

# CATCHWEIGHERS

M&L



**CATCHWEIGHERS AND DWS SYSTEMS**  
FOR MINIMUM PRODUCT GAPS AND  
MAXIMUM BELT SPEEDS

# CATCHWEIGHERS AND DWS SYSTEMS FROM WIPOTEC-OCS

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Customised and highly scalable

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The world's fastest letter scales

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For letters, large letters and small parcels

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Our expertise is at your disposal worldwide

*"Chronopost has recently equipped four further subsidiaries with DWS systems from WIPOTEC-OCS. We are completely satisfied with the quality and reliability of the products from WIPOTEC-OCS and also with the company's customer support and*

*have been so now for 10 years. More than 90 % of all orders are currently processed using WIPOTEC-OCS systems and we also have great confidence in their technology and further development in the future."*

**Pascal Triolé**  
**Head of Purchasing Industrial Products, Chronopost France**

# CUSTOMISED AND HIGHLY SCALABLE

Customised fits best. As a result, WIPOTEC-OCS solutions for courier, express and postal services are individually designed for each application. Your logistics requirement profile is analysed, often in collaboration with our trusted associates. We then provide a solution system within which all the components are optimally designed to match the logistics situation. We use a modular system with components that are interchangeable and adaptable to each application. Production also takes place exclusively in Germany. This means no more and no less than everything from a single source. These modules are not bought in from just anywhere. The specialists at WIPOTEC-OCS are responsible for developing the vast majority of these components and also the underlying basic technologies:

## WHAT YOU CAN EXPECT

Our solutions are as individual as your requirements. This doesn't mean, however, that we design special solutions for you that are unique and only built for that particular case. Our individual solutions are made up of highly adaptable modules. They can be utilized to fit your existing situation in carefully thought out stages. Take the WIPOTEC-OCS catchweighers for example: they are certainly among the performance-defining building blocks of your system. As a result, they are available in many variations in respect of length, width and speed. So choosing them depends significantly on your parcel sizes and expected throughput. When we know this, we can use the weighing technology to best engineer your individual case. And we can also answer the question as to whether you need single-interval scales or would benefit more from multi-interval scales. The end result is optimum handling of your letters and parcels, synonymous with the smallest product gaps at the highest possible speeds.

## WHAT WE OFFER YOU

We offer you the best technology for all the key tasks of acquiring data on letters and parcels. Irrespective of whether you're handling small, light letters and parcels, or large, heavy letters and parcels. No matter how chaotic your parcel sequences are, what is important is that every individual weighing process can be performed in the shortest possible time, particularly in the case of parcel sequences with large weight differences. WIPOTEC has perfected the technology required for this over many years. As a result, all WIPOTEC-OCS catchweighers without exception are based on WIPOTEC's monoblock Weigh Cell which works in turn on the principle of electro-magnetic force restoration (EMFR). This means the possibility of extremely small minimum gaps between the packages even at high transport speeds. No logistics service rendered weight, size or parcel identification is overlooked because correct billing of the postal charges depends entirely on comprehensive package acquisition (revenue recovery).



# COMBINED EXPERTISE UNDER ONE ROOF CUTTING-EDGE TECHNOLOGY MADE IN GERMANY

## WIPOTEC HEADQUARTERS



WIPOTEC-OCS is a sales and service company for dynamic, high-precision weighing and inspection solutions. As a wholly-owned subsidiary of the high-tech specialist WIPOTEC, which develops and produces all machinery solutions at its headquarters in Kaiserslautern, WIPOTEC-OCS has been setting global standards in the production lines of leading manufacturers for more than 30 years. Throughout the world, customers in the pharmaceutical, food and chemical industries and in the mail and logistics sectors highly appreciate the solutions provided by WIPOTEC-OCS.

## EXCELLENT SOLUTIONS FOR YOUR APPLICATION

WIPOTEC-OCS stands for sophisticated high-tech systems with maximum ease of use. The impressive product portfolio provides solutions for nearly all customer applications. If necessary, we take special requirements and conditions into account in supplying customized equipment.

## EXTRAORDINARY MANUFACTURING DEPTH, ALL SIDE BY SIDE

WIPOTEC-OCS contributes great importance to the in-house development of all necessary technologies as well as the in-house manufacturing of all core components. Consequently, we develop a depth of manufacturing that differentiates us from other vendors and makes us largely independent of suppliers, while forming the basis for our delivery reliability. At WIPOTEC, the entire value chain from basic research, to planning, design, and manufacture to sales and service is all under one roof. The benefit of short channels of communication is the guarantee of maximum flexibility in the implementation of every individual product configuration. No matter how unusual your application may be, we will show you a possible solution that is sure to convince you. That's what makes the difference



# GLOBALY RESPECTED, INDEPENDENT, FLEXIBLE, AND INNOVATIVE: THAT IS WIPOTEC

- ✓ GLOBALLY RESPECTED PARTNER IN INDUSTRY FOR MORE THAN 30 YEARS
- ✓ WORLDWIDE PRESENCE THANKS TO NUMEROUS SUBSIDIARIES AND PARTNERS
- ✓ FOUNDER MANAGED COMPANY
- ✓ COMPANY WITH HIGH INNOVATION POWER THROUGH LARGE R&D EFFORT, INCL. BASIC RESEARCH
- ✓ ALL EXPERTISE COMBINED UNDER ONE ROOF
- ✓ IN-HOUSE PRODUCTION OF ALL KEY COMPONENTS
- ✓ THE FULL RANGE: HIGH-SPEED CATCHWEIGHERS, ULTRA-COMPACT DWS SYSTEMS AND LETTER SCALES
- ✓ USE OF HIGH-PRECISION EMFR WEIGHING SYSTEMS FOR THE SMALLEST PRODUCT GAPS AND HIGHEST BELT SPEEDS

## COME AND VISIT US!

Interested in the high-tech solutions from WIPOTEC-OCS? Perhaps you would like to visit our ultra-modern plant. Our prominent market position is no accident, but rather the logical consequence of the creative and competent efforts made by our staff on behalf of our customers. Come and see for yourself. Just schedule an appointment for a tour with us!

# COURIER, EXPRESS AND PARCEL SERVICES

„Time is money“ – a saying and at the same time advice that applies particularly to mail and logistics service providers. To control the product flow and optimise the allocation of warehouse and transport resources, WIPOTEC-OCS integrates efficiency-enhancing, automated weighing and volume measuring solutions in the sorting centres of global CEP services (courier, express and parcel services). Leading logistics companies also rely on high-speed solutions from Kaiserslautern.

## THE RIGHT SOLUTION FOR EVERY APPLICATION

WIPOTEC-OCS has a range of catchweighers fine-tuned to all market-relevant applications. It starts with our attractive basic scales EC-Small and EC-Evo which feature an excellent price/performance ratio with medium transport speeds and very good weighing accuracy. In the middle segment, the HC-SL weighs parcels up to 60 kg at a speed of 2.9 m/s with a weighing accuracy above  $\pm 5$  g. The resulting performance values create the ideal conditions for correct invoicing in calibrated mode. The upper performance range is covered by the HC series that stands out by virtue of extensive functionality and high throughput, as well as very straightforward integration and flexible handling.

Service-friendliness and minimal maintenance are outstanding features of all WIPOTEC-OCS systems. They can be installed in a very short time and quickly put into operation. The range of machines is broad and includes all the relevant areas of application: starting with the dynamic weight acquisition of letters and parcels of different volumes and weights to code acquisition via laser and camera systems.

The integrated WIPOTEC Weigh Cells combined with intelligent algorithms ensure highly precise determination of weights at high throughput rates, even with chaotic product sequences in normal operation. They also cope with exceptional challenges such as weighing on a slope and during acceleration. A high-quality concept designed for durability guarantees minimum downtimes over their entire operating life.

Catchweighers and DWS solutions from WIPOTEC-OCS for the following industries:

- ✔ **CEP and letter**
- ✔ **Logistics**
- ✔ **E-commerce/intralogistics**

Overview of functions:

- ✔ **Order integrity check**
- ✔ **Quality control**
- ✔ **Weight per unit check**
- ✔ **Filling quantity check**
- ✔ **Dimension acquisition**
- ✔ **Automatic or manual barcode scanning**



Length, width, height: Catchweighers from WIPOTEC-OCS are available in many variations



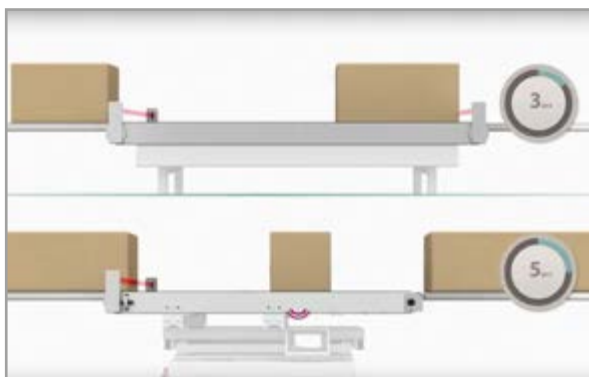
# THE ALL-IMPORTANT WEIGHING PRINCIPLE THE TECHNOLOGY FOR MAXIMUM THROUGHPUT

Our WIPOTEC Weigh Cells work exclusively in our catchweighers; they provide the weighing results significantly faster and more precisely than all other competitive weight systems.

## THE WEIGHING PRINCIPLE MAKES THE DIFFERENCE

WIPOTEC Weigh Cells based on the principle of electro-magnetic force restoration (EMFR) are therefore used in preference in cutting edge post and parcel sorting facilities. The basic principle is comparable to a simple balance scale. The weight is placed on one side of the balance beam. As a result, the coil attached to the other side of the balance beam attempts to move out of the magnetic field of a magnet but is unable to because so much current is sent through the coil via an electrical control circuit that the balance beam practically remains in its neutral position.

The resulting deflection is only a few nanometres, in complete contrast to path-dependent measurement methods, e.g. using strain gauges. Compared to conventional weighing methods, WIPOTEC Weigh Cells based on the EMFR principle, with the shortest settling and measuring times, enable the construction of extremely short and therefore space-saving catchweighers. This means shorter product gaps and therefore higher throughputs.



Catchweighers from WIPOTEC-OCS enable significantly smaller product gaps (see bottom graphic)

## TECHNOLOGY FOR MAXIMUM THROUGHPUT

Conventional catchweighers need photoelectric beams at the beginning and end of the scales for correct weighing. A valid weight value is determined when the package triggers the photoelectric beam at the end of the scales; only then can a following product be assigned to the scales. This prevents smaller gaps between products. The longer the weighing distance, the greater the effect. This influences and limits the throughput rate which depends significantly on how small the minimum gaps can be kept.

Catchweighers from WIPOTEC-OCS work differently. There is only one photoelectric beam at the beginning of the scales. With its help, the gaps between packages can be reduced to the absolute technical minimum. Here WIPOTEC Weigh Cells score a second time, as the special Weigh Cells used in the catchweighers have an ultra-short settling time and scanning rates of one millisecond.

The cell supplies very precise weighing results extremely quickly and reliably. As soon as a valid measured value has been determined, the scales are ready for the next product. This means that extremely short minimum gaps between the packages are possible even at high transport speeds.

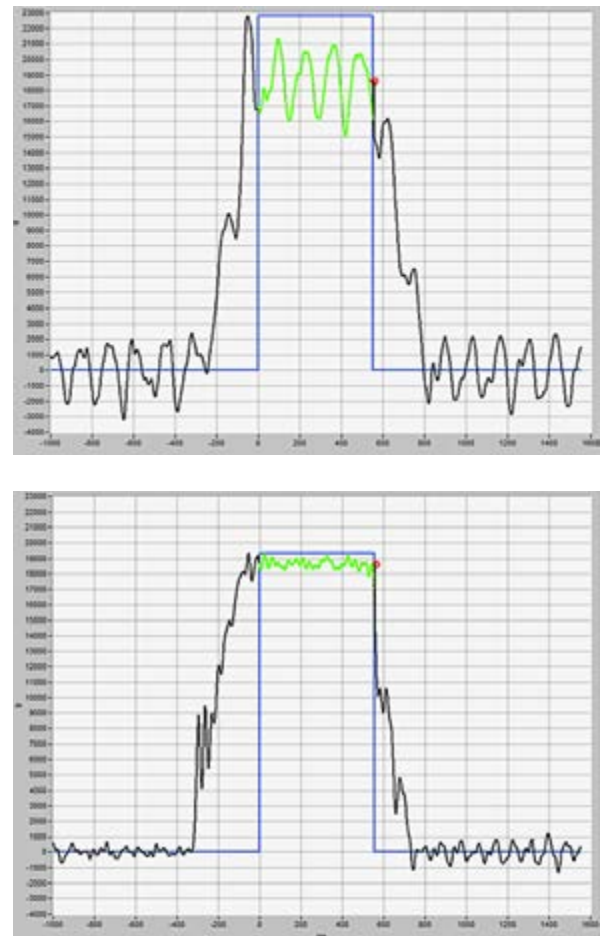
Another advantage of the WIPOTEC Weigh Cell is its robust mechanical design combined with sturdy overload protection, thus guaranteeing maximum availability which is very important when deployed in harsh industrial environments. Active Vibration Compensation (AVC) also ensures correct weighing results in these environments that are not vibration-free. Active Vibration Compensation filters disruptive vibrations out of the measured result so that even minimum weight deviations are always displayed reliably. The WIPOTEC EMFR Weigh Cell itself contains no wear parts and therefore operates absolutely maintenance- and wear-free.

# AVC – ACTIVE VIBRATION COMPENSATION

Sorting centres are environments with a great deal of vibrations. Vibrations present a distinct challenge for dynamic weighing technology – such as catchweighers and dimensioning, weighing and scanning (DWS) systems. Both sorters and the transportation systems themselves generate vibrations with high amplitudes. These low-frequency vibrations with high signal levels influence and massively interfere with dynamic weight measurements.

Vibrations are present in all parcel freight centres. These vibrations adversely affect the parcel weighing accuracy in automatic sorting systems. The critical components used in weighing systems such as DWS systems, consist of a combination of the weighing belts for transporting the parcels and the actual Weigh Cell. These weighing systems are often located close to sorters, which due to their moving parts, transfer vibrations to the platforms or to the transport systems themselves. Sorters and the transport systems generate high amplitude oscillations. These low-frequency oscillations have a high signal level that influence dynamic weight measurements. A further complication is that the majority of sorting operations take place on elevated steel platforms, since the floor space is used for internal freight traffic, which relies on clear routes.

AVC solves vibration issues! This exclusive vibration compensation technology from WIPOTEC-OCS uses intelligent algorithms to ensure the most precise weighing results, achieving the required weighing accuracy even in environments where vibrations prevail. The AVC solution filters environment-induced interferences out of the measurement results without any loss of speed and enables the weighing technology to be used even in sorting systems or freight centres where catchweighers have to be set up on vibrating floors. The AVC technology is particularly effective for vibrations caused by sorters or transport systems below 10 Hz. It reduces vibrations to one tenth of their value, or the equivalent of a 20 dB attenuation of the vibration effects on the weighing measurement results.



Measurement curves – top without AVC, bottom with AVC



# HIGH-PRECISION WEIGHING RESULTS IN SORTING CENTRES THROUGH AVC

## HOW AVC WORKS

All AVC based systems are equipped with electro-magnetic force restoration (EMFR) Weigh Cells. The crucial advantage of a WIPOTEC EMFR Weigh Cell is its extremely short settling time. Compared to the weighing principle with strain gauges, this type of Weigh Cell provides faster and more precise load weights. Two EMFR Weigh Cells are mounted inside one housing, one of which measures vibrations only, while the other measures vibrations including the load to be weighed. Interfering influencing variables are calculated by comparing the two measurement curves. The obtained measurement result is very close to a result that would be achieved without any influence through vibration.

## RESULTS TO BE ACHIEVED WITH AVC

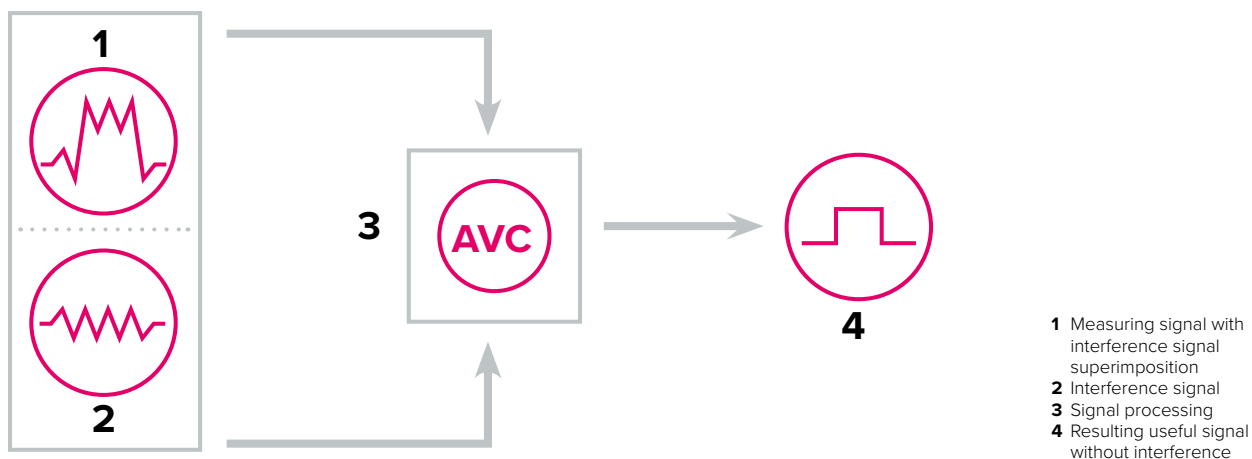
The WIPOTEC-OCS AVC eliminates, or at least greatly reduces, the negative effects of floor vibrations on weighing results. More specifically, the active vibration compensation system ensures that correct weight measurements can be carried out even at high transport speeds in which the packages are on the weighing belt for a short time. AVC is a great an option for industrial scale systems used in sorting and distribution centres that need to either omit a support tower, or are influenced by large environmental vibrations. A comparison of curves with and without AVC shows that with AVC activated the fluctuations due to vibrations are very much smaller and therefore the scales can measure with increased accuracy.

## ECONOMIC ADVANTAGES OF AVC USE

The use of calibrated weighing systems is required by law. In combination with AVC, it leads to substantially more accurate weighing results and therefore helps prevent incorrect billing of transport fees. Many companies in the CEP sector increase their profit margins by using automated weighing technology that is equipped with active vibration compensation systems. AVC provides the potential to increase profits through gram-precise weighing results from the group of goods in transit. This is because AVC enables a more precise determination of weight that prevents parcels from falling into a lower pricing category. The price difference between the categories results in additional revenue by using a more precise scale. In addition, billing can start earlier if the calibration value is lower.

For MID applications, 5e (e - minimum calibration value) is the lowest weight value that can be calculated. This means that with a calibration value of 20 grams parcels are billable starting at 100 grams. This is generally known as revenue recovery, i.e. the ability to make additional demands for logistics services actually provided. In the parcel sector, this additional income can amount to several thousand euros per day.

Signal diagram with AVC



# COMPACT AND EFFICIENT: THE “SMALLS” SCALES FOR SMALL AND LIGHT FREIGHT

EC **Smalls**

If you want to weigh letters, flats and small parcels up to 15 kg, the catchweighers of the **EC-Smalls** series are perfect for your needs. WIPOTEC-OCS has developed these scales specifically for use in the postal and courier service as well as for e-commerce.

The WIPOTEC EMFR Weigh Cell and an especially high-quality transport unit ensure very high measuring accuracy. Precise weighing results are available in a very short time and enable very short product gaps. This means higher effective throughput rates.

The EC-Smalls models have an impressively great performance range and small dimensions at the same time. And they are easy to integrate. Four different weighing belt lengths and three width variations enable pinpoint optimum machine design for different parcel distri-

butions. Proven quality from WIPOTEC-OCS: technically impressive and space-saving, engineering that provides excellent value for money.



## MAIN FEATURES

- ✓ Transport speeds up to 1.2 m/s
- ✓ Weighing range up to 15 kg
- ✓ Accuracy above +/- 2 g
- ✓ Wear-free WIPOTEC Weigh Cell
- ✓ High level of accuracy due to high-quality transport unit
- ✓ Maintenance-free drive

## YOUR BENEFITS

- ✓ WIPOTEC EMFR Weigh Cell for the best weighing results
- ✓ Good price/performance ratio and low operating costs
- ✓ Perfectly suited to the CEP sector

## TECHNICAL DATA

<b>Application</b>	CEP sector
<b>Machine type</b>	EC-M-SmallS
<b>Protection class</b>	IP44
<b>Rate of speed</b>	max. 1.2 m/s
<b>Working height</b>	500-650 <sup>1)</sup> / 600-750 <sup>1)</sup> / 700-850 / 800-950 / 900-1,050 / 1,000-1,150 mm
<b>Conveyor width (roller diameter 46 mm)</b>	300 / 400 / 500 mm
<b>Conveyor length</b>	500 / 600 / 700 / 800 mm
<b>Rated voltage controls</b>	L1/N/PE 115/230 VAC
<b>Rated voltage drive</b>	L3/N/PE 230 VAC
<b>Rated frequency</b>	50/60 Hz
<b>GWR (Gross weight range)</b>	15,000 g
<b>e (min. Calibration value)</b>	≥ 2 g

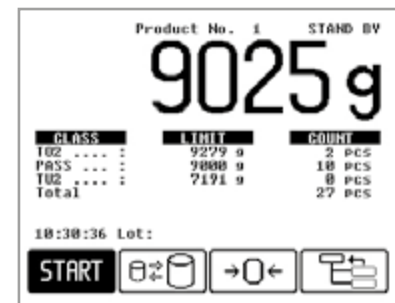
1) Working height only with freestanding control cabinet



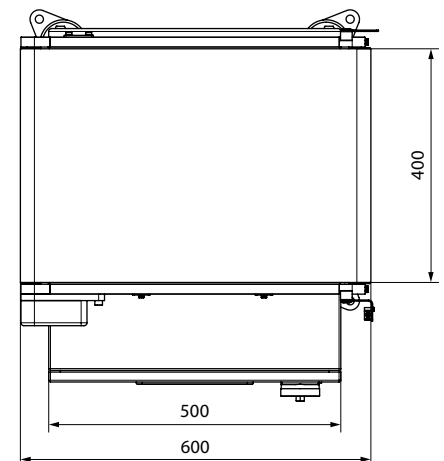
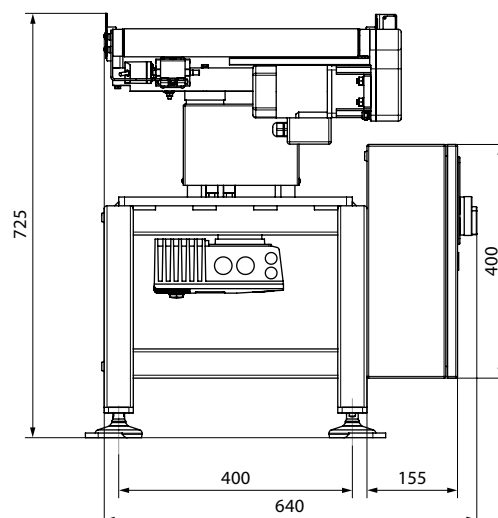
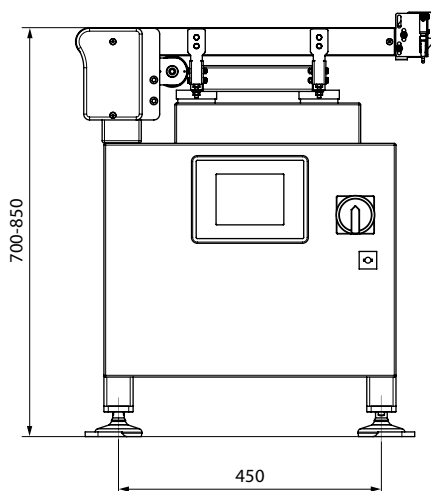
Other machine specifications  
→ Technical Data Sheet



Ideal for letters, flats and small parcels



User-friendly LCD display with touchscreen



All entries in mm | Drawing shows sample version

# HIGH SPEED WITH MAXIMUM PRECISION

EC  
HC ML

In the next higher class, this catchweigher scores with transport speeds up to two metres per second with twice the accuracy. Customers who opt for the **EC-ML** and **HC-ML** models benefit from this increase in speed combined with higher resolutions for products individually weighing up to a maximum of 15 kilos.

These catchweighers are the perfect solution for small to medium loads which also have larger geometric product dimensions. Depending on the design of the controller, it is possible to drive up to 15 motors of different types.

Both scales can also weigh during acceleration and deceleration phases and on ascending or descending slopes. This ensures a high degree of flexibility. The use of a high-tech Weigh Cell from WIPOTEC, which works on the principle

of electro-magnetic force restoration (EMFR), guarantees the best technology for excellent weighing results. The WIPOTEC Weigh Cell itself contains no wear parts and needs no maintenance.



## MAIN FEATURES

- ✓ Transport speeds up to 2 m/s
- ✓ Weighing range up to 15 kg
- ✓ Accuracy above  $\pm 2$  g
- ✓ Belt body construction using sandwich technology/lightweight construction
- ✓ Can optionally be used in parallel operation or as double scales

## YOUR BENEFITS

- ✓ Easily integrated in existing lines
- ✓ WIPOTEC EMFR Weigh Cell for the best weighing results
- ✓ Ideal scales for medium speeds and medium weights



## TECHNICAL DATA

<b>Application</b>	CEP, mail order, intralogistics, industry	
<b>Machine type</b>	EC-M-ML-2-SI, HC-ML-2-SI	EC-M-ML-3-SI, HC-ML-3-SI
<b>Protection class</b>	IP54	
<b>Rate of speed</b>	2 m/s	
<b>Working height Low speed (to 1.5 m/s)</b>	600-750 / 700-850 / 800-950 / 900-1,050 / 1,000-1,150 / 1,100-1,250 mm <sup>1)</sup>	
<b>Working height High speed (from 1.5 m/s)</b>	500-600 <sup>2)</sup> / 550-650 <sup>2)</sup> / 600-700 / 650-750 / 700-800 / 750-850 / 800-900 / 850-950 / 900-1,000 / 950-1,050 / 1,000-1,100 / 1,050-1,150 / 1,100-1,200 mm	
<b>Conveyor width (roller diameter 46 mm)</b>	400 / 500 / 600 mm	
<b>Conveyor length</b>	500 / 600 / 700 / 800 / 900 / 1,000 mm	
<b>Rated voltage controls</b>	L1/N/PE 115/230 VAC	
<b>Rated voltage drive</b>	L3/N/PE 380/480 VAC	
<b>Rated frequency</b>	50/60 Hz	
<b>GWR (Gross weight range)</b>	12,000 g <sup>3)</sup> (IW-B 30k)	15,000 g <sup>3)</sup> (IW-B 60k)
<b>e (min. Calibration value)</b>	≥ 2 g	≥ 5 g

1) Further on request

2) Working height only with freestanding control cabinet possible

3) 30,000 g optional or on request



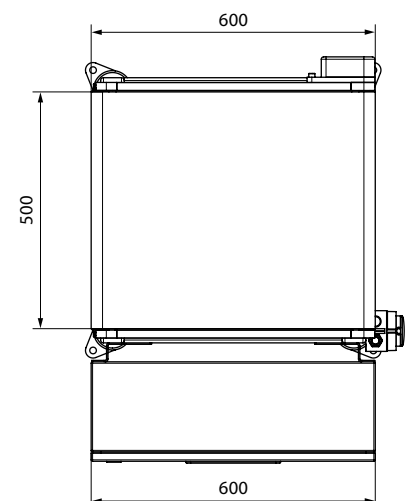
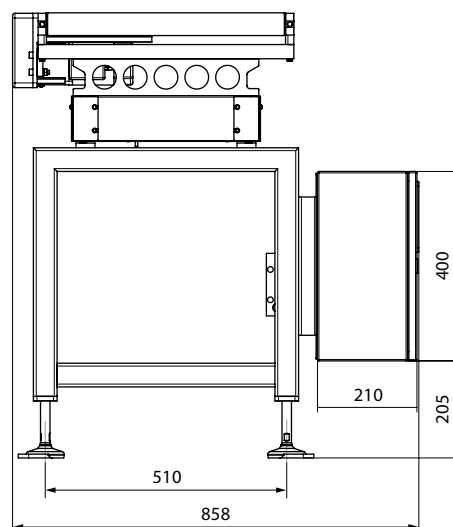
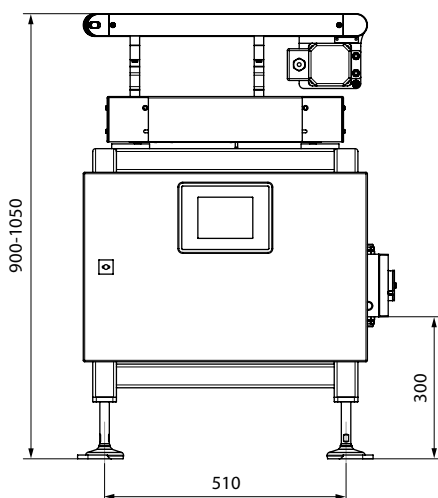
Other machine specifications  
→ Technical Data Sheet



Dual-lane version with narrow lane gaps



LCD touchscreen for easy operation  
(Picture shows HC variant)



All entries in mm | Drawing shows sample version

# FLEXIBLE INTEGRATION IN INTRALOGISTICS SYSTEMS

**EC** WAREHOUSE

Reliable data forms the backbone of modern intralogistics. This is where the **EC-Warehouse** catchweigher from WIPOTEC-OCS sets new standards. With a maximum weighing range of 35 kg, it supplies weight information accurate to the gramme and thus forms the basis for reliable completeness checking in inbound and outbound operations. This is made possible by using ultra-fast WIPOTEC Weigh Cells that are unique in this price segment; the catchweigher is available as single- or multi-interval scales.

With this catchweigher it is possible to implement the smallest gaps between the products to be weighed.

The EC-Warehouse can optionally be extended by additional system components,

for example to ensure shape consistency with the help of a volume measuring system. The weight values and machine parameters are displayed via a two-line display in the control cabinet. The scales are designed to be extremely robust thanks

to a powder-coated steel frame in a sturdy tubular frame version (RAL 7035). Available with weighing belt lengths from 600 to 1,000 millimetres and belt widths of 400 to 700 millimetres.



## MAIN FEATURES

- ✔ Transport speeds up to 1.2 m/s
- ✔ Weighing range up to 35 kg
- ✔ WIPOTEC EMFR Weigh Cell without wear parts
- ✔ Operation via two-line display or 5.7" LCD with touchscreen (optional)
- ✔ Protection class IP54

## YOUR BENEFITS

- ✔ Maintenance-free WIPOTEC Weigh Cell
- ✔ Very good price/performance ratio
- ✔ Small dimensions and short product gaps thanks to EMFR Weigh Cell

## TECHNICAL DATA

<b>Application</b>	Intralogistics
<b>Machine type</b>	EC-M-Warehouse
<b>Protection class</b>	IP54
<b>Rate of speed</b>	1.2 m/s
<b>Working height</b>	500-650 <sup>1)</sup> / 600-750 <sup>1)</sup> / 700-850 / 800-950 / 900-1,050 / 1,000-1,150 mm
<b>Conveyor width (roller diameter 60 mm)</b>	400 / 500 / 600 / 700 mm
<b>Conveyor length</b>	600 / 700 / 800 / 900 / 1,000 mm
<b>Rated voltage controls</b>	L1/N/PE 115/230 VAC
<b>Rated voltage drive</b>	L3/N/PE 230 VAC
<b>Rated frequency</b>	50/60 Hz
<b>GWR (Gross weight range)</b>	30,000 g (IW-B) / 35,000 g (IW-B)
<b>e (min. Calibration value)</b>	≥ 5 g (IW-B) / ≥ 5/10 g <sup>2)</sup> (IW-B)

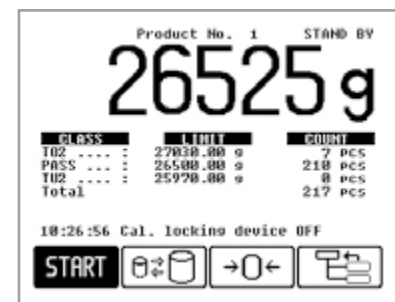
- 1) Working height only with freestanding control cabine  
2) As a multi-interval weighing system



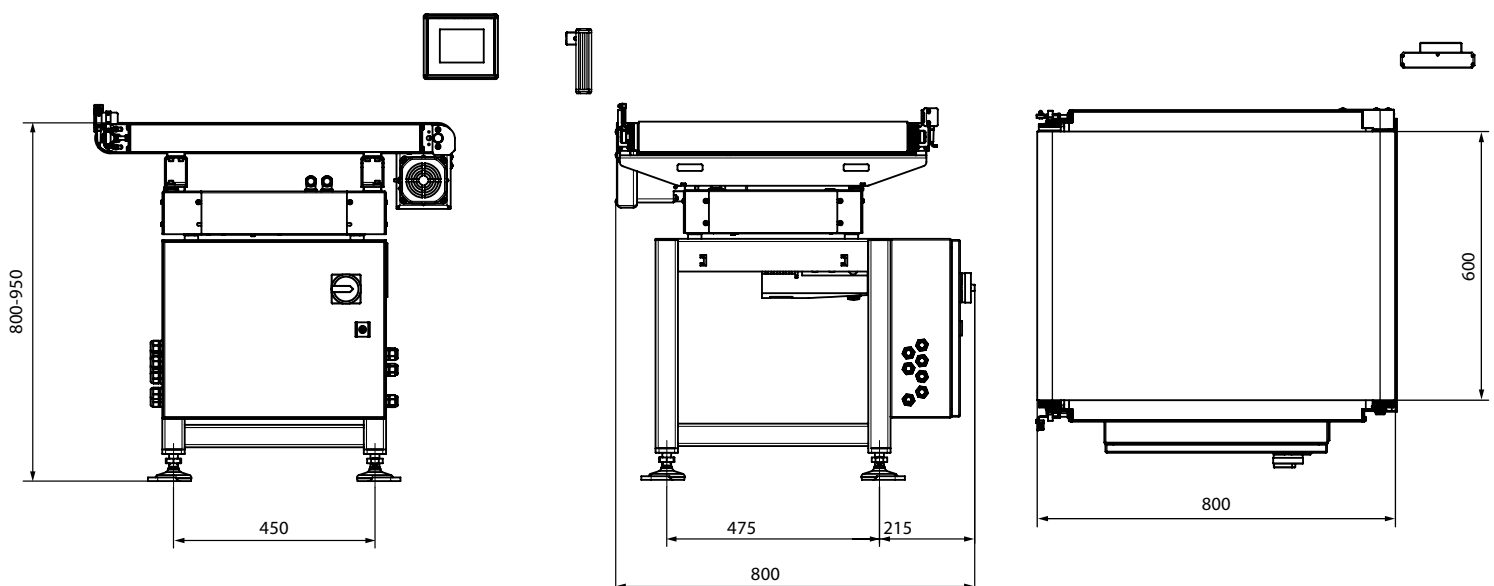
Other machine specifications  
→ Technical Data Sheet



Internal drive ensures good integration capability



User-friendly LCD display with touchscreen



All entries in mm | Drawing shows sample version

# THE ENTRY LEVEL SOLUTION FOR MEDIUM SPEEDS

**EC** **Evo**

The **EC-Evo** is the ideal solution for products with large dimensions and weight up to 60 kg. It is the most attractively-priced catchweigher from WIPOTEC-OCS and like the high-end models is also fitted with an WIPOTEC EMFR Weigh Cell. The EC-Evo can be operated as single- or multi-interval scales. As multi-interval scales, it automatically adjusts to the weighing range.

Logistic appreciate the fast and precise weight acquisition on large weighing belts in the lower and medium speed range. The catchweigher covers a wide range of applications and is used mainly in the logistics sector, particularly in the CEP sector, mail order, intralogistics or

the industrial sector for packages, such as sacks, bags and canisters.

It already has an internal belt drive as standard which makes it straightforward to integrate in narrow weighing belts. The use of a high-tech WIPOTEC Weigh Cell,

which works on the principle of electro-magnetic force restoration (EMFR), guarantees the best technology for excellent weighing results. The Weigh Cell is wear-free.



## MAIN FEATURES

- ✔ Transport speeds up to 1.3 m/s
- ✔ Weighing range up to 35 kg  
Accuracy +/- 20 g
- ✔ Weighing range up to 60 kg  
Accuracy +/- 50 g
- ✔ Operation as single- or multi-interval scales
- ✔ Low noise level not exceeding 69 dB

## YOUR BENEFITS

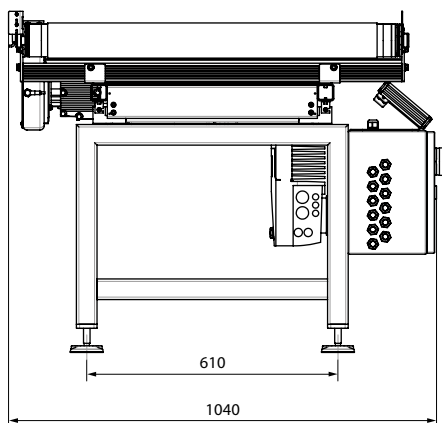
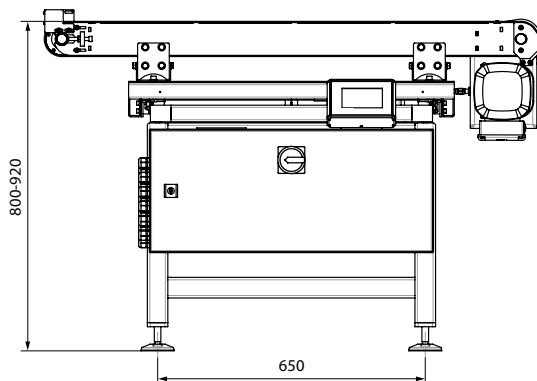
- ✔ WIPOTEC EMFR Weigh Cell for the best weighing results
- ✔ Very good price/performance ratio



## TECHNICAL DATA

<b>Application</b>	CEP, mail order, intralogistics, industry
<b>Machine type</b>	EC-M-Evo
<b>Protection class</b>	IP54
<b>Rate of speed</b>	0.3 - 0.7 m/s   0.4 - 1.0 m/s   0.5 - 1.3 m/s (selectable)
<b>Working height <sup>1)</sup></b>	600-720 <sup>1)</sup> / 700-820 / 800-920 / 900-1,020 / 1,000-1,120 / 1,100-1,220 mm
<b>Conveyor width (roller diameter 80 mm)</b>	600 / 800 / 1,000 mm
<b>Conveyor length</b>	1,000 mm - 1,600 mm
<b>Rated voltage controls</b>	L1/N/PE 115/230 VAC
<b>Rated voltage drive</b>	L3/N/PE 220/242 VAC
<b>Rated frequency</b>	50/60 Hz
<b>GWR (Gross weight range)</b>	60,000 g (lw-B) (optional 35,000 g by e=20 g)
<b>e (min. Calibration value)</b>	≥ 50 g (20 g optional)

1) At work height 600-720 the position of the control cabinet changes



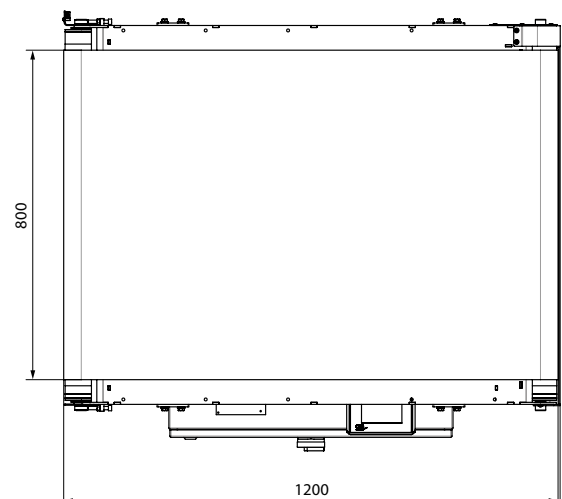
Other machine specifications  
→ Technical Data Sheet



Internal drive ensures good integration capability



Photoelectric beam on the incoming belt side



All entries in mm | Drawing shows sample version

# HIGH WEIGHING ACCURACY AND THROUGHPUT OF PARCELS

EC  
HC SL

Scales of the **EC-SL** and **HC-SL** series are designed for products up to a maximum 60 kg. The high weighing accuracy (up to 5 g) permits speeds of up to 2.9 m/s in calibrated mode. These excellent values are achieved by the sandwich construction which creates a rigid platform for the parcel to travel over the scale weigh bridge. It also ensures a noise reduction to below 65 dB.

Scales of the SL series are particularly easy to integrate. Their WIPOTEC EMFR Weigh Cells are absolutely maintenance- and wear-free.

The catchweighers can also weigh during acceleration and deceleration phases,

and on ascending or descending slopes. The scales can be used from both sides due to the symmetrical belt construction. The exit side finger protection is fitted as standard. The drive motor can be mounted optionally on the left or right in the belt's

direction of travel. An internal belt drive (optional) can be used where a particularly narrow design is important.



## MAIN FEATURES

- ✔ Sandwich construction
- ✔ Weighing range up to 60 kg (optionally 150 kg)
- ✔ Calibration value above +/- 5 g
- ✔ Low noise level not exceeding 65 dB

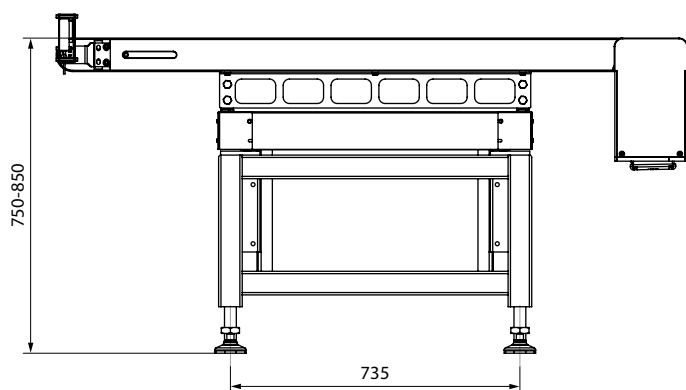
## YOUR BENEFITS

- ✔ WIPOTEC EMFR Weigh Cell for the best weighing results
- ✔ Double the speed compared to standard machines

## TECHNICAL DATA

Application	CEP, mail order, intralogistics			
Machine type	EC-M-SL-1-SI	EC-M-SL-2-SI	EC-M-SL-3-SI	EC-M-SL-4-SI
	HC-SL-1-SI	HC-SL-2-SI	HC-SL-3-SI	HC-SL-4-SI
Protection class	IP54			
Rate of speed	max. 2 m/s	max. 2.9 m/s		
Working height (Low speed to 1.5 m/s)	600-750 / 700-850 / 800-950 / 900-1,050 / 1,000-1,150 / 1,100-1,250 mm <sup>1)</sup>			
Conveyor width <sup>1)</sup>	400-600 mm	600-700 mm	800-1,000 mm	1,200-1,600 mm
Conveyor length	600-1,000 mm	1,100-1,600 mm	1,100-1,800 mm	1,400-2,600 mm
Rated voltage controls	L1/N/PE 115/230 VAC			
Rated voltage drive	L3/N/PE 380/480 VAC			
Rated frequency	50/60 Hz			
GWR (Gross weight range)	30,000 g (IW-B)	60,000 g <sup>1)</sup> (IW-B)		60,000 g/150,000 g (IW-B)
e (min. Calibration value)	≥ 5 g	≥ 10 g		≥ 20 g / ≥ 50 g

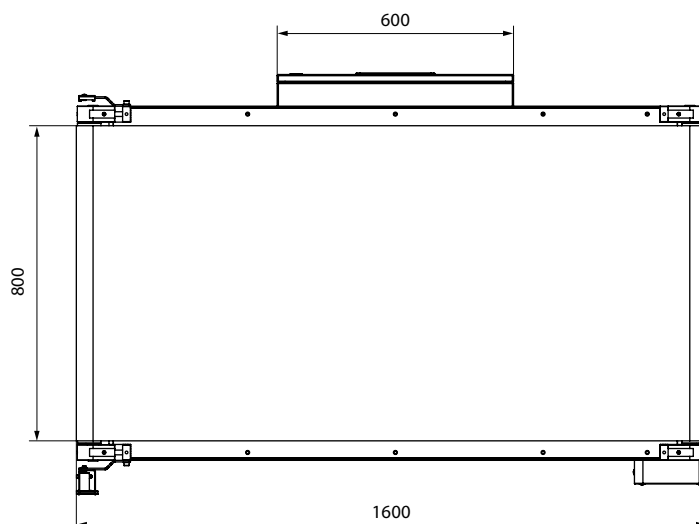
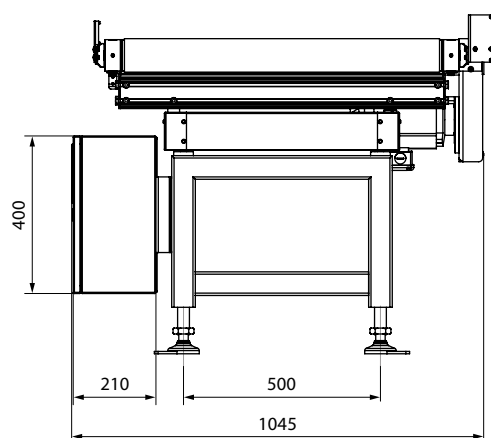
1) Further on request



Other machine specifications  
→ Technical Data Sheet



Control cabinet with built-in LCD  
touchscreen



All entries in mm | Drawing shows sample version

# MORE THAN JUST TWO SINGLE-PLATFORM SCALES: THE 3-IN-1 SOLUTION FOR GREATER THROUGHPUT

HC FL

The **HC-FL** catchweigher is a combination of two single-platform scales in line. Both scales work simultaneously and independently of each other. As soon as a parcel exceeds a certain length, both scales work together as a virtual third set of scales. The machine is ideal for applications where high belt speeds and top throughputs are required for products individually weighing up to 60 kg – perfect for the CEP sector.

The scales weigh precisely up to 11,000 parcels an hour at transport speeds of up to 2.9 m/s. The scales impress with first-class performance and durability. More than 1,000 systems have been put into operation worldwide to date. The HC-FL from WIPOTEC-OCS is therefore setting new standards in its sector.

The construction principle offers around 60% more throughput at the same speed compared to single-platform scales. Using two combined scales enables the shortest possible product gaps. The catchweigher can also weigh during acceleration and deceleration phases, and on ascending or descending slopes.

The use of a high-tech Weigh Cell from WIPOTEC, which works on the principle of electro-magnetic force restoration (EMFR), guarantees the best technology for excellent weighing results.



## MAIN FEATURES

- ✔ Transport speeds up to 2.9 m/s
- ✔ Weighing range up to 60 kg
- ✔ Accuracy above +/- 50 g
- ✔ Two single-platform scales which, if required, can be combined to simulate a third set of virtual scales
- ✔ Low noise level not exceeding 65 dB

## YOUR BENEFITS

- ✔ Throughput increase of up to 60 % compared to single-interval scales
- ✔ Very good price/performance ratio
- ✔ WIPOTEC EMFR Weigh Cell for the best weighing results



## TECHNICAL DATA

<b>Application</b>	CEP, mail order, intralogistics, industry
<b>Machine type</b>	HC-FL-2
<b>Protection class</b>	IP54
<b>Rate of speed</b>	2.9 m/s
<b>Working height</b>	500-600 <sup>1)</sup> / 550-650 <sup>1)</sup> / 600-700 / 650-750 / 700-800 / 750-850 / 800-900 / 850-950 / 900-1,000 / 950-1,050 / 1,000-1,100 / 1,050-1,150 / 1,100-1,200 mm <sup>2)</sup>
<b>Conveyor width</b>	800 / 900 / 1,000 mm
<b>Conveyor length</b>	800 / 900 / 1,000 / 1,100 / 1,200 / 1,300 / 1,400 / 1,500 / 1,600 mm
<b>Rated voltage controls</b>	L1/N/PE 115/230 VAC
<b>Rated voltage drive</b>	L3/N/PE 380/480 VAC
<b>Rated frequency</b>	50/60 Hz
<b>GWR (Gross weight range)</b>	60,000 g (IW-B)
<b>e (min. Calibration value)</b>	≥ 50 g

1) Working height only with freestanding control cabinet

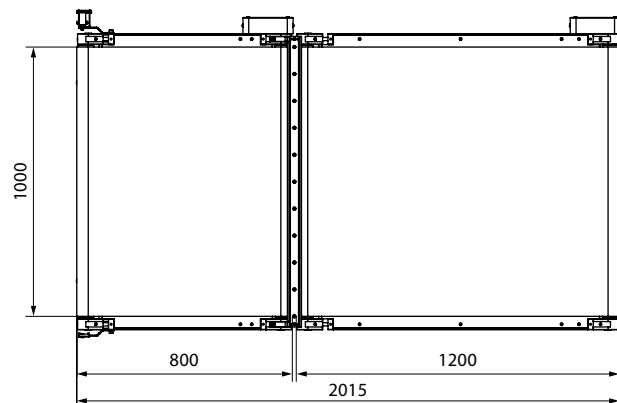
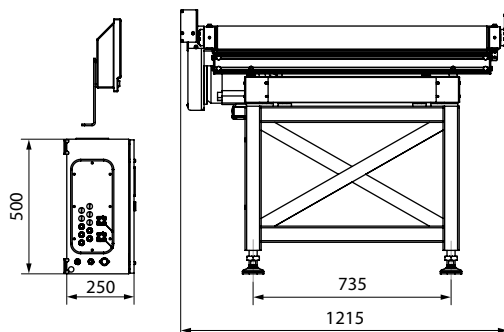
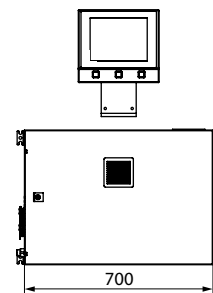
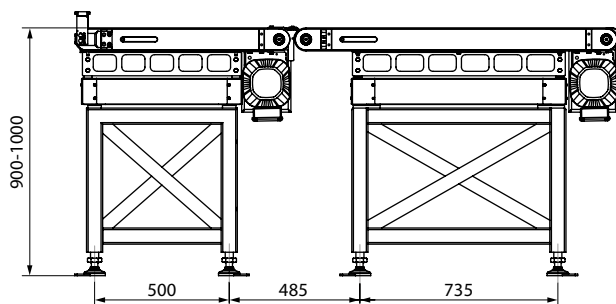
2) Further on request



Other machine specifications  
→ Technical Data Sheet



Various weighing options: small, medium and large products



All entries in mm | Drawing shows sample version

# TRIPLE SCALE CATCHWEIGHER FOR HIGHEST THROUGHPUTS

HC FL-T

The **HC-FL-T** catchweigher combines three hardware scales into six virtual scales. All scales are able to work independent of one another. This design feature allows for significantly shorter product gaps.

As parcel lengths increase, catchweighers for courier, express and parcel services require larger product gaps to accurately weigh chaotic product sequences. Larger product gaps lead to a decrease in throughput. This is where the triple scale catchweigher from WIPOTEC-OCS comes in. The HC-FL-T catchweigher combines three hardware scales into six virtual

scales. All scales are able to work together or independent of one another. This design feature allows for significantly shorter product gaps. Due to its ability to combine neighbouring scales into additional virtual weighing systems, this triple scale catchweigher offers six various weighing options for all product sizes.

In addition, the HC-FL-T catchweigher weighs up to three products simultaneously. The combination of both capabilities leads to an increase in throughput of up to 60% at the same speed compared to a double scale design while guaranteeing first-class performance and durability.



## MAIN FEATURES

- ✔ Transport speed up to 3.4 m/s
- ✔ Accuracy above 20 g
- ✔ Six independent scales cover a wide spectrum of product lengths
- ✔ Product gaps as small as 250 mm (10")

## YOUR BENEFITS

- ✔ Up to 60% throughput increase compared to a double scale design
- ✔ WIPOTEC EMFR Weigh Cells for best weighing results
- ✔ Excellent price/performance ratio

## TECHNICAL DATA

<b>Application</b>	CEP, mail order, intralogistics, industry
<b>Machine type</b>	HC-FL-T
<b>Protection class</b>	IP54
<b>Rate of speed</b>	Max. 3.4 m/s
<b>Working height</b>	600-700 / 650-750 / 700-800 / 750-850 / 800-900 / 850-950 / 900-1,000 / 950-1,050 / 1,000-1,100 / 1,050-1,150 / 1,100-1,200 <sup>1)</sup> mm
<b>Conveyor width</b>	800 / 900 / 1,000 mm
<b>Conveyor length</b>	650-1,100 mm according to product/parcel length distribution
<b>Rated voltage controls</b>	L1/N/PE 115/230 VAC;
<b>Rated voltage drive</b>	L3/N/PE 380/480 VAC
<b>Rated frequency</b>	50/60 Hz
<b>GWR (Gross weight range)</b>	60 kg
<b>e (min. Calibration value)</b>	≥ 20 g

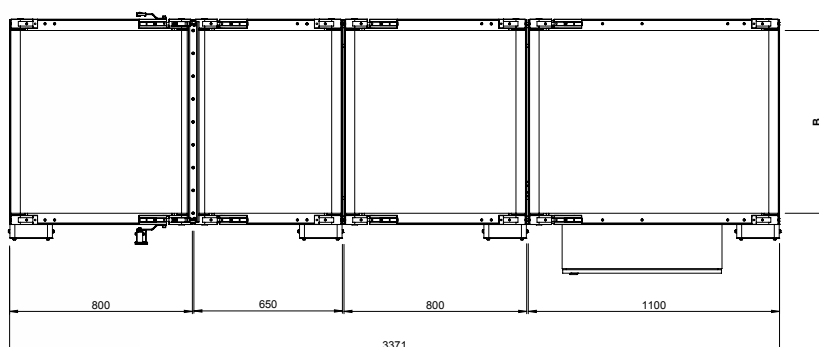
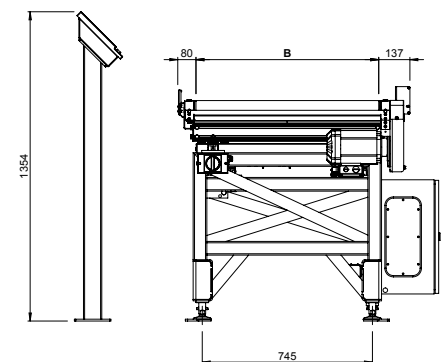
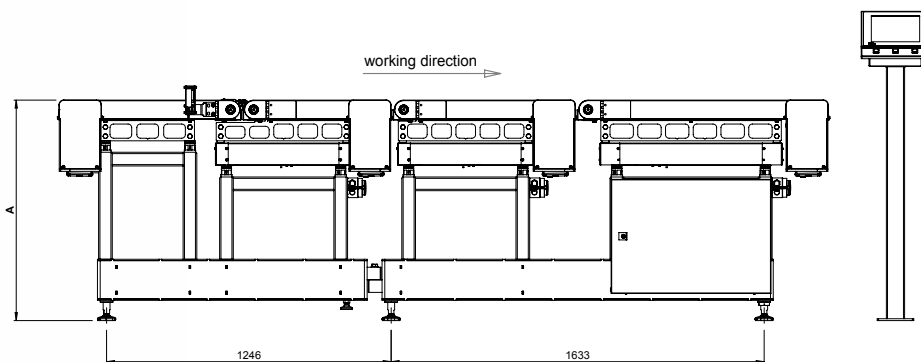
1) Further on request



Other machine specifications  
→ Technical Data Sheet



Six various weighing options for all  
product sizes



All entries in mm | Drawing shows sample version

# DIMENSIONING WEIGHING SCANNING READY TO GO IN ONLY 24 HOURS

**DWS Compact**

The **DWS** solution from WIPOTEC-OCS allows complete transparency of your data which is transferred to a central data management system from where you can access it for complete analysis and invoicing.

The modular construction of the DWS solution permits seamless integration of auto-identification systems and volume measurement technology from leading manufacturers. All individual components are easily accessible and from a

maintenance point of view are also not obstructed by add-on parts. Intelligent system construction makes it possible to replace the belt body without needing to dismantle system components which means higher running times overall.

Clear differentiation of all the system components permits a clearly structured maintenance concept.



## MAIN FEATURES

- ✓ Automatic data capture of product weight, volume dimensions and bar code
- ✓ Transport speeds up to 2.9 m/s
- ✓ Weighing range up to 120 kg
- ✓ Calibration value 20 g

## YOUR BENEFITS

- ✓ 360° data acquisition for safe planning and control of goods flows, calculation of capacity utilisation or capacity planning
- ✓ Intuitive user interface guarantees very easy handling
- ✓ Revenue recovery due to comprehensive package acquisition



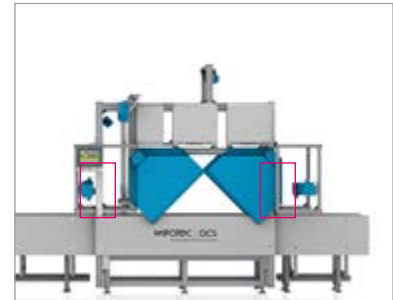
## TECHNICAL DATA

<b>Application</b>	CEP, mail order, intralogistics
<b>Machine type</b>	DWS Compact - Dimensioning, Weighing, Scanning
<b>Protection class</b>	IP54
<b>Rate of speed</b>	up to 2.9 m/s
<b>Working height</b>	750-1,100 mm
<b>Conveyor width</b>	800 / 900 / 1,000 / 1,200 mm
<b>Conveyor length</b>	1,400 / 1,500 / 1,600 / 1,700 / 1,800 mm
<b>Rated voltage controls</b>	L1/N/PE; 230V/115V
<b>Rated voltage drive</b>	400/380V
<b>Rated frequency</b>	50/60 Hz
<b>GWR (Gross weight range)</b>	120 kg
<b>e (min. Calibration value)</b>	≥ 20 g

Other system configurations on request



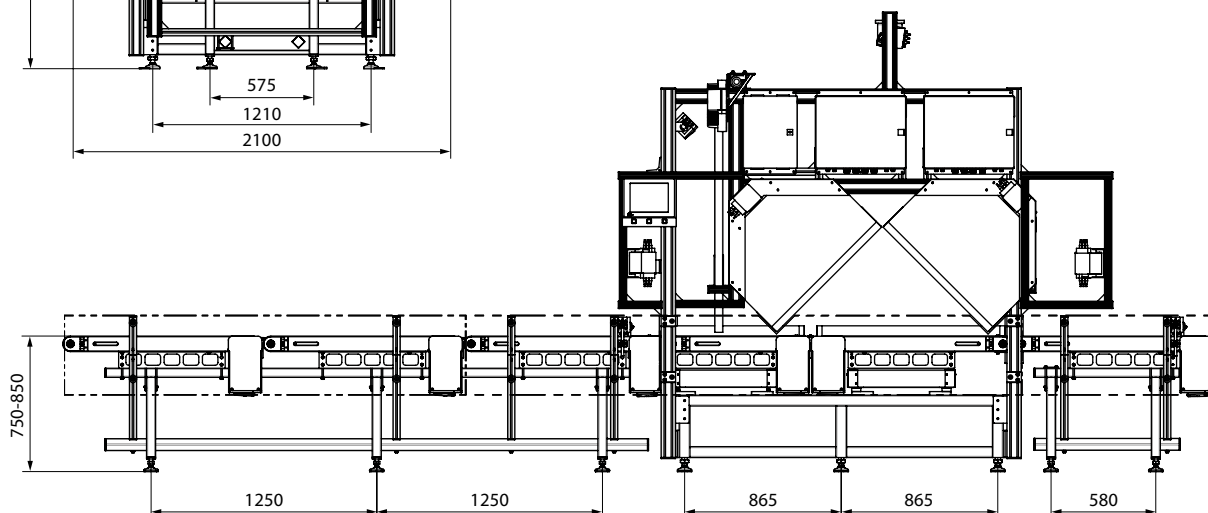
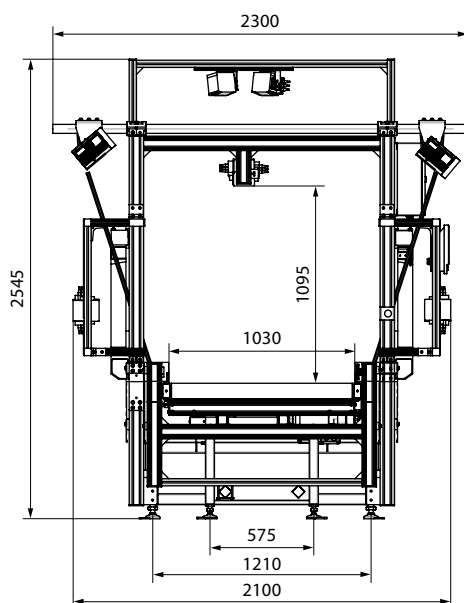
Other machine specifications  
→ Technical Data Sheet



Openings in the carrier system for belt body replacement



Easy belt replacement by dismantling a carrier element



All entries in mm | Drawing shows sample version

# IRREGS WILL NO LONGER HOLD YOU UP: DWS IRREG SYSTEMS

**DWS** Irreg

Bulky freight requires special handling. But here too, it's important to invoice the consignee as accurately as possible for the cost incurred. What you need for this, is price-relevant data which has to be determined safely and transparently. The **DWS Irreg** system is the perfect solution.

DWS Irreg systems from WIPOTEC-OCS enable the machine-compatible processing of consignments which cannot be sorted within the current product range due to their size, shape or weight. They incorporate dynamic catchweighers with a weighing range up to 150 kg. In addition to the weight, they also capture the volume and all 1D/2D codes.

DWS Irreg systems are available in a variety of configuration levels from semi-automated to fully automated operation. This means automatic detection of information in the shortest possible time, integrated and fully synchronised with downstream transport and sorting systems.

Items of freight are weighed, their dimensions optically captured and all consignment-relevant printed information is read and processed. The systems generally pay for themselves after a few months as they enable correct invoicing with significantly reduced staff expenditure.



## MAIN FEATURES

- ☑ Loading and scanning station as driven or non-driven conveyor
- ☑ Automatically driven dimensioning and weighing unit
- ☑ Gross weight range up to 150 kg

## YOUR BENEFITS

- ☑ 360° data acquisition
- ☑ Revenue recovery due to comprehensive package acquisition
- ☑ Process optimisation for intralogistics

## TECHNICAL DATA

<b>Application</b>	CEP, mail order, intralogistics
<b>Machine type</b>	DWS Irreg - Dimensioning, Weighing, Scanning
<b>Protection class</b>	IP54
<b>Rate of speed</b>	up to 2.9 m/s
<b>Working height</b>	550-1,200 mm
<b>Conveyor width</b>	1,200 / 1,400 / 1,600 mm
<b>Conveyor length</b>	1,400-2,600 mm
<b>Rated voltage controls</b>	L1/N/PE; 230V/115V
<b>Rated voltage drive</b>	230V/115V
<b>Rated frequency</b>	50/60 Hz
<b>GWR (Gross weight range)</b>	150 kg
<b>e (min. Calibration value)</b>	≥ 20 g

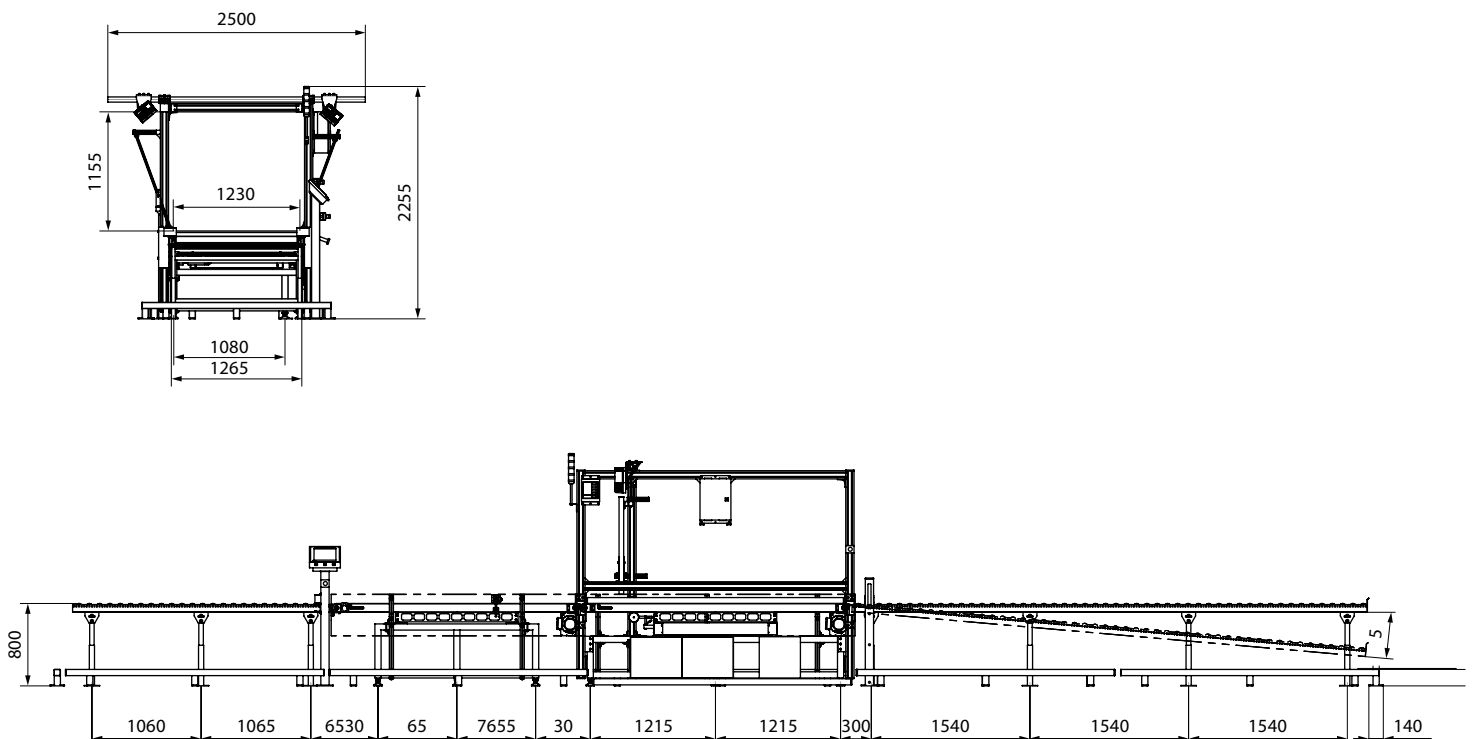


Bulky freight requires special handling

Other system configurations on request



Other machine specifications  
→ Technical Data Sheet



All entries in mm | Drawing shows sample version

# THE WORLD'S FASTEST LETTER SCALE

EC  
HC VLS

With a throughput rate of up to 60,000 items per hour for three letter scales connected in parallel, the MID-approved **HC-VLS** or **EC-VLS** letter scales perform in the distinctly high-end range. They weigh letters up to a maximum weight of 1,000 grammes at high speed and accurate to half a gramme.

Letter scales from WIPOTEC-OCS are very easily integrated in letter sorting machines with vertical transport as a single or multi-lane system. The HC-VLS sets new standards here as the world's fastest, MID-approved letter scales.

A patented transport system in which the letters are not jammed but stand freely on their longitudinal side enables correct weight determination in the shortest

weighing times. It stands for accurate weight acquisition at speeds of up to 4 metres a second.

Lightning fast and highly precise: the high-tech version for thicker post. There is a version with a 22 mm wide channel for letters and flats up to 20 millimetres thick. Whichever version you choose, the HC-VLS is in a class of its own technically and economically.

The EMFR Weigh Cell integrated in the letter scales contains no wear parts and therefore operates absolutely wear- and maintenance-free. The HC-VLS is equipped with Active Vibration Compensation (AVC). Active Vibration Compensation (AVC) also ensures correct weighing results in environments that are not vibration-free by filtering disruptive vibrations out of the measured result.



## MAIN FEATURES

- ✔ Transport speeds up to 4 m/s with vertical transport
- ✔ Weighing range up to 1,000 g
- ✔ Accuracy above +/- 0.5 g
- ✔ Vertical letter transport with three synchronous conveyor belts
- ✔ Perfectly suited to letters and flats in applications with medium and high speeds

## YOUR BENEFITS

- ✔ Easily integrated in existing lines
- ✔ High scalability – possible to operate up to three scales in parallel
- ✔ EMFR Weigh Cell for outstanding weighing results

## TECHNICAL DATA

<b>Application</b>	Letters and flats	
<b>Machine type</b>	EC-VLS-630	HC-VLS-630
<b>Protection class</b>	IP40 <sup>1)</sup>	
<b>Rate of speed</b>	2 m/s	4 m/s
<b>Working height</b>	346 mm (without frame) I 750-850 / 850-950 mm <sup>2)</sup>	915 +/- 20 mm I 855 +/- 20 mm
<b>Channel width</b>	13 mm (22 mm optional)	
<b>Conveyor length</b>	448 mm	630 mm
<b>Rated voltage</b>	L1/N/PE 115/230 VAC	
<b>Rated frequency</b>	50/60 Hz	
<b>GWR (Gross weight range)</b>	Approx. 1,000 g (EC-3000/4000)	
<b>e (min. Calibration value)</b>	≥ 0.5 g	
<b>Multi-lane capability</b>	yes	

- 1) Higher protection class on request (control can be designed as a panel or control cabinet)  
2) Others on request



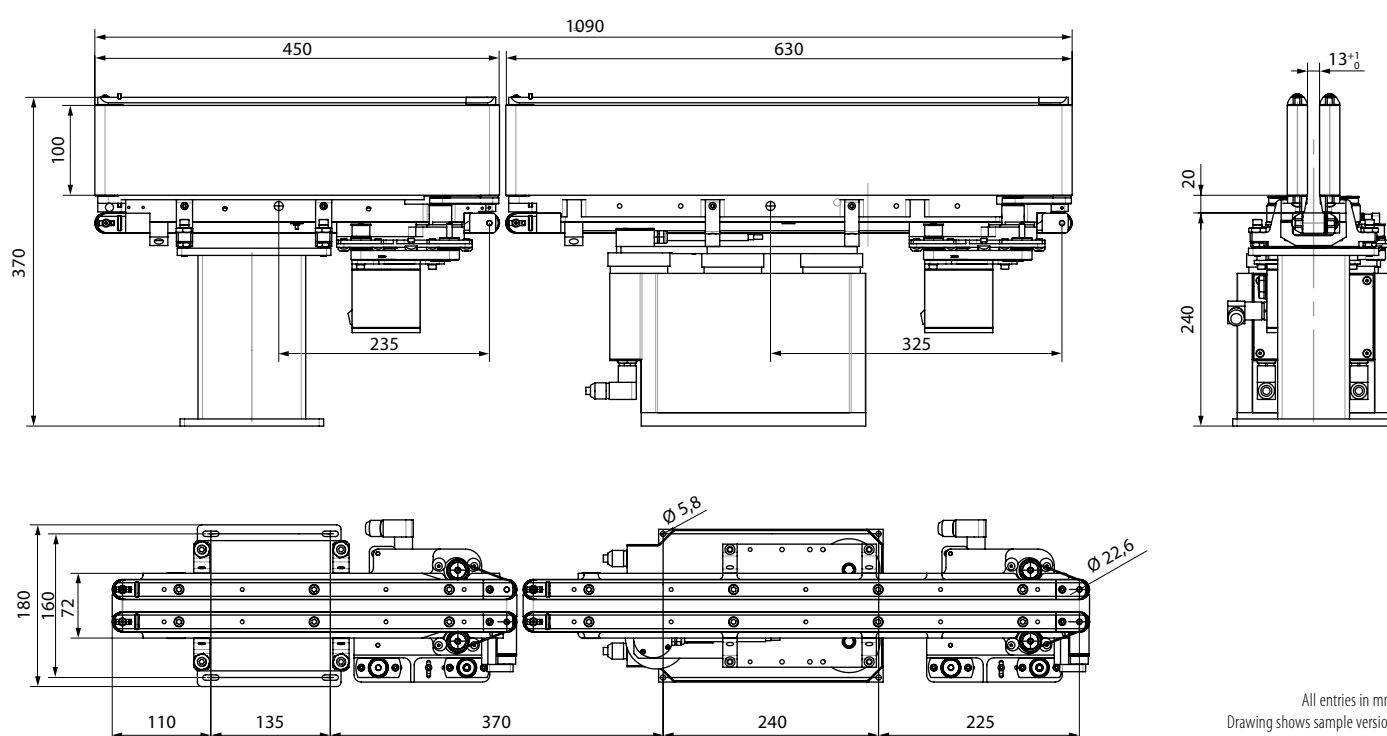
Other machine specifications  
→ Technical Data Sheet



Transport of upright letters



Synchronous running belt drives



All entries in mm  
Drawing shows sample version

# EXTREMELY COMPACT AND EASY TO INTEGRATE

**EC** 3000  
**HC** 4000

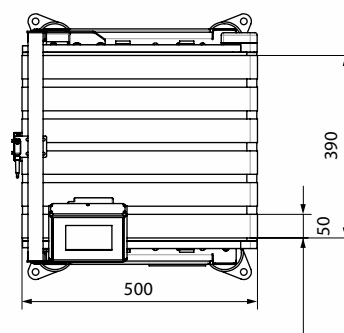
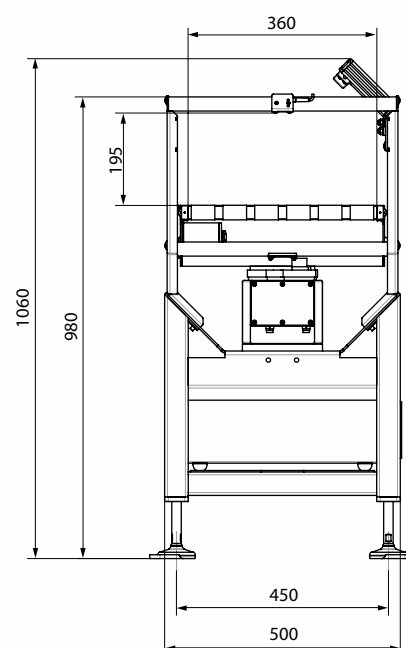
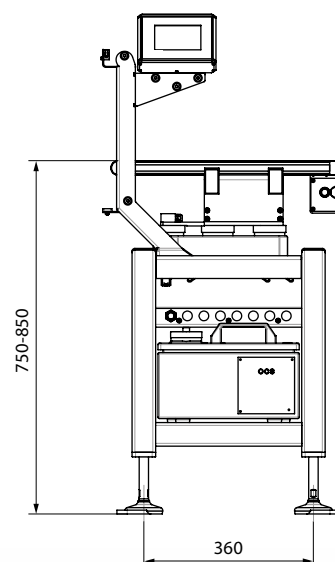
With the letter scales of the **EC/HC-3000** and **EC/HC-4000** series, you can weigh letters, large letters and small parcels, individually weighing up to a maximum 3.75 kg, reliably and accurate to half a gramme. These scales have an extremely small footprint thanks to the control cabinet integrated in the frame.

The catchweighers of the 3000/4000 series are ideal for letters and small packages due to fast and precise weight acquisition. They are easily integrated in horizontal letter sorting systems. The horizontal conveyor belts of these letter and parcel scales convey goods even in chaotic sequence at up to two metres a second.

Even restricted space conditions present no obstacle to the extremely compact systems. The use of a high-tech WIPOTEC Weigh Cell, which works on the principle of electro-magnetic force restoration (EMFR), guarantees excellent weighing results and is completely wear-free.



Other machine specifications  
→ Technical Data Sheet



All entries in mm | Drawing shows sample version



# RELIABLE EXPERT SERVICE, CUSTOMISED TO YOUR NEEDS

When you choose WIPOTEC-OCS as your system supplier, you have the benefit of top quality service modules that incorporate the vast experience of our weighing and inspection system experts. Whether a pure consulting service or specific line and product support throughout the product life cycle, we are your reliable partner.

Turn to us with your requirements. We would be pleased to discuss the scope and effort of individual services in more detail with you. Trust in our experience and reliability.

## BENEFIT FROM OUR OUTSTANDING RANGE OF SERVICES

- ☑ **24/7\* – HOTLINE AVAILABILITY**
- ☑ **GLOBAL SERVICE NETWORK WITH CERTIFIED TECHNICIANS FOR ON SITE SUPPORT**
- ☑ **PROFESSIONAL INSTALLATION AND OPTIMISATION BASED ON CUSTOMER NEEDS ENSURES SMOOTH START-UP**
- ☑ **EUROPE-WIDE CONFORMITY ASSESSMENT AND COMPLETE OVERHAUL WITH THE EXCHANGE OF VERIFICATION RELEVANT PARTS**
- ☑ **PREVENTIVE MAINTENANCE, SETUP, AND OPTIMISATION OF YOUR SYSTEMS**
- ☑ **FAST ON SITE REPAIRS USING ORIGINAL PARTS**
- ☑ **CALIBRATION CHECKS AND READJUSTMENT OF THE ENTIRE SYSTEM, IF REQUIRED**
- ☑ **GENERAL PRODUCT AND TARGET OBJECTIVE TRAINING TO IMPROVE EFFICIENCY**
- ☑ **REMOTE MAINTENANCE FIRST HAND (WITH APPROPRIATE HARDWARE) FOR URGENT JOBS**

\* On conclusion of a corresponding service agreement



# INNOVATIVE, HIGH-END INSPECTION SYSTEMS FOR BETTER IMPROVED EFFICIENCY AND PRODUCTIVITY



**WE ARE THE IDEAL PARTNER FOR ALL  
YOUR NEEDS, FROM PRE-SALES  
CONSULTING TO AFTER SALES SERVICE**

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