Whether storage tank or outdoor silo, batching tank, mixer or reactor – Minebea Intec offers tailor-made equipment for almost every vessel scale: load cells, digital weight transmitters, weight indicators as well as batch and system controllers.
We make daily life safer

Minebea Intec provides a range of products, solutions and services designed to ensure measurement accuracy in production and packaging lines. This is expressed through the promise that we make to our customers and their consumers: ‘We make daily life safer’.

Our key market position as a leading global provider of products and solutions, and our aim of setting high standards in all areas of business are reflected in our company slogan ‘The true measure’.

We have more than 147 years’ experience in supporting the industry with weighing solutions that help ensure precise production processes. Our ability to do this is based on the ‘German Quality’ of our products and services combined with our continuous investment in developing leading technology. As a result, tens of thousands of customers place their trust in our company, having asked us to supply them with millions of products and solutions over the course of our history.

Via our world-wide presence, we stand beside our customers across the globe throughout the entire life cycle of our products and solutions, from assisting them in selecting the right equipment, offering design-in support or providing installation & calibration and maintenance & repair services to performing equipment upgrades and developments as well as conducting user training sessions.

Our products and solutions make an important contribution in the following industries:
The MinebeaMitsumi group

The MinebeaMitsumi group is a global precision electromechanical components manufacturer, providing products for various industries. Minebea was founded in 1951 in Japan, Mitsumi in 1954 and today has more than 78,000 employees as well as production and sales & service facilities in 16 countries around the globe. For many products, the MinebeaMitsumi group is No. 1 in terms of its global market share.
Weighing for content determination

There are various technologies available for determining the content or fill-level of process vessels, tanks and silos. Of all these technologies, weighing offers the most advantages:

- Weighing provides accurate and reliable readings independent of the shape of the tank and the properties of the material it contains.
- Weighing does not require periodic maintenance or recalibration.
- Vessel and silo weighing systems are extremely durable and robust.

Scan this QR code and see how you can calibrate your scale via SMART calibration within one minute.

Minebea Intec provides a complete range of components for weighing any type of vessel or silo, from very small process tanks up to extremely large outdoor silos.

The benefits of our systems include:

- All required components are from a single source: load cells, mounting kits, accessories and weighing electronics. All components are perfectly matched, ensuring optimal performance.
- Mechanical and electrical installation and commissioning is intuitive and fast. Our so-called SMART calibration function allows you to calibrate the scale within one minute without having to put weights on the tank or fill it with water.
- Global certifications legal for trade and Ex applications.
- Full range of data interfaces allowing you to connect the scale to any process management system.
- Our weighing electronics can be configured, operated and monitored remotely via an Ethernet connection.

Always the right solution for each of these applications:
Load cells and electronics from Minebea Intec are THE solution for turning a vessel or a silo into a scale.

Why Minebea Intec

Minebea Intec products and solutions stand for quality and leading technology. Our process vessel and silo scales have proven themselves thousands of times around the globe – even under the toughest conditions. Throughout the entire life cycle, we also offer services that support our customers on site, from engineering support to user training. In this way, they always get the right solution for their requirements.
Load cells

We offer a wide range of solutions for weighing vessels and tanks, both for storage and batching applications. This includes, at the one end of the spectrum, cost-effective solutions for inventory control where a weighing system accuracy of a few per cent is fully sufficient. At the other end, our customers find high accuracy solutions that allow them to very precisely dose a small component into a large batching vessel. This can even be done while a mixer is turning or the vessel is being heated.

The core element of every process vessel scale is the load cell. Minebea Intec has decades of experience in designing and producing a wide range of load cells for different applications. All of our load cells feature:

- ‘German quality’ ensuring superior accuracy and reliability
- Robustness, allowing overload capacities of up to 500 %
- Optimum IP protection guaranteeing a long lifetime even under harsh conditions. Minebea Intec load cells can even be immersed in water with a depth of 1.5 meters for 10,000 hours
- Wide operating temperature range of up to -30 °C to +95 °C making them suitable for virtually all weighing applications and production conditions. Our load cell PR 6212 even features an operating temperature range of up to +180 °C
Compression load cell PR 6201

- Proven rocker pin principle for best compensation of expansion and shear forces
- Load cell capacity range from 500 kg to 520 t
- Accuracy class: 0.25 % - 0.008 %
- Corresponding mounting kits (certified according to EN 1090):
  - Mounting plate kit PR 6145 without constrainer
  - MiniFlexLock PR 6143 with integrated constrainer
  - Universal vessel foot PR 6001 without constrainer
  - Maxi FlexLock PR 6001 with integrated constrainer

Compact compression load cell PR 6211

- Compact design ensuring a low system height
- Load cell capacity range from 30 kg to 300 kg
- Accuracy class: 0.05 %
- Extreme wide temperature range
- Corresponding mounting kits:
  - Mounting kits with or without constrainer PR 6011
  - Mounting kits with or without constrainer and additional functions PR 6012

Compact compression load cell PR 6212

- Compact design ensuring a low system height
- Maximum corrosion resistance
- High-temperature version available for up to 180 °C
- Load cell capacity range from 500 kg to 10 t
- Accuracy class: 0.04 %
- Corresponding mounting kit: PR 6012
Beam type load cell MP 77
- Stainless steel bending beam
- Load cell capacity range from 10 kg to 500 kg
- Accuracy class: 0.02 %
- Corresponding mounting kit: MP 97

S-type compression load cell PR 6241
- Ultra-high precision load cell for batching applications
- Load cell capacity range from 100 kg to 5 t
- Accuracy class: 0.04 % – 0.008 %
- Corresponding mounting kits: PR 6043 Mini FlexLock, PR 6041 without constrainer, PR 6044 with additional functions and constrainer

S-type tension load cell PR 6246
- Ultra-high precision load cell for batching applications
- Load cell capacity range from 100 kg to 3 t
- Accuracy class: 0.04 % – 0.008 %
- Corresponding mounting kit: PR 6046

S-type tension load cell MP 76
- For suspended process scales
- Load cell capacity range from 60 kg to 5 t
- Accuracy class: 0.03 % – 0.025 %
- Corresponding mounting kit: MP 96
**Level sensor load cell PR 6251 PanCake**
- Ultra-flat load cell for low precision tank weighing as alternative to level sensors
- Load cell capacity range from 500 kg to 16 t
- Accuracy class: L (0.5 %)
- Corresponding mounting kit: PR 6051

**Stainless steel shear beam load cell MP 58**
- For economic vessel weighing solutions
- Load cell capacity range from 91 kg to 2.268 t
- Accuracy class: 0.02 %
- Corresponding mounting kits:
  - Rubber mounting kit MP 92
  - Mounting kit without constrainer MP 93
  - Mounting kit with constrainer MP 94

**Stainless steel square beam load cell MP 79**
- For economic vessel weighing solutions
- Hermetically welded IP68/IP69
- Load cell capacity range from 227 kg to 5.099 t
- Accuracy class: 0.02 %
- Corresponding mounting kits:
  - Rubber mounting kit MP 92
  - Mounting kit without constrainer MP 93
  - Mounting kit with constrainer MP 94
Mounting kits

Mounting kits are an important element of vessel scales. They neutralise both horizontal forces on the load cell that affect system accuracy and vertical lift-off forces that could make a vessel fall over. Such forces can e.g. be caused by the vessels’ piping, mixers or blenders that are mounted on the vessel or (thermal) expansion of the vessel. Minebea Intec mounting kits are designed for intuitive, fast and error-free installation. For this purpose, the mounting kits can be ordered with an integrated dummy and jack-up function.

CAD files are available for easy integration of the mounting kits in drawings.

Load cells with corresponding mounting kits

<table>
<thead>
<tr>
<th>Load cell</th>
<th>Corresponding mounting kit</th>
<th>Integrated functions</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Load cell dummy</td>
<td>Jack-up</td>
</tr>
<tr>
<td>PR 6201</td>
<td>Mounting plate kit PR 6145</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Mini FlexLock PR 6143</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Universal vessel foot PR 6001</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Maxi FlexLock PR 6001</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>PR 6211</td>
<td>Mounting kit PR 6011</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>PR 6212</td>
<td>Mounting kit PR 6012</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>MP 77</td>
<td>Mounting kit MP 97</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>PR 6241</td>
<td>Mounting plate kit PR 6041</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Mini FlexLock PR 6043</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>PR 6246</td>
<td>Swivel bearing PR 6046</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>MP 76</td>
<td>Swivel eye MP 96</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>PR 6251</td>
<td>PR 6051 adapter sets</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>MP 58 / MP 79</td>
<td>Rubber mounting kit MP 92</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Mounting kit MP 93</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Mounting kit MP 94</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

All of our mounting kits are designed using FEM (Finite Element Method) analyses, ensuring optimum safety.
Mounting kit PR 6012 for load cell PR 6212

- Integrated jack-up and dummy function
- Low installation height
- Integrated constrainer to protect against horizontal forces
- Integrated lift-off protection with extended horizontal tolerances absorbs temperature fluctuations
- Inverted installation of the load cell provides corrosion protection
- Large mounting holes for flexible installation
- Optional: reinforced lift-off protection for lift-off forces of up to 45 kN

Mounting kit PR 6012

Mounting kit PR 6001 – for compression-type load cell PR 6201

- Load cell capacity range from 500 kg to 300 t
- Statement of compliance with GL specifications (Germanischer Lloyd)
- Certification according to EN 1090
- Integrated load cell dummy, jack-up function, lift-off protection and constrainer (optional)
- Slotted holes ensure simple positioning of the mounting kit
- 100 % maintenance-free

Mounting kit PR 6001
Ex solutions

For weighing process vessels and silos in hazardous areas, Minebea Intec offers:

- A full product portfolio with the required certifications: load cells, transmitters, indicators, controllers and accessories. Certifications include approvals by ATEX, FM, GOST, NEMA and UL*
- Certifications for different countries and regions
- Engineering support, including choice of the right equipment and installation advice

*Valid certification depending on actual type and model

Scan the QR code and learn more about the use of weighing equipment in hazardous areas.

Please don't hesitate to get in touch with us! We will be happy to advise you on our explosion-proof solutions, how they can be used and country-specific approvals.

sales.hh@minebea-intec.com
Weighting electronics

Weight transmitters

Minebea Intec weight transmitters connect process vessel or silo scales to a process control system. We provide weight transmitters available for DIN rail mounting in electrical cabinets and for field mounting.

<table>
<thead>
<tr>
<th>Transmitter</th>
<th>Resolution</th>
<th>SMART calibration</th>
<th>Remote service</th>
<th>EasyFill® function</th>
<th>Housing</th>
<th>I/O</th>
<th>Fieldbus interface</th>
<th>Protocols available</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP 20</td>
<td>up to 50,000 d @ 2 mV/V</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Din rail mounting</td>
<td>0/4 - 20 mA</td>
<td>0 - 10 VDC</td>
<td></td>
</tr>
<tr>
<td>MP 26</td>
<td>up to 20,000 d</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Din rail mounting</td>
<td>0/4 - 20 mA</td>
<td>0/2 - 10 VDC, 1 dig. Input, 3 dig. Outputs</td>
<td></td>
</tr>
<tr>
<td>PR 5211</td>
<td>up to 120,000 d @ 2 mV/V load cell</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Din rail mounting</td>
<td>0/4 - 20 mA</td>
<td>3 dig. I/O, RS 422/485</td>
<td></td>
</tr>
<tr>
<td>PR 5220</td>
<td>up to 120,000 d @ 2 mV/V load cell</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Din rail mounting</td>
<td>0/4 - 20 mA</td>
<td>3 dig. I/O, RS 485, Ethernet TCP/IP</td>
<td></td>
</tr>
<tr>
<td>PR 5230</td>
<td>10,000 d (with PR 5110) up to 120,000 d @ 2 mV/V load cell</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Stainless steel field housing</td>
<td>0/4 - 20 mA</td>
<td>3 dig. I/O, RS 485, Ethernet TCP/IP</td>
<td></td>
</tr>
</tbody>
</table>

Weight transmitter PR 5220

- High-precision weight transmitter offering a resolution of up to 120,000 increments
- Convenient and efficient scale calibration in one minute without weights
- Remote configuration and service functionality through integrated website
- EasyFill® function for one-component dosing of liquids, powders and granules with configurable target, tolerance and overshoot value
- Multiple data interfaces allow easy integration into process control systems and direct connection of a remote display
- Slim design for space-saving installation on DIN top hat rails

Weight transmitter in field housing PR 5230

The weight transmitter PR 5230 offers the same specification as the PR 5220, with the following exceptions:

- Electropolished stainless steel housing (IP66) for fast cleaning and highest chemical resistance
- The integrated graphic display enables direct status monitoring
- Multiple options allow the customer individual configuration of the transmitter e.g. load cell connection unit for up to 4 load cells
Weight indicator X3 – with clearly readable display and integrated dosing function

- High-precision weight indicator offering a resolution of up to 120,000 increments
- Large, clearly readable display of weight values, even in direct light
- Convenient and efficient scale calibration in one minute without weights
- Remote configuration and service functionality through integrated website
- EasyFill® function for one-component dosing of liquids, powders and granules with configurable target, tolerance and overshoot values
- Multiple data interfaces allow easy integration into process control systems and direct connection of a printer or remote display
- Housing suitable for panel mounting

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Internal resolution</th>
<th>SMART® calibration</th>
<th>Remote service</th>
<th>EasyFill® function</th>
<th>Housing</th>
<th>I/O</th>
<th>Fieldbus interface</th>
<th>Protocols available</th>
<th>Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP 30</td>
<td>up to 10,000 d @ 1 mV/V load cell up to 20,000 d @ 2 mV/V load cell</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Panel mounting</td>
<td>0/4 - 20 mA 0 - 10 Vdc up to 4 dig. Output RS 232 RS 485</td>
<td>No</td>
<td>Printer</td>
<td>Backlighted 5 digits, 7 segments</td>
</tr>
<tr>
<td>X3</td>
<td>7.5 nV 10,000 e acc. to OIML R76 up to 60,000 d @ 1 mV/V load cell up to 120,000 d @ 2 mV/V load cell</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Panel mounting</td>
<td>0/4 - 20 mA up to 4 dig. Output RS 232 RS 485</td>
<td>Profibus DP Profinet I/O Ethernet/IP DeviceNet CC-LINK</td>
<td>Remote Display, Printer, xBPI, SMA, EW-Com, Modbus RTU (Slave), Modbus TCP, OPC</td>
<td>Transflective, 6 digits, 7 segments</td>
</tr>
</tbody>
</table>
Weight controllers

Weight controllers are weight indicators with integrated control functionality for the automation of weighing processes. Minebea Intec offers two weight controllers which are freely programmable (IEC61131 programming language) or can be equipped with the following predefined software applications:

- **BASIC** – for simple weighing applications
- **IBC** – for single-component filling applications
- **BATCH** – for complex manual and/or automatic batching applications
- **ProRecipe XT®** – for manual recipe and dispensing applications (Maxxis 5 only)
- **Truck** – for truck scale applications (Maxxis 5 only)
- **COUNT** – for parts counting and manual checkweighing applications (Maxxis 5 only)

**Weight controller Maxxis 4 for panel mounting**

- Connection of one analogue or one digital scale or Pendeo® digital load cell system
- 4.3" large colour display with multilingual interface and integrated help function for intuitive operation
- Multiple interface possibilities: Ethernet TCP/IP, Modbus TCP, Profinet, DeviceNet, Profibus-DP, Profinet, Ethernet/IP and USB
- Equipped with an internal web server, the Maxxis 4 can be configured and controlled via any standard web browser
- Automatic backup function saving data to SD cards for full transparency and traceability

**Weight controller Maxxis 5 for table-top use or panel mounting**

- Connection of up to four scales
- 5.7" large colour display with multilingual interface and integrated help function for intuitive operation
- Multiple interface possibilities: Ethernet TCP/IP, Modbus TCP, Profinet, DeviceNet, Profibus-DP, Ethernet/IP and USB
- Equipped with an internal web server, the Maxxis 5 can be configured and controlled via any standard web browser
- Automatic backup function saving data to SD cards for full transparency and traceability
High capacity weighing

When it comes to weighing outdoor silos, mechanical stability and safety play a decisive factor. Where the whole weight of a large silo with a diameter and height of several metres is supported by load cells and mounting kits, the risks must be kept at a minimum.

Minebea Intec has decades of experience in providing solutions for weighing large silos:

- We offer a full range of high-capacity load cells (up to 520 t) and corresponding mounting kits, even for areas exposed to strong winds and earthquakes

- We use FEM (Finite Element Method) analyses during development to ensure maximum stability for our installation solutions

- Guaranteed performance and safety. Our weighing solutions fully meet the requirements of DIN EN 1090 and comply with the GL specifications (Germanischer Lloyd)

- Our mounting kits with additional functions not only ensure an optimal load application, but they also make external constrainer constructions, lift-off protectors and the manufacturing of load cell dummies redundant

### Load cells with corresponding mounting kits

<table>
<thead>
<tr>
<th>Load cell</th>
<th>Load cell type</th>
<th>Capacity</th>
<th>Corresponding mounting kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PR 6201</td>
<td>Compression</td>
<td>500 kg – 520 t</td>
<td>Mini FlexLock PR 6143</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Compact mounting kit PR 6001</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Maxi FlexLock PR 6001</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Seismic Mount PR 6144</td>
</tr>
</tbody>
</table>
Mounting kits for compression-type load cell PR 6201

**Mini FlexLock PR 6143**
- Load cell capacity range from 500 kg to 300 t
- With integrated constrainer for absorbing wind and other side forces

**Maxi FlexLock PR 6001**
- Load cell capacity range from 500 kg to 300 t
- Statement of Compliance with GL specifications (Germanischer Lloyd)
- Integrated load cell dummy, jack-up function, lift-off protection and constrainer (optional)
- Slotted holes facilitate simple positioning of the mounting kit
- 100 % maintenance-free

**Seismic mount PR 6144**
- For load cell capacities of 50 t to 520 t
- Designed to compensate extreme high side and lift-off forces
- Integrated lift-off protection and supplied with load cell dummy

All of our mounting kits are designed using FEM (Finite Element Method) analyses, ensuring optimum safety.
Digital solutions

The load cell PR 6204 Pendeo® Process features Digital Assistance Technology (DAT). With the help of this technology, weighing solutions can be commissioned more quickly, monitored completely and serviced efficiently.

Digital Assistance Technology offers:

Quick and easy installation and set-up

- Load cell identification
- Automatic corner adjustment
- System accuracy proposal
- Application-specific calibration
- Indication of uneven load distribution

Increase of OEE (Overall Equipment Effectiveness) during operation via the extensive diagnostic function

- Temperature measurement and control
- Load cell status information
- Load distribution
- Alarm for load cell failure/defect

For maintenance and service

- Compensation of a defective load cell in applications not for use in legal metrology. Faulty load cells can be simulated, keeping production running until the cell is replaced
- Recording of overload
- Exporting all scale parameters and saving them in a text file
Pendeo® Process – digital precision compression-type load cell for process vessel and silo weighing

- Capacity: 2 t to 50 t
- Proven rocker pin principle for best compensation of expansion and shear forces
- High overload capacity, up to 500 % hermetically sealed, IP68 (1.5 m water depth / 10,000 hrs)
- Verifiable according to OIML R60
- The robust RS 485 output signal guarantees problem-free data transmission between the load cells and evaluation electronics

The Pendeo® Process can be used in combination with the following Minebea Intec weighing electronics. The actual functions available depend on the evaluation electronics selected.

- Weight transmitters PR 5220 and PR 5230
- Weight indicator X3
- Weight controller Maxxis 4 and weight controller Maxxis 5
Hygienic vessel weighing solutions

When weighing vessels and tanks in the food, beverage or pharmaceutical industry, hygienic design of the installation is important, specifically where there is a potential risk of product contamination by microorganisms.

Minebea Intec offers a full range of solutions for weighing process vessels and tanks that have been developed according to EHEDG guidelines. These solutions feature:

- Easy cleanability through accessibility and avoidance of screws and slots
- Short cleaning times
- Low consumption of detergents
- Self-draining design, cleaning fluids can run of easily
- Used materials with an optimum resistance to detergents

Load cells with corresponding mounting kits

<table>
<thead>
<tr>
<th>Load cell</th>
<th>Load cell type</th>
<th>Capacity</th>
<th>Accuracy class according to OIML R60</th>
<th>Corresponding mounting kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PR 6202</td>
<td>Hygienic compression-type load cell</td>
<td>1 t - 50 t</td>
<td>C1 - C4</td>
<td>PR 6002</td>
</tr>
<tr>
<td>Contego®</td>
<td>Hygienic mount</td>
<td>100 kg - 2 t</td>
<td>D1 - C3</td>
<td></td>
</tr>
</tbody>
</table>
Hygienic weighing module Contego®
- Preassembled weighing module, including load cell, integrated constrainer and lift-off protection, saving installation time
- Integrated jack-up function to quickly lift the vessel without hydraulic lifters
- Sophisticated sealing technology ensures an optimum hygienic design
- EHEDG-certified product

Hygienic load cell PR 6202 with mounting kit PR 6002
- Made of stainless steel AISI 304
- Including lift-off protection
- With integrated dummy function for easy installation
- Mounting kit available with and without constrainer up to 25 kN
- Hygienic Design and surface finish of the load cell according to EHEDG guidelines

Weight transmitter in field housing PR 5230
- High-precision transmitter offering a resolution of up to 120,000 increments. The integrated graphic display enables direct status monitoring. Electropolished stainless steel housing (IP66) for fast cleaning and highest chemical resistance
- Convenient and efficient scale calibration in one minute without weights
- Remote configuration and service functionality through integrated website
- EasyFill® function for one-component dosing of liquids, powders and granules with configurable target, tolerance and overshoot value
- Multiple data interfaces allow an easy integration into process control systems and direct connection of a printer or remote display
- Optional load cell connection unit for up to 4 load cells saves additional junction box

Cable junction box PR 6130
- Electropolished stainless steel housing with membrane for pressure compensation, preventing humidity access
- Protection class IP68/IP69
- Approved for Ex applications
- For connection of 4 or 8 load cells
Accessories

Installation cable PR 6135/36

- Double-shielded installation cable with optimum resistance to electromagnetic interference.
- Operating temperature range: -40 to +90 °C
- Flame resistant, EN 50265-2-1, IEC 60332-1
- Test voltage 500 V (50 Hz, 1 min), VDE 0472 Part 508 Test B
- PR 6135 for use in non-hazardous areas, PR 6136 for use in hazardous areas
- High-strength armoured version available for optimum protection against cutting or rodents

Plastic cable junction box MP 90

- For connecting 1 to 4 load cells
- Available for 4-wire or 6-wire load cells
- IP65 protection class

Installation cable MP 80

- 6 wires
- Material: TPE

For more detailed information, please visit our website or contact sales.hh@minebea-intec.com
Cable junction box PR 6130

- Robust cable junction box for connecting load cells
- Equipped with pressure-equalising membrane, preventing moisture from entering the box during temperature changes
- For four and six-wire technology
- Extremely high insulation resistance for optimum measuring signals
- ATEX and FM-approved versions available for use in hazardous areas

<table>
<thead>
<tr>
<th></th>
<th>PR 6130/08</th>
<th>PR 6130/04N</th>
<th>PR 6130/34Sa</th>
<th>PR 6130/35S</th>
<th>PR 6130/38S</th>
<th>PR 6130/64Sa</th>
<th>PR 6130/65S</th>
<th>PR 6130/68S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of load cells</td>
<td>1 ... 8</td>
<td>1 ... 4</td>
<td>1 ... 4</td>
<td>1 ... 8</td>
<td>1 ... 4</td>
<td>1 ... 4</td>
<td>1 ... 4</td>
<td>1 ... 8</td>
</tr>
<tr>
<td>Material</td>
<td>Polycarbonate</td>
<td>Aluminium, painted</td>
<td>1.4301, AISI 304</td>
<td>1.4301, AISI 304</td>
<td>1.4401, AISI 316L</td>
<td>1.4301, AISI 304</td>
<td>1.4401, AISI 316L</td>
<td>1.4401, AISI 316L</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP65</td>
<td>IP67</td>
<td>IP68</td>
<td>IP69</td>
<td>IP68</td>
<td>IP69</td>
<td>IP68</td>
<td>IP69</td>
</tr>
<tr>
<td>ATEX / FM approval</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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</table>

Robust cable junction box for connecting load cells.
Our product portfolio

We supply industry with products, solutions and services that increase the reliability, safety and efficiency of production and packaging lines. Our portfolio covers all applications from incoming goods inspection right through to goods delivery, including automatic and manual processes as well as filling and packing.
<table>
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<tr>
<th>Manual production</th>
<th>Packaging</th>
<th>Outgoing goods</th>
</tr>
</thead>
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<tr>
<td>Solutions that ensure accuracy and traceability</td>
<td>Guaranteeing product quality and food safety</td>
<td>Quality assurance of final product</td>
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<td>Portioning and checkweighing</td>
<td>Metal detection</td>
<td>Floor scales</td>
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<td></td>
<td>Checkweighing</td>
<td>Checkweighers for heavy loads</td>
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<td></td>
<td>X-ray inspection</td>
<td>Components and solutions for truck scales</td>
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<td>Filling solutions</td>
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<td></td>
<td>Statistical process control</td>
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</tbody>
</table>
Our services

Through our world-wide presence, we and our certified partners stand beside our customers across the globe throughout the entire life cycle of our products and solutions. From assisting them in selecting the right equipment and systems to performing upgrades and refurbishment, as well as conducting user training sessions; we are with them every step of the way.

Engineering Support – ensuring optimal solutions

- Advice regarding the mechanical construction, e.g. vessel design and foundation, optimal pipe connections and fulfilling hygienic design requirements
- Selection of optimal components in terms of required performance and cost
- Calculation of weighing system accuracy and (indicative) side and lift-off forces
- Provision of load cell and mounting kit CAD files for easy integration into existing drawings
- Provision of customised products and solutions to suit individual needs, e.g.:
  - Mounting arrangements with customised flanges suiting the flanges on silo legs
  - Project documentation and product tagging
  - Applying special coatings on our weighing modules for maximum protection in highly corrosive areas

These functions are available on selected models. Detailed information can be found on our website or in the respective product data sheets.

Start-up – ensuring equipment performance and on-time production commencement

- Advice on mechanical and/or electrical installation, commissioning, set-up and user instruction
- Equipment calibration or verification to legal metrology standards
- Equipment qualification (IQ/OQ)

For more detailed information, please visit our website or contact info@minebea-intec.com
Calibration and maintenance – ensuring equipment availability and performance

- Equipment calibration or verification to legal metrology and measurement standards
- Preventative maintenance safeguarding continued availability and performance
- Repair services, including emergency service contracts for a guaranteed response time
- Remote services

Upgrades – prolonging equipment life time and boosting performance

- Hardware and software upgrades
- Equipment refurbishment

Training – enhancing staff capabilities

- User training covering daily operation and/or repair
- Seminars providing knowledge of regulations and technologies
We make daily life safer