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How to meet all your weighing and dosing requirements

Weighing and dosing processes are of great significance in many areas of industrial production. Whether for filling food and beverage containers or preparing recipes for chemicals and pharmaceutical products: With our solutions, you can count on absolute reliability and highest precision.
Available for all requirements

The flexible design of our products makes it possible to implement weighing solutions from simple platform scales and gravimetric level measurement up to highly complex automatic scales with minimal conversion costs. Using SIWAREX load cells and electronic modules for weighing systems together with Siemens Milltronics belt scales and SITRANS weigh feeders and solids flowmeters, you can design an optimal system for practically every task.

SIWAREX WP351
the ultra-compact weighing electronic for maximum precision

- ultra-compact: 20 mm wide, 65 mm high
- Precise: Resolution ± 20,000,000 increments
- Seamlessly integrated in ET 200SP system, works with S7-300, 400, 1200 and 1500 controllers
- fast: 1,000 Hz sampling rate, Digital output response time < 1 ms
- Intelligent firmware enables the weighing process to be controlled and optimized entirely from the weighing module
End-to-end automation
Whether central or distributed: our electronic weighing systems set standards. We offer integrated solutions for seamless integration into the SIMATIC automation system under the name SIWAREX. The weighing system can be easily adapted to meet your individual requirements with the SIMATIC standard components. Moreover, standardized interfaces, integrated functions, and uniform tools allow for cost-effective configuration. Whatever your choice, you can count on a high degree of precision with SIWAREX and benefit from certifications according to OIML as well as a finely graded range of functions.

SIWAREX WP231
- Weighing module for level monitoring of silos and bunkers, use in platform scales as well as for weighing in hazardous areas
- Can be fully integrated into SIMATIC S7-1200 and therefore also programmed in the TIA Portal
- Can be operated without SIMATIC CPU
- Certified according to OIML R-76 – legal for trade as NAWI

SIWAREX WP241
- Electronic weighing system especially designed for belt scale applications
- Simulation mode allows for a full function test even without a connected belt scale
- Full integration into SIMATIC S7-1200 and TIA Portal, stand-alone operation without SIMATIC CPU is possible
- Factory-provided interfaces such as Modbus TCP/IP and Modbus RTU as well as digital and analog interfaces

SIWAREX WP251
- Electronic weighing system for completely independent control of dosing and filling tasks
- Trace function: All saved process values and corresponding states can be displayed, analyzed and, if required, edited in spreadsheet programs with SIWATOOL V7
- Full integration into SIMATIC S7-1200 and TIA Portal, stand-alone operation without SIMATIC CPU is possible
- Factory-provided interfaces such as Modbus TCP/IP and Modbus RTU as well as digital and analog interfaces
- Certified according to OIML R-51, R-61, R-76, and R-107 – legal for trade as NAWI, AGFI, ACI, DTI

SIWAREX WP321
- For level measurements in silos and bunkers; convenient and seamless integration of platform scales directly into the automation environment
- Up to 600 Hz sample rate
- Technology module for the SIMATIC ET 200SP distributed I/O system
- Easy commissioning by HMI or by SIWATOOL (no prior knowledge of SIMATIC required)
- The ready-to-use sample application enables fast development and implementation of customer- and industry-specific solutions
- Seamless integration into PCS 7 via dedicated add-on package

SIWAREX WP521 ST/WP522 ST
- Optimal for use in platform scales as well as for level monitoring of silos and bunkers and in hazardous areas
- Technology module for the SIMATIC S7-1500 Advanced Controller family
- Two versions: the single-channel design SIWAREX WP521 ST for one-scale systems, and the SIWAREX WP522 ST two-channel design for two-scale systems
Load cells
The field-proven SIWAREX WL200 load cells are the perfect choice for reliable weight measurements. A wide range of designs, capacities, and certificates guarantee a perfect fit for all requirements.

SIWAREX WL200 load cells
- Suitable for operation in hazardous areas
- Large measuring range from 0.3 kg to 500 t
- Hermetically sealed for maximum service life
- Options with redundant design and for high temperature ranges are available
- Smart-design fastening parts for simple and safe installation
- High degrees of protection (IP)
- Certified in accordance with OIML R-60

Digital junction box

SIWAREX DB  NEW
- Simplification of service via remote diagnostics for individual load cell
- Connection to SIMATIC automation system via SIWAREX WP weighing electronics
- Comprehensive monitoring of the weighing process down to the single load cells
- Access to specific error states such as wire break, overload etc.
- Connection of up to four standard strain gauge load cells per scale
- Digitalization of proven strain gauge technology
- Rugged due to IP66
- Retrofit of existing plants easily possible by exchanging analog junction box against SIWAREX DB

SIWAREX WT231
- Combination of powerful SIWAREX WP231 weighing electronics and Touch Panel with application-specific user interface in one product
- Stand-alone solution independent of automation solution and therefore ready to use
- All settings and parameters for applications in the areas of level measurement and platform weighing machines can be made via the Touch Panel
- Comprehensive diagnostics options, such as checking the weight course and monitoring and reporting limits
- Diverse factory-provided interfaces such as Modbus TCP/IP and Modbus RTU as well as digital and analog interfaces

SIWAREX WT241
- Combination of flexible, high-resolution belt scale weighing module and Touch Panel with application-specific user interface
- Stand-alone solution independent of automation system and therefore ready to use
- Simulation mode allows for complete application test – even without a connected belt scale or speed sensor
- Flexible parameterization of digital inputs and outputs for a wide range of functions
- Diverse factory-provided interfaces such as Modbus TCP/IP and Modbus RTU as well as digital and analog interfaces
Integrators for dynamic weighing systems

Our electronic transmitters process the sensor signals into operating data for continuous in-line weighing and material flow measurements.

- BW500/L and SIWAREX WT241 offer economical and basic operation for belt scales, including display of flow rate, load, speed, and totalized material for belt scales and weighfeeders. Easy and comfortable operating and programming can be performed by the integrated keypad.
- BW500 and SF500 (for solids flowmeter) are advanced integrators with additional control functions such as PID or batch controllers. BW500 also offers legal-for-trade options for belt scales like MID or NTEP.
- SIWAREX FTC is a SIMATIC based integrator for belt scales and solids flowmeter with high functionality, fully integrated into SIMATIC and PCS 7 by S7-300 or ET 200M. Programming and visualization can be done by existing HMIs of the PLC or by Notebook.
- SIWAREX WP241 is a SIMATIC S7-1200 based integrator with high functionality for belt scales, fully integrated into PLC. Programming and visualization can be done by existing HMIs of the PLC or by Notebook.

Belt scales

Milltronics MSI is an extremely robust, single-idler precision belt scale that provides continuous weighing of a variety of products in both the primary and secondary industries.

- Milltronics belt scales weigh raw materials, check inventories and monitor production processes
- Market-leading performance under harsh conditions
- Easy installation and low maintenance overhead (no moving parts)
- Repeatable accuracy in productive operation, as well as minimal hysteresis and maximum linearity independent of horizontal forces thanks to unique parallelogram design of the load cells
- Integrated overload protection for the load cells
- More approvals than any other belt scale in the world

Weighfeeders

- Highest weighing accuracy ensures optimization of mixing, process sequences, and balance calculations
- Reliable and continuous performance
- Virtually maintenance-free
- Various designs engineered to customer requirements

Solids flowmeters

- Dust tight inline-weighing
- For continuous measurement of the throughput of dry bulk materials, free-flowing powders, or granulates
- Also for critical functions such as batch loading processes and mixing processes
Platform scales
Platform scales are seen frequently in all branches of industry. Irrespective of the load to be weighed, whether trucks, containers or loose goods, Siemens offers a comprehensive range of load cells and electronic weighing systems to set up platform scales in an inexpensive way. The weighing data can be processed simply with the SIWAREX weighing processors. The SIWAREX U, CS, WP521 ST, WP522 ST or WP321 electronic systems are suitable for simple applications. SIWAREX WP231, SIWAREX WP351 or SIWAREX FTA are recommended for use in legal-for-trade plants.

Hopper scales
Liquids, powders, bulk goods or gases are usually produced and stored in tanks or containers. To guarantee the availability of these goods, it is necessary to know the exact fill level of the container. Independent of the type of the measured goods – corrosive, foamy, high/low dielectric constants or dusty – the use of weighing solutions from Siemens enables reliable measurement of the level. To avoid sources of error caused by lateral force inclusions (e.g. pipe connections), the use of SIWAREX mounting units is recommended. In this way, the load cells can be installed quickly and easily.

Conveyor belt scales
Belt scales contribute to optimal use of raw materials, control of inventory, monitoring of production processes and manufacture of high-quality products. Siemens conveyor belt scales combine simple installation and low maintenance costs (no moving parts) with high reproducibility for productive operation. With minimum hysteresis and high linearity, lateral forces have no influence on measuring accuracy. All load cells are protected against overload. Approvals for hazardous areas and trade requiring official calibration mean that the Siemens belt scales can be used in practically every industrial environment or application. In conjunction with a Milltronics BW500 transmitter or a SIWAREX WP241 or FTC weighing module, Siemens conveyor belt scales, with their tried-and-tested technology, enable reliable performance. Versions for high accuracy, light loads and high load rating are available.

- SIWAREX load cells and mounting units
- SIWAREX WT231 weighing electronics
- SIWAREX WP231 weighing electronics
- SIWAREX WP321 weighing electronics
- SIWAREX WP521 ST / WP522 ST weighing electronics
- SIWAREX WP351 weighing electronics
- SIWAREX CS weighing electronics
- SIWAREX U weighing electronics
- SIWAREX FTA weighing electronics
- Milltronics belt scales
- Belt speed sensors
- Milltronics BW500 and BW500/L transmitters
- SIWAREX WT241 weighing electronics
- SIWAREX WP241 weighing electronics
- SIWAREX FTC weighing electronics
Dosing
Successful, high-quality products require exact dosing of their components. Precise and reliable measuring devices meet these requirements.
With SIWAREX electronic weighing systems and load cells, you can achieve optimum results for the precise and fast control of coarse and fine flows as well as for filling and emptying. Because SIWAREX is very scalable and integrated in SIMATIC, single-component and multi-component systems can be automated easily with just one SIMATIC automatic station.

Filling and bagging
Filling, bagging and big bag systems are used in a wide variety of production processes. Filling of solid or liquid substances must be precise and fast. SIWAREX is an excellent choice here. These electronic weighing systems offer high resolution and high accuracy, as well as being legal-for-trade.
Furthermore, the seamless integration in the SIMATIC automation systems enables optimum communication of the weighing system with the automation environment.

Checking scales
The checking scale checks the correct weight of the package contents. In addition to the mechanical design, the electronic weighing system is of key importance for the functionality of the checking scale.
Modern SIWAREX electronic weighing systems provide high resolution and high precision. They can be configured for a wide variety of applications with checking scales. SIWAREX electronic systems enable seamless integration in the SIMATIC automation system. With SIWAREX electronic systems, complete control stations for controlling the checking scales, including image processing, proximity switches or motion control, can be formed easily based on the weighing module.
Solids flowmeters

Solids flowmeters optimize control of your process and ensure excellent product quality. The heavy-duty, low-maintenance Siemens solids flowmeters (with baffle plates) enable continuous throughput measurement of free-flowing bulk goods, powders or granules. The system is completed by a stand-alone SF500 transmitter or SIWAREX FTC weighing module for processing the sensor signals and calculating throughput capacity and total quantity.

All versions guarantee precise, reproducible results and can be used for difficult tasks, such as loading and mixing processes. Overload protection for the fuse is available as standard. All versions are constructed encapsulated and dust-proof from painted, mild steel. Versions in stainless steel and for installation in hazardous areas can also be provided.

Loss-in-weight scales

A loss-in-weight system contributes to fulfilling the accuracy requirements called for in continuous dosing processes. With the SIWAREX FTC weighing modules, it is easy to set and integrate the loss-in-weight scale. The auto-setup function facilitates commissioning of the scale. The module determines the most important parameters such as dosing performance and PID and stability parameters. During operation, the parameters are continuously optimized by SIWAREX FTC. SIWAREX FTC allows for high measurement resolution, real-time signal processing, recording and filtering of signals, and thus very high dosing accuracy. Via HMI, PC connection or the control system, the operator has the option to control the system manually.

Weighfeeders

A weighfeeder is a customer-specific belt conveyor that integrates a weighbridge and a speed sensor. The material flow is controlled by a servo-drive based on a setpoint specification made in the Milltronics BW500 transmitter or with a PLC via SIWAREX electronics. In this way, the weighfeeder supplies high accuracy in weighing and optimizes mixing, process sequences and balance calculations.

Weighfeeders are essential in automated production processes that require continuous weighing and dosing. Their practically maintenance-free design is a guarantee of high performance. The belt width and belt conveyor length are tailored to the requirements of the application.

- SITRANS WF100 solids flowmeters
- SITRANS WF200 solids flowmeters
- SITRANS WF300 solids flowmeters
- SITRANS WFS300 sensor heads
- Milltronics SF500 transmitters
- SIWAREX FTC weighing electronics
- SIWAREX load cells and mounting units
- SIWAREX FTC weighing electronics
- SITRANS weighfeeders
- Milltronics BW500 transmitters
- SIWAREX FTC weighing electronics
- SIWAREX WP241 weighing electronics