Integrated weighing technology for SIMATIC S7-1500
Scale meets SIMATIC Advanced Controllers

Ready for the new SIMATIC generation: The SIWAREX WP521 ST and WP522 ST are the first dedicated weighing modules for the SIMATIC S7-1500 Advanced Controllers. The two technology modules are the perfect solution for the seamless integration of standard weighing applications like platform or hopper scales in SIMATIC S7-1500. They offer numerous advantages:

**Versatile**

The technology module is available in single- and dual-channel variants. SIWAREX WP521 ST is the single-channel option for one scale while the dual-channel SIWAREX WP522 ST enables two separate scales to be integrated into the automation system – with same space requirements.

**Connectivity**

The seamless integration of the weighing electronics enables you to exploit all the benefits of the automation system. Fast, safe communications via the CPU system bus and the integrated hardware design are just two of these highlights. SIWAREX WP521 ST and WP522 ST are also easy to integrate in third-party systems. A variety of interfaces is available on board: Modbus TCP/IP (Ethernet), Modbus RTU (RS485), as well as four digital outputs and three digital inputs.

The factory provided shielding set guarantees an integrated, optimal wiring regarding immunity to interferences on the load cell cable.

**User-friendliness**

Thanks to the function block and the “Ready for use” example project, integrating the scales into the automation system is child’s play. Complete commissioning, parameter assignment and operator control of the scales are all possible from a central machine HMI. This enables the scale’s user interface to be adjusted to suit the machine interface, facilitating a uniform, system-wide operating concept.

The weighing modules are easy to configure, even without the need for SIMATIC expertise: With the SIWATOOL V7 PC software, it’s simple to access all parameters and functions.

SIWAREX WP521 ST and WP522 ST can also be put into operation and serviced remotely using SIWATOOL V7. On top the Ethernet interface enables problem-free integration into the plant network.

**Process quality and safety**

Impedance monitoring of the load cells as well as a range of hardware and diagnostic interrupts ensure enhanced plant availability and process safety.

With a measuring rate of 100/120 Hz and high resolution up to +/- four million parts, weighing is fast and highly accurate with the SIWAREX WP521 ST and WP522 ST.
SIWAREX WP521 ST / SIWAREX WP522 ST

Applications
Non-automatic scales, such as platform or hopper scales

Resolution
up to +/– 4 million parts

Measuring rate
100/120 Hz

Integration options
• SIMATIC S7-1500 (central or distributed with ET 200MP)
• Other systems via Modbus RTU (RS485) or Modbus TCP/IP (Ethernet)

Communication interfaces (on board)
• SIMATIC S7-1500 system bus
• RS485 (Modbus RTU, remote display)
• Ethernet (Modbus TCP/IP, SIWATOOL V7)

Inputs/outputs (on board)
• 3 digital inputs per channel (isolated)
• 4 digital outputs per channel (isolated, short-circuit proof)

Article No.
SIWAREX WP521 ST: 7MH4980-1AA01
SIWAREX WP522 ST: 7MH4980-2AA01

Communicative:
S7-1500 system bus, Modbus RTU, Modbus TCP/IP, 4 x DQ and 3 x DI per channel

User-friendly:
Quick commissioning via the machine HMI or SIWATOOL V7 PC software

Versatile:
Single- and dual-channel variants

Fast:
Fast measuring rate at high resolution

Preventive:
Continuous monitoring of the load cells impedance, hardware and diagnostic interrupts