



VISHAY
PRECISION
GROUP



Market Solutions

On-Board Scales for Forestry and Highway Trucking

SI Onboard

A Brand of VPG On-Board Weighing



Revere
Transducers



SI TECHNOLOGIES®

www.obwvpg.com

SI Onboard is leading the on-board weighing market to the 21st century. The 9150 digital weighing system fully utilizes the inherent advantages of the automotive CAN protocol, digital signal processing, and an advanced graphic user interface (GUI). Combined with our wide field-proven selection of load cells and accessories, we offer our customers increased productivity, better utilization of their equipment and easy operation and maintenance.

Benefits

- Haul maximum legal loads every time
- Load to the legal maximum on-site
- Eliminate overweight fines and truck impoundments
- Reduce truck abuse and decrease maintenance costs
- Eliminate scale fees



Load Cells and Weighing Assemblies

Load Cells

Titan Shear Load Cells are designed for performance, reliability and long life. Constructed specifically for on-board scales, the heavy-duty Titan utilizes temperature-compensated full-Wheatstone-bridge construction that is specifically tailored to on-board scales. All Titan load cells feature redundant sealing and protection for use in the harshest environments.

Designed and manufactured to withstand rugged environments, SI Onboard load cell bodies are machined from high-alloy steel and heat-treated for maximum strength and reliability. Our load cells are tested to maximum overload capacity to ensure safety and durability. And our triple-redundant sealing process provides protection in harsh environments of water, ice salt, and washdown.

Features

- Designed and manufactured specifically for on-board scales
- Feature robust design for high safety factor
- Retain their strength when installed on suspension systems
- Offer typical accuracy within 1% of applied load
- Have triple-redundant sealing for durability and long life
- Field proven for more than 30 years



AirScales

For trucks and trailers that utilize air-suspension systems, SI Onboard offers the AirScale system, which uses our pressure transducers, transmitter, and the 9150 meter. AirScale systems, which are mounted in the air system of the truck or trailer, feature pressure transducers that are built for accuracy and repeatability and deliver typical accuracy within 1% to 2% of applied load.





On-Board Scales

For Hauling Legal Maximum Loads



9150 Digital Weighing System

Our load cells and weighing assemblies combined the 9150 Meter and Smart Transmitter make up a digital weighing system that can be used for any on-board application requiring on- or off-highway weight monitoring utilizing up to eight scale/channel configurations. Examples include all long logger and short logger configurations, highway tractor trailers, hay racks, rigid trucks, etc., that require a highly accurate on-board scale system.

Model Number	Description
9150 Meter	
	A modern user interface featuring a color graphic display, soft keys with menus, and wizards for navigation, setup, and diagnostics. The 9150 meter offers a wide range of communication interfaces, backup and restore capabilities through USB and memory stick, remote control functions, and extensive diagnostics down to the individual load cell or transmitter.
9150 Smart Transmitter	
	Integrates the interface with the load cells, signal processing, diagnostics, and the local functionality needed for setup and calibration per body or trailer. Each transmitter supports up to six load cells or pressure transducers suitable for both mechanical suspension and air bellows suspension. The transmitter also supports compensation of the truck or trailer tilt angle, thus allowing accurate weighing under most operating positions.

System Characteristics	
Simplified Wiring	The CAN bus enables the connection of multiple transmitters using a single 4-wire cable (2 wires for power and 2 wires for communication), significantly reducing the number of cables routed and simplifying maintenance.
Easy System Setup and Calibration	Setup and calibration are done through wizards and graphical menus. The operator selects the relevant configuration from the drop-down menu and the system automatically configures the needed parameters.
Road Trains Support (Up to 8 Transmitters)	The robust CAN protocol enables long cables and connection of up to 128 units. This allows the 9150 weighing system to support road trains of up to eight transmitters, or the equivalent of 4 to 8 trailers.
Changing Trailers and Hot Swap of Trailers	All operational and setup parameters of the trailer are stored in the 9150 transmitter. Once the trailer is connected to the truck, the 9150 meter reads the required parameters from the transmitter and updates the system data accordingly. This allows for easy connection of trailers to the system, including hot swaps.
Accurate Weighing Under All Road Conditions	Current analog systems are prone to weighing errors when the truck or trailers are loaded on uneven ground or on a slope. This is due to the inherent nature of the load cells, which measure the force applied along their working axis. The 9150 transmitter is capable of measuring the tilt angle of the trailer in both pitch and roll axes. The measured angles are used to compensate the readings from the load cells and ensure accurate weighing regardless of the truck position.
Extensive Diagnostics	The 9150 transmitter runs diagnostics of each load cell and monitors all of their critical parameters. The system is running the diagnostics continuously and alerts the operator to any significant fault or error condition in the load cells, transmitter, or meter using a pop-up message and audible alarm. The user-friendly color graphic indicates any faulty transmitter or load cell in red.
Easy Maintenance and Replacement of Units	The 9150 weighing system is modular and pre-calibrated in the factory. If a unit fails, the technician can easily remove the faulty unit, install a new one, and restore and re-configure it. This feature leverages digital technology and the CAN protocol topology.

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