

Intaking and Outloading Controller with Smart Memory



SWW2000 is a weighing controller for use with automatic totalizing hopper weighers like intaking and outloading scales. This instrument is designed to control and monitor all phases of bulk weighing process, in which free-flowing liquid or solid materials are transferred from a source to a destination. Accuracy and speed make it suitable for use in applications with hard requirements on throughput and precision.

Besides the base functions of an intaking and outloading scale the SWW2000 offers different data processing functions which can be used locally or over a serial communication.

The alphanumeric terminal AT25 allows comfortable dialog driven operation and parameterisation as well as convenient monitoring of process data.

- EC Type approval up to 6000 d
- 2 Filling speeds coarse, fine customizable via parameter and in-flight optimisation
- Silo / Material parameters 50 silos with assigned parameters selectable via inputs or dialog
- Customer file management for up to 200 clients
- SMART MEMORY approved alibi data storage
- Error and alarm handling zero, max. weight, tolerance, max fill time, lag of material
- Process IO 16 Output (24 VDC / 0.2 A), 16 Inputs (24 V)
- Communication parallel printer and two serial channels weighing logs, link to PC / PLC Profibus DP
- Alphanumeric operator panel operation and parameterizing in plain text 4 selectable dialog languages
- Dosing monitor fill data, status and error (user customisable)
- High stability and reliability SMD Technology

Technical Data of SWW 2000-M

Operational Modes

- Outloading
- Intaking

Features of the Weighing Electronics

- EC approved up to 6000 d
- Multi-range or multi-interval up to 2 * 3000 d
- 20 bits analog / digital converter with fast conversion rate (50 Hz)
- Input signal range 1 to 31 mVDC
- Input sensitivity 1µV/digit
- Digital calibration and parameter set-up per interactive dialogs for weighing ranges of 1 kg to 990 000 kg and divisions of 100 d to 99 000 d
- Application of the newest measurement and signal processing technology
- Selectable three-stage digital filter for the effective suppression of scale vibrations
- Load cell supply 10 VDC or 15 VDC
- Connection of up to 6/350 (8/450) ohms load cells
- Real time multitasking operating system
- Real-time clock
- Battery backed memory

Filling Functions

- 2 Fill speeds (coarse, fine)
- Cut-off accuracy better than 2 ms
- In-flight compensation of fine cut-off (self-optimising proportional control)
- Filling and discharge with reference weighing
- Lock times for coarse and fine feed programmable
- Automatic partitioning of the total weight in fillings of equal size or maximum hopper
- Filling with coarse/fine or just with coarse
The two last fillings of an outloading may either work with fine or with coarse/fine
- Discharge via empty threshold
- Tolerance evaluation for the total bulk-weight after the last filling, 3 tolerance outputs for signaling the result
- Programmable throughput in kg/h
inserts delays after each filling to achieve target
- Clear conveyor route function, with output pre-signal for premature shut-down of feed gates
- Two additional set points (without compensation)
- Parameters for max. 50 silos or materials

Data Processing

- Operating and parametrizing in plain text
4 languages
- Parameter file for 50 Silos
- Customer file (max. 200 clients)
- Text parameters for material name and printout
- Total sum (max. 999 999 999kg)
- Alibi data storage **SMART MEMORY** (approved)
- Automatic printouts (single weight or sum)
- Balance for up to 50 silos
- Monitoring functions and error detection

Interface

- Process IO / 16 in- and 16 outputs (24 V / 0.1 A)
- Parallel printer (EPSON-compatible)
or optional serial printer

Options

- 2 serial channels
for weight, remote display, serial printer or computer (RS422, RS485, RS232 or 20mA)
- Various protocols for serial communication:
 - simple point-to-point protocol (ASCII)
 - Point-to-point protocol process-compatible with 3964R and RK512
 - simple multi-drop protocol (Bus, ASCII)
 - 4-wire-measurement-bus (DIN 66348-2)
- Option Profibus DP
- Analog output 4 to 20 mA.
- Additional display i.e. Mini-terminal MT25 or LED large display via serial channel

Operator Panel AT25

- 13 mm digits, 7 digits (bright green VFD)
- Alphanumeric LCD, 4 lines
- Alphanumeric membrane keypad
- Function keys, status indicators

Supply Voltage

- 24 VDC nominal voltage (18 to 32 VDC) or.
- 18 VAC nominal voltage (13 to 23 VAC) or
- 230 VAC via plug power supply (SELV)
- PWR consumption approx. 7 VA

Dimensions/Weight (approx.)

- SWW 2000-M (Black Box)
LxWxD = 280 x 230 x 70 mm
Weight = approx. 2,0 kg
Protection IP20
- Terminal AT25:
LxW = 205 x 160 mm (or 130 mm for 3HU)
Weight = approx. 0,7 kg
Protection IP65 (Front)

ISO 9001 Quality Certificate CE