

Compact Automatic Scale Controller



The bagging and filling scale controller **SWA 2000-C** is designed for fast, accurate and reproducible filling of free flowing solid and liquid products.

- EC Type approval
 - Configurable weighing range
 - 3 Operation modes
 - Weight/Material type pre-selection
 - Configurable regulator functions
 - Alphanumeric operator panel
 - Monitoring
 - Build-in statistic functions
 - Process IO
 - PICONROL
 - Communication
 - Fast installation
 - High stability and reliability
- up to 6000 d
 - multi-range or multi-interval scale
 - filling, palleting, intake/outloading operation
 - 32 sets of fill parameters, selectable via inputs or dialog
 - mass flow dependent coarse/fine correction,
 - free fall correction (statistic / classic),
 - batching time regulator
 - operation and parameterizing in plain text
 - 4 languages
 - status, parameters, errors and statistic data
 - automatic check weighing, statistics for quality
 - and performance evaluation
 - 16 outputs (24VDC/0.2A), 16 inputs (24VDC)
 - build-in PLC function
 - serial interface
 - for printer, computer link, remote terminal
 - Profibus DP
 - compact size, DIN-rail mounting, screw terminal wiring
 - SMD-Technology

Technical Data SWA2000 C

Operating Modes

- Filling operation
- Palleting, Filling with number of bags pre-selection
- Loading, Filling with total weight pre-selection

Features of the Weighing Electronics

- **EC approved up to 6000 d**
- Multi-range or multi-interval
- 24 bits analog / digital converter with fast conversion rate (50 Hz)
- Input signal range 1 to 31 mVDC
- Input sensitivity 1µV/digit (approved)
- Load cell supply 10 VDC
- Connection of up to 6/350 (or 8/450)ohms load cells
- Digital calibration and parameter set-up per interactive dialog for weighing ranges of 1 kg to 990 000 kg and divisions of 100d 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
- Real time multitasking operating system
- FLASH memory for all Parameters

Filling Functions

- 2 Fill speeds (coarse, fine)
- Switch-off accuracy better than 2 ms
- Automatic zeroing or taring with variable cycle
- Automatic optimization of set points for precise and fast filling
- 3 Self-adapting controllers to handle even complex product requirements
- Mass flow dependent free-fall time correction (filling accuracy independent from material density)
- Free-fall mass correction
- Filling time control for constant fine time
- Combination and disabling of the methods above
- 32 Sets of filling parameters for weight or product type, selectable via. input or keypad
- Copying function for parameter sets simplify operation
- Locking times for coarse and fine transition
- Disabling of set point comparator
- Discharge via empty signal (weight) or discharge time
- 2 free usable set points
- Pulse dosing if tolerance negative
- Refill/Complete function for pre-filled units
- Manual or automatical storing of the calculated free-fall and coarse/fine set points
- Delay times for taring and no motion detection

Checking Functions

- Automatic check weighing with tolerance evaluation
- Minimum and maximum fill weight limits
- Check for maximum filling time
- Filling detector for detecting material breaks and/or bag rupture
- Signalizing system for process errors
- Check weighing and zero cycles adjustable, to optimize performance

Data Processing Functions

- Diagnostic data output for service support
- Protocols for check weighing, batch, start and end
- Statistics with average, min., max. mean square, tolerance and total weight
- Total memory of all weighings and for each sort (target weights or actual weights)
- Printout of all parameters
- 4 languages (dialog selectable)

Inputs and Outputs for peripheral units

- Parallel IO for control signals, 16 inputs and 16 outputs (24 V level)
- Build-in PLC function
- 1 serial channel (RS485) for serial printer or communication or Profibus DP
- Various protocols for serial communication:
 - simple point-to-point protocol (ASCII)
 - Point-to-point protocol compatible with 3964R and RK512
 - simple multi-drop protocol (ASCII)
 - 4-wire-measurement-bus (DIN 66348-2)

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
consumption 7 W typical

Dimensions / Weight

- SWA 2000-C
LxWxD = 220 x 135 x 46 mm
Weight: 0,7 Kg
Protection: IP20
- Terminal AT25:
LxWxD = 205 x 160 mm (or 130 mm for 3HU) x 46 mm
Weight: 0,7 Kg
Protection: IP65 (front side)

ISO 9001

Quality Certificate CE