The series SL-M-FS Weigh Cells cover 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. System-induced active self-damping guarantees the shortest possible measuring times while maintaining the highest resolution.

The Weigh Cell sensor is connected to the separate electronics via a 5 m long cable. The electronics are prepared for rail mounting in the control cabinet in accordance with DIN 60715. The system already supplies final weight values as standard via a CAN, RS 422, Profibus DP, Profinet IO, Ethernet/IP or EtherCAT interface. The integrated software filters can be configured in many ways and thus allow optimum 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.

Alternatively, the sensor can also be used as a Modular Multilane System MMS with or without AVC technology (Active Vibration Compensation).

Details on MMS are provided in a separate documentation.

You need an individual solution? Please contact us.

/ TO BE USED IN
- Filling and packaging machines
- Special machine manufacturing
- Multilane weighing systems
- In-Process control applications
- CIP (Cleaning In Place)

/ FEATURES
- Weighing range up to 1,000 g, covered by 6 models
- Additive dead load range up to 600 g
- Very slim construction in aluminum or stainless steel housing with separate electronic box
- Multilane applications starting from 30 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)
- Upside down operation
- MMS capable (Modular Multilane System)
### WEIGH CELL TYPE

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>Weighing range</strong></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><strong>Electrically adjustable dead load range</strong></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><strong>Display value (d)</strong></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>
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<tr>
<td><strong>Display value (d) with higher resolution (Option)</strong></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><strong>Higher display value (d) in combination with MMS and AVC</strong></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><strong>Linearity ≤</strong></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><strong>Repeatability (s) ≤</strong></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><strong>Repeatability (s) ≤</strong> in combination with MMS and AVC</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><strong>Maximum diameter of weighing platform</strong></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>
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<tr>
<td><strong>Settling time</strong> (&lt; 120 ms) (on 1% of final weighing range value)</td>
<td></td>
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<tr>
<td><strong>Protection class of the Weigh Cell</strong></td>
<td>IP44 / IP65 4)</td>
<td></td>
<td></td>
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<tr>
<td><strong>Temperature range</strong></td>
<td>+5 °C to +40 °C</td>
<td></td>
<td></td>
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<tr>
<td><strong>Power supply</strong> 5)</td>
<td>24 V DC, ± 5%, 0.5 A</td>
<td></td>
<td></td>
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<tr>
<td><strong>Weight</strong></td>
<td>approx. 1,000 g</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Interface 1</strong></td>
<td>CAN, RS 422, Profinet DP, Profinet IO, Ethernet/IP, EtherCAT</td>
<td></td>
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<td></td>
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<tr>
<td><strong>Interface 2</strong></td>
<td>RS 232, 115200/8/1/odd</td>
<td></td>
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<tr>
<td><strong>Housing material</strong></td>
<td>Aluminum hard coated with stainless steel side cover AISI 304 Option: Stainless steel AISI 316L</td>
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</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) 5 m cable connection between electronic box and sensor

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/ **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:** Profinet 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 41:** Mounting flange top (only with aluminum version)
- **Option 42:** Upside down operation
- **Option 44:** Self Check (internal test weight)
Housing: Aluminum hard coated with Wash Down mode IP65

Housing: Stainless steel AISI 316L

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