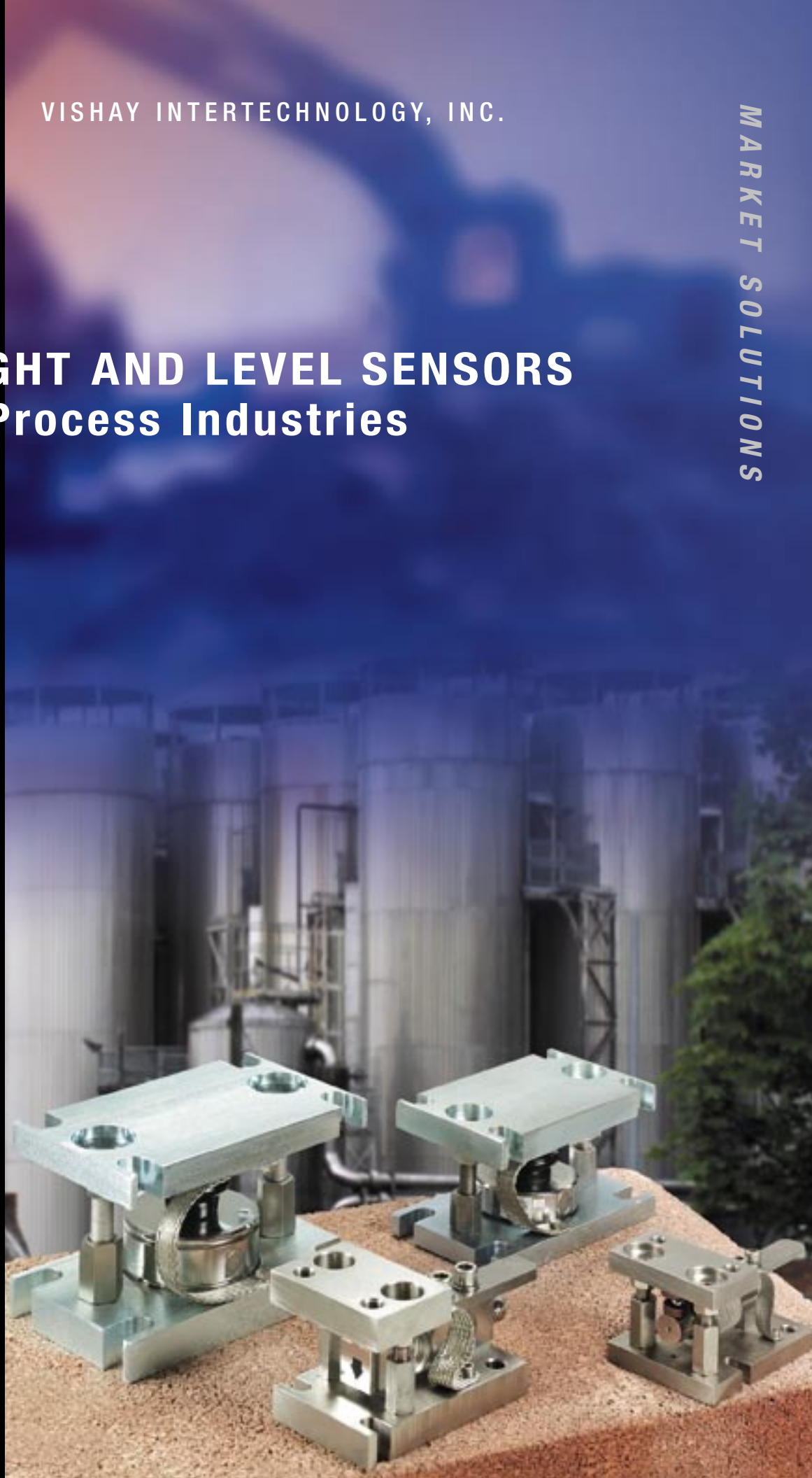




VISHAY INTERTECHNOLOGY, INC.

MARKET SOLUTIONS

# WEIGHT AND LEVEL SENSORS For Process Industries



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

## The Experience You Need

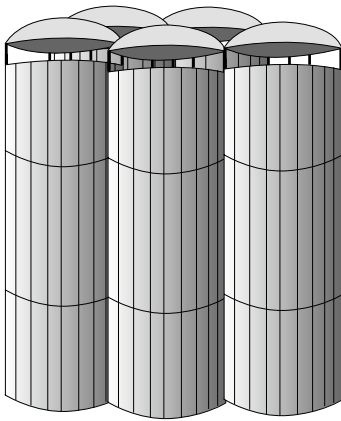
Vishay Transducers is the world's leading manufacturer of weight, load and level sensors for process industries with many years' experience of research and development in the latest technologies and modern manufacturing methods. With manufacturing and support facilities in Europe, North America, the Middle East and the Far East, we are ideally situated to support our global customers in the process industries.

## Experts in Your Field

Vishay Transducers sensors have been developed for many different applications, some of which are detailed below. For further information or to discuss your own specific needs, please contact your nearest Vishay Transducers office.

## Bulk Storage Silos

Integrity and safety are vitally important factors to be considered when installing weighing systems on tall silos, especially in



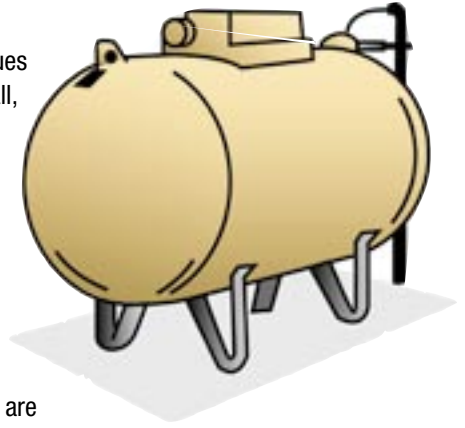
areas which are prone to seismic activity or high wind forces. Vishay Transducers high capacity load cells up to 100 tons capacity come with a range of mounting accessories to meet the most arduous conditions. Options include lift-off and side force protection and integral jacking bolts to simplify installation.

## Pressurized Vessels

When traditional level measurement techniques are impossible to install, Vishay Transducers load cell assemblies can provide a cost effective alternative.

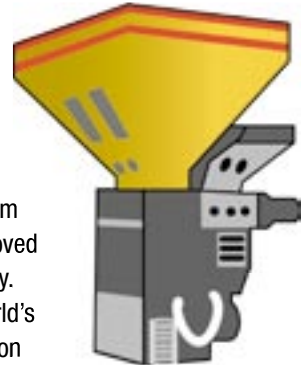
With hazardous area approvals, all stainless steel construction and typical accuracies of 0.1% or better, they are a very simple accurate solution.

Special mounting accessories correct for thermal expansion and contraction which could cause measurement errors.



## Mixing and Dosing Systems

Load cells are becoming the sensor of choice for anyone involved in weight monitoring, batch control, mixing, dosing or blending of liquids or solids. These non-contact sensors are simple to install and calibrate, accurate to 0.1% or better, made from alloy or stainless steel and are approved for hazardous areas where necessary. Vishay Transducers is one of the world's largest manufacturers, with production facilities on 3 continents and a 30-year expertise in weight sensors.



# Weight, Load and Level Sensors for the Process Industries

## Highest Reliability and Long Term Stability

Most weight or load sensors are based on strain gage technology. In contrast to the explosive development of modern electronics, this technology has stood the test of time since it was first used for aircraft weight and balance measurement in the 1930's.

Although the technology has been refined considerably over the years, the fundamental principle remains. The reliability and performance of any such sensor is directly dependant upon the integrity and repeatability of the strain gage bonding procedure and the uniformity of the sensor material.



Precise clamping pressures and temperature curing are essential and Vishay Transducers has pioneered a number of innovative techniques in the volume production of sensors, which ensures cost effective products of the highest reliability and long term stability.

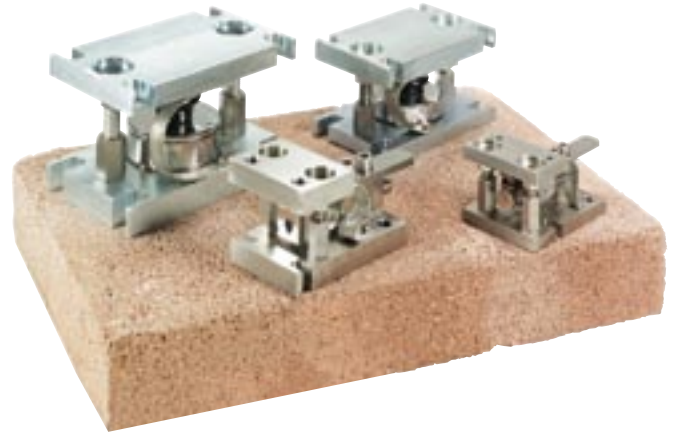
## Weighing Systems from 5kg to 50 Tons

The Vishay Transducers range of industrial load cells provides the process weighing industry with the ultimate protection necessary for today's hostile environments.

Manufactured from alloy steel or stainless steel and having environmental protection to IP67 or IP68 as standard, the range covers capacities from 5kg to 50 tons.

For hazardous environments, these load cells are available with EEx ia IIC T6 level of European approval for Intrinsically Safe Installations.

When combined with Vishay Transducers' mounting accessories they provide a simple, accurate and reliable weighing system.



Simple to install, the stainless steel Cellmates make for easy design into new installations and easy fitting to existing vessels. Cellmates can be put in place with or without the load cell in position.

Vessel movement due to thermal effects is accommodated with no loss of performance or accuracy by means of the Cellmate's built in 'free motion' load adaptor.

Cellmates provide a permanent integral safety jacking system and maximum safety protection from the effects of wind or accidental collision.



## Designed for Long Life, High Performance and Low Cost of Ownership



### At the Forefront of Design

Vishay Transducers have been at the forefront of load cell design for over 30 years. With a reputation which is second to none, our products are employed in every conceivable type of weighing and force measuring application throughout the world, from fish scales in Iceland to coal bunkers in Australia and tractors in Romania to hospital beds in the USA.

### Options

Application specific options include sealing to IP68 for total liquid immersion, Intrinsic Safety approvals to EEx ia IIC T6, OIML certification, current matched outputs and an extensive range of mounting hardware to simplify installation and enhanced performance.

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## VISHAY MEASUREMENTS GROUP

**Vishay Transducers:** Vishay Nobel, BLH, Celtron, Sensortronics®, TedeA-Huntleigh

**Vishay Micro-Measurements:** Vishay Micro-Measurements, BLH SR-4®

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VISHAY IS ONE OF THE WORLD'S LEADING MANUFACTURERS OF DISCRETE SEMICONDUCTORS AND PASSIVE COMPONENTS