

# CONTINUOUS SCALES

PRODUCT NUMBERS 9700, 9701, 9705 AND 9750

System solutions: continuous weighing and volume measurement



- › Modular system components
- › Flexible integration capability
- › Calibratable according to OIML R 51 and R 129
- › High belt speeds
- › 5 application programs

## Continuous weighing

Soehnle Professional has continued its development in proven industrial weighing technology for the special requirements of continuous weighing. The range on offer starts with the supply of scale components and extends through to complete solutions comprising metrological systems, materials handling, control and volume measuring systems. Your advantage: all you need, from a single source.

### Cost-saving potential for your company

The usual sequence of weighing products statistically is not rational if large volumes of products need to be weighed within the material flow in incoming goods, the production process or in shipment. If materials handling systems are used, stopping the weighing product on the scale is time-consuming, labour-intensive and therefore cost-intensive. Work flow is much more efficient if the product is weighed in a dynamic state, i.e.

- › Weighing without line stoppage
- › Conveyor, control and weighing systems, all from a single source
- › Flexible integration capability and network interfacing via different bus ports and serial I/O ports
- › Can be integrated into existing production lines and conveyor systems
- › High belt speeds up to 2m/sec.
- › Weighing ranges: 3 to 3000kg

- › Min. reading 1g
- › Max. resolution: 3200 calibratable divisions of weighing resolution
- › Approved for use as automatic scale according to SWE, SKW and OIML Directive R 51
- › Measurement of freight units using volumetric measurement

### A worthwhile investment

- › A key requirement for the success of a system is its cost-effectiveness. Due to the many options for rationalisation, continuous scales are amortised within a short period of time. Our project engineers will carefully analyse your requirements and indicate what your potential savings could be.

### A variety of possible solutions can be implemented

- › 100% monitoring for injection moulding processes, assembly and packing processes
- › Monitoring for completeness of packages and pallets in order storage and retrieval and shipping processes
- › Calculation of freight costs in logistics
- › Volume and weight measurement for cargo and freight

## Standard modules



Product Number 9705.00.001



Product Number 9701.00.001



Product Number 9700.00.001

## Ordering information

| Order Numbers | Weighing Range | Resolution | Dimensions        | Travel Velocity | Design  |
|---------------|----------------|------------|-------------------|-----------------|---------|
|               | kg             | g          | mm                | at 50 Hz        |         |
| 9705.00.001   | 1500           | 500        | 1800 x 900 x 400  | 0.2m/s          | painted |
| 9701.00.001   | 60             | 50         | 1600 x 1000 x 800 | 0.2m/s to 2m/s  | painted |
| 9700.00.001   | 30             | 10         | 800 x 500 x 800   | 0.2m/s to 2m/s  | painted |

## Volume measurement system 9750

Active optical laser system for two-dimensional scanning and automatic detection of object volumes in incoming goods, production process, order picking and shipment areas in accordance with OIML R129.

- › The Soehnle Professional volume measurement system 9750 works on the principle of phase delay measurement. A laser beam scans the object to be measured, and the data is recorded in the receiver. A three-dimensional image of the object is calculated in real time using the data points measured at specific distances and the transport velocity. The software determines from this the following volumetric information: length, width and height.
- › The reading system, comprising evaluator, incremental encoder and data concentrator to combine weighing, volume and detection data, completes the measuring system.

### Features

- › Applications: volume measurement, object identification
- › Laser Safety Class 2
- › Power supply: 24V DC  $\pm$  15%, max. 90W
- › Data I/O port: RS 232, RS 422 (adjustable) Ethernet port
- › Temperature range: 0°C to 40°C
- › Minimum object size: lxwxh 50 x 50 x 50mm, in any form
- › Object size / pitch:
  - Length: 50-2000mm/5mm
  - Width: 50-1000mm/5mm
  - Height: 50-1600mm/5mm
- › Scope of delivery: optical laser system, evaluation electronics, data concentrator and software
- › Speed: 0.5m/s to 2.0m/s

## Data concentrator with interface software

- › The data concentrator with interface software can be integrated into an existing volume measurement system. The dimension and weight information generated from the measuring process and the barcode encoded in the packet label are transferred to the concentrator via the RS 232 and RS 422 ports.
- › The concentrator collects, processes and transfers the information sent from the measurement system to the host system.

- › For identification purposes, a barcode must be clearly marked on the packages. The system has two alternative sources to recognise the barcode: an omniportal reader (OPS) or a manual scanner.

## Alibi software 2564

- › The calibratable Soehnle Professional alibi software saves the measurement data acquired by a scale or a dimension measurement system. Data is transferred either via a serial port (RS 232, RS 422, RS 485 etc.) or a network port (TCP/IP).

- › Stored data can be identified with a serial number, date/time or barcode. The Soehnle Professional Alibi software comes with a PTB inspection certificate. The software complies with all applicable European standards and the WELMEC Directive. System requirements: CE-approved PC, Microsoft Windows (32-bit).

## Case study

### The task in hand

- › Let's assume that a forwarding agency needs to check the weight and volume data on the delivery notes at the incoming goods department of their customer. The check must be made automatically and without additional work input.
- › The weight and volume measurements must be integrated into an existing sub-floor conveyor system. The system operating cycle may not be interrupted, i.e. the weighing and measuring operations must be continuous. A digital image must also be taken of each transported product at the central information point (recognition and identification of transported goods). The acquired data was to be transferred online to the existing warehouse management system.

### The solution

- › A continuous weighing system by Soehnle Professional combined with a volume measurement system
- › The freight is identified automatically by way of a transponder (RFID).
- › Scope of delivery: a complete solution comprising weighing system, materials handling system, control system and volume measurement system through to system adaptation.
- › Investment volume: 38,000

### Implementation

- › The assumption that the data in the freight documentation was incorrect was quickly revealed. At the beginning, the difference in data was so great that a value of 15,000 a week was discovered.
- › After negotiations with the customer, the potential savings came to an average of 600 per day. This means that the system refinanced itself after only 13 weeks.
- › The reason for the data difference was that the product master data was incorrect at the forwarding agency's customer. Generally speaking, master data is entered once only (usually it is estimated) and is thereafter not updated.
- › Most customers do not weigh or carry out a volume measurement before shipment; the values are calculated using the master data from the IT system.
- › Data recording only serves as a comparison check and not for invoicing so that this system need not be calibrated.

## 5 Application programs

### 1. Continuous weighing

- › For weight measurement only

### 2. Totalising continuous weighing

- › Totalising of weights in a total memory
- › Weight acquisition with totalising function

### 3. Checking

- › OK/not OK checking
- › Comparison of measured weight with setpoint weight

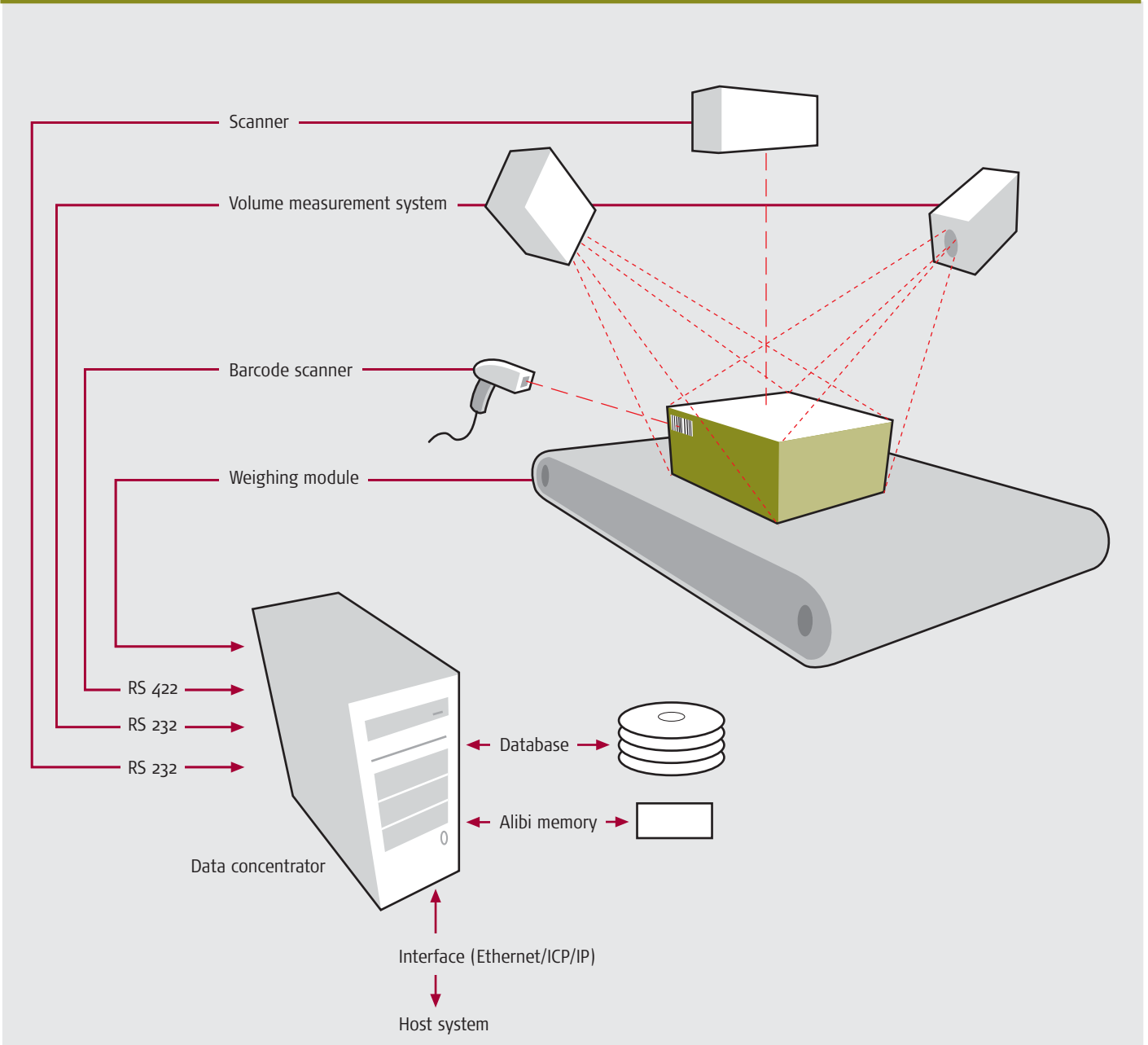
### 4. Classifying

- › Classification into 5 weight classes
- › Totalising weighing products allocated to the same class

### 5. Set-up program

- › Easy installation
- › Test mode

## Schematic diagram of continuous weighing, volume measurement and data concentration system



## We will be pleased to offer you a quotation based on your requirements

Simply download our specifications questionnaire from <http://www.soehnle-professional.com>. Please provide the information we require to prepare your quotation. Print your questionnaire and send it by fax or letter to the address below.

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