

# Custom OEM Sensors for Industrial Vehicles



For over 40 years, HBM has been providing OEM manufacturers in the United States with highly reliable and accurate strain gage based force, torque, strain and pressure transducer solutions. Manufacturers of agriculture, construction, mining, and off highway vehicles require a durable and rugged load cell sensor that can stand up to the harsh environment their equipment will endure.

Our extensive range of products provides the highest level of environmental protection and durability possible. Throughout the design process, HBM works with OEM's to ensure a seamless integration with their systems allowing for accurate on board or in cab data and overload protection.

The HBM engineering team is helping customers lead the way in product innovation and working with our manufacturers to develop new technologies that are shaping their industries.

## Typical Features

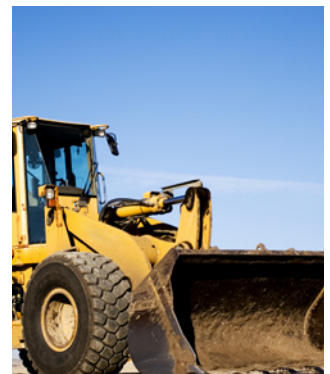
- Rated capacity from 0.25 to 100 tons
- Overload: 150% of rated capacity
- Ultimate breaking load: > 300% of rated capacity
- Temperature compensated pins made of high quality corrosion resistant stainless steel
- Maintenance-free, ideal for hostile environments. Rugged construction
- Accuracy: to 0.5 %
- Output signals: mV/V, 4-20mA, 0-5 V DC
- HBM also **manufactures special custom load cells** and **measuring pins** according to customer requirements.
- Customized designs
- Special electrical connections
- Integral signal conditioning
- Optional IP 68 protection class
- Optional supply of anti-rotation keeper plates

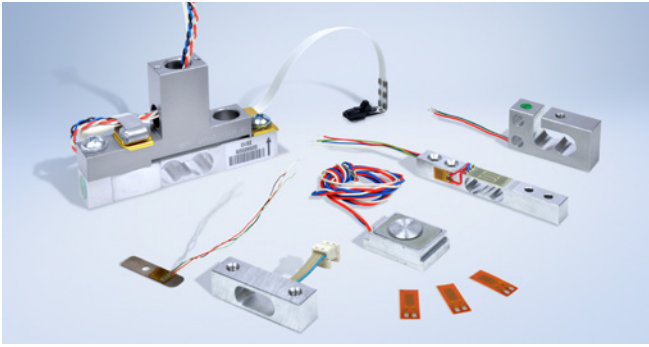
## Agriculture

Agriculture machinery manufacturers are implementing an increasing amount of advanced sensors technology to their precision farming equipment at a rapid pace. Our custom products are leading the innovation forefront for hydraulic/pneumatic downforce, harvesting yield monitors, balers, and tractor draft pins.

## Construction

Load and overload measurement is a safety critical component in construction equipment. You can measure the weight on mobile and overhead cranes with products like our Z6 load cells, overload protection on aerial work platforms with the HLC, or our SLB 700 to measure load conditions on the rear axles of telehandlers. Reliable HBM products are manufactured to the highest level of durability.





## Mining and Off Highway

From on board vehicle pay load, to overload conditions, and commercial vehicle scales, rugged HBM load cells are manufactured with robust and corrosion resistant materials like stainless steel and aluminum. HBM sensors are available with our proprietary adhesives and protective coatings. Our sensors meet and exceed the most demanding accuracy and performance expectations.

## Vehicle Torque

As the world leader in torque measurement, HBM understands that vehicle drives are at optimum performance when the drive train and engine control match perfectly. From internal combustion to electric drive motors, torque is a critical measurement in determining mechanical efficiency and power distribution to the wheels. Where very little space is available, HBM will design and engineer a custom transducer from the existing drive train components. The data is transmitted with high resolution using advanced wireless telemetry.

## Custom Transducers

HBM has vast application knowledge and proven ability to help OEM manufacturers add strain gage based pressure, force, reactionary torque or load measurements to their product. Catalog sensors may not fit in many OEM applications, and therefore, we help develop and manufacture custom designed sensing solutions to meet these unique requirements.

### 1 Concept

We team up with you to analyze your measurement task and design the matching solution. Thanks to modern engineering processes (CAD and FEM) you will receive the first design draft for your transducer very quickly.

Advice on conceptual design is free of charge.

### 2 Quote

After having agreed the concept with you, we provide you with a quote for the customized transducer that really meets your unique requirements.

### 3 Prototype

Due to rapid prototyping you'll receive a prototype of your transducer in the shortest time possible.

### 4 Production

If the prototype meets your requirements, production starts. Benefit from the proven quality and delivery reliability of the leading manufacturer with over 65 years of experience.

Visit our website at [www.hbm.com/oemsensors](http://www.hbm.com/oemsensors) for a lot more information and examples of customized transducers from HBM. Let us show you how HBM can help you benefit from custom-designed solutions for your application.





[www.hbm.com](http://www.hbm.com)

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measure and predict with confidence

