GENERAL DESCRIPTION
The WS 30 kg B L weigh system, in conjunction with a weighing electronics unit, type EWK 3006, EWK 3010 or EWK 3015 TS, forms a high-performance checkweigher for weighing or checking the completeness of boxes, cartons, bags, cans, cups, etc.
The weigh system has a working range of 0 ... 27 kg.
The checkweigher is cleared and approved for legal-for-trade EU prepacked-goods checking applications in all European countries. Conformity-certified as automatic checkweigher in accordance with OIML R51.
The product to be checked arrives at the weigh system via an owner-supplied infeed conveyor.
Small-diameter idler rollers ensure a smooth transfer from belt to belt.
During transportation of the material across the weigh system, the measuring signal is produced and evaluated.
The owner-supplied discharge belt carries off the checked product for further handling or rejection / sorting.

The weighing electronics unit (see corresponding data sheets) enables classification of the checked product and control of the ejecting / sorting and/or signaling devices.
Various sorting and/or ejecting devices (air blast nozzles, pushers, diverters) can be installed as required on the owner-supplied discharge conveyor downstream of the checkweigher.
Depending on the product, it is possible to use separate ejection / sorting belts or line dividers.

LAYOUT OF WEIGH SYSTEM
The weigh system essentially consists of the following sub-units:
- weigher stand
- measuring system
- transport system
- scanning unit
- control cabinet with weighing electronics unit (separate installation)
- rejection / sorting device (optional)
WEIGH SYSTEM  WS 30 kg B L
with  Weighing Electronics Unit  EWK 3006 / 3010 / 3015 TS

WEIGHER STAND
Sturdy, distortion-resistant, welded base frame made of hollow stainless-steel sections, with adjustable feet to adjust the transport level of the checkweigher to the owner-supplied infeed and discharge equipment.

MEASURING SYSTEM
The weigher stand carries the measuring system, which comprises a SARTORIUS weighbridge and a weighbridge interface.
The measuring system works according to the electromagnetic balancing-of-forces principle.

TRANSPORT SYSTEM
The product to be weighed is conveyed on a conveyor belt.
- Weigh belt
  The weigh belt consists of a distortion-resistant structure (material: aluminum alloy) with an ultraprecision sliding face.
  Tensioning and drive pulleys: Ø 60 mm, with outboard bearings; roller shells: steel
- Drive
  The weigh belt is driven by a three-phase a.c. back-geared motor (type of enclosure: IP 54, standard).
  TP 56 and IP 65 types of enclosure are available as functional expansions.
  Power transmission is effected with synchronous belts.

SCANNING UNIT "WEIGHER"
The scanning unit comprises a reflex light barrier (pulsed, with LED received-signal indicator).

SCANNING UNIT "SPACING MONITOR" (functional expansion)
This scanning unit also comprises a reflex light barrier (pulsed, with LED received-signal indicator).

CONTROL CABINET WITH WEIGHING ELECTRONICS UNIT
The control cabinet, complete with weighing electronics unit, is installed separate from the weigh system.
The control cabinet, which is accessible from the rear, contains terminals for the power supply to the weighing electronics unit and the drive motor.
The main switch is located on the side of the control cabinet.
The EWK 3006, EWK 3010 and EWK 3015 TS weighing electronics units are available in different scopes of supply (see corresponding data sheets).
If the weigh system includes belt control, the emergency-OFF and ON/OFF switches are situated on the front panel of the weighing electronics unit.

REJECTING AND SORTING MECHANISM (functional expansion)
The following rejecting and sorting devices are available on special order:
  - pneumatic ejectors (pusher),
  - belt-driven diverters,
  - reject flaps,
  - tilting conveyors.
The choice of sorting / reject device depends on the product and the throughput rate.
**TECHNICAL DATA**

Weighing range 0 ... 30 kg (maximum load), working range 60 g ... 27 000 g, smallest permissible verification interval 5 g.

Zone of indecision < 2 g, standard deviation attributable to error of measurement (s) 0.33 g (depending on product, throughput rate and ambient conditions)

Throughput max. 100 pc/min (depending on product, permissible zone of indecision and ambient conditions)

Transport speed fixed velocity (v) of 0.21 ... 1.50 m/s, in selectable stages - cf. Table - (depending on length of package and weighings per unit of time)

| Selectable fixed velocity, v (m/s) - three-phase motor (Standard) |
|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| 0.21              | 0.25              | 0.31              | 0.37              | 0.42              | 0.49              |
| 0.56              | 0.61              | 0.69              | 0.74              | 0.84              | 0.95              |
| 1.10              | 1.15              | 1.24              | 1.40              | 1.50              |

Three-phase back-geared motor 3 x 230/400 VAC (+ 10% / - 15%); 50 Hz (standard), 60 Hz (functional expansion); power output: 0.37 kW (standard); type of enclosure: IP 54 (standard), IP 56 / IP 65 (functional expansion).

Motor connection via terminals in the control cabinet, owner-supplied motor protection and controls.

**Functional expansion:**

fixed-velocity belt control comprising motor protection, emergency-OFF and ON/OFF buttons.

variable-speed belt control motor control via frequency converter, emergency-OFF and ON/OFF buttons; selectable range: 0.13 – 0.49 m/s; 0.25 – 0.98 m/s; 0.38 – 1.52 m/s.

Control cabinet with weighing electronics unit The control cabinet, including weighing electronics unit, is installed separate from the weigh system, weighing electronics unit on a mounting bracket (functional expansion). Cable length: 5 m (standard); max. cable length: 15 m; please note length of cable upon ordering.

Power supply 230 VAC (+ 10% / - 15%); 50/60 Hz (L1, N, PE); power output, including weighing electronics unit and frequency converter (if applicable): max. 600 VA

Direction of transport from left to right or from right to left (please indicate on ordering)

Table length 660 mm or 860 mm, please note required length of table on order

Center distance 600 mm (table length: 660 mm) or 800 mm (table length: 860 mm)
<table>
<thead>
<tr>
<th>Specification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belt width</td>
<td>400 mm (table length: 660 mm) or 600 mm (table length: 860 mm)</td>
</tr>
<tr>
<td>Working height</td>
<td>selectable between 500 mm ... 649 mm, leg adjusting range: ± 25 mm; Please note desired working height on order. Working heights &gt; 649 mm: cf. “Weigh System WS 30 kg B”.</td>
</tr>
<tr>
<td>Floor clearance</td>
<td>95 mm (± 25 mm)</td>
</tr>
<tr>
<td>Temperature range</td>
<td>0° C ... + 40° C</td>
</tr>
<tr>
<td>Surface protection</td>
<td>Weighing electronics unit housing, weigher base frame, control cabinet; stainless steel 1.4301, conveyor frame: fine-finish aluminum rollers: stainless steel 1.4301 (funct. expansion)</td>
</tr>
<tr>
<td>Type of protection</td>
<td>IP 54 (standard), IP 65 (functional expansion)</td>
</tr>
<tr>
<td>Machine safety</td>
<td>Implemented in accordance with the stipulations of the EU Machinery Directive 89/392/EEC and the Producer Declaration as per Appendix II B.</td>
</tr>
<tr>
<td>Dimensions</td>
<td>cf. dimensional drawing</td>
</tr>
<tr>
<td>Weight</td>
<td>approx. 260 ... 280 kg, depending on configuration (including control cabinet with weighing electronics unit)</td>
</tr>
</tbody>
</table>
WEIGH SYSTEM WS 30 kg B L with Weighing Electronics Unit EWK 3006 / 3010 / 3015 TS

DIMENSIONAL DRAWING
Direction of travel: from right to left

<table>
<thead>
<tr>
<th></th>
<th>AA</th>
<th>TL</th>
<th>BB</th>
<th>XB</th>
<th>X1</th>
<th>X2</th>
</tr>
</thead>
<tbody>
<tr>
<td>600</td>
<td>660</td>
<td>400</td>
<td>524</td>
<td>845</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>800</td>
<td>860</td>
<td>600</td>
<td>724</td>
<td>945</td>
<td>154</td>
<td></td>
</tr>
</tbody>
</table>
WEIGH SYSTEM WS 30 kg B L
with Weighing Electronics Unit EWK 3006 / 3010 / 3015 TS

DIMENSIONAL DRAWING

Control cabinet with weighing electronics unit

Weighing electronics unit on mounting bracket ★ (functional expansion)