WIPOTEC WEIGHING TECHNOLOGY

PRODUCT CATALOG

/ WEIGH CELLS
/ WEIGHING KITS
/ ACCESSORIES
THIS IS WIPOTEC
WIPOTEC Weighing Technology is the global market leader and recognized OEM system supplier for machine manufacturers in terms of integration of intelligent weighing technology. Our core business is the development, production and integration of ultra-fast precision Weigh Cells and high-tech weighing systems for high-speed applications.

WIPOTEC Weighing Technology is part of the WIPOTEC Group, one of the leading companies for high-performance weighing and inspection solutions. The company continuously contributes to greater product safety, line efficiency and productivity for customers worldwide. In addition, WIPOTEC solutions make a significant social contribution to greater consumer and patient safety.

More than 30 years ago, WIPOTEC developed the “monoblock” – the core component of modern Weigh Cells – and made the high-precision weighing technology of electro-magnetic force restoration (EMFR) suitable for industrial use. The monoblock allows maximum accuracy with the shortest settling times and sampling rates of 1 millisecond and guarantees reliable weighing in inline production processes.

Our customers benefit from an exceptional level of vertical integration exceeding 90%. The result is market-leading quality, reliability and flexibility in terms of the best integration solution. We work closely with our customers on their specific requirements, drawing on the knowledge of experts from different areas, which enables us to rule out possible sources of error in advance and to integrate the WIPOTEC weighing systems smoothly in the customer’s machinery.

In addition to the advantages of integrated weighing technology, our customers enjoy special services. This includes support in defining and implementing the best application solution and extends to a professional remote service via a telephone hotline. An on-site service, staffed by experts, deals with service and maintenance cases quickly and easily. Service technicians do not simply provide first-level support just to identify the next steps, they also implement the solutions.

General and customized training courses create, application-specific expertise and complete our range of services.
**ELECTRO-MAGNETIC FORCE RESTORATION (EMFR)**

EMFR Weigh Cells provide very fast and highly precise measured results

The crucial advantage of a Weigh Cell with electro-magnetic force restoration (EMFR) from WIPOTEC is its extremely short settling time and sampling rates of 1 millisecond. Compared with the weighing principle with strain gauges, it provides very precise weights significantly faster and is also straightforward, space and cost-saving to integrate into existing systems. The WIPOTEC Weigh Cell scope covers a weighing range from 1 microgram to 120 kilograms and with MMS offers the most innovative Modular Multilane System on the market. The special feature here is that customers benefit from a global range of Weigh Cells that delivers the same high quality and performance values in all markets.

Other advantages are found in product features such as robust mechanical design and reliable overload protection of the Weigh Cell. In addition, an adjustable dead load range for customer structures ensures customers enjoy key benefits.

The basis of WIPOTEC’s high-precision weighing technology is the monoblock produced internally, a masterpiece of in-house machining technology. State-of-the-art CNC technology turns an aluminum into an instrument for highest precision. The monoblock forms the basis for weighing by the method of electro-magnetic force restoration (EMFR).
ACTIVE VIBRATION COMPENSATION (AVC)

Best results despite vibration, thanks to Active Vibration Compensation

Accurate weighing results despite severe ambient vibrations? Our proprietary Active Vibration Compensation (AVC) technology, which is unique in the market, makes this possible. As a stand-alone sensor or optionally integrated in the Weigh Cell, WIPOTEC’s exclusive vibration compensation technology uses intelligent algorithms to deliver precise weighing results even under the influence of vibrations and in high-speed inline processes – and without any loss of performance at that.

WIPOTEC stands for innovative solutions “Made in Germany”. This seal of quality is the source for incentive and commitment in equal measure and also the basis for continuing our 30-year success story with pioneering developments in the same vein.

EMFR WEIGHING KITS

Our range of weighing kits is based on our broad market knowledge of the respective industry and product-specific applications for integrated weighing technology. The breadth of models and types, supplemented by a large number of interfaces and support for all common fieldbus systems, enables fast and efficient integration. For special requirements that the standard range cannot cover, we are advisory engineering partners who implement the best customized application with you.
WIPOTEC ADVANTAGES

Connection options

Regardless of the installation position, the option to design the interface connection at the rear or on the bottom ensures that our Weigh Cells adapt to your machine concept. The optional straight or angled connector completes the flexible connection options.

Whether your machine communicates via CAN, RS 422, Profinet IO, Ethernet/IP, EtherCAT or Powerlink, our Weigh Cells speak the same language.

Installation options

Your machine position does not permit you to screw through the mounting plate from below? This is where our mounting flange, optionally on top or at the bottom, helps with installation.

Wide variety

With Weigh Cells, the load is usually introduced from above. Do you have an innovative idea and need to introduce the load from the front? Or would you like to flip the Weigh Cells over and use them in upside down operation? Then you have come to the right place.
Self Check

Do you want to be able to check if the WIPOTEC Weigh Cell is working properly at any time? For this we have integrated a test weight.

Wash Down

Do you think that WIPOTEC Weigh Cells can not be wet cleaned because they are high-precision weighing systems? We have developed Weigh Cells that meet protection class IP65 in cleaning mode. We can even cover IP69K applications with the right Weigh Cell from our extensive range.

Sampling rate

A sampling rate with 1000 measured values per second makes our Weigh Cells the fastest for industrial use. At high throughputs, we determine the maximum possible number of individual weight values which ensure a precise weighing result even with short measuring times. Your task is not a high-speed application? No problem, there’s no harm in having more measuring points for the correct weighing result. Either way, a more precise weighing result will minimize your give-away and help increase your machine performance.
WEIGH CELLS
WEIGHING RANGE 0 - 2,000 g

10 MMS
MODULAR MULTILANE SYSTEM

17 SL-M-FS
WEIGHING RANGE 0 - 1,000 g

14 SX-M-FS
WEIGHING RANGE 0 - 60 g

20 SW-M-FS
WEIGHING RANGE 0 - 2,000 g
Weigh Cell production in a clean room

23  SL-E
WEIGHING RANGE 0-70 g

26  SL-FS
WEIGHING RANGE 0-1,000 g

29  SW-FS
WEIGHING RANGE 0-2,000 g

32  SW-D-FS
WEIGHING RANGE 0-2,000 g

35  SW-D-FS-EX
WEIGHING RANGE 0-2,000 g

38  SW-WD-FS
WEIGHING RANGE 0-2,000 g
The Modular Multilane System (MMS) is a flexible and individually configurable multilane system with Active Vibration Compensation (AVC). The simple plug-in system can be used for a centerline distance of 25 mm or more. All SX-M-FS, SL-M-FS and SW-M-FS Weigh Cells can be used within the MMS system.

The MMS, optionally with latest generation AVC is used wherever the weighing results and cycle rates may be adversely affected by vibrations and interference in the machine. In many cases a separate base frame is not required.

The basic module is available with different numbers of slots, as needed for application-specific lane implementations. The appropriate electronic modules for the Weigh Cells, AVC sensor, and communications are plugged into the basic module. The communications system supports all common field bus systems.

You need an individual solution?
Please contact us.
COMPONENTS

AVC sensor
Type AVC1/3 – 62024655

Electronic module AVC sensor
65000210

CFI module MMS
65001120 - Ethernet/IP
65001130 - Powerlink
65001145 - Profinet IO
65001150 - EtherCat
65001160 - Profibus DP V1

Basic module MMS
58000505 - 3 slots
58000510 - 6 slots
58000520 - 10 slots
58000530 - 14 slots

Weigh Cell
SX-M-FS, SL-M-FS or SW-M-FS with option 50 (prepared for AVC)
(Data and dimensions according to separate product information)

Connecting cable
(See below for selection)

Electronic module of Weigh Cell
65001220 Measuring resistor 50 Ohm
65001221 Measuring resistor 100 Ohm
65001222 Measuring resistor 300 Ohm
65001223 Measuring resistor 1000 Ohm
65001230 Measuring resistor 50 Ohm with I/O
65001231 Measuring resistor 100 Ohm with I/O
65001232 Measuring resistor 300 Ohm with I/O
65001233 Measuring resistor 1000 Ohm with I/O

Cover plate MMS – 15028099

CABLE VARIATIONS

25316412 5m, angled female coupling / angled coupling plug
25316414 5m, angled female coupling / straight coupling plug
25316415 5m, straight female coupling / angled coupling plug
25316413 5m, straight female coupling / straight coupling plug

25316412 5m, angled female coupling / angled coupling plug
25316415 5m, straight female coupling / angled coupling plug
25316414 5m, angled female coupling / straight coupling plug
25316413 5m, straight female coupling / straight coupling plug
All measurements in mm  Subject to technical modifications

3 slots  A = 192  B = 178
6 slots  A = 294  B = 280
10 slots  A = 430  B = 416
14 slots  A = 566  B = 552
All measurements in mm  Subject to technical modifications
The SX-M-FS Weigh Cell series covers a weighing range up to 60 g. Thanks to a wide variety of different interfaces the Weigh Cells can communicate with all control systems on the market.

From a weighing perspective, the electronics are installed in a separate housing. This prevents a build-up of heat which is particularly detrimental to fast, high-precision weighing, particularly in multilane applications. It also means that there is no need for complex cooling.

As an alternative to the electronic box, the Weigh Cell can also be operated on MMS2 system components (MMS2 = Modular Multilane System). These components are designed in protection class IP65 and there is no need for an additional control cabinet.

AVC (Active Vibration Compensation) can also be used in combination with MMS2.

The Weigh Cell provides a convenient hygiene-compliant enclosure option particularly for multilane applications.

In the load output area, the patented design allows easy assembly/disassembly with guaranteed tightness.

The Weigh Cells are available in different versions for a wide range of requirements:

**Load output top:**
- With clamping ring for (secondary) hood installation
- The installation height is 89 mm

**Load output front:**
- With clamping ring for (secondary) hood installation
- The installation height is 84 mm

Details on MMS2 are provided in a separate documentation.

You need an individual solution? Please contact us.

/ TO BE USED IN
- Multilane weighing systems
- In Process Controls (IPC)
- Custom machine engineering
- Filling and packaging machines

/ FEATURES
- Weighing range up to 60 g, covered by 3 models
- Additive dead load range up to 60 g
- Very slim construction in aluminum housing with separate electronic box
- Multilane applications starting from 25 mm centerline distance
- Interface 1: CAN, RS 422, Profibus DP, Profinet IO, Ethernet/IP, EtherCAT
- Interface 2: RS 232 for service and configuration
- Sampling rate: 1 ms
- MMS capable (Modular Multilane System)
<table>
<thead>
<tr>
<th>WEIGH CELL TYPE</th>
<th>SX-M 10/30-FS</th>
<th>SX-M 30/60-FS</th>
<th>SX-M 60/60-FS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighing range</td>
<td>10 g</td>
<td>30 g</td>
<td>60 g</td>
</tr>
<tr>
<td>Electrically adjustable dead load range (^1)</td>
<td>30 g</td>
<td>60 g</td>
<td>60 g</td>
</tr>
<tr>
<td>Display value (d) with higher resolution (standard) (^2)</td>
<td>0.00002 g / 0.0001 g (^7)</td>
<td>0.00005 g / 0.0001 g (^7)</td>
<td>0.0001 g</td>
</tr>
<tr>
<td>Linearity (\leq)</td>
<td>± 0.00006 g</td>
<td>± 0.00015 g</td>
<td>± 0.0003 g</td>
</tr>
<tr>
<td>Repeatability (s) (\leq)</td>
<td>0.00002 g / 0.0001 g (^7)</td>
<td>0.00005 g / 0.0001 g (^7)</td>
<td>0.0001 g</td>
</tr>
<tr>
<td>Minimum weight (\leq) for U=0.1 % (according to USP)</td>
<td>0.04 g / 0.2 g (^7)</td>
<td>0.1 g / 0.2 g (^7)</td>
<td>0.2 g</td>
</tr>
<tr>
<td>Minimum weight (\leq) for U=1 %</td>
<td>0.004 g / 0.02 g (^7)</td>
<td>0.01 g / 0.02 g (^7)</td>
<td>0.02 g</td>
</tr>
<tr>
<td>Maximum diameter of weighing platform</td>
<td>24 mm</td>
<td>24 mm</td>
<td>24 mm</td>
</tr>
<tr>
<td>Settling time (on 1‰ of final weighing range value) (^4)</td>
<td>&lt; 220 ms</td>
<td>&lt; 120 ms</td>
<td>&lt; 120 ms</td>
</tr>
<tr>
<td>Protection class of the Weigh Cell</td>
<td>IP40 (^a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature range</td>
<td>+10 °C to +30 °C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power supply (^6)</td>
<td>24 V DC, ± 5 %, 0.5 A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>approx. 850 g</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interface 1</td>
<td>CAN, RS 422, Profibus DP, Profinet IO, Ethernet/IP, EtherCAT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interface 2</td>
<td>RS 232, 115200/8/1/odd</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing material</td>
<td>Aluminum hard coated with stainless steel side cover AISI 304</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) From top edge of factory-provided load bolt. When the optional load plate (approx. 20 g) is used, the dead load range is reduced accordingly.

\(^2\) Depends on the preference settings and on setup and ambient conditions of the system | The absolute repeatability is +/- 3 s

\(^3\) Temperature range: +10 °C to +30 °C

\(^4\) Weighing time = settling time plus (adjustable) measuring time

\(^5\) IP44 with customer-provided secondary protection and double labyrinth possible

\(^6\) 5 m cable connection between electronic box and sensor

\(^7\) In combination with MMS and AVC

\(^8\) For option higher display resolution

/ OPTIONS

- Option 10: RS 422 instead of CAN interface
- Option 11: Bus operation (standard)
- Option 12: Higher display resolution (standard)
- Option 13: Binary I/O channels (standard)
- Option 14: Filling algorithm
- Option 25: Dead load compensation
- Option 34: Interface connection at the bottom
- Option 35: Profibus DP instead of CAN interface
- Option 36: Ethernet/IP instead of CAN interface
- Option 37: Profinet IO instead of CAN interface
- Option 38: EtherCAT instead of CAN interface
- Option 39: Powerlink (only for MMS)
- Option 40: Mounting flange bottom
- Option 43: Load output front
**Selectables versions**

1. Load output
   - only load bold
   - with load plate
   - housing options
2. Electrical connection
   - plug position
   - cable versions
3. Installation
   - housing bottom
   - mounting flange bottom

All measurements in mm  Subject to technical modifications
The SL-M-FS Weigh Cell series covers a weighing range up to 1,000 g. Thanks to a wide variety of different interfaces the Weigh Cells can communicate with all control systems on the market.

From a weighing perspective, the electronics are installed in a separate housing. This prevents a build-up of heat which is particularly detrimental to fast, high-precision weighing, particularly in multilane applications. It also means that there is no need for complex cooling.

As an alternative to the electronic box, the Weigh Cell can also be operated on MMS2 system components (MMS2 = Modular Multilane System). These components are designed in protection class IP65 and there is no need for an additional control cabinet. AVC (Active Vibration Compensation) can also be used in combination with MMS2.

The Wash Down option is now also available for the aluminum version of the Weigh Cell. This provides convenient connection of a common hygienic cover, particularly in the case of multilane applications.

In the load output area, the patented design enables easy assembly/disassembly with guaranteed tightness.

All versions now also include the Self Check option. An internal test weight can be used at any time to check that the Weigh Cell is working properly, e.g. during a batch change under clean room conditions.

The Weigh Cells are available in different versions for a wide range of requirements:

**Stainless steel version:**
- With Wash Down and Self Check option
- The installation height is 112 mm

**Aluminum version:**
- With Wash Down and Self Check option
- With clamping ring for (secondary) hood installation
- The installation height is 112 mm

**Aluminum version:**
- With Self Check option
- The installation height is 91 mm

Details on MMS2 are provided in a separate documentation.

You need an individual solution? Please contact us.
### WEIGH CELL TYPE

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighing range</td>
<td>20 g</td>
<td>50 g</td>
<td>100 g</td>
<td>250 g</td>
<td>500 g</td>
<td>1,000 g</td>
</tr>
<tr>
<td>Electrically adjustable dead load range</td>
<td>50 g</td>
<td>50 g</td>
<td>150 g</td>
<td>300 g</td>
<td>300 g</td>
<td>600 g</td>
</tr>
<tr>
<td>Display value (d)</td>
<td>0.0002 g</td>
<td>0.0005 g</td>
<td>0.001 g</td>
<td>0.002 g</td>
<td>0.005 g</td>
<td>0.01 g</td>
</tr>
<tr>
<td>Display value (d) with higher resolution (Option) 3</td>
<td>0.000005 g</td>
<td>0.00001 g</td>
<td>0.00002 g</td>
<td>0.00005 g</td>
<td>0.001 g</td>
<td>0.002 g</td>
</tr>
<tr>
<td>Linearity ≤</td>
<td>± 0.0001 g</td>
<td>± 0.0002 g</td>
<td>± 0.0004 g</td>
<td>± 0.001 g</td>
<td>± 0.002 g</td>
<td>± 0.004 g</td>
</tr>
<tr>
<td>Repeatability (s) ≤</td>
<td>0.000005 g</td>
<td>0.00001 g</td>
<td>0.00002 g</td>
<td>0.00005 g</td>
<td>0.001 g</td>
<td>0.002 g</td>
</tr>
<tr>
<td>Minimum weight 3</td>
<td>0.1 g / 0.2 g</td>
<td>0.2 g</td>
<td>0.4 g</td>
<td>1 g</td>
<td>2 g</td>
<td>4 g</td>
</tr>
<tr>
<td>Minimum weight 3 for U=1 %</td>
<td>0.01 g</td>
<td>0.02 g</td>
<td>0.04 g</td>
<td>0.1 g</td>
<td>0.2 g</td>
<td>0.4 g</td>
</tr>
<tr>
<td>Maximum diameter of weighing platform</td>
<td>40 mm</td>
<td>40 mm</td>
<td>40 mm</td>
<td>40 mm</td>
<td>80 mm</td>
<td>80 mm</td>
</tr>
<tr>
<td>Settling time 1, 2</td>
<td>&lt; 120 ms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protection class of the Weigh Cell</td>
<td>IP44 / IP65 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature range</td>
<td>+5 °C to +40 °C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power supply</td>
<td>24 V DC, ± 5%, 0.5 A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>approx. 1,000 g</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interface 1</td>
<td>CAN, RS 422, Profibus DP, Profinet IO, Ethernet/IP, EtherCAT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interface 2</td>
<td>RS 232, 115200/8/1/odd</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing material</td>
<td>Aluminum hard coated with stainless steel side cover AISI 304</td>
<td></td>
<td>Option: Stainless steel AISI 316L</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1) Depends on the preference settings and on setup and ambient conditions of the system
2) The absolute repeatability is ±/ 3 s
3) Weighing time = settling time plus (adjustable) measuring time
4) Protection class IP65 in combination with option Wash Down mode
5) 5 m cable connection between electronic box and sensor
6) In combination with MMS and AVC
7) For option higher display resolution

---

### OPTIONS

- **Option 9:** Stainless steel housing
- **Option 10:** RS 422 instead of CAN interface
- **Option 11:** Bus operation (standard)
- **Option 12:** Higher display resolution
- **Option 13:** Binary I/O channels (standard)
- **Option 14:** Filling algorithm
- **Option 25:** Dead load compensation
- **Option 29:** Wash Down mode IP65 (with aluminum version only in combination with customers provided housing/stainless steel cover)
- **Option 34:** Interface connection at the bottom for separate electronic (standard with stainless steel housing)
- **Option 35:** Profibus DP instead of CAN interface
- **Option 36:** Ethernet/IP instead of CAN interface
- **Option 37:** Profinet IO instead of CAN interface
- **Option 38:** EtherCAT instead of CAN interface
- **Option 39:** Powerlink (only for MMS)
- **Option 40:** Mounting flange bottom (only with aluminum version)
- **Option 44:** Self Check (internal test weight)
Housing: Aluminum hard coated with Wash Down mode IP65

Housing: Stainless steel AISI 316L

Housing: Aluminum hard coated

Selectable versions

1. Load output
   housing options
2. Electrical connection
   plug position
   cable versions
3. Installation
   housing bottom
   mounting flange bottom

All measurements in mm
Subject to technical modifications
The SW-M-FS Weigh Cell series covers a weighing range up to 2,000 g. Thanks to a wide variety of different interfaces the Weigh Cells can communicate with all control systems on the market.

From a weighing perspective, the electronics are installed in a separate housing. This prevents a build-up of heat which is particularly detrimental to fast, high-precision weighing, particularly in multilane applications. It also means that there is no need for complex cooling.

As an alternative to the electronic box, the Weigh Cell can also be operated on MMS2 system components (MMS2 = Modular Multilane System). These components are designed in protection class IP65 and there is no need for an additional control cabinet.

AVC (Active Vibration Compensation) can also be used in combination with MMS2.

The Weigh Cell now also includes the Self Check option. An internal test weight can be used at any time to check that the Weigh Cell is working properly, e.g. during a batch change under clean room conditions.

The Weigh Cells are available in different versions for a wide range of requirements:

**Stainless steel version:**
- With Wash Down and Self Check option
- The installation height is 112 mm

Details on MMS2 are provided in a separate documentation.

You need an individual solution? Please contact us.

/ TO BE USED IN
- Filling and packaging machines
- Custom machine engineering
- Multilane weighing systems
- In Process Controls (IPC)
- CIP (Cleaning In Place)

/ FEATURES
- Weighing range up to 2,000 g, covered by 2 models
- Additive dead load range up to 600 g
- Slim construction in stainless steel housing with separate electronic box
- Multilane applications starting from 50 mm centerline distance
- Wash Down mode (optional)
- Interface 1: CAN, RS 422, Profibus DP, Profinet IO, Ethernet/IP, EtherCAT
- Interface 2: RS 232 for service and configuration
- Sampling rate 1 ms
- Self Check (internal test weight)
- MMS capable (Modular Multilane System)
### WEIGH CELL TYPE

<table>
<thead>
<tr>
<th>Sw-M 1000/600-FS</th>
<th>Sw-M 2000/600-FS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighing range</td>
<td>1,000 g</td>
</tr>
<tr>
<td>Electrically adjustable dead load range</td>
<td>600 g</td>
</tr>
<tr>
<td>Display value (d)</td>
<td>0.01 g</td>
</tr>
<tr>
<td>Display value (d) with higher resolution (Option) ³</td>
<td>0.002 g</td>
</tr>
<tr>
<td>Linearity ≤</td>
<td>± 0.004 g</td>
</tr>
<tr>
<td>Repeatability (s) ≤ ⁵</td>
<td>0.002 g</td>
</tr>
<tr>
<td>Minimum weight ³</td>
<td>4 g</td>
</tr>
<tr>
<td>Minimum weight ⁶ for U=1 %</td>
<td>0.4 g</td>
</tr>
<tr>
<td>Maximum diameter of weighing platform</td>
<td>80 mm</td>
</tr>
<tr>
<td>Settling time ¹ ² (on 1% of final weighing range value)</td>
<td>&lt; 120 ms</td>
</tr>
<tr>
<td>Protection class of the Weigh Cell</td>
<td>IP44 / IP65 ⁴</td>
</tr>
<tr>
<td>Temperature range</td>
<td>+5 °C to +40 °C</td>
</tr>
<tr>
<td>Power supply ⁵</td>
<td>24 V DC, ± 5%, 0.5 A</td>
</tr>
<tr>
<td>Weight</td>
<td>approx. 1,000 g</td>
</tr>
<tr>
<td>Interface 1</td>
<td>CAN, RS 422, Profibus DP, Profinet IO, Ethernet/IP, EtherCAT</td>
</tr>
<tr>
<td>Interface 2</td>
<td>RS 232, 115200/8/1/odd</td>
</tr>
<tr>
<td>Housing material</td>
<td>Stainless steel AISI 316L</td>
</tr>
</tbody>
</table>

1) Depends on the preference settings and on setup and ambient conditions of the system
2) The absolute repeatability is +/- 3 s
3) Weighing time = settling time plus (adjustable) measuring time
4) Temperature range: +10 °C to +30 °C
5) Protection class IP65 in combination with Option Wash Down mode
6) For option higher display resolution

### OPTIONS

- **Option 9**: Stainless steel housing (standard)
- **Option 10**: RS 422 instead of CAN interface
- **Option 11**: Bus operation (standard)
- **Option 12**: Higher display resolution
- **Option 13**: Binary I/O channels (standard)
- **Option 14**: Filling algorithm
- **Option 25**: Dead load compensation
- **Option 29**: Wash Down mode IP65
- **Option 34**: Interface connection at the bottom for separate electronic (standard with stainless steel housing)
- **Option 35**: Profibus DP instead of CAN interface
- **Option 36**: Ethernet/IP instead of CAN interface
- **Option 37**: Profinet IO instead of CAN interface
- **Option 38**: EtherCAT instead of CAN interface
- **Option 39**: Powerlink (only for MMS)
- **Option 44**: Self Check (internal test weight)
Separate electronics

All measurements in mm

Subject to technical modifications
The SL-E Weigh Cell covers the weighing range up to 70 g. It has been specifically designed as a compact sensor component and is especially suited for installation in multilane applications with centerline distance of 29 mm or more.

The SL-E Weigh Cell is ideal for integration into production machines for tea and coffee capsules. It can be raised in time with the machine cycle to ensure that the capsule is discharged as necessary from the transport plate for weighing. System-induced active self-damping guarantees the shortest possible measuring times while maintaining the highest resolution.

All the necessary functional elements are integrated in a compact housing. No other external components are necessary. The Weigh Cell is connected either from the rear or the bottom, using customary standard cables.

You need an individual solution? Please contact us.

/ TO BE USED IN

- Tea and coffee capsule machines
- Multilane weighing systems
- In Process Controls (IPC)
- Custom machine engineering
- Filling and packaging machines

/ FEATURES

- Weighing range up to 70 g
- Minimum dead load 25 g
- Very slim construction in aluminum housing with integrated electronics
- Multilane applications starting from 29 mm centerline distance
- Interface 1: CAN
- Interface 2: RS 232 for service and configuration
- Sampling rate: 1 ms
<table>
<thead>
<tr>
<th>WEIGH CELL TYPE</th>
<th>SL 70/25-E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighing range</td>
<td>70 g</td>
</tr>
<tr>
<td>Minimum dead load</td>
<td>25 g</td>
</tr>
<tr>
<td>Display value (d)</td>
<td>0.001 g</td>
</tr>
<tr>
<td>Linearity ≤</td>
<td>± 0.002 g</td>
</tr>
<tr>
<td>Repeatability (s) ≤ 2</td>
<td>0.001 g</td>
</tr>
<tr>
<td>Maximum diameter of weighing platform</td>
<td>24 mm</td>
</tr>
<tr>
<td>Settling time ≤ 2 (on 1% of final weighing range value)</td>
<td>&lt; 120 ms</td>
</tr>
<tr>
<td>Protection class of the Weigh Cell</td>
<td>IP40 ⁴</td>
</tr>
<tr>
<td>Temperature range</td>
<td>+10 °C to +30 °C</td>
</tr>
<tr>
<td>Power supply</td>
<td>24 V DC, ± 5%, 0.5 A</td>
</tr>
<tr>
<td>Weight</td>
<td>approx. 600 g</td>
</tr>
<tr>
<td>Interface 1</td>
<td>CAN</td>
</tr>
<tr>
<td>Interface 2</td>
<td>RS 232, 115200/8/1/odd</td>
</tr>
<tr>
<td>Housing material</td>
<td>Aluminum hard coated with side cover in stainless steel AISI 304</td>
</tr>
</tbody>
</table>

1) From top edge of the factory-set load bolt. With 60 g load on the factory-set load bolt, the system is in a balanced state and most resistant to floor vibrations. In this case, the weighing range is reduced to 35 g
2) Depends on the preference settings and on setup and ambient conditions of the system
3) The absolute repeatability is +/- 3 s
4) IP44 possible with load plate with double labyrinth seal

/ OPTIONS

- **Option 11**: Bus operation
- **Option 13**: Binary I/O channels (1 input/2 outputs)
- **Option 34**: Interface connection at the bottom

With the optional CFI (CAN-Fieldbus-Interface) it is possible to connect to a variety of industrial fieldbus systems.

Please see specifications on our website.
Bottom connection

Back connection

1 Interface 1
2 Interface 2
3 Access address settings, CAN bus terminator

All measurements in mm

Subject to technical modifications
The SL-FS Weigh Cell series covers a weighing range up to 1,000 g. They have been specifically designed as a compact sensor component and are especially suited for installation in multilane applications or anywhere that small sizes are in demand. Due to the GMP-compliant design, the Weigh Cells are also suited for use in the pharmaceutical industry.

As a ready-for-connection installation component, the Weigh Cell already supplies final weight values via a CAN interface as a standard feature. The integrated software filters can be configured in many ways and thus allow optimal adaptation of the weighing system to the relevant local conditions. The Weigh Cells extensive command set enables easy control engineering integration. Supplemented with a large number of options, the Weigh Cells can also meet very specific requirements.

You need an individual solution?
Please contact us.

/ TO BE USED IN
- Filling machines for vials, syringes, coffee pods, etc.
- Packaging machines

/ FEATURES
- Weighing range up to 1,000 g, covered by 2 models
- Additive dead load range up to 350 g
- Slim construction
- Multilane applications starting from 30 mm centerline distance
- Binary I/O channels with customer-specific functions
- Interface 1: CAN , RS 422
- Interface 2: RS 232 for service and configuration
- Sampling rate 1 ms
- Wash Down mode
- Self Check (internal test weight)
<table>
<thead>
<tr>
<th>WEIGH CELL TYPE</th>
<th>SL 250/150-FS</th>
<th>SL 1000/350-FS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighing range</td>
<td>250 g</td>
<td>1,000 g</td>
</tr>
<tr>
<td>Electrically adjustable dead load range</td>
<td>50 - 150 g</td>
<td>50 - 350 g</td>
</tr>
<tr>
<td>Display value (d)</td>
<td>0.002 g</td>
<td>0.01 g</td>
</tr>
<tr>
<td>Display value (d) with higher resolution (Option) §1</td>
<td>0.001 g</td>
<td>0.005 g</td>
</tr>
<tr>
<td>Linearity ≤</td>
<td>± 0.002 g</td>
<td>± 0.01 g</td>
</tr>
<tr>
<td>Repeatability (s) ≤</td>
<td>0.001 g</td>
<td>0.005 g</td>
</tr>
<tr>
<td>Maximum diameter of weighing platform</td>
<td>40 mm</td>
<td>80 mm</td>
</tr>
<tr>
<td>Settling time 1 2 (on 1‰ of final weighing range value)</td>
<td>&lt; 150 ms</td>
<td></td>
</tr>
<tr>
<td>Protection class of the Weigh Cell</td>
<td>IP44</td>
<td></td>
</tr>
<tr>
<td>Temperature range</td>
<td>+5 °C to +30 °C</td>
<td></td>
</tr>
<tr>
<td>Power supply</td>
<td>24 V DC, ± 5%, 0.5 A</td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>approx. 1,800 g</td>
<td></td>
</tr>
<tr>
<td>Interface 1</td>
<td>CAN, RS 422</td>
<td></td>
</tr>
<tr>
<td>Interface 2</td>
<td>RS 232, 115200/8/1/odd</td>
<td></td>
</tr>
<tr>
<td>Housing material</td>
<td>Aluminum hard coated with stainless steel side cover AISI 304</td>
<td></td>
</tr>
</tbody>
</table>

1) Depends on the preference settings and on setup and ambient conditions of the system. 
   The absolute repeatability is +/- 3 s

2) Weighing time = settling time plus (adjustable) measuring time

3) Temperature range: +10 °C to +30 °C

/ OPTIONS

- **Option 10**: RS 422 instead of CAN interface
- **Option 11**: Bus operation
- **Option 12**: Higher display resolution
- **Option 13**: Binary I/O channels (4-fold)
- **Option 14**: Filling algorithm
- **Option 25**: Dead load compensation
- **Option 29**: Wash Down mode IP65 (with aluminum version only in conjunction with customers provided housing/stainless steel cover)
- **Option 44**: Self Check (internal test weight)

With the optional CFI (CAN-Fieldbus-Interface) it is possible to connect to a variety of industrial fieldbus systems.

Please see specifications on our website.
Selective versions
1 Load output
2 Housing options
3 Electrical connection
4 Cable versions

All measurements in mm
Subject to technical modifications
The SW-FS Weigh Cell series covers a weighing range up to 2,000 g. They have been specifically designed as a compact sensor component and are especially suited for installation in multilane applications or anywhere that small sizes are in demand. Due to the GMP-compliant design, the Weigh Cells are also suited for use in the pharmaceutical industry.

As a ready-for-connection installation component, the Weigh Cell already supplies final weight values via a CAN interface as a standard feature. The integrated software filters can be configured in many ways and thus allow optimal adaptation of the weighing system to the relevant local conditions. The Weigh Cells extensive command set enables easy control engineering integration. Supplemented with a large number of options, the Weigh Cells can also meet very specific requirements.

You need an individual solution? Please contact us.

/ TO BE USED IN
- Filling and packaging machines
- Checkweighers (for different branches like food, pharmaceuticals, chemical and cosmetics)

/ FEATURES
- Weighing range up to 2,000 g, covered by 7 models
- Additive dead load range up to 2,000 g
- Slim construction
- Multilane applications starting from 60 mm centerline distance
- Binary I/O channels with customer-specific functions
- Interface 1: CAN , RS 422
- Interface 2: RS 232 for service and configuration
- Sampling rate: 1 ms
### WEIGH CELL TYPE

<table>
<thead>
<tr>
<th>SW 20/150-FS</th>
<th>SW 50/300-FS</th>
<th>SW 100/400-FS</th>
<th>SW 200/600-FS</th>
<th>SW 500/1000-FS</th>
<th>SW 1000/1000-FS</th>
<th>SW 2000/2000-FS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighing range</td>
<td>20 g</td>
<td>50 g</td>
<td>100 g</td>
<td>200 g</td>
<td>500 g</td>
<td>1,000 g</td>
</tr>
<tr>
<td>Electrical adjustable dead load range</td>
<td>150 g</td>
<td>300 g</td>
<td>400 g</td>
<td>600 g</td>
<td>1,000 g</td>
<td>1,000 g</td>
</tr>
<tr>
<td>Verification scale interval (e)</td>
<td>0.002 g</td>
<td>0.005 g</td>
<td>0.01 g</td>
<td>0.02 g</td>
<td>0.05 g</td>
<td>0.1 g</td>
</tr>
<tr>
<td>Display value (d)</td>
<td>0.0002 g</td>
<td>0.0005 g</td>
<td>0.001 g</td>
<td>0.002 g</td>
<td>0.005 g</td>
<td>0.01 g</td>
</tr>
<tr>
<td>Display value (d) with higher resolution (Option)</td>
<td>0.00005 g</td>
<td>0.0001 g</td>
<td>0.0002 g</td>
<td>0.0005 g</td>
<td>0.001 g</td>
<td>0.002 g</td>
</tr>
<tr>
<td>Linearity ≤</td>
<td>± 0.0001 g</td>
<td>± 0.0002 g</td>
<td>± 0.0004 g</td>
<td>± 0.001 g</td>
<td>± 0.002 g</td>
<td>± 0.004 g</td>
</tr>
<tr>
<td>Repeatability (s) ≤</td>
<td>0.00005 g</td>
<td>0.0001 g</td>
<td>0.0002 g</td>
<td>0.0005 g</td>
<td>0.001 g</td>
<td>0.002 g</td>
</tr>
<tr>
<td>Maximum dimensions of weighing platform</td>
<td>80 x 60 mm</td>
<td>80 x 60 mm</td>
<td>100 x 80 mm</td>
<td>150 x 100 mm</td>
<td>150 x 100 mm</td>
<td>150 x 100 mm</td>
</tr>
<tr>
<td>Settling time 1/2/ (on 1% of final weighing range value)</td>
<td>&lt; 120 ms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protection class of the Weigh Cell</td>
<td>IP44</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature range</td>
<td>+5 °C to +40 °C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power supply</td>
<td>24 V DC, ± 5%, 0.5 A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>approx. 2,500 g</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interface 1</td>
<td>CAN, RS 422</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interface 2</td>
<td>RS 232, 115200/8/1/odd</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing material</td>
<td>Aluminum hard coated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1) Depends on the preference settings and on setup and ambient conditions of the system
   The absolute repeatability is +/- 3 s
2) Weighing time = settling time plus (adjustable) measuring time
3) Temperature range: +10 °C to +30 °C

/ OPTIONS

- **Option 2**: Forceless connection of electrical aggregates
- **Option 10**: RS 422 instead of CAN interface
- **Option 11**: Bus operation
- **Option 12**: Higher display resolution
- **Option 13**: Binary I/O channels (4-fold)
- **Option 14**: Filling algorithm
- **Option 25**: Dead load compensation
- **Option 34**: Interface connection at the bottom

With the optional CFI (CAN-Fieldbus-Interface) it is possible to connect to a variety of industrial fieldbus systems.

Please see specifications on our [website](#).
The SW-D-FS Weigh Cell series covers a weighing range up to 2,000 g. They have been specifically designed as a compact sensor component and are especially suited for installation in multilane applications or anywhere that small sizes are in demand. Due to the GMP-compliant design, the Weigh Cells are also suited for use in the pharmaceutical industry. The docking station enables tool-free replacement of the Weigh Cell for cleaning or servicing purposes.

As a ready-for-connection installation component, the Weigh Cell already supplies final weight values via a CAN interface as a standard feature. The integrated software filters can be configured in many ways and thus allow optimal adaptation of the weighing system to the relevant local conditions. The Weigh Cells extensive command set enables easy control engineering integration. Supplemented with a large number of options, the Weigh Cells can also meet very specific requirements.

You need an individual solution?
Please contact us.
## WEIGH CELL TYPE

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighing range</td>
<td>20 g</td>
<td>50 g</td>
<td>100 g</td>
<td>200 g</td>
<td>500 g</td>
<td>1,000 g</td>
<td>2,000 g</td>
</tr>
<tr>
<td>Electrical adjustable dead load range</td>
<td>150 g</td>
<td>300 g</td>
<td>400 g</td>
<td>600 g</td>
<td>1,000 g</td>
<td>1,000 g</td>
<td>2,000 g</td>
</tr>
<tr>
<td>Verification scale interval (e)</td>
<td>0.002 g</td>
<td>0.005 g</td>
<td>0.01 g</td>
<td>0.02 g</td>
<td>0.05 g</td>
<td>0.1 g</td>
<td>0.2 g</td>
</tr>
<tr>
<td>Display value (d)</td>
<td>0.00002 g</td>
<td>0.00005 g</td>
<td>0.001 g</td>
<td>0.002 g</td>
<td>0.005 g</td>
<td>0.01 g</td>
<td>0.02 g</td>
</tr>
<tr>
<td>Display value (d) with higher resolution (Option)</td>
<td>0.000005 g</td>
<td>0.00001 g</td>
<td>0.00002 g</td>
<td>0.00005 g</td>
<td>0.0001 g</td>
<td>0.0002 g</td>
<td>0.0005 g</td>
</tr>
<tr>
<td>Linearity ≤</td>
<td>± 0.0001 g</td>
<td>± 0.0002 g</td>
<td>± 0.0004 g</td>
<td>± 0.001 g</td>
<td>± 0.002 g</td>
<td>± 0.004 g</td>
<td>± 0.01 g</td>
</tr>
<tr>
<td>Repeatability (s) ≤</td>
<td>0.00005 g</td>
<td>0.0001 g</td>
<td>0.0002 g</td>
<td>0.0005 g</td>
<td>0.001 g</td>
<td>0.002 g</td>
<td>0.005 g</td>
</tr>
<tr>
<td>Maximum dimensions of weighing platform</td>
<td>80 x 60 mm</td>
<td>80 x 60 mm</td>
<td>100 x 80 mm</td>
<td>150 x 100 mm</td>
<td>150 x 100 mm</td>
<td>150 x 100 mm</td>
<td>200 x 100 mm</td>
</tr>
<tr>
<td>Settling time (on 1‰ of final weighing range value)</td>
<td>&lt; 120 ms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protection class of the Weigh Cell</td>
<td>IP44</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature range</td>
<td>+5 °C to +40 °C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power supply</td>
<td>24 V DC, ± 5%, 0.5 A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>approx. 5,000 g</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interface 1</td>
<td>CAN, RS 422</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interface 2</td>
<td>RS 232, 115200/8/1/odd</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing material</td>
<td>Aluminum hard coated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1) Depends on the preference settings and on setup and ambient conditions of the system
2) The absolute repeatability is +/- 3 s
3) Weighing time = settling time plus (adjustable) measuring time
4) Temperature range: +10 °C to +30 °C

### OPTIONS

- **Option 2: Forceless connection of electrical aggregates**
- **Option 10: RS 422 instead of CAN interface**
- **Option 11: Bus operation**
- **Option 12: Higher display resolution**
- **Option 13: Binary I/O channels (4-fold)**
- **Option 14: Filling algorithm**
- **Option 25: Dead load compensation**

With the optional CFI (CAN-Fieldbus-Interface) it is possible to connect to a variety of industrial fieldbus systems. **Please see specifications on our website**.
All measurements in mm  
Subject to technical modifications
The SW-D-FS-EX Weigh Cell series covers a weighing range up to 2,000 g. They have been specifically designed as a compact sensor component and are especially suited for installation in multilane applications or anywhere that small sizes are in demand. Due to the special design, the Weigh Cells are also suited for use in areas at risk of explosion.

They comply with the type of protection II 3 G Ex na IIB T4 and II 3 D Ex tD IP54 100 °C and can be used in zone 2 (gas) and zone 22 in environments with non-conductive dust. The docking station enables easy replacement of the Weigh Cell for cleaning or servicing purposes.

System-induced active self-damping guarantees the shortest possible measuring times while maintaining the highest resolution.

As a ready-for-connection installation component, the Weigh Cell already supplies final weight values via a CAN interface as a standard feature. The integrated software filters can be configured in many ways and thus allow optimal adaptation of the weighing system to the relevant local conditions. The Weigh Cells extensive command set enables easy control engineering integration. Supplemented with a large number of options, the Weigh Cells can also meet very specific requirements.

You need an individual solution? Please contact us.

/ TO BE USED IN
- Filling machines
- Packaging machines
- Checkweighers (for different branches like food, pharmaceuticals, chemical and cosmetics)

/ FEATURES
- Weighing range up to 2,000 g, covered by 5 models
- Additive dead load range up to 2,000 g
- Docking station
- Slim construction
- Multilane applications starting from 72 mm centerline distance
- Binary I/O channels with customer-specific functions
- Interface 1: CAN, RS 422
- Interface 2: RS 232 for service and configuration
- Sampling rate 1 ms
## OPTIONS

- **Option 2**: Forceless connection of electrical aggregates
- **Option 10**: RS 422 instead of CAN interface
- **Option 11**: Bus operation
- **Option 12**: Higher display resolution
- **Option 13**: Binary I/O channels (4-fold)
- **Option 14**: Filling algorithm
- **Option 25**: Dead load compensation

With the optional CFI (CAN-Fieldbus-Interface) it is possible to connect to a variety of industrial fieldbus systems.

Please see specifications on our [website](#).

---

### WEIGH CELL TYPE

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighing range</td>
<td>100 g</td>
<td>200 g</td>
<td>500 g</td>
<td>1,000 g</td>
<td>2,000 g</td>
</tr>
<tr>
<td>Electrical adjustable dead load range</td>
<td>400 g</td>
<td>600 g</td>
<td>1,000 g</td>
<td>1,000 g</td>
<td>2,000 g</td>
</tr>
<tr>
<td>Verification scale interval (e)</td>
<td>0.01 g</td>
<td>0.02 g</td>
<td>0.05 g</td>
<td>0.1 g</td>
<td>0.2 g</td>
</tr>
<tr>
<td>Display value (d)</td>
<td>0.001 g</td>
<td>0.002 g</td>
<td>0.005 g</td>
<td>0.01 g</td>
<td>0.02 g</td>
</tr>
<tr>
<td>Display value (d) with higher resolution (Option)</td>
<td>-</td>
<td>0.001 g</td>
<td>0.001 g</td>
<td>0.002 g</td>
<td>0.005 g</td>
</tr>
<tr>
<td>Linearity ≤</td>
<td>± 0.002 g</td>
<td>± 0.002 g</td>
<td>± 0.002 g</td>
<td>± 0.004 g</td>
<td>± 0.01 g</td>
</tr>
<tr>
<td>Repeatability (s) ≤</td>
<td>0.001 g</td>
<td>0.001 g</td>
<td>0.001 g</td>
<td>0.002 g</td>
<td>0.005 g</td>
</tr>
<tr>
<td>Maximum dimensions of weighing platform</td>
<td>100 x 80 mm</td>
<td>150 x 100 mm</td>
<td>150 x 100 mm</td>
<td>150 x 100 mm</td>
<td>200 x 100 mm</td>
</tr>
<tr>
<td>Settling time 1,2 (on 1% of final weighing range value)</td>
<td>&lt; 120 ms</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protection class of the Weigh Cell</td>
<td>IP54</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature range</td>
<td>+5 °C to +40 °C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power supply</td>
<td>24 V DC, ± 5%, 0.5 A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>approx. 5,000 g</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interface 1</td>
<td>CAN, RS 422</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interface 2</td>
<td>RS 232, 115200/8/1/odd</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing material</td>
<td>Aluminum hard coated</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

1 depends on the preference settings and on setup and ambient conditions of the system
2 The absolute repeatability is +/- 3 s
3 Weighing time = settling time plus (adjustable) measuring time
4 Temperature range: +10 °C to +30 °C

---

## WEIGHING TECHNOLOGY

- WIPOTEC WEIGHING TECHNOLOGY - WIPOTEC-WT.COM

---

**SW-D-FS-EX - WEIGHING RANGE 0 - 2,000 g**
All measurements in mm  
Subject to technical modifications
The SW-WD-FS Weigh Cell series covers the weighing range up to 2,000 g. They have been specifically designed as compact sensor components, meaning they are especially suited for installation into multilane applications and everywhere where small frame sizes are demanded.

By using a special construction, all Weigh Cells are suitable for Wash Down applications IP69K.

As a ready-to-connect installation component – in combination with a separate electronic system – the Weigh Cell supplies final weight values as a standard feature via a CAN, RS 422, Profinet IO, Ethernet/IP or EtherCAT interface. The integrated software filters can be configured in many ways, enabling optimal adaptation of the weighing system to the respective ambient conditions. The Weigh Cells extensive command set facilitates simplified control engineering integration. Complemented by a variety of options, the Weigh Cell can also fulfill very specific requirements.

The Active Vibration Compensation (AVC) can be added as an option.

You need an individual solution?
Please contact us.

TO BE USED IN
- Filling and closing machines for dairy, food and beverage industry
- Wash Down applications
- Custom machine engineering
- Multilane weighing systems
- In Process Controls (IPC)

FEATURES
- Weighing range up to 2,000 g
- Additive dead load range up to 1,000 g
- Slim construction in stainless steel housing IP69K Wash Down with separate electronic box
- Integrated Active Vibration Compensation, AVC (optional)
- Interface 1: CAN, RS 422, Profinet DP, Profinet IO, Ethernet/IP, EtherCAT
- Interface 2: RS 232 for service and configuration
- Sampling rate 1 ms
## OPTIONS

- **Option 10**: RS 422 instead of CAN interface
- **Option 11**: Bus operation (standard)
- **Option 12**: Higher display resolution
- **Option 13**: Binary I/O channels (standard)
- **Option 14**: Filling algorithm
- **Option 19**: Active Vibration Compensation (AVC)
- **Option 25**: Dead load compensation
- **Option 35**: Profibus DP instead of CAN interface
- **Option 36**: Ethernet/IP instead of CAN interface
- **Option 37**: Profinet IO instead of CAN interface
- **Option 38**: EtherCAT instead of CAN interface

### WEIGH CELL TYPE

<table>
<thead>
<tr>
<th></th>
<th>SW 2000/1000-WD-FS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Weighing range</strong></td>
<td>2,000 g</td>
</tr>
<tr>
<td><strong>Electrical adjustable dead load range</strong></td>
<td>1,000 g</td>
</tr>
<tr>
<td><strong>Verification scale interval (e)</strong></td>
<td>0.2 g</td>
</tr>
<tr>
<td><strong>Display value (d)</strong></td>
<td>0.1 g</td>
</tr>
<tr>
<td><strong>Display value (d) with higher resolution (Option)</strong></td>
<td>0.05 g</td>
</tr>
<tr>
<td><strong>Linearity s</strong></td>
<td>± 0.1 g</td>
</tr>
<tr>
<td><strong>Repeatability (s) ± 1</strong></td>
<td>0.05 g</td>
</tr>
<tr>
<td><strong>Maximum dimensions of weighing platform</strong></td>
<td>150 x 150 mm</td>
</tr>
<tr>
<td><strong>Settling time (on 1‰ of final weighing range value)</strong></td>
<td>&lt; 120 ms</td>
</tr>
<tr>
<td><strong>Protection class of the Weigh Cell</strong></td>
<td>IP69K</td>
</tr>
<tr>
<td><strong>Temperature range</strong></td>
<td>-5 °C to +40 °C</td>
</tr>
<tr>
<td><strong>Power supply</strong></td>
<td>24 V DC, ± 5%, 0.5 A</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>approx. 2,700 g</td>
</tr>
<tr>
<td><strong>Interface 1</strong></td>
<td>CAN, RS 422, Profibus DP, Profinet IO, Ethernet/IP, EtherCAT</td>
</tr>
<tr>
<td><strong>Interface 2</strong></td>
<td>RS 232, 115200/8/1/odd</td>
</tr>
<tr>
<td><strong>Housing material</strong></td>
<td>Stainless steel AISI 316L</td>
</tr>
</tbody>
</table>

1) Depends on the preference settings and on setup and ambient conditions of the system.
   The absolute repeatability is +/- 3 s.
2) Weighing time = settling time plus (adjustable) measuring time
3) Temperature range: +10 °C to +30 °C
4) In separate electronic box with maximum 3 m cable connection

---

The absolute repeatability is +/- 3 s.
Weighing time = settling time plus (adjustable) measuring time.
Temperature range: +10 °C to +30 °C.
In separate electronic box with maximum 3 m cable connection.
Separate electronics

All measurements in mm  Subject to technical modifications
WEIGH CELLS
WEIGHING RANGE 0 - 15 kg

42  EC-FS
WEIGHING RANGE 0 - 15 kg

45  EC-FS-AVC
WEIGHING RANGE 0 - 7.5 kg

48  EC-ES-FS
WEIGHING RANGE 0 - 7.5 kg
The EC-FS Weigh Cell series covers a weighing range up to 15,000 g. They have been specifically designed as a compact sensor component and are especially suited for installation in checkweighers, price labellers as well as lift-up systems, filling and packaging machines, parcel and mail sorting systems. The Weigh Cells large additive dead load range favors the installation of large conveyor belts or weighing platforms without limiting the weighing range.

As a ready-for-connection installation component, the Weigh Cell supplies final weight values via a CAN interface as a standard feature. The integrated software filters can be configured in many ways and thus allow optimal adaptation of the weighing system to the relevant local conditions. The Weigh Cells extensive command set enables easy control engineering integration. Supplemented with a large number of options, the Weigh Cells can also meet very specific requirements.

You need an individual solution?
Please contact us.

/ TO BE USED IN
- Filling and packaging machines
- Lift-up systems (for cup filling machines, convenience food filling machines, etc.)
- Checkweighers (for different branches like food, pharmaceuticals, chemicals and cosmetics)
- Parcel and letter sorting systems

/ FEATURES
- Weighing range up to 15 kg, covered by 5 models
- Additive dead load range up to 15 kg
- Stainless steel housing
- Protection class up to IP65
- Binary I/O channels with customer-specific functions
- Interface 1: CAN, RS 422
- Interface 2: RS 232 for service and configuration
- Sampling rate 1 ms
### Options

- **Option 2**: Forceless connection of electrical aggregates
- **Option 10**: RS 422 instead of CAN interface
- **Option 11**: Bus operation
- **Option 12**: Higher display resolution
- **Option 13**: Binary I/O channels (4-fold)
- **Option 14**: Filling algorithm
- **Option 25**: Dead load compensation

With the optional CFI (CAN-Fieldbus-Interface) it is possible to connect to a variety of industrial fieldbus systems.

Please see specifications on our [website](#).
All measurements in mm  
Subject to technical modifications
The EC-FS-AVC Weigh Cell series is suited for product weighing within the weighing range of 7,500 g. Their compact design and standard interfaces make them ideal for installation in machine lines and stand-alone checkweighers. The Weigh Cell’s large additive dead load range favors the installation of large conveyor belts or weighing platforms without limiting the weighing range.

AVC (Active Vibration Compensation), self-damping enabled by intelligent algorithms, guarantees the shortest possible measuring times while maintaining the highest resolution. As a result, the most accurate measurements can be achieved even in environments subject to vibration. These are caused by vibrations of the machine frame, floor or ceiling.

As a ready-for-connection installation component, the Weigh Cell supplies final weight values via a CAN interface as a standard feature.

You need an individual solution?
Please contact us.

/ TO BE USED IN
- Filling and packaging machines
- Checkweighers (for different branches like food, pharmaceuticals, chemicals and cosmetics)
- Parcel and letter sorting systems

/ FEATURES
- Weighing range up to 7,500 g, covered by 4 models
- Additive dead load range up to 8,500 g
- Stainless steel housing
- Protection class up to IP65
- Binary I/O channels with customer-specific functions
- Interface 1: CAN, RS 422
- Interface 2: RS 232 for service and configuration
- Sampling rate 1 ms
<table>
<thead>
<tr>
<th>WEIGH CELL TYPE</th>
<th>EC 2000-2-FS-AVC</th>
<th>EC 3000-3-FS-AVC</th>
<th>EC 3000-2-FS-AVC</th>
<th>EC 3000-1-FS-AVC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighing range</td>
<td>750 g</td>
<td>1,500 g</td>
<td>3,750 g</td>
<td>7,500 g</td>
</tr>
<tr>
<td>Electrical adjustable dead load range</td>
<td>2,500 g</td>
<td>5,000 g</td>
<td>8,500 g</td>
<td>7,500 g</td>
</tr>
<tr>
<td>Verification scale interval (e)</td>
<td>0.1 g</td>
<td>0.2 g</td>
<td>0.5 g</td>
<td>1 g</td>
</tr>
<tr>
<td>Display value (d)</td>
<td>0.05 g</td>
<td>0.1 g</td>
<td>0.2 g</td>
<td>0.5 g</td>
</tr>
<tr>
<td>Display value (d) with higher resolution (Option)</td>
<td>0.01 g</td>
<td>0.02 g</td>
<td>0.05 g</td>
<td>0.1 g</td>
</tr>
<tr>
<td>Linearity ±</td>
<td>± 0.02 g</td>
<td>± 0.04 g</td>
<td>± 0.1 g</td>
<td>± 0.2 g</td>
</tr>
<tr>
<td>Repeatability (s) ±</td>
<td>0.01 g</td>
<td>0.02 g</td>
<td>0.05 g</td>
<td>0.1 g</td>
</tr>
<tr>
<td>Maximum dimensions of weighing platform</td>
<td>300 x 200 mm</td>
<td>500 x 300 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Settling time (Option)</td>
<td>&lt; 100 ms</td>
<td>&lt; 120 ms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protection class of the Weigh Cell</td>
<td>IP44</td>
<td></td>
<td>IP65</td>
<td></td>
</tr>
<tr>
<td>Temperature range</td>
<td></td>
<td></td>
<td></td>
<td>+5 °C to +40 °C</td>
</tr>
<tr>
<td>Power supply</td>
<td>24 V DC, ± 5%, 0.8 A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>approx. 11,000 g</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interface 1</td>
<td>CAN, RS 422</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interface 2</td>
<td>RS 232, 115200/8/1/odd</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing material</td>
<td>Stainless steel AISI 316L</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1) Depends on the preference settings and on setup and ambient conditions of the system.
   The absolute repeatability is +/- 3 s.
2) Weighing time = settling time plus (adjustable) measuring time
3) Temperature range: +10 °C to +30 °C

/OPTIONS/

- **Option 2**: Forceless connection of electrical aggregates
- **Option 10**: RS 422 instead of CAN interface
- **Option 11**: Bus operation
- **Option 12**: Higher display resolution
- **Option 13**: Binary I/O channels (4-fold)
- **Option 14**: Filling algorithm
- **Option 19**: Active Vibration Compensation (AVC) (standard)
- **Option 25**: Dead load compensation

With the optional CFI (CAN-Fieldbus-Interface) it is possible to connect to a variety of industrial fieldbus systems.

Please see specifications on our [website](#).
Interface 1
Interface 2
Forceless connection of electrical aggregates

All measurements in mm
Subject to technical modifications
The EC-ES-FS Weigh Cell series covers the weighing range up to 7,500 g. They have been specifically designed as compact sensor components, which are suited for installation into Checkweighers. By using a GMP-tailored design, all Weigh Cells are especially suitable for Wash Down applications.

The large additive dead load range favors the mounting of conveyor belts or weighing platforms without limiting the weighing range. As ready-to-connect modular component the Weigh Cell delivers final weight values via CAN interface as a standard feature.

The integrated software filters can be configured in many ways, enabling optimal adaptation of the weighing system to the respective ambient conditions. The Weigh Cells extensive command set facilitates simplified control engineering integration. Complemented by a variety of options, the Weigh Cell can also fulfill very specific requirements.

You need an individual solution?
Please contact us.

/ TO BE USED IN
- Checkweighers
- Wash Down applications
- Custom machine engineering
- In Process Controls (IPC)

/ FEATURES
- Weighing range up to 7.5 kg, covered by 2 models
- Additive dead load range up to 15 kg
- Stainless steel housing IP69K Wash Down
- Interface 1: CAN, RS 422
- Interface 2: RS 232 for service and configuration
- Sampling rate 1 ms
### OPTIONS

- **Option 2:** Forceless connection of electrical aggregates
- **Option 10:** RS 422 instead of CAN interface
- **Option 11:** Bus operation
- **Option 12:** Higher display resolution (standard)

With the optional CFI (CAN-Fieldbus-Interface) it is possible to connect to a variety of industrial fieldbus systems.

Please see specifications on our [website](https://wipotec-wt.com).
All measurements in mm

Subject to technical modifications
WEIGH CELLS
WEIGHING RANGE 0 - 120 kg
The IW-B-FS Weigh Cell series covers the weighing range up to 120 kg. They have been specifically designed for heavy weight applications and are especially suited for installation into check-weighers, packaging and filling machines and parcel sorting systems. The large additive dead load range favors the mounting of conveyor belts or weighing platforms without limiting the weighing range.

As ready-to-connect modular component the Weigh Cell delivers final weight values via CAN interface as a standard feature. The integrated software filters can be configured multifunctional, enabling optimal adaptation of the weighing system to the respective ambient conditions. The Weigh Cells extensive command set facilitates simplified control engineering integration.

Complemented by a variety of options, the Weigh Cell can also fulfill very specific requirements.

With an additional terminal the IW-B-FS Weigh Cell series can also be used as a static scale with very high resolutions, as an option.

You need an individual solution? Please contact us.

/ TO BE USED IN
- Filling and packaging machines
- Checkweighers (for different branches like food, pharmaceuticals, chemical and cosmetics)
- Parcel sorting systems
- High resolution static weighing applications

/ FEATURES
- Weighing range up to 120 kg, covered by 7 models
- Additive dead load range up to 150 kg
- Stainless steel cover (option)
- Binary I/O channels with customer-specific functions
- Interface 1: CAN, RS 422
- Interface 2: RS 232 for service and configuration
- Sampling rate: 1ms
### OPTIONS

- **Option 10:** RS 422 instead of CAN interface
- **Option 11:** Bus operation
- **Option 12:** Higher display resolution
- **Option 13:** Binary I/O channels (4-fold)
- **Option 14:** Filling algorithm
- **Option 25:** Dead load compensation

With the optional CFI (CAN-Fieldbus-Interface) it is possible to connect to a variety of industrial fieldbus systems.

Please see specifications on our [website](https://wipotec-wt.com).

---

### WEIGH CELL TYPE

<table>
<thead>
<tr>
<th>WEIGH CELL TYPE</th>
<th>IW-B 30k-FS</th>
<th>IW-B 60k-FS</th>
<th>IW-B 150k-FS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighing range</td>
<td>6 kg</td>
<td>12 kg</td>
<td>30 kg</td>
</tr>
<tr>
<td></td>
<td>30 kg</td>
<td>60 kg</td>
<td>60 kg</td>
</tr>
<tr>
<td></td>
<td>120 kg</td>
<td></td>
<td>120 kg</td>
</tr>
<tr>
<td>Electrical adjustable dead load range</td>
<td>60 kg</td>
<td>60 kg</td>
<td>30 kg</td>
</tr>
<tr>
<td>Verification scale interval (e)</td>
<td>1 g</td>
<td>2 g</td>
<td>5 g</td>
</tr>
<tr>
<td>Display value (d)</td>
<td>0.5 g</td>
<td>1 g</td>
<td>2 g</td>
</tr>
<tr>
<td>Display value (d) with higher resolution (Option)</td>
<td>0.1 g</td>
<td>0.2 g</td>
<td>0.5 g</td>
</tr>
<tr>
<td></td>
<td>1 g</td>
<td>0.5 g</td>
<td>1 g</td>
</tr>
<tr>
<td></td>
<td>2 g</td>
<td>2 g</td>
<td>2 g</td>
</tr>
<tr>
<td>Linearity ±</td>
<td>± 0.2 g</td>
<td>± 0.4 g</td>
<td>± 1 g</td>
</tr>
<tr>
<td>Repeatability (s) ±</td>
<td>0.1 g</td>
<td>0.2 g</td>
<td>0.5 g</td>
</tr>
<tr>
<td></td>
<td>1 g</td>
<td>0.5 g</td>
<td>1 g</td>
</tr>
<tr>
<td></td>
<td>2 g</td>
<td>2 g</td>
<td>2 g</td>
</tr>
<tr>
<td>Maximum dimensions of weighing platform</td>
<td>500 x 400 mm</td>
<td>500 x 400 mm</td>
<td>800 x 600 mm</td>
</tr>
<tr>
<td>Settling time</td>
<td>&lt; 120 ms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protection class of the Weigh Cell</td>
<td>IP65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature range</td>
<td>+5 °C to +40 °C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power supply</td>
<td>24 V DC, ± 5%, 0.5 A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>approx. 35 kg</td>
<td>approx. 65 kg</td>
<td></td>
</tr>
<tr>
<td>Interface 1</td>
<td>CAN, RS 422</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interface 2</td>
<td>RS 232, 115200/8/1/odd</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing material</td>
<td>Cover: Stainless steel AISI 304</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1) Depends on the preference settings and on setup and ambient conditions of the system
2) The absolute repeatability is +/- 3 s
3) Weighing time = settling time plus (adjustable) measuring time
4) Only in combination with stainless steel cover
IW-B 30k-FS and IW-B 60k-FS

IW-B 150k-FS

All measurements in mm
Subject to technical modifications
MULTI-TRACK VARIANTS

MTC

60 MTC-AW-FS
WEIGHING RANGE 0 - 1 g

63 MTC-FS
WEIGHING RANGE 0 - 50 g

66 MTC-HL-FS
WEIGHING RANGE 0 - 250 g
The MTC-AW-FS Weigh Cell series covers a weighing range up to 1 g. They have been specifically designed as compact sensor components and are especially suited for applications in the pharmaceutical industry.

As a ready-for-connection installation component, the Weigh Cell supplies final weight values via a CAN interface as a standard feature. The integrated software filters can be configured in multiple ways and thus allow optimal adaptation of the weighing system to the relevant local conditions. The Weigh Cell’s extensive command set enables easy control engineering integration.

Supplemented by a large number of options, as well as different weighing and dead load ranges, a wide variety of customer-specific versions can be implemented in addition to the standard design.

When it comes to the number of tracks and the centerline distance in conjunction with the weighing range and the design, all MTC-AW-FS systems are always customer specific and individual.

You need an individual solution? Please contact us.

/ TO BE USED IN
- Filling machines for vials, syringes, etc.
- Packaging machines
- Capsule and tablet weighing machines

/ FEATURES
- Weighing range up to 1 g
- Additive dead load range up to 5 g
- Active Vibration Compensation (AVC)
- High or flat type structured shape
- Protection class up to IP31
- Binary I/O channels with customer-specific functions
- Interface 1: CAN, RS 422
- Interface 2: RS 232 for service and configuration
- Sampling rate 1 ms
## WEIGH CELL TYPE

<table>
<thead>
<tr>
<th></th>
<th>MTC-AW-0.5/2.5-FS*</th>
<th>MTC-AW-1/5-FS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighing range</td>
<td>0.5 g</td>
<td>1 g</td>
</tr>
<tr>
<td>Electrical adjustable dead load range</td>
<td>1 - 2.5 g</td>
<td>1 - 5 g</td>
</tr>
<tr>
<td>Display value (d)</td>
<td>0.000005 g</td>
<td>0.00002 g</td>
</tr>
<tr>
<td>Display value (d) with higher resolution (Option) ²</td>
<td>0.000002 g</td>
<td>0.0001 g</td>
</tr>
<tr>
<td>Linearity ≤</td>
<td>± 0.000004 g</td>
<td>± 0.00002 g</td>
</tr>
<tr>
<td>Repeatability (s) ≤ ²</td>
<td>0.000002 g</td>
<td>0.00001 g</td>
</tr>
<tr>
<td>Maximum diameter of weighing platform</td>
<td>10 mm</td>
<td>15 mm</td>
</tr>
<tr>
<td>Settling time ³, (on 1‰ of final weighing range value)</td>
<td>&lt; 1,500 ms</td>
<td>&lt; 200 ms</td>
</tr>
<tr>
<td>Protection class of the Weigh Cell</td>
<td></td>
<td>IP31</td>
</tr>
<tr>
<td>Temperature range</td>
<td>+5 °C to +30 °C</td>
<td></td>
</tr>
<tr>
<td>Power supply</td>
<td>24 V DC, ± 5%, 0.5 A</td>
<td></td>
</tr>
<tr>
<td>Interface 1</td>
<td>CAN, RS 422</td>
<td></td>
</tr>
<tr>
<td>Interface 2</td>
<td>RS 232, 115200/8/1/odd</td>
<td></td>
</tr>
<tr>
<td>Housing material</td>
<td>Aluminum hard coated</td>
<td></td>
</tr>
</tbody>
</table>

1| Depends on the preference settings and on setup and ambient conditions of the system |
2| The absolute repeatability is +/- 3 s |
3| Weighting time = settling time plus (adjustable) measuring time |
4| Temperature range: +10 °C to +30 °C |
4| From weighing platform mounting bolt |

* Only on request and clarification of all technical details

---

### OPTIONS

- **Option 10**: RS 422 instead of CAN interface
- **Option 11**: Bus operation
- **Option 12**: Higher display resolution
- **Option 13**: Binary I/O channels (4-fold)
- **Option 14**: Filling algorithm
- **Option 25**: Dead load compensation
- **Option 32**: Built in test weight for high structured shape (flat structured shape on request)

With the optional CFI (CAN-Fieldbus-Interface) it is possible to connect to a variety of industrial fieldbus systems. Please see specifications on our [website](#).
Design examples

All measurements in mm  Subject to technical modifications
The MTC-FS multiline Weigh Cell series covers a weighing range up to 50 g. They have been specifically designed as a compact sensor component and are especially suited for installation in multitrack applications. Centerline distances of 15 mm or more can be implemented by installing sensors at the same time. An additionally integrated sensor eliminates low-frequency ground interferences and vibrations while maintaining the Weigh Cell’s speed and accuracy.

As a ready-for-connection installation component, the Weigh Cell supplies final weight values via a CAN interface as a standard feature. The integrated software filters can be configured in multiple ways and thus allow optimal adaptation of the weighing system to the relevant local conditions. The Weigh Cell’s extensive command set enables easy control engineering integration.

When it comes to the number of tracks and the centerline distance in combination with the weighing range and the design, all MTC-FS systems are always customer specific and individual.

You need an individual solution? Please contact us.

/ TO BE USED IN
- Filling machines for vials, syringes, etc.
- Packaging machines
- Capsule and tablet weighing machines

/ FEATURES
- Weighing range up to 50 g
- Additive dead load range up to 30 g
- Active Vibration Compensation (AVC)
- High or flat type structured shape
- Aluminum or stainless steel housing
- Track distance from 15 mm
- Up to 18 tracks in one housing
- Protection class up to IP42
- Binary trigger input
- Interface 1: CAN, RS 422
- Interface 2: RS 232 for service and configuration
- Sampling rate 1 ms
<table>
<thead>
<tr>
<th>WEIGH CELL TYPE</th>
<th>MTC 1/5-FS</th>
<th>MTC 2/10-FS</th>
<th>MTC 10/30-FS</th>
<th>MTC 50/30-FS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighing range</td>
<td>1 g</td>
<td>2 g</td>
<td>10 g</td>
<td>50 g</td>
</tr>
<tr>
<td>Electrical adjustable dead load range</td>
<td>1 - 5 g</td>
<td>5 - 10 g</td>
<td>10 - 30 g</td>
<td>10 - 30 g</td>
</tr>
<tr>
<td>Display value (d)</td>
<td>0.00002 g</td>
<td>0.0002 g</td>
<td>0.0005 g</td>
<td>0.001 g</td>
</tr>
<tr>
<td>Display value (d) with higher resolution (Option)</td>
<td>0.00001 g</td>
<td>0.0001 g</td>
<td>0.0002 g</td>
<td>0.0005 g</td>
</tr>
<tr>
<td>Linearity ≤</td>
<td>± 0.00002 g</td>
<td>± 0.0002 g</td>
<td>± 0.0005 g</td>
<td>± 0.001 g</td>
</tr>
<tr>
<td>Repeatability (s) ≤</td>
<td>0.00001 g</td>
<td>0.0001 g</td>
<td>0.0002 g</td>
<td>0.0005 g</td>
</tr>
<tr>
<td>Smallest possible track distance</td>
<td>25 mm</td>
<td>15 mm</td>
<td>15 mm</td>
<td>25 mm</td>
</tr>
<tr>
<td>Maximum diameter of weighing platform</td>
<td>15 mm</td>
<td>20 mm</td>
<td>20 mm</td>
<td>30 mm</td>
</tr>
<tr>
<td>Settling time (on 1% of final weighing range value)</td>
<td>&lt; 200 ms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protection class of the Weigh Cell</td>
<td>IP42</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature range</td>
<td>+5 °C to +30 °C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power supply</td>
<td>24 V DC, ± 5%, 0.5 A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interface 1</td>
<td>CAN, RS 422</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interface 2</td>
<td>RS 232, 115200/8/1/odd</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing material</td>
<td>Aluminum hard coated</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1) Depends on the preference settings and on setup and ambient conditions of the system.
   The absolute repeatability is +/- 3 s
2) Weighing time = settling time plus (adjustable) measuring time
3) Temperature range: +10 °C to +30 °C
4) From weighing platform mounting bolt

/ OPTIONS

- **Option 9**: Stainless steel housing
- **Option 10**: RS 422 instead of CAN interface
- **Option 12**: Higher display resolution
- **Option 13**: Binary trigger input
- **Option 32**: Built in test weight

With the optional CFI (CAN-Fieldbus-Interface) it is possible to connect to a variety of industrial fieldbus systems.

Please see specifications on our [website](#).
Design examples

All measurements in mm, Subject to technical modifications
The MTC-HL-FS Weigh Cell series covers a weighing range up to 250 g. They have been specifically designed as compact sensor components and are especially suited for applications in the pharmaceutical industry.

As a ready-for-connection installation component, the Weigh Cell supplies final weight values via a CAN interface as a standard feature. The integrated software filters can be configured in multiple ways and thus allow optimal adaptation of the weighing system to the relevant local conditions. The Weigh Cell’s extensive command set enables easy control engineering integration.

Supplemented by a large number of options, as well as different weighing and dead load ranges, a wide variety of customer-specific versions can be implemented in addition to the standard.

When it comes to the number of tracks and the centerline distance in combination with the weighing range and the design, all MTC-HL-FS systems are always customer specific and individual.

You need an individual solution?
Please contact us.
With the optional CFI (CAN-Fieldbus-Interface) it is possible to connect to a variety of industrial fieldbus systems.

Please see specifications on our [website](https://www.wipotec-wt.com).

---

**OPTIONS**

- **Option 10**: RS 422 instead of CAN interface
- **Option 11**: Bus operation
- **Option 12**: Higher display resolution
- **Option 13**: Binary I/O channels (4-fold)
- **Option 14**: Filling algorithm
- **Option 25**: Dead load compensation
- **Option 32**: Built in test weight for high structured shape (flat structured shape on request)

---

**WEIGH CELL TYPE**

<table>
<thead>
<tr>
<th></th>
<th>MTC-HL-250/100-FS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weighing range</td>
<td>250 g</td>
</tr>
<tr>
<td>Electrical adjustable dead load range</td>
<td>50 - 100 g</td>
</tr>
<tr>
<td>Display value (d)</td>
<td>0.002 g</td>
</tr>
<tr>
<td>Display value (d) with higher resolution (Option)</td>
<td>0.001 g</td>
</tr>
<tr>
<td>Linearity ≤</td>
<td>± 0.002 g</td>
</tr>
<tr>
<td>Repeatability (s) ≤</td>
<td>0.001 g</td>
</tr>
<tr>
<td>Maximum diameter of weighing platform</td>
<td>40 mm</td>
</tr>
<tr>
<td>Settling time</td>
<td>&lt; 200 ms</td>
</tr>
<tr>
<td>Protection class of the Weigh Cell</td>
<td>IP44</td>
</tr>
<tr>
<td>Temperature range</td>
<td>+5 °C to +30 °C</td>
</tr>
<tr>
<td>Power supply</td>
<td>24 V DC, ± 5%, 0.5 A</td>
</tr>
<tr>
<td>Interface 1</td>
<td>CAN, RS 422</td>
</tr>
<tr>
<td>Interface 2</td>
<td>RS 232, 115200/8/1/odd</td>
</tr>
<tr>
<td>Housing material</td>
<td>Aluminum hard coated</td>
</tr>
</tbody>
</table>

1. Depends on the preference settings and on setup and ambient conditions of the system.
   The absolute repeatability is +/- 3 s
2. Weighing time = settling time plus (adjustable) measuring time
3. Temperature range: +10 °C to +30 °C
4. From weighing platform mounting bolt
Design examples

All measurements in mm Subject to technical modifications
HIGH-TECH FOR CUSTOMIZED USE

Customer specific requirements are a top priority when developing our product range. The Weigh Cells are at the core of an extensive range that also includes light-weight transport and weighing belts specially designed for customer specific applications easily integrated into any machines. Combining these components in a wide variety of arrangements creates weighing and sorting kits for automated special applications or dynamic weighing applications that are tailored to customer needs. Everything is possible: From simple sorting tasks to fast, dynamic weighing.

Our employees will support you with the technical detail even during the planning phase.

The following pages contain a selection of possible designs.

WEIGHING KITS
FLEXIBLE AND MODULAR
WEIGHING AND SORTING KITS

/ OUR EXPERTISE – YOUR SAFETY

- A wide range of single and multilane weighing system solutions
- Tailored Weigh Cell integration in machines and systems
- Flexible connection to the customer’s control systems
- Precise weighing in difficult local conditions
- Fast applications with up to 600 weighing operations per minute
- Professional, customer-specific support
- Modular product range
- High level of vertical integration from board assembly to the complete system
72  SW-D-FS
NT17 CONVEYOR (IP44)

73  EC-FS
NT30 CONVEYOR (IP54)

74  EC-FS
VA35E CONVEYOR (IP65)

75  EC-ES-FS
VA35WA CONVEYOR (IP69K)

76  EC-FS
SOLUTION WITH CHAIN BELT TECHNOLOGY

77  IW-B-FS
SL60 CONVEYOR (IP54)
Weighing kits, consisting of a SW-D-FS Weigh Cell and NT17 conveyor of anodized aluminum, are extremely versatile. The compact design easily handles single lane or multilane tasks. Particularly in areas where small products with a small contact area or small diameter are to be weighed dynamically, the combination of a SW-D-FS Weigh Cell and NT17 conveyor is the preferred choice.

A conveyor with a roller diameter of only 17 mm makes the handling of such products easy. If the gap between the conveyors should still be too large, and therefore affect product handling, it is possible to use knife-edge conveyors with a 5 mm roller diameter to minimize the gap still remaining between the conveyors.

Adapting the system perfectly to various customer-oriented tasks depends on choosing the Weigh Cell’s optimum weighing and dead load range, the design of the conveyor dimensions and selecting the correct weighing belt for each application. The high level of vertical integration in-house and a wide product range are additional advantages.

Detailed specification for the Weigh Cell can be found under SW-D-FS.

You need an individual solution? Please contact us.

/ TO BE USED IN
- Filling and packaging machines for small fill volumes and small product dimensions
- Checkweighers (for various sectors such as pharmaceuticals, chemicals, cosmetics, coffee pads, etc.)

/ FEATURES
- Narrow and compact design
- Docking station
- Multilane applications starting from 72 mm centerline distance
- 17 mm roller diameter for optimum product handling
- Optional knife edge with 5 mm roller diameter
- Variable conveyor dimensions
- Stepless, maintenance-free servomotor, optimized for high-precision weighing applications
- Interface for communication with Weigh Cell and servomotor (CAN, RS422, Profibus DP, Profinet IO, Ethernet/IP, EtherCAT, Powerlink)
WEIGHING CONVEYOR, HIGH-PRECISION BALANCED

<table>
<thead>
<tr>
<th>BELT WIDTH (C)</th>
<th>BELT LENGTH (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>32 mm</td>
<td>150 mm / 200 mm / 300 mm / 400 mm</td>
</tr>
<tr>
<td>50 mm</td>
<td>150 mm / 200 mm / 300 mm / 400 mm</td>
</tr>
<tr>
<td>80 mm</td>
<td>150 mm / 200 mm / 300 mm / 400 mm</td>
</tr>
<tr>
<td>120 mm</td>
<td>150 mm / 200 mm</td>
</tr>
</tbody>
</table>

INFEED AND OUTFEED CONVEYOR

<table>
<thead>
<tr>
<th>BELT WIDTH</th>
<th>BELT LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>32 mm</td>
<td>200 mm / 300 mm / 400 mm / 500 mm</td>
</tr>
<tr>
<td>50 mm</td>
<td>200 mm / 300 mm / 400 mm / 500 mm</td>
</tr>
<tr>
<td>80 mm</td>
<td>200 mm / 300 mm / 400 mm / 500 mm</td>
</tr>
<tr>
<td>120 mm</td>
<td>200 mm / 300 mm / 400 mm / 500 mm</td>
</tr>
</tbody>
</table>

All measurements in mm
Subject to technical modifications
Other dimensions on request

A = 235 mm, B = 150 - 400 mm, C = 32 - 150 mm
EC-FS
WEIGHING KIT – NT30 CONVEYOR (IP54)

Weighing kits, consisting of an EC-FS Weigh Cell and NT30 conveyor, cover a vast range of possible uses. They are widely used in applications that require both robust and high-precision design.

The EC-FS Weigh Cell can be used for a huge variety of weighing and dead load ranges. In addition, the available conveyor widths and lengths cover the common application specific requirements. The 30 mm roller diameter of the conveyor can optionally be equipped with a knife-edge with 13 mm roller diameter which enables a smooth transition of products with smaller dimensions.

All weighing-relevant components are produced in-house and are subject to the highest quality standard in order to design the Weighing kit for the intended purpose and to achieve the best possible weighing result.

In addition, the Weigh Cell can be equipped with Active Vibration Compensation (AVC) to ensure optimum weighing even in environments with strong vibrations.

Detailed specification for the Weigh Cell can be found under EC-FS.

You need an individual solution? Please contact us.
WEIGHING CONVEYOR, HIGH-PRECISION BALANCED

<table>
<thead>
<tr>
<th>BELT WIDTH (C)</th>
<th>BELT LENGTH (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>120 mm</td>
<td>200 mm / 300 mm / 400 mm</td>
</tr>
<tr>
<td>150 mm</td>
<td>200 mm / 300 mm / 400 mm</td>
</tr>
<tr>
<td>200 mm</td>
<td>200 mm* / 300 mm / 400 mm</td>
</tr>
<tr>
<td>300 mm</td>
<td>200 mm* / 300 mm* / 400 mm</td>
</tr>
<tr>
<td>400 mm</td>
<td>200 mm* / 300 mm* / 400 mm*</td>
</tr>
</tbody>
</table>

* only available with flat or round belt

INFEED AND OUTFEED CONVEYOR

<table>
<thead>
<tr>
<th>BELT WIDTH</th>
<th>BELT LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>120 mm</td>
<td>200 mm / 300 mm / 400 mm / 500 mm</td>
</tr>
<tr>
<td>150 mm</td>
<td>200 mm / 300 mm / 400 mm / 500 mm</td>
</tr>
<tr>
<td>200 mm</td>
<td>200 mm* / 300 mm / 400 mm / 500 mm</td>
</tr>
<tr>
<td>300 mm</td>
<td>200 mm* / 300 mm* / 400 mm / 500 mm</td>
</tr>
<tr>
<td>400 mm</td>
<td>200 mm* / 300 mm* / 400 mm* / 500 mm</td>
</tr>
</tbody>
</table>

All measurements in mm
Subject to technical modifications
Other dimensions on request

GERMANY
WIPOTEC GmbH
Adam-Hoffmann-Str. 26
67657 Kaiserslautern
+49 (631) 34146-0
+49 (631) 34146-8690
info@wipotec.com
www.wipotec-wt.com

ITALY
WIPOTEC Italia s.r.l.
Via Antonio Gramsci, 18
20016 Pero (MI)
T +39 02 73952424
F +39 02 45508075
info.it@wipotec.com
www.wipotec-wt.it

USA
WIPOTEC North America
700 Old Roswell Lakes Parkway
Suite 200
Roswell, Georgia 30076
T +1 770 971 5414
F +1 770 509 5524
info.wipotec.usa@wipotec.com
www.wipotec-wt.com
Weighing kits, consisting of an EC-FS Weigh Cell and VA35E conveyor, form a unit in which the Weigh Cell and the conveyor body are made of stainless steel. This weighing kit meets the requirements of protection class IP65 and can therefore be used in applications where cleaning with low-pressure water jets is mandatory.

The EC-FS Weigh Cell can be used for a huge variety of weighing and dead load ranges. In addition, the available conveyor widths and lengths cover the common application specific requirements. The 35 mm roller diameter of the conveyor can optionally be equipped with a knife-edge with 13 mm roller diameter which enables a smooth transition of products with smaller dimensions.

All weighing-relevant components are produced in-house and are subject to the highest quality standard in order to design the weighing kit for the intended purpose and to achieve the best possible weighing result.

In addition, the Weigh Cell can be equipped with Active Vibration Compensation (AVC) to ensure optimum weighing even in environments with strong vibrations.

Detailed specification for the Weigh Cell can be found under EC-FS.

You need an individual solution? Please contact us.
### INFEED AND OUTFEED CONVEYOR

<table>
<thead>
<tr>
<th>BELT WIDTH (C)</th>
<th>BELT LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>150 mm</td>
<td>250 mm / 300 mm / 400 mm / 500 mm / 600 mm</td>
</tr>
<tr>
<td>250 mm</td>
<td>300 mm / 400 mm / 500 mm / 600 mm</td>
</tr>
<tr>
<td>350 mm</td>
<td>400 mm / 500 mm / 600 mm</td>
</tr>
</tbody>
</table>

### WEIGHING CONVEYOR, HIGH-PRECISION BALANCED

<table>
<thead>
<tr>
<th>BELT WIDTH (C)</th>
<th>BELT LENGTH (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>150 mm</td>
<td>250 mm / 300 mm / 400 mm / 500 mm / 600 mm</td>
</tr>
<tr>
<td>250 mm</td>
<td>300 mm / 400 mm / 500 mm / 600 mm</td>
</tr>
<tr>
<td>350 mm</td>
<td>400 mm / 500 mm / 600 mm</td>
</tr>
</tbody>
</table>

All measurements in mm
Subject to technical modifications
Other dimensions on request

A = 310 mm, B = 250 - 600 mm, C = 150, 250, 350 mm
EC-ES-FS
WEIGHING KIT –
VA35WA CONVEYOR (IP69K)

Weighing kits, consisting of an EC-ES-FS Weigh Cell and VA35WA conveyor, are developed for applications where hygiene and cleanability are essential. The GMP-compliant design has hygienic gaskets at all sealing points and meets protection class IP69K. The conveyor construction is designed in such a way that only the belt is removed without tools for cleaning. All other parts of the belt body remain captive on the weighing kit.

The EC-ES-FS Weigh Cell can be used for a huge variety of weighing and dead load ranges. In addition, the available conveyor widths and lengths cover the common application specific requirements. The 35 mm roller diameter of the conveyor can optionally be equipped with a knife-edge with 17 mm roller diameter which enables a smooth transition of products with smaller dimensions.

All weighing-relevant components are produced in-house and are subject to the highest quality standard in order to design the weighing kit for the intended purpose and to achieve the best possible weighing result.

Detailed specification for the Weigh Cell can be found under EC-ES-FS.

You need an individual solution?
Please contact us.
**WEIGHING CONVEYOR, HIGH-PRECISION BALANCED**

<table>
<thead>
<tr>
<th>BELT WIDTH (C)</th>
<th>BELT LENGTH (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>150 mm</td>
<td>250 mm / 300 mm / 400 mm</td>
</tr>
<tr>
<td>250 mm</td>
<td>250 mm* / 300 mm / 400 mm</td>
</tr>
<tr>
<td>350 mm</td>
<td>400 mm</td>
</tr>
</tbody>
</table>

**INFEED AND OUTFEED CONVEYOR**

<table>
<thead>
<tr>
<th>BELT WIDTH</th>
<th>BELT LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>150 mm</td>
<td>250 mm / 300 mm / 400 mm</td>
</tr>
<tr>
<td>250 mm</td>
<td>250 mm* / 300 mm / 400 mm</td>
</tr>
<tr>
<td>350 mm</td>
<td>400 mm</td>
</tr>
</tbody>
</table>

All measurements in mm  
Subject to technical modifications  
Other dimensions on request

A = 268 mm, B = 250 - 400 mm, C = 150, 250, 350 mm
EC-FS
WEIGHING KIT – SOLUTION WITH CHAIN BELT TECHNOLOGY

Weighing kits, consisting of an EC-FS Weigh Cell and a special weighing conveyor, cover a range of applications that is designed for integration in existing chain conveyor systems.

The EC-FS Weigh Cell can be used for a huge variety of weighing and dead load ranges.

The special weighing conveyor is available in two versions for products from 45 to 165 mm diameter and can easily be adapted to an existing chain conveyor.

All weighing-relevant components are produced in-house and are subject to the highest quality standard in order to design the weighing kit for the intended purpose and to achieve the best possible weighing result.

In addition, the Weigh Cell can be equipped with Active Vibration Compensation (AVC) to ensure optimum weighing even in environments with strong vibrations.

Detailed specification for the Weigh Cell can be found under EC-FS.

You need an individual solution? Please contact us.

/ TO BE USED IN

- Filling, dosing and counting machines
- Checking of cans, bottles and other cylindrical products
- Checkweighers (for various sectors such as pharmaceuticals, food, chemicals, cosmetics, etc.)

/ FEATURES

- Application specific weighing ranges
- Large choice of weighing ranges
- Protection class IP54
- Active Vibration Compensation (AVC) as an option
- Anodized aluminum conveyor construction
- Stepless, maintenance-free servomotor, optimized for high-precision weighing applications
- Interface for communication with Weigh Cell and servomotor (CAN, RS422, Profinet DP, Profinet IO, Ethernet/IP, EtherCAT, Powerlink)
### WEIGHING CONVEYOR

<table>
<thead>
<tr>
<th>PRODUCT SIZE</th>
<th>BELT LENGTH (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diameter 45-120 mm</td>
<td>300 mm</td>
</tr>
<tr>
<td>Diameter 60-165 mm</td>
<td>300 mm</td>
</tr>
</tbody>
</table>

All measurements in mm  
Subject to technical modifications  
Other dimensions on request

A = 421 mm, B = 300 mm, C = Ø 60 - 165 mm, Ø 45 - 120 mm

---

WIPOTEC WEIGHING TECHNOLOGY WORLDWIDE

**GERMANY**  
WIPOTEC GmbH  
Adam-Hoffmann-Str. 26  
67657 Kaiserslautern

+49 (631) 34146-0  
+49 (631) 34146-8690  
info@wipotec.com  
www.wipotec-wt.com

**ITALY**  
WIPOTEC Italia s.r.l.  
Via Antonio Gramsci, 18  
20016 Pero (MI)

T +39 02 73952424  
F +39 02 45508075  
info.it@wipotec.com  
www.wipotec-wt.it

**USA**  
WIPOTEC North America  
700 Old Roswell Lakes Parkway  
Suite 200  
Roswell, Georgia 30076

T +1 770 971 5414  
F +1 770 509 5524  
info.wipotec.usa@wipotec.com  
www.wipotec-wt.com
IW-B-FS
WEIGHING KIT – SL60 CONVEYOR (IP54)

Weighing Kits, consisting of an IW-B-FS Weigh Cell and SL60 conveyor, are designed for use in heavy weight applications. The lightweight, stable conveyor system and the specially coordinated drive concept ensure maximum smoothness with quiet running and fast, safe product transport.

The IW-B-FS Weigh Cell can be used for a huge variety of weighing and dead load ranges. Whether storage crates, parcels or other heavy weight articles, the SL60 conveyor with a 60 mm roller diameter of the conveyor meets the expectations for a stable design and the requirement for robustness and precision.

All weighing-relevant components are produced in-house and are subject to the highest quality standard in order to design the weighing kit for the intended purpose and to achieve the best possible weighing result.

Detailed specification for the Weigh Cell can be found under IW-B-FS.

You need an individual solution?
Please contact us.

/ TO BE USED IN
- Intralogistics sector for warehouse applications
- Parcel sorting facilities
- Completeness check
- Checkweighers (for various sectors such as food, chemicals, pharmaceuticals, cosmetics, etc.)
- Filling and packaging machines
- Custom machine engineering

/ FEATURES
- Application specific weighing ranges
- Large choice of weighing ranges
- 60 mm roller diameter for optimum product handling
- Application specific conveyor dimensions
- Easy belt change
- Maintenance-free asynchronous motor, for precision weighing applications
- Interface for communication with the Weigh Cell (CAN, RS422, Profibus DP, Profinet IO, Ethernet/IP, EtherCAT, Powerlink)
WEIGHING CONVEYOR, HIGH-PRECISION BALANCED

<table>
<thead>
<tr>
<th>BELT WIDTH (C)</th>
<th>BELT LENGTH (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>400 mm</td>
<td>600 mm / 800 mm / 1,000 mm</td>
</tr>
<tr>
<td>600 mm</td>
<td>800 mm / 1,000 mm</td>
</tr>
</tbody>
</table>

INFEED AND OUTFEED CONVEYOR

<table>
<thead>
<tr>
<th>BELT WIDTH</th>
<th>BELT LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>400 mm</td>
<td>600 mm / 800 mm / 1,000 mm</td>
</tr>
<tr>
<td>600 mm</td>
<td>800 mm / 1,000 mm</td>
</tr>
</tbody>
</table>

All measurements in mm
Subject to technical modifications
Other dimensions on request
ACCESSORIES

FLEXIBLE AND MODULAR SOLUTIONS

80 CAN-FIELDBUS INTERFACE CFI
FLEXIBLE AND MODULAR SOLUTIONS

83 FASTMODE
ANALYSIS TOOL

84 STARTUP KIT
WITH FASTCHECK SOFTWARE
The CFI (CAN-Fieldbus-Interface) is a compact gateway to connect WIPOTEC components to the most common industrial fieldbus systems. The gateway supports all Weigh Cells with a CAN interface and all motors in the IMOT series. Depending on the application, up to 8 devices can be connected.

The configuration is performed via an integrated web server, which is accessed through a standard browser. Autodetect functions, predefined standard configurations, and service functions with direct connections to the individual units facilitate the start of operations. All configuration data and parameters are stored on an external, accessible µSD card. Data backup or data recovery are supported via HTTP upload and download.

The CFI is assembled using a tension spring clamp and a standard mounting rail as per DIN 60715.

Other fieldbus systems on request!
All of the settings on the CFI are easy, thanks to installation software developed by WIPOTEC. On this page, two examples have been selected to show the individual parameters.

Left: Network settings are provided for the specific network adapter in use.

Right: Overview of status messages.

### TECHNICAL DATA

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power supply</td>
<td>24 V DC, +/-10 %, max. 1 A, spring-cage connection</td>
</tr>
<tr>
<td>Digital inputs</td>
<td>1 control input 24 V</td>
</tr>
<tr>
<td>System interface</td>
<td>CAN, master, 500 kBit/s, spring-cage connection</td>
</tr>
<tr>
<td>Configuration interface</td>
<td>Ethernet / RJ 45</td>
</tr>
<tr>
<td>Storage medium</td>
<td>µSD card, max. 32 GByte, Industrial Class 4, Fat32, external accessible card slot</td>
</tr>
<tr>
<td>Operating temperature range</td>
<td>0 °C to +55 °C</td>
</tr>
<tr>
<td>Max. relative humidity</td>
<td>95 %, non-condensing</td>
</tr>
<tr>
<td>Housing</td>
<td>Galvanized sheet steel, for top-hat rail mounting EN50022 35 mm</td>
</tr>
<tr>
<td>Dimensions (HxWxD)</td>
<td>160 mm x 30 mm x 100 mm</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP20</td>
</tr>
<tr>
<td>Weight</td>
<td>approx. 500 g</td>
</tr>
</tbody>
</table>
**CONNECTION OPTIONS**

<table>
<thead>
<tr>
<th>APPLICATION</th>
<th>MAX. CONNECTABLE DEVICES</th>
<th>NOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Static weighing</td>
<td>8 devices</td>
<td>Devices may be Weigh Cells and/or motors (e.g. for left/right rejection)</td>
</tr>
<tr>
<td>Multilane systems, e.g. MTC</td>
<td>1 system</td>
<td>Maximum 12 measuring lanes</td>
</tr>
<tr>
<td>Dynamic weighing</td>
<td>1 Weigh Cell, 4 motors</td>
<td>Weighing kit</td>
</tr>
</tbody>
</table>

**PROCESS OF STATIC WEIGHING WITH UP TO 8 DEVICES**

1. **Configuration and service**
2. **Communication by user to the machine/OEM**
3. **Communication by user to the machine/OEM**
4. **CFI / supply 24 V DC**
5. **Bus distributor supply 24 V DC**
6. **Static weighing for max. 8 WIPOTEC Weigh Cells**
PROCESS OF STATIC WEIGHING WITH MULTITRACK SYSTEM

Communication by user to the machine/OEM

Configuration and service

CFI / supply 24 V DC

Static weighing for 1 WIPOTEC multitrack system (MTC)

- Profibus DP
- Profinet IO
- Ethernet/IP
- EtherCAT
- Powerlink

Bus distributor supply 24 V DC

PROCESS OF DYNAMIC WEIGHING WITH WEIGHING KITS

Communication by user to the machine/OEM

Configuration and service

CFI / supply 24 V DC

Dynamic weighing for max. 1 WIPOTEC Weigh Cell and 4 motors

- Profibus DP
- Profinet IO
- Ethernet/IP
- EtherCAT
- Powerlink

Bus distributor supply 24 V DC

WIPOTEC WEIGHING TECHNOLOGY - WIPOTEC-WT.COM

ACCESSORIES • FASTMODE
Fastmode allows a graphic real-time analysis of the weighing procedure for Weigh Cells of all series. The signal sequence of the Weigh Cell is recorded in x/y representation, similarly to an oscilloscope.

Saving and evaluation procedures support the analysis of the weighing signal with reference to its behavior in time and amplitude patterns. Printing, export and import functions serve to document the process. For maintenance purposes the Weigh Cells can be set manually, in terminal mode.

/ TECHNICAL REQUIREMENTS

- Fastmode is suitable for use with Windows 7 or higher
- A USB connector for the RS232 USB adapter is included in the scope of delivery
The startup kit is used to commission, control and convert interfaces of installed or not installed Weigh Cells. It is possible to connect the Weigh Cell via Service Power Pack (SPP) to a PC or a CAN bus compatible device. The necessary voltage supply of 24 V DC is provided to operate the Weigh Cell. Furthermore, data are converted to standard interfaces (converting interfaces RS 422 to RS 232). Data transmission of Weigh Cells with CAN interface is performed over CAN bus interface. Optionally it is possible to control the recording of Weigh Cell communication with help of a trigger signal.

Fastcheck software makes it possible to monitor communication by means of the serial interface to various terminals in a comfortable way. Furthermore the Fastcheck program is equipped with an online help system. With the supplied power supply plugs it is possible to use the commissioning kit in various countries with the prevailing power supply. The LEDs show the different operating modes, data traffic and voltages.