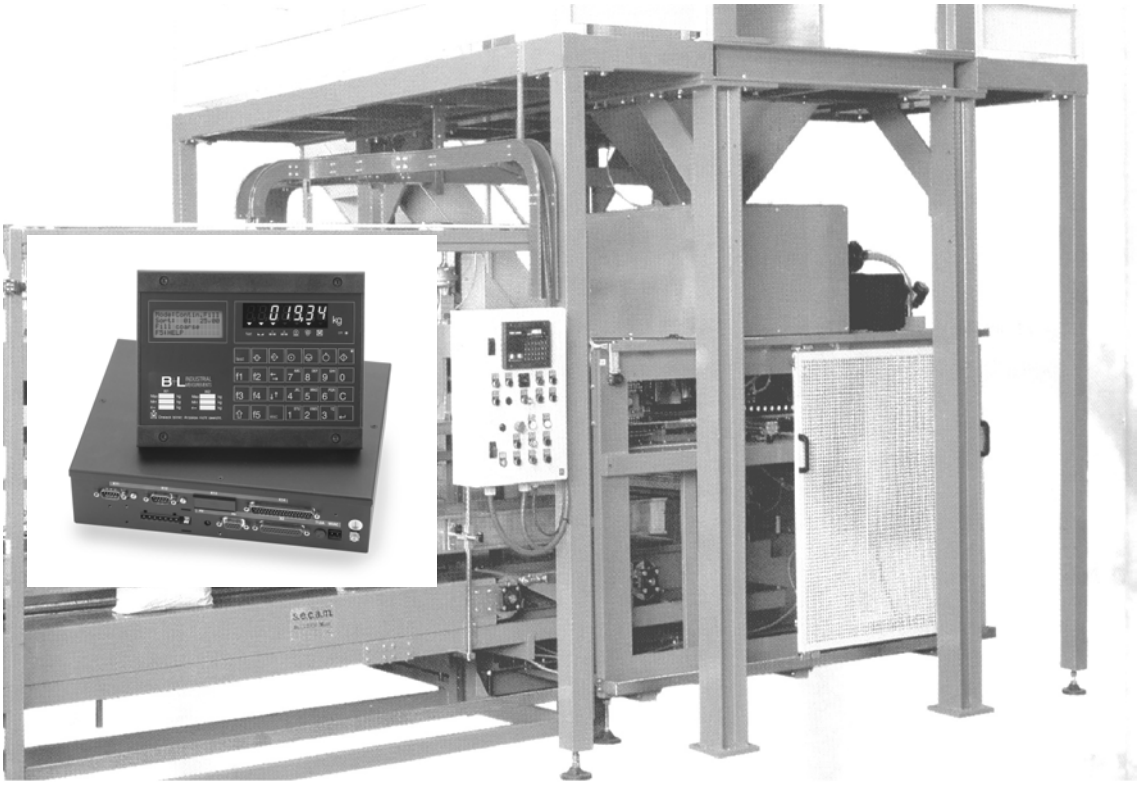
SWA 2000-M

B+L INDUSTRIAL MEASUREMENTS

Automatic Scale Controller

SWA 2000-M with *Multi-Range*



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

• EC Type approval and OMIL R61	up to 6000 d
• Configurable weighing range	multi-range or multi-interval scale
• 3 Operation modes	filling, palleting, intake/outloading operation
• Weight/Material type pre-selection	32 sets of fill parameters selectable via inputs or dialog
• Configurable regulator functions	mass flow dependent coarse/fine correction, free fall correction (statistic / classic), batching time regulator
• Alphanumeric operator panel	operation and parameterizing in plain text 4 languages
• Monitoring	status, parameters, errors and statistic data
• Build-in statistic functions	automatic check weighing, statistics for quality and performance evaluation
• Process IO	16 outputs (24 VDC/0.1 A), 16 inputs (24 VDC)
• Communication	2 serial channels and parallel printer interface Profibus DP
• High stability and reliability	SMD-Technology

Technical data of SWA 2000-M

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
- 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
- Switch-off accuracy better than 2 ms
- 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)
- 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 off the methods above
- 32 Sets of filling parameters for weight or product type, selectable via dig. input or keypad
- Copy function for the product type parameters and tolerances
- 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
- Fill completion 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

ISO 9001 **Quality Certificate CE**

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

- 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)
- Max. 2 serial channels for weight, remote display, serial printer or computer (RS422, RS485, RS232 or CL20 mA).
- 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 (ASCII)
  - 4-wire-measurement-bus (DIN 66348-2)
- Option: Profibus DP
- Different printers (EPSON-compatible) parallel or serial
- Analog output 4 to 20 mA
- Second display ie. 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

SWA 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. 1,1 kg

Protection IP65 (Front)

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