 0.25					< 0.07			
Zero output signal	LC output signal under unloaded cond.	S _{min}	% C _N	< 1.0								
Repeatability error	maximum change in LC output for repeated loading	s _R	% C _N	< 0.01			< 0.005					
Creep during 30 min	maximum change in LC output under nominal load	d _{cr}	% C _N	< 0.03			< 0.015		< 0.0125		< 0.0083	
Non-linearity	maximum deviation from the best straight line through zero	d _{lin}	% C _N	< 0.03			< 0.01					
Hysteresis	maximum difference in LC output between loading and unloading	d _{hy}	% C _N	< 0.04		< 0.03		< 0.015		< 0.0125		< 0.0083
Temperature effect on S _{min}	max. change of S _{min} / 10K over B _T	TK _{Smin}	% C _N /10K	< 0.028			< 0.010		< 0.0070			
Temperature effect on C _N	max. change of C _N / 10K over B _T	TK _C	% C _N /10K	< 0.020		< 0.014		< 0.010		< 0.0075		< 0.0050
Input impedance	between supply terminals	R _{ic}	Ω	1080 ± 10								
Output impedance	between measuring terminals	R _o	Ω	1010 ± 2			1010 ± 1					
Insulation impedance	betw. Meas. circuit a. housing at 100V _{DC}	R _{is}	Ω	> 5000 · 10 ⁹								
Insulation voltage	betw. circuit and housing (for PR 6202/...E only)		V _{DC}	500								
Recommended supply voltage	to hold the specified performance	B _u	V	4 ... 24								
Max. supply voltage	permissible for continuous operation without damage	U _{max}	V	32								
Nom. ambient temp. range	to hold the specified performance	B _T	°C	-10 ... +70			-10 ... +55		-10...+40			
Usable ambient temperature range	permissible for continuous operation without damage	B _{Tu}	°C	-40 ... +95								
Storage temperature range	transportation and storage	B _{Ts}	°C	-40 ... +95								
Permissible eccentricity	permissible displacement from nom. load line	S _{ex}	mm	10								
Vibration resistance	resistance against oscillation (IEC68-2-6 Fc)			20 g, 100 Hz, 10 ... 150 Hz								
Air pressure effect	influence of ambient air pressure on S _{min}	PK _{Smin}	g/kPa	0.5 t ... 10 t: 190			25 t ... 75 t: 390					
Nominal deflection	maximum elastic deformation under nominal load	s _{nom}	mm	bis 6t: < 0.3 / 25t: 0.5 / 50t: 0.8 / 60t: 1.0								

Definitions acc. to VDI / VDE 2637

The technical data given here serve only as a product description and must not be interpreted as guaranteed characteristics in the legal sense.

Load cell housing construction

Deep draw pulled housing, membrano and measuring element hermetically sealed, welded, filled with inert gas.

Material-no.: 316 L (AISI/SAE) equivalent to 1.4404 (DIN 17440)

Restoring force

For each mm of movement that the top of the load cell shifts from the vertical axis, a horizontal restoring force is generated of

E_{max} ≤ 6 t: 0.65% / E_{max} = 10 t: 0.76% / E_{max} ≥ 25 t: 1.58% of the vertical load on the load cell.

Protection

IP 68 IEC 529 / EN 60529: 1.5m water column / 10,000 h,
 IP69K, DIN 40 050: water of high pressure, steam beam cleaning

Certificate of conformity

Range of recognition:

Protection type:

Feature: II 1G EEx ia IIC T6, II 1G IP65 T85°C

Reg. number: PTB 02 ATEX 2059,

TUV 03 ATEX 2301x

Cable

robust, flexible, screened

sheath: TPE

colour: gray (blue for PR 6202/...E)

diameter: 5 mm

wires: 4x AWG22

length: 5 m (E_{max} ≤ 10 t) resp. 12m (E_{max} ≥ 25 t)

Physikalisch-Technische Bundesanstalt



Anlage zum Prüfschein

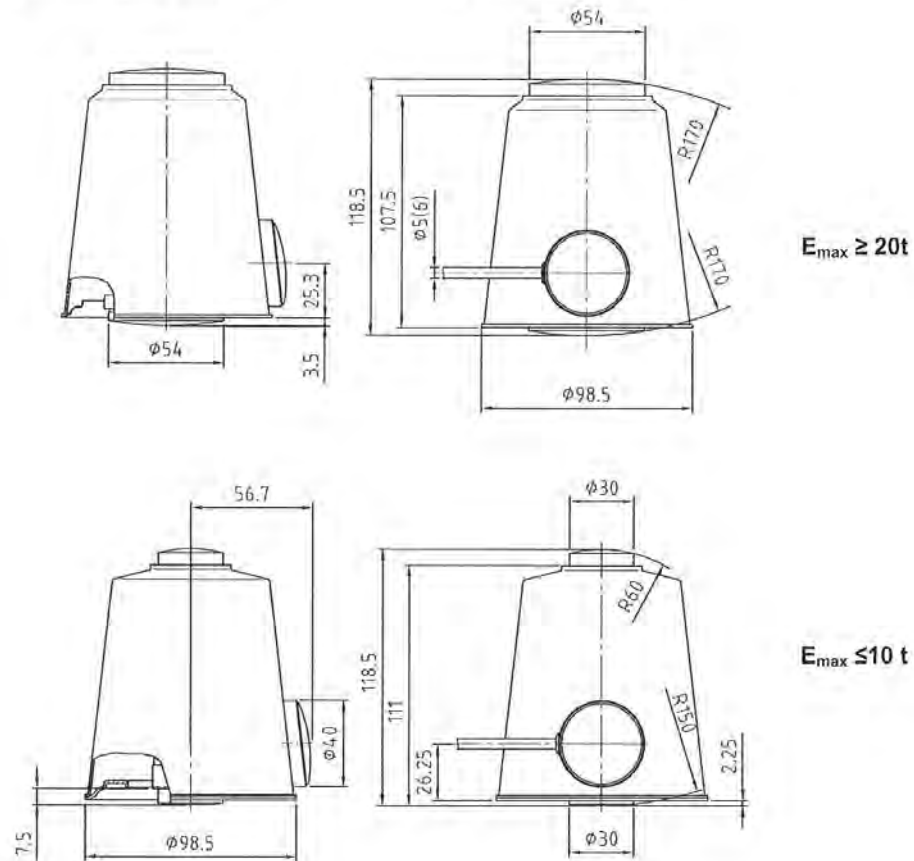
Annex to test certificate

vom 25.01.2007 Prüfscheinnummer: D09-05.29 1. Revision
 dated 25.01.2007, Test certificate number: D09-05.29 Revision 1

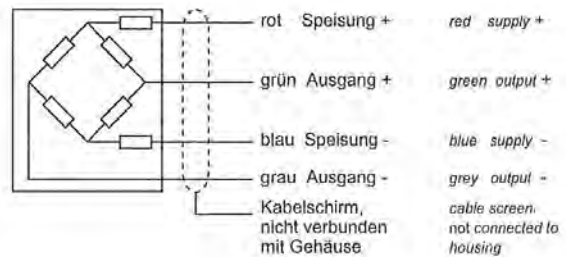
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Abmessungen in mm

Dimensions in mm



Anschlussbelegung
 Connecting diagram



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