Accurate, Reliable Weighing

for Static and Dynamic Loading



Tank Weighing

SWC515 weigh modules are designed for accurate and reliable tank weighing. They combine rugged construction with built-in safety features: Two hold-down bolts for uplift protection and two vertical stops to limit lateral movement.



Conveyors and Mixers

SWC515 weigh modules are also designed for dynamic-loading applications such as conveyors, mixers, and blenders. They provide 360° checking for maximum safety. The rocker pin restores the top plate to its ideal position for accurate, repeatable weighing.



Load Cells

Model SLC610 analog load cells have a rocker-column design that automatically aligns load forces for accurate weighing. These hermetically sealed load cells are rated IP68 and can be used in all environments. Because there are no bolted connections, the load cells are easy to inspect or replace.



Stabilizers

Up to two optional stabilizers can be added to limit the movement of the tank or structure. The robust stabilizers can handle even strong mixer torque or vibration, while allowing for thermal expansion and contraction.







SWC515 Weigh Module

SWC515 weigh modules provide excellent performance in both static- and dynamic-loading applications. They offer a single solution for converting a wide variety of structures for weighing. All safety features are redundant, providing an extraordinarily high level of safety.

- Dual integrated uplift protection
- Dual vertical safety stop
- Full 360° integrated checking
- Dual stabilizer option
- Capacity range: 7.5-22.5t (16,535-49,604 lb)
- Global approvals standard on every load cell
- Zinc-plated or stainless steel mounting hardware



SWC515 Weigh Module Specifications

| Weigh Module Parameter Model No. | | Unit of Measure | Specification SWC515 PINMOUNT | | | |
|--|------------------|-----------------------------|------------------------------------|---------|-------------|--|
| | | | | | | |
| Rated Capacity (R.C.) | | t (klb, nominal) | 7.5 (16.5) | 15 (33) | 22.5 (49.6) | |
| Land Lineit Onto 8 | with load cell | %R.C. | 150 | | | |
| Load Limit, Safe 8 | in shipping mode | %R.C. | 100 | | | |
| Restoring Force ⁵ | | %A.L./mm (/in) ³ | 2.4 (61) 3.4 | | | |
| Max. Horizontal Force 6 | Transverse | kN (klb) | 74 (16.5) | | | |
| | Longitudinal | kN (klb) | 74 (16.5) | | | |
| Max. Horizontal Force (longitudinal) per stabilizer option ⁹ | | kN (klb) | 22 (5) | | | |
| Max. Top Plate Travel | Transverse | ± mm (in) | 5 (0.2) | | | |
| | Longitudinal | ± mm (in) | 5 (0.2) | | | |
| Max. Upliff Force ⁷ | | kN (klb) | 74 (16.5) | | | |
| Weight (including load cell), nominal | | kg (lb) | 20 (44) | | | |
| Material | | | carbon steel / 304 stainless steel | | | |
| Finish | | | zinc plated / glass-bead blasted | | | |

| Load Cell Parameter | | Unit of Measure | Specification | | | | | |
|--------------------------------------|-----------------------|------------------|---|------------------------|-------------|--|--|--|
| Model No. | | | SLC610 | | | | | |
| Rated Capacity (R.C.) | | t (klb, nominal) | 7.5 (16.5) | 15 (33) | 22.5 (49.6) | | | |
| Rated Output | | mV/V @ R.C. | 2 ± 0.1% | | | | | |
| Combined Error 1, 2 | | %R.C. | | ≤ 0.018 | | | | |
| | Min. Dead Load Output | %R.C./°C (/°F) | ≤ 0.0009 (0.0005) | | | | | |
| Temperature Effect on | Sensitivity 2 | %A.L./°C (/°F) | ≤ 0.0009 (0.0005) | | | | | |
| | Compensated | °C (°F) | | -10 ~ +40 (+14 ~ +104) | | | | |
| Temperature Range | Operating | °C (°F) | | -40 ~ +80 (-40 ~ +176) | | | | |
| | Safe Storage | °C (°F) | | -40 ~ +80 (-40 ~ +176) | | | | |
| | Class | | | C3 | | | | |
| OIML/European Approval 4 | nmax | | 3000 | | | | | |
| | Υ | | 15000 | | | | | |
| NTEP Approval ⁴ | Class | | III M | | | | | |
| | nmax | | 6000 | | | | | |
| | Vmin | kg (lb) | 0.6 (1.3) | 1.3 (2.9) | 1.9 (4.2) | | | |
| ATEX Approval ⁴ | Rating | | II 2 G EEx ia IIC T6/T5/T4 & II 2 D IP65 T130°C | | | | | |
| Factory Mutual Approval ⁴ | Rating | | IS/I,II,III/1/ABCDEFG/T4 | | | | | |
| Eveloution Voltage | Recommended | V AC/DC | 5 ~ 15 | | | | | |
| Excitation Voltage | Maximum | V AC/DC | 20 | | | | | |
| Townsia at Desistance | Excitation | Ω | 1150 ± 50 | | | | | |
| Terminal Resistance | Output | Ω | 1000 ± 2 | | | | | |
| Material | Spring Element | | Stainless steel | | | | | |
| | Туре | | Glass-to-metal seal | | | | | |
| Protection | IP Rating | | IP68 | | | | | |
| | NEMA Rating | | NEMA 6/6P | | | | | |
| Load Limit | Safe | %R.C. | 200 | | | | | |
| Load Limit | Ultimate | %R.C. | 300 | | | | | |
| Weight, nominal | | kg (lb) | 1 (2.2) | | | | | |
| Oabla | Length | m (ff) | 12 (39) | | | | | |
| Cable | Diameter | mm (in) | 5 (0.20) | | | | | |

¹ Error due to the combined effect of non-linearity and hysteresis.

Produced in a facility that is











² Typical values only. The sum of errors due to combined error and temperature effect on sensitivity comply with the requirements of OIML R60 and NIST HB44.

³ A.L. = Applied Load.

⁴ See certificate for complete information.

 $^{^{5}}$ % of Applied Load (A.L.) per mm (in) displacement of the top plate (transverse and longitudinal).

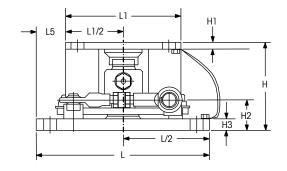
⁶ Maximum horizontal force that can be applied to the top plate.

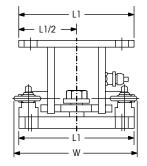
 $^{^{\}rm 7}$ Maximum vertical uplift force that can be applied to the top plate.

⁸ Maximum vertical downward force that can be applied to the top plate.

⁹ One or two stabilizers per weigh module. Maximum permissible longitudinal force is 22kN (5klb) per stabilizer.

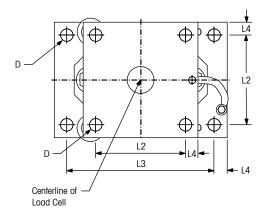
SWC515 Weigh Module Dimensions

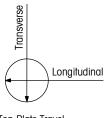




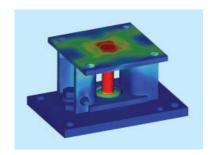
SLC610 Load Cell Cable Colors

| Color | Function |
|--------|--------------|
| Green | + Excitation |
| Black | - Excitation |
| White | + Signal |
| Red | - Signal |
| Yellow | Shield |





- Top Plate Travel
- ¹ Dimensions are in mm (inches).
- 2 Drawings are shown with optional stabilizers.
 3 Shipping/installation height is 1 mm (0.04 inch) taller.



FEA Analysis

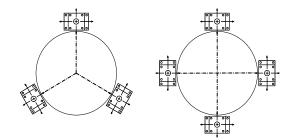
The SWC515 design has been optimized with the latest Finite-Element Analysis (FEA) techniques to provide an exceptionally safe weigh module.

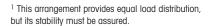
| Capacity | D | H ³ | H1 | H2 | Н3 | L | L1 | L2 | L3 | L4 | L5 | w |
|-----------------|------------|-----------------------|------------|------------|------------|------------|------------|-----------|-------------|------------|------------|------------|
| 7.5-22.5t | 22 mm | 152 mm | 12 mm | 53 mm | 20 mm | 300 mm | 200 mm | 155 mm | 255 mm | 22.5 mm | 50 mm | 210 mm |
| (16.5-49.6 klb) | (0.87 in.) | (5.98 in.) | (0.47 in.) | (2.09 in.) | (0.79 in.) | (11.8 in.) | (7.87 in.) | (6.1 in.) | (10.04 in.) | (0.89 in.) | (1.97 in.) | (8.27 in.) |

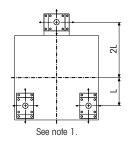
Top Plate Travel

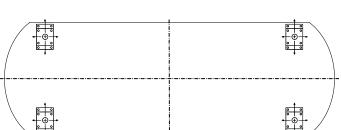
| | Without St | abilizer(s) | With Stabilizer(s) | | | |
|------------------------------|-----------------------|-----------------------|--------------------|-----------------------|--|--|
| Capacity | Longitudinal | Transverse | Longitudinal | Transverse | | |
| 7.5-22.5t (16.5-49.6 klb) | ± 5 mm (± 0.2 in.) | ± 5 mm (± 0.2 in.) | 0 (0) | ± 5 mm (± 0.2 in.) | | |

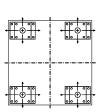
SWC515 Mounting Arrangements











SWC515 Ordering Information

| Description | Item No. |
|---|----------|
| SWC515 Weigh Module (with load cell), 7.5t carbon steel | 72205446 |
| SWC515 Weigh Module (with load cell), 15t carbon steel | 72205447 |
| SWC515 Weigh Module (with load cell), 22.5t carbon steel | 72205448 |
| SWC515 Weigh Module (with load cell), 7.5t stainless steel | 72205449 |
| SWC515 Weigh Module (with load cell), 15t stainless steel | 72205450 |
| SWC515 Weigh Module (with load cell), 22.5t stainless steel | 72205451 |
| SWC515 Weigh Module (without load cell), 7.5t-22.5t carbon steel | 72205442 |
| SWC515 Weigh Module (without load cell), 7.5t-22.5t stainless steel | 72205443 |
| SLC610 Load Cell, 7.5t (16.5klb), 12m (39ft) cable, C3 / IIIM 6Kd | 72205433 |
| SLC610 Load Cell, 15t (33klb), 12m (39ft) cable, C3 / IIIM 6Kd | 72205434 |
| SLC610 Load Cell, 22.5t (49.6klb), 12m (39ft) cable, C3 / IIIM 6Kd | 72205435 |

| Options | Item No. |
|---|----------|
| Stabilizer Option, carbon steel* | 72205444 |
| Stabilizer Option, stainless steel* | 72205445 |
| Dummy Load Cell, SLC610, 0-22.5t stainless steel | 72206152 |
| Spacer Plate, SWC515, 0-22.5t stainless steel | 72206153 |
| Dead Stand, SWC515, 0-22.5t carbon steel | 72206154 |
| Dead Stand, SWC515, 0-22.5t stainless steel | 72206155 |
| Fabreeka Pad Kit, SWC515 (includes spacer plate 72206153) | 72207262 |
| Acetal Thermal Isolation Pad Kit, SWC515 (includes spacer plate 72206153) | 72207263 |
| PEI Thermal Isolation Pad Kit, SWC515 (includes spacer plate 72206153) | 72207264 |

^{*} One or two stabilizers per weigh module. Maximum permissible longitudinal force is 22kN (5klb) per stabilizer.



METTLER TOLEDO embeds intelligence into weighing applications.

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subject to regulatory controls, such as pharmaceutical, chemical,

food and beverage, and has been confirmed by multiple global

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For more information



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