

Heavy load checkweigher EWK WS 30/60 kg B/BL

Precise in-line weighing in the high-load range



! Advantages

- Designed for heavy weights
- Blue HMI for maximum efficiency in production
- Easy integration in existing production lines
- Safety and reliability thanks to EMFR weigh cell technology

The heavy load checkweigher EWK WS 30/60 kg enables 100% and highly accurate completeness and weight control up to 60 kg. The new Blue HMI user interface increases efficiency, transparency and safety in production. All models and variants are optionally MID-approved and monitor verifiable in accordance with common packaging regulations.

Checkweigher EWK WS delivers precise results on heavy goods

- ① The new Blue HMI of Minebea Intec gives fast and valid insights into production and can improve efficiency of the line.
- ① With its large weighing ranges the EWK is fitting your application perfectly.
- ① Broad connectivity, e.g. OPC-UA, for integration into your processes and SPC@Enterprise Software.
- ① EMFR weighing technology is providing high precise results up to 60 kg.

A new checkweigher with Blue HMI



Operating a checkweigher can be so simple

Whether you're introducing a new product, fine-tuning line parameters or establishing a batch protocol, the user interface of the new checkweigher is designed to be fast and easy. Bid farewell to time-consuming tasks and extensive staff training. Say hello to streamlined control with the new Minebea Intec Blue HMI by your side.



Makes your production more safe and efficient

Positioned at the end of the production line a checkweigher can narrate the story of your production. The Blue HMI displays your equipment's efficiency and other statistics based on your recent weighing results. It assists you through audits with several onboard protocol functions. We aim for you to be fully prepared and compliant at every step of the way.



Keep an eye on your weight

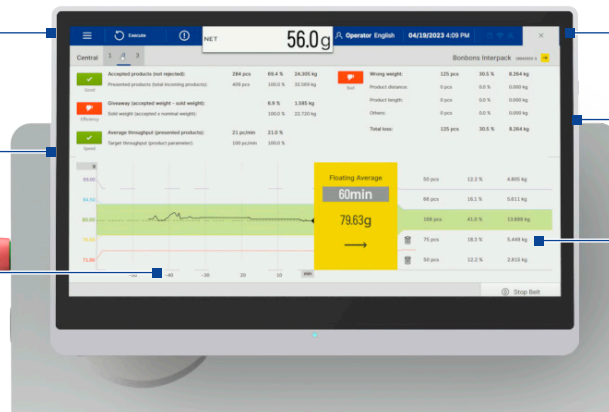
Blue HMI is a web-based cross-platform user interface with multi-user security. With this you are able to see everything your checkweigher does from authorized users within your network while your data is stored locally and securely on the checkweigher.

You can sit down and browse comfortably through configurations, weighing statistics or efficiency protocols. Moreover, you may connect to Minebea Intec's SPC@Enterprise, OPC UA clients, ProfiNET or Ethernet/IP gateways.

Flat stainless steel housing

High performance BOX PC

Full HD 15" Touch-Display



Optional tiltable screen

Flexible interfaces prepared for the future

Proven weighing technology

The new interface of Minebea Intec

As a global leading weighing supplier, we strive to offer reliable and flexible solutions for your production needs. However, flexibility in technical machinery often brings complexity.

Blue HMI serves as a cross-platform Human Machine Interface for all future products of Minebea Intec. Once started to use it, your daily work becomes easier.

Technical data – EWK WS 30/60 kg B/BL

| Parameter | EWK WS 30 kg | | | | EWK WS 60 kg | |
|--|--|-----|-------|-------|--|-------|
| Gross weighing range [kg] | Up to 30 | | | | Up to 60 | |
| Smallest permissible calibration value [g] | 5 (10) ¹ | | | | 10 (20) ¹ | |
| Standard deviation attributable to measurement error (σ) (Depends on product, throughput and ambient conditions) | From 0.5 | | | | From 1.5 | |
| Max. throughput ² [item/min] | 100 | | | | 80 | |
| Fixed speeds [m/s] | 3x 380 V / 400 V / 415 V; 50 Hz 0,11; 0,14; 0,21; 0,23; 0,27; 0,29; 0,34; 0,39; 0,45; 0,53; 0,61; 0,66; 0,75; 0,80; 1,03 | | | | 3x 440 V / 460 V / 480 V; 60 Hz On Request (ETO) | |
| | | | | | 3x 380 V / 400 V / 415 V; 50 Hz 0,19; 0,22; 0,24; 0,26; 0,28; 0,30; 0,32; 0,34; 0,37; 0,40; 0,42; 0,45; 0,49; 0,53; 0,57; 0,61; 0,66; 0,71; 0,76; 0,82; 0,89; 0,96; 1,00; 1,08; 1,17; 1,26; 1,35; 1,48; 1,60 | |
| | | | | | 3x 440 V / 460 V / 480 V; 60 Hz 0,23; 0,29; 0,33; 0,36; 0,41; 0,45; 0,48; 0,51; 0,55; 0,59; 0,64; 0,69; 0,74; 0,79; 0,85; 0,91; 0,98; 1,07; 1,15; 1,20; 1,29; 1,41; 1,51; 1,62; 1,78; 1,92; | |
| Speed ranges [m/s] with frequency converter Higher speeds on request. MID verifiable systems up to 3 m/s. | 3x 230 V; 50 V 0,12...0,49 0,24...0,98 0,38...1,52 0,7...2,89 | | | | 3x 230 V; 50 Hz 0,13...0,46 0,23...0,91 0,44...1,72 0,7...2,93 | |
| Centre-to-centre distance of weighing belt B [mm] | 600 | 800 | 1,000 | 1225 | 1,030 | 1,230 |
| Platform length A [mm] | 660 | 860 | 1,060 | 1,285 | 1,100 | 1,300 |
| Belt width E [mm] | 400 | 600 | 500 | 500 | 700 | 700 |
| Belt roller diameter F [mm] | 60 | 60 | 60 | 60 | 70 | 70 |
| Floor clearance [mm] | 95 (±25) for BL and 125 (±25) for B | | | | 95 (±25) for BL and 125 (±25) for B | |
| Transport medium | Belt | | | | Belt | |
| Drives | 3 × 230/400 V _{AC} (+10% / -15%); 50 Hz (default), 60 Hz (optional); power output: 0.75 kW (default) | | | | | |
| Connected voltage | 230 V _{AC} (+10% / -15%); 50/60 Hz (L1, N, PE) | | | | | |
| Power consumption | Approx. 1,700 V _A | | | | Approx. 1,700 V _A | |
| Feed direction | Right to left or left to right (please indicate when ordering) | | | | | |
| Working height (depends on design) | Max. 535 mm to 1,040 mm Leg adjustment range: ±25 mm | | | | 500 mm to 1,000 mm Leg adjustment range: ±25 mm | |
| Permissible temperature range | +5 °C to +40 °C; for the product: -30 °C to +80 °C | | | | | |
| Cable length | 5 m (default), max. 15 m (please indicate when ordering) | | | | | |
| Protection class | IP54 (default), IP65 (optional) | | | | | |
| Dimensions | See technical diagrams, depends on application | | | | | |
| Weight | Approx. 260 – 350 kg | | | | Approx. 300 – 350 kg | |
| Airbone noise emitted | A-weighted sound pressure level emitted < 70 dB(A) | | | | | |
| Inputs | 14/22 (optional) digital inputs, 24 V Inputs galvanically isolated via relay or optocoupler depending on use | | | | | |
| Outputs | 12/28 (optional) digital outputs, 24V 2/6 analogue outputs 0 – 20 mA , 0 – 10 V Voltage output: load impedance ≥ 2 kΩ Current output: load impedance ≤ 300 Ω Outputs galvanically isolated via relay or optocoupler depending on use | | | | | |

¹for v>2.0 m/s ²depends on product, permissible imprecision and ambient conditions

Technical specifications – EWK WS 30/60 kg B/BL

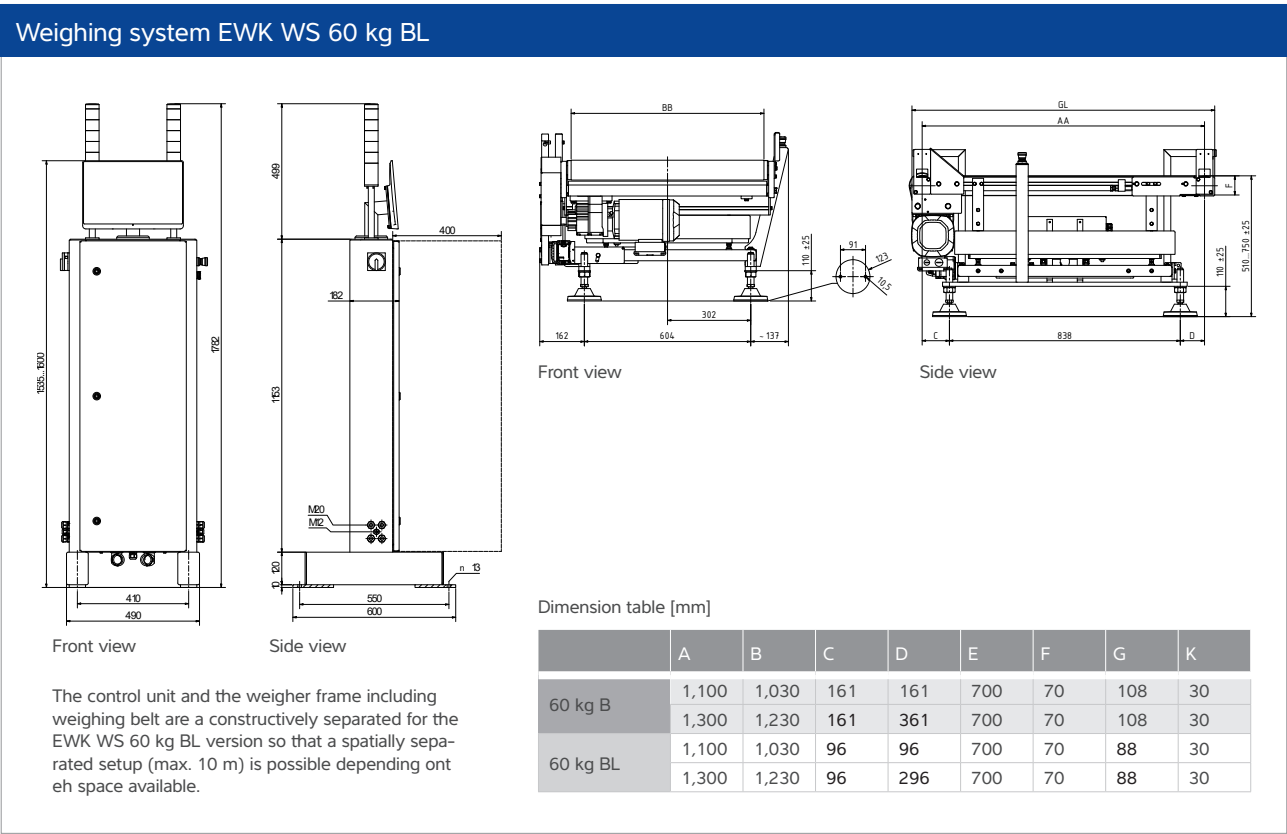
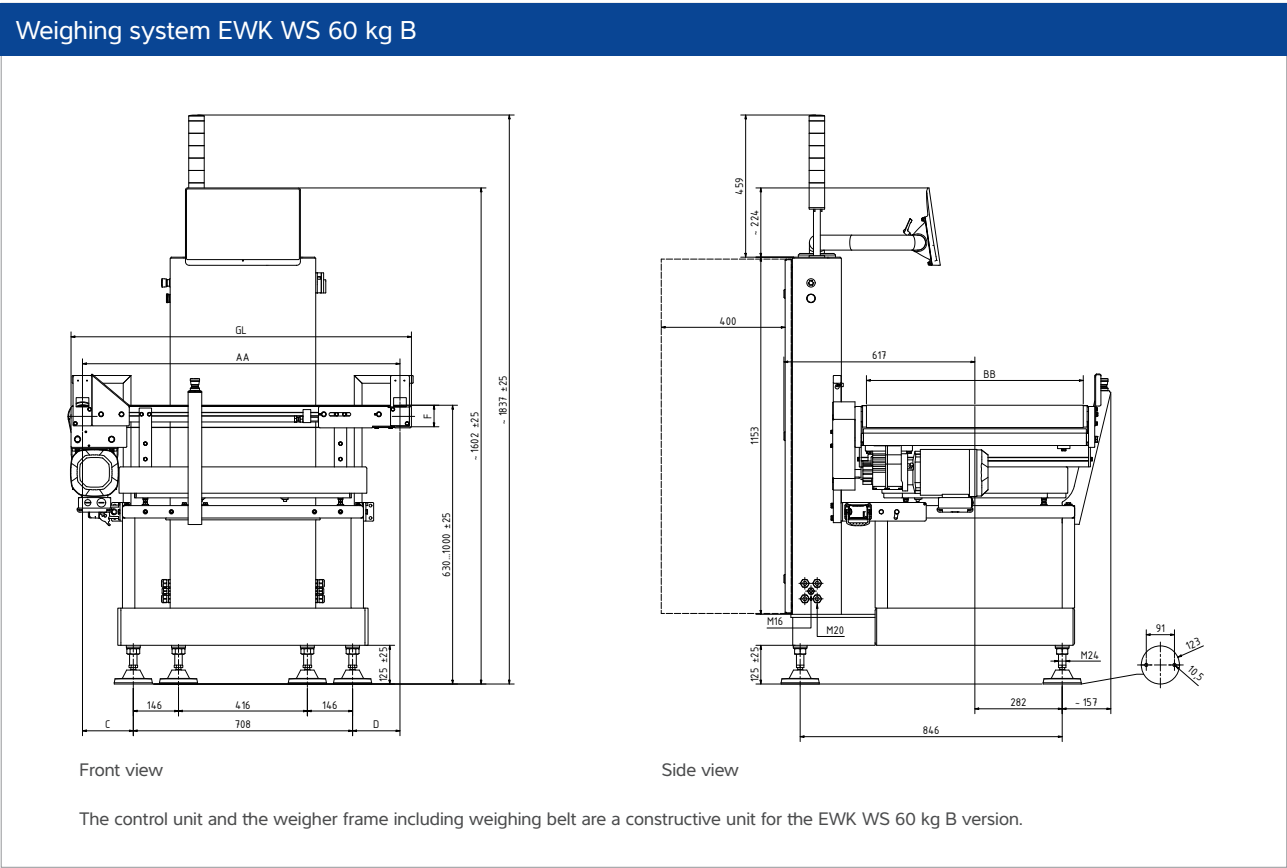
Create your individual EWK WS 30/60 kg B/BL from a wide range of options and function enhancements.
We'd be happy to advise you!

| EWK WS 30/60 kg B/BL – standard | |
|---------------------------------|--|
| Dialogue PC | Full HD 15" Touch-Display |
| Operational display | Choice of distribution, yield, throughput, average value chart, large weight readout, tare weight |
| Operating modes | AWC weigher |
| | Classifying weigher, freely selectable classification limits, x 3/5 sorting |
| Digital input | Control package, external event or ignore checkweigher, event counter, external fault reset |
| Digital output | Feeder/batch, 3-way/5-way sorting, total counter, error message output, time-unit-controlled sorting |
| Separation system | Belt stop |

| EWK WS 30/60 kg B/BL – optional for increased requirements | | |
|--|---|--|
| Connectivity | Fieldbus | Profibus-DP, ProfiNET, Ethernet/IP |
| | Factory bus TCP/IP, Ethernet | SPC@Enterprise, OPC UA, PackML via OPC UA |
| | Individual weight value output for external evaluation and connection to customer systems | Serial interface RS 422, RS 232 or current loop (20 mA) |
| | All interfaces specified here are free from feedback and do not need to be secured | |
| | Browser remote view | Read-only access to the checkweigher conveniently via the company network |
| | USB print | Created reports can be downloaded on a USB device |
| | FTP export | Created reports are uploaded to a webserver |
| Software/programs | Filling spout evaluation | Statistics for each filling spout and overall statistics possible |
| | Calibration approval | Verifiable in accordance with OIML R 51 – MID |
| | Control functions | Integrity checking/with floating mean value |
| | Volume evaluation | Without air buoyancy correction, with air buoyancy correction |
| | Trend controller with display | 3-point controller \pm control signal, 3-point controller with pulse packet, integral controller 0–20 mA/0–10 V |
| | 3-way/5-way classifying display | 3-way signal light, 5-way signal light, isolated outputs, isolated outputs with 3-way signal light, isolated outputs with 5-way signal light |
| | Separation system | Control of customer sorting/separating equipment |
| | Monitoring functions | |
| | Compressed air monitoring | Isolated output, belt stop |
| | Separation monitoring | Isolated output |
| | Goods flow | Isolated output with belt stop |
| | Package length/interval monitoring | Using additional light barrier |
| | Fill level monitoring* | Isolated output with light |
| | Collection container | |
| | Incorrect weight | |
| | Production monitoring | Monitoring of average value and repetitive rejections |
| | Sorting with path cycle/ displacement sensor | |
| Mechanical designs | Emergency stop button | Mounted on the cabinet or/and on the frame of the weighing belt |

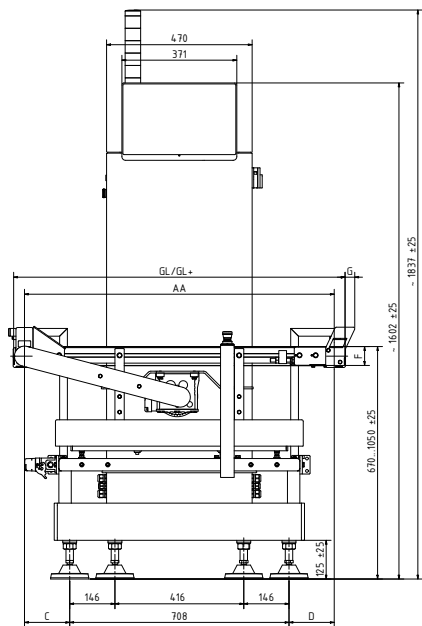
* as well as pro version available, with an additional watchdog for the monitoring sensor

Scale drawings

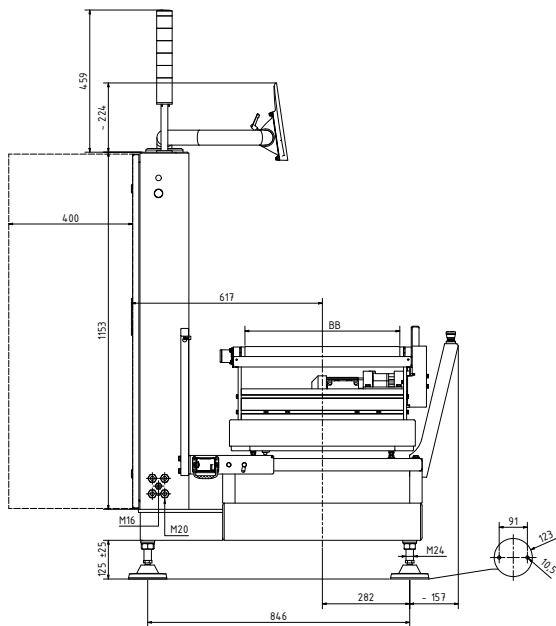


Scale drawings

Weighing system EWK WS 30 kg B



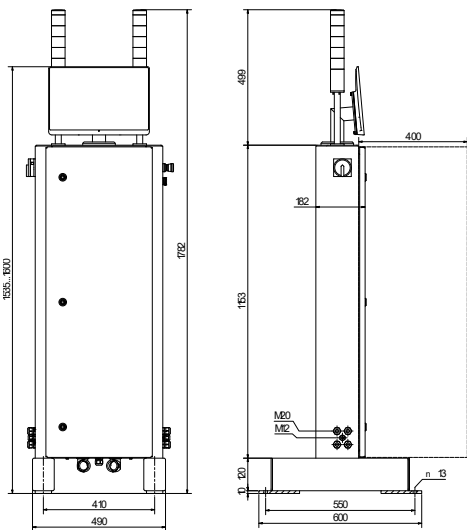
Front view



Side view

The control unit and the weigher frame including weighing belt are a constructive unit for the EWK WS 30 kg B version.

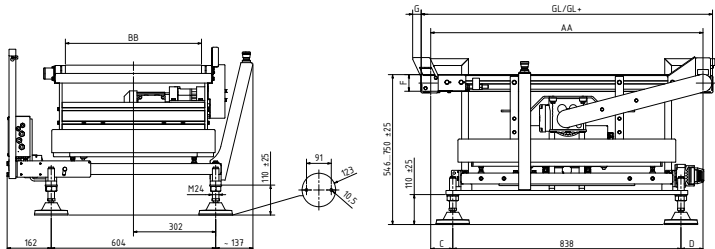
Weighing system EWK WS 30 kg BL



Front view

Side view

The control unit and the weigher frame including weighing belt are a constructively separated for the EWK WS 30 kg BL version so that a spatially separated setup (max. 10 m) is possible depending on eh space available.



Front view

Side view

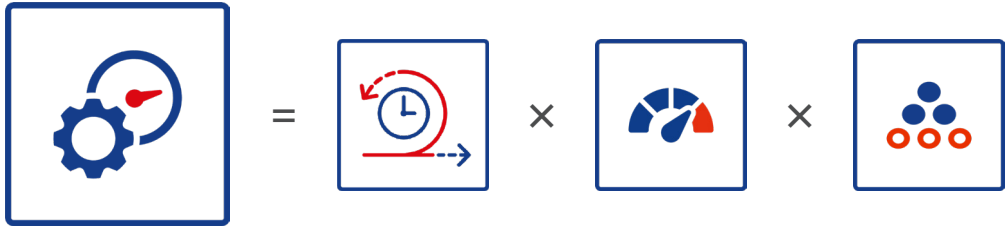
Dimension table [mm]

| | GL | AA | C | D | BB | F | G | K |
|----------|-----------------------------|-------|------|------|-----|----|-----|----|
| 30 kg B | 660 | 600 | -54* | -54* | 400 | 60 | 80 | 43 |
| | 860 | 800 | 46 | 46 | 600 | 60 | 101 | 43 |
| | 1,060 | 1,000 | 146 | 146 | 500 | 60 | 80 | 43 |
| 30 kg BL | 660 | 600 | -119 | -119 | 400 | 60 | 60 | 43 |
| | 860 | 800 | -19 | -19 | 600 | 60 | 81 | 43 |
| | 1,060 | 1,000 | 81 | 81 | 500 | 60 | 60 | 43 |
| GS | Space for open cabinet door | | | | | | | |

*the weighing table is smaller than the weighing frame

Overall Equipment Effectiveness (OEE)

The OEE helps you to optimize your manufacturing efficiency by providing a simple, comprehensive metric that measures the performance, availability and quality of the end of line. OEE helps to identify areas for improvement, reduce downtime, increase productivity and ultimately boost profitability.



Overall Equipment Effectiveness

Availability

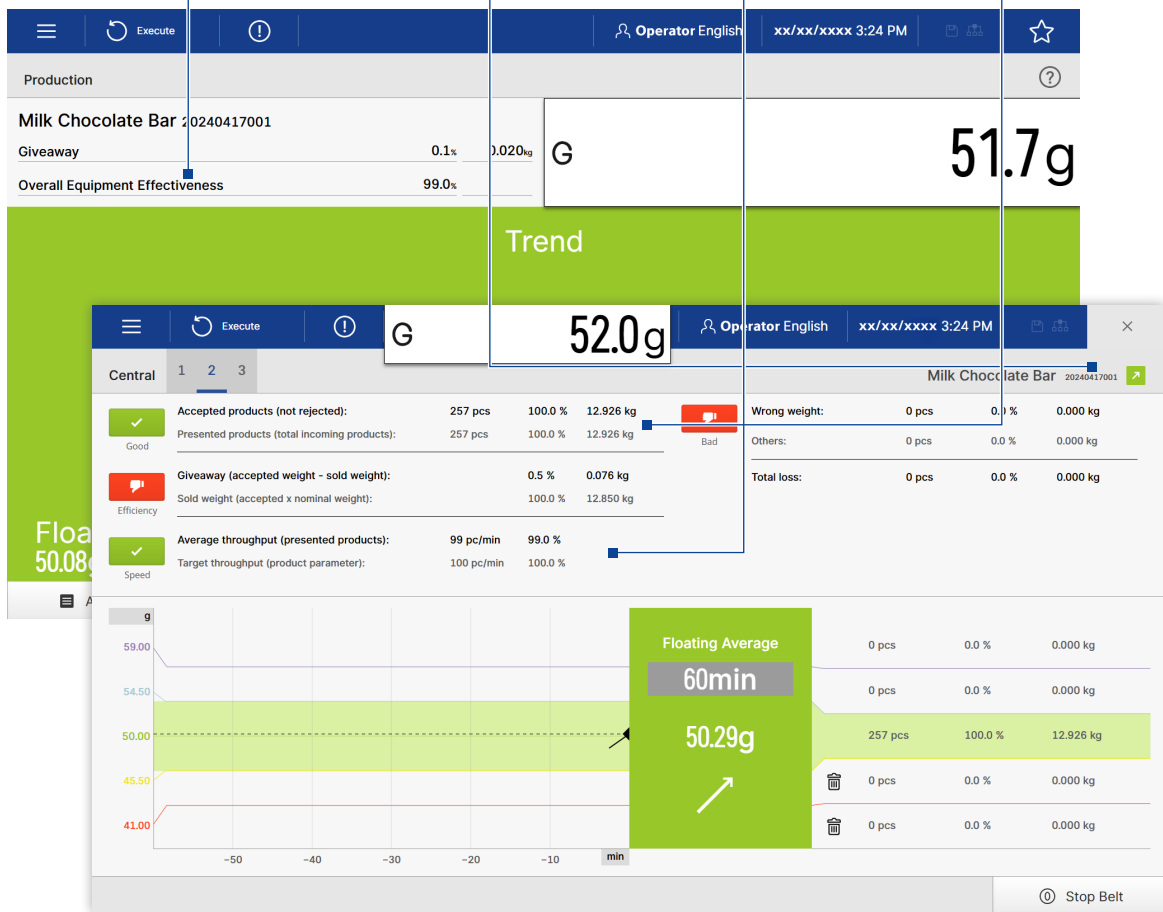
It measures operational time as a fraction of planned production time, accounting for scheduled breaks like lunch, maintenance and cleaning.

Performance

It measures the actual line speed as a fraction of the optimal line speed.

Quality

It measures the number of saleable pieces produced as a fraction of the total produced pieces.





Experience seamless connectivity with OPC UA, based on the Companion Specification for scales. Our smart scales offer precise data integration and simplify your processes. Connect your production effortlessly and maximize efficiency with OPC UA!

Display option



Ergonomic working with Blue HMI

Ergonomic adjustment
Tilting display enables optimum positioning for every operator.

Environmental flexibility
Adaptation to different lighting conditions and environments.

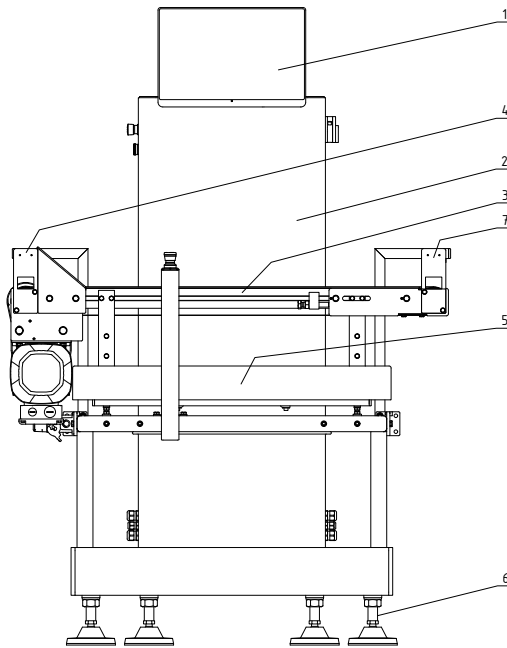
Customised comfort
Improved user-friendliness and working comfort for efficient processes.

| | Tiltable display | Rigid display |
|----------------------------|------------------|---------------|
| Synus® | Optional | Standard |
| Flexus® | Standard | Optional |
| EWK (mounted on frame)* | Standard | Optional |
| EWK (terminal standalone)* | Standard | Optional |

* Additionally limited swivelling and lockable around the vertical axis

Product description

Machine construction



- 1 Operator terminal
- 2 Checkweigher frame
- 3 Weighing belt
- 4 Lightbarrier to trigger the weighing procedure
- 5 Load cell
- 6 Spindle adjustable feet
- 7 Lightbarrier to trigger the distance monitoring

(The weighing procedure happens automatically without the interference of the operator.)



Extend your checkweigher with our Software SPC@Enterprise to ensure your product quality, food safety and efficiency.

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The products and solutions presented in this data sheet make major contributions in the following sectors:



Food and beverages



Pharmaceutical



Chemistry



Agribusiness



Cosmetics



Building materials



Recycling



Machinery (OEM)

The technical data given serves as a product description only and should not be understood as guaranteed properties in the legal sense.

Specifications subject to change without notice.
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