

## Right-the-First-Time Integration

### Safe, Accurate, Service-Friendly



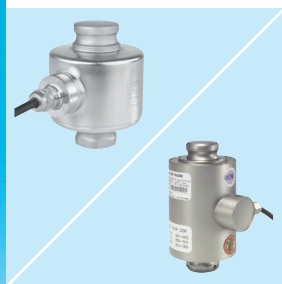
#### No Compromise on Safety

SWC515-A PowerMount™ weigh modules do not compromise on safety. Anti-uplift, downstop protection and 360° checking are incorporated in the weigh module design to prevent damage in case of accidents.



#### Effortless Installation

SWC515-A PowerMount™ ensures proper scale system installation, right from the start. Service features, including SafeLock™, provide easy and trouble-free setup. The weigh modules are also designed for dynamic-loading applications such as conveyors, mixers and blenders.



#### Load Cells

The analog load cells have a rocker-pin design that automatically aligns load forces for accurate weighing. These hermetically sealed load cells are rated IP68 and IP69K and can be used in all environments. The load cells are easy to inspect or replace.



#### Stabilizers

Up to two optional stabilizers can be applied to each weigh module to stabilize a scale subject to heavy vibration, high torque, or used for in-motion weighing. With stabilizers installed, thermal expansion is still possible, so that you can achieve the best weighing performance.



### SWC515-A PinMount™

#### Easy-to-Integrate Weigh Modules

SWC515-A PinMount™ weigh modules offer rugged construction and enable easy installation and accurate, reliable tank weighing. Standard features include 360° checking and two lift-off bolts to cope with wind forces, while two vertical down-stops provide additional safety.

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# Technical Specifications

## SWC515-A PinMount™ Weigh Module

WEIGH MODULE	unit of measure	Specification					
Model No.		SWC515-A PinMount™					
Size		1			2		
Rated Capacity (R.C.)	† (klb, nominal)	7.5 (16.5)	15 (33)	22.5 (49.6)	30 (66)	50 (110)	
Max. Rated Forces <sup>(1)</sup>							
	Max. Compressive Force, Rated	kN (klb)	74 (16.5)	145 (33)	220 (50)	290 (65)	490 (110)
	Max. Horizontal Force, Rated	transverse	82 (18)			111 (25)	
		longitudinal	154 (34)			156 (35)	
	Max. Uplift Force, Rated	kN (klb)	122 (27)			206 (46)	
	Max. Horizontal Force (longitudinal) per stabilizer option, Rated <sup>(6)</sup>	kN (klb)	22 (5)			35 (7.7)	
Max. Yield Forces <sup>(2)(4)</sup>							
	Max. Compressive Force, Yield	kN (klb)	145 (33)	294 (67)	440 (97)	505 (110)	855 (190)
	Max. Horizontal Force, Yield	transverse	114 (25)			155 (35)	
		longitudinal	214 (48)			217 (48)	
	Max. Uplift Force, Yield	kN (klb)	171 (38)			287 (64)	
Max. Ultimate Forces <sup>(3)(4)</sup>							
	Max. Compressive Force, Ultimate	kN (klb)	220 (50)	420 (94)	660 (147)	883 (194)	1470 (323)
	Max. Horizontal Force, Ultimate	transverse	172 (38)			351 (79)	
		longitudinal	260 (58)			495 (111)	
	Max. Uplift Force, Ultimate	kN (klb)	234 (52)			451 (101)	
Restoring Force		%A.L./mm (./.in)	2.4 (61)		3.4 (87)	0.8 (19)	2 (51)
Max. top plate travel		transverse	± 5 (0.2)				
		longitudinal <sup>(7)</sup>	± 5 (0.2)				
Weight, nominal (including load cell)		kg (lb)	23 (50.7)			57.5 (126.8)	
Material			carbon steel / 304 stainless steel			carbon steel / 304 stainless steel	
Finish			zinc plated / electropolished			zinc plated / electropolished	
Shipping dimensions (L x W x H)		cm (in)	34 x 23 x 30 (13.4 x 9.1 x 11.8)			41.5 x 32 x 41 (16.3 x 12.6 x 4.6)	
Shipping weight		kg (lb)	26.5 (58.4)			62.5 (137.8)	

(1) The weigh module is rated for these forces in normal operation, a Factor of Safety (FoS) has been applied by METTLER TOLEDO.

(2) Warning: If loaded statically one time in excess of these forces, the weigh module may yield and need replacing. The Max. Yield Forces do not consider fatigue/cyclic loading and should be approached only in exceptional circumstances.

(3) Warning: If loaded statically one time in excess of these forces, the weigh module may break with potential for serious injury and/or property damage.

(4) Warning: Apply a Factor of Safety (FoS) appropriate to the application.

(5) % of Applied Load (A.L.) per mm (in) displacement of the top plate (transverse & longitudinal).

(6) 1 or 2 per weigh module. Max. permissible longitudinal force per stabilizer.

(7) 0 with Stabilizer



### 0782 Cable Colour

Colour	Function
Green	+ Excitation
Black	- Excitation
White	+ Signal
Red	- Signal
Yellow	+ Sense
Blue	- Sense
Yellow (long)	Shield

### SLC611 Cable Colour

Colour	Function
Green	+ Excitation
Black	- Excitation
White	+ Signal
Red	- Signal
Yellow	Shield

# Technical Specifications

## SLC611 / 0782 Load Cells

LOAD CELL		Unit of measure	Specification				
Item No.			30058060	30058061	30058062	71201709	71201710
Model No.			SLC611			0782	
Rated capacity (R.C.)		† (klb, nomial)	7.5 (16.5)	15 (33)	22.5 (49.6)	30 (66)	50 (110)
Rated output		mV/V @R.C.	2 ± 0.1%				
Combined error <sup>8) 9)</sup>		%R.C.	≤ 0.018				
Temperature effect on	Min. dead load output	%R.C./°C (./°F)	≤ 0.0018 (0.0010)			≤ 0.0021 (0.0011)	
	Sensitivity <sup>9)</sup>	%A.L./°C (./°F)	≤ 0.001 (0.0006)				
Temperature range	Compensated	°C (°F)	-10 ~ +40 (-14 ~ +104)				
	Operating		-40 ~ +65 (-40 ~ +149)				
	Safe storage		-40 ~ +80 (-40 ~ +176)				
OIML / European approval <sup>10)</sup>	Class		C3				
	nmax		3000				
	Y		7800			6666	
NTEP approval <sup>10)</sup>	Class		III M			III L M	
	nmax		5000			10000	
	Vmin	kg (lb)	0.96 (2.12)	1.92 (4.24)	2.88 (6.36)	2.1 (4.5)	3.5 (7.5)
ATEX approval <sup>10)</sup>	Rating		II 1 G Ex ia IIC T6...T4 Ga / II 1 D Ex ia IIIC T100 °C Da			II 2 G Ex ib IIC T4 ... T6 / II 2 D Ex ibD 21 IP68 T60 °C	
			II 3 G Ex nA IIC T6...T4 Gc / II 3 G Ex ic IIC T6...T4 Gc / II 3 D Ex tc IIIC T100 °C Dc			II 3 G Ex ic IICT6...T4 Gc ; II 3 G Ex nA IIC T6 Gc ; II 3 G Ex ec IIC T6 Gc ; II 3 D Ex tc IIIC T60°C Dc	
IECEx approval	Rating		Ex ia IIC T6...T4 Ga / Ex ia IIIC T100 °C Da			Ex ib IIC T6...T4 Gb ; Ex ib IIIC T55°C ... T60°C Db	
			Ex nA IIC T6...T4 Gc / Ex ic IIC T6...T4 Gc / Ex tc IIIC T100 °C Dc			Ex ic IIC T6 ... T4 Gc ; Ex nA IIC T6 Gc ; Ex ec IIC T6 Gc ; Ex tc IIIC T60°C Dcc	
Factory mutual approval <sup>10)</sup>	Rating, USA		IS / I, II, III / 1 / ABCDEFG / T5			IS / I, II, III / 1 / ABCDEFG / T4 Ta = -40°C to +50°C	
			NI / I, II, III / 2 / ABCDFG / T6			NI / I,II,III / 2 / ABCDFG / T4 Ta = -40°C to +50°C	
	Rating, Canada	cFM	IS / I, II, III / 1 / ABCDEFG / T5 TA= -40°C to +55°C; NI / 1 / 2 / ABCD / T6 Ta = -40°C to +55°C, DIP/II,III/2/FG			IS / I,II,III / 1 / ABCDEFG / T4 Ta = -40°C to +50°C; NI / 1 / 2 / ABCD / T4 Ta = -40°C to +50°C, DIP/II,III/2/FG	
		CSA	Comply			Class I, Division 1, Groups A, B, C and D; Class II, Groups E, F and G; Class III	
Excitation voltage	Recommended	V AC/DC	5 ~ 15				
	Max.		20				
Terminal resistance	Excitation	Ω	1150 ± 50			1150 ± 25	
	Output		1000 ± 2			1000 ± 3	
Material	Spring element		Stainless steel				
	Type		Welded				
Protection	IP rating		IP68, IP69K			IP68, IP69K	
	NEMA rating		NEMA 6/6P				
Weight, nominal		kg (lb)	1 (2.2)			3 (6.6)	3.3 (7.3)
Cable	Length	m (ft)	12 (39.4)			13 (42.5)	
	Diameter	mm (in)	5.2 (0.20)			5.8 (0.23)	

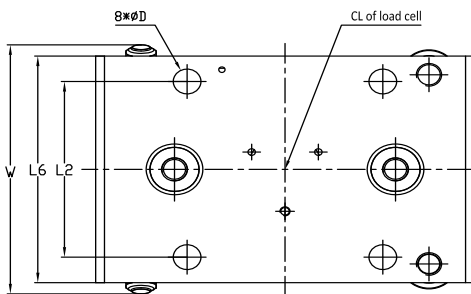
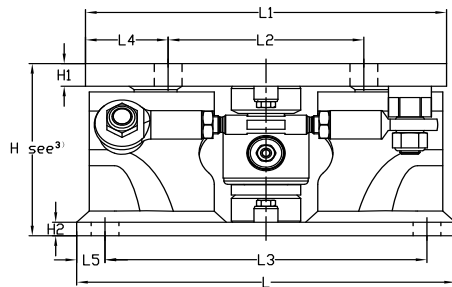
(8) Error due to the combined effect of non-linearity and hysteresis  
 (9) Typical values only. The sum of errors due to Combined Error and Temperature Effect on Sensitivity comply with the requirements of OIML R60 and NIST HB44.  
 (10) See certificate for complete information.



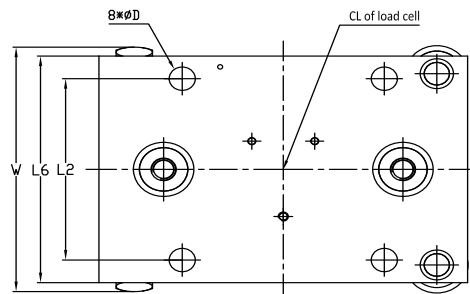
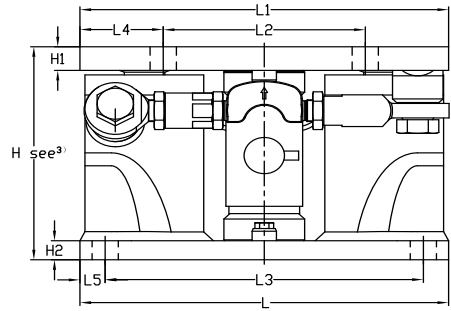
# Weigh Module Dimensions mm [in]

## SWC515-A PinMount™

Size 1

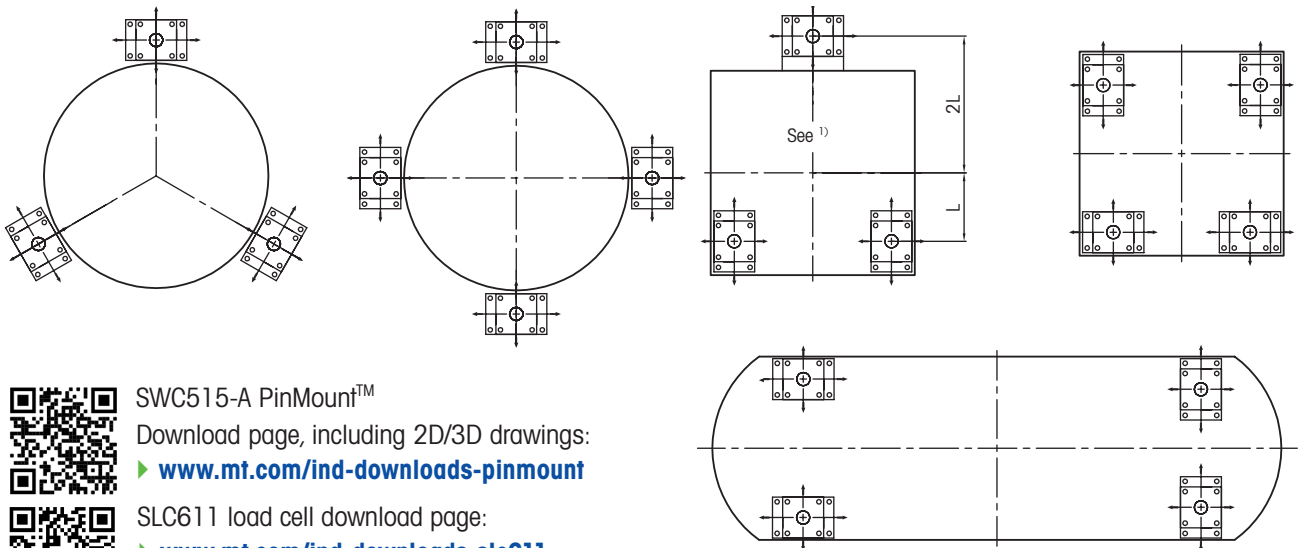


Size 2



Size	Capacity	Dimensions and locations											Tank leg plate		
		D	H	H1	H2	L	L1	L2	L3	L4	L5	L6	W	Thickness	Dimensions
1	7.5, 15, 22.5t	22	152	20	12	300	286	155	255	65.5	22.5	200	220	min 20	200 x 200
	[16.5, 33, 49.6klb]	[0.87]	[5.98]	[0.79]	[0.47]	[11.8]	[11.26]	[6.1]	[10.04]	[2.58]	[0.89]	[7.87]	[8.66]	[0.79]	[7.87 x 7.87]
2	20, 30, 50t	26	235	26	21	365	365	200	315	82.5	25	250	273	min 26	250 x 250
	[44, 66, 110klb]	[1.02]	[9.25]	[1.029]	[0.839]	[14.37]	[14.37]	[7.87]	[12.4]	[3.25]	[0.98]	[9.84]	[10.75]	[1.029]	[9.84 x 9.84]

## SWC515-A PinMount™ Weigh Module Arrangements



SWC515-A PinMount™  
Download page, including 2D/3D drawings:

▶ [www.mt.com/ind-downloads-pinmount](http://www.mt.com/ind-downloads-pinmount)

SLC611 load cell download page:

▶ [www.mt.com/ind-downloads-slc611](http://www.mt.com/ind-downloads-slc611)

0782 load cell download page:

▶ [www.mt.com/ind-downloads-0782](http://www.mt.com/ind-downloads-0782)

<sup>1)</sup> Provides equal load distribution, but the stability of this arrangement must be assured.

## Order Information

**SWC515-A PinMount™ – Weigh Module /  
SWC515-A PinMount™ EN1090 – Weigh Module (Europe only)**

Order Information, Weigh Module Assembly					Item No.	
Size	Rated Capacity	Description	Class	Cable, Material / Length	Material, Weigh Module	
					Zinc Plated	304
1	7.5 t / 16.5 klb	Weigh Module Assembly	C3/III M n:5	PU / 12 m (39.4ft)	<b>30730500</b>	<b>30730507</b>
					<b>30730536</b>	<b>30730543</b>
	15 t / 33 klb				<b>30730501</b>	<b>30730518</b>
	22.5 t / 49.6 klb				<b>30730537</b>	<b>30730544</b>
					<b>30730502</b>	<b>30730519</b>
					<b>30730538</b>	<b>30730545</b>
2	30 t / 66 klb	Weigh Module Assembly	C3/IIIL M n:10	PVC / 13 m (42.5ft)	<b>30730503</b>	<b>30730520</b>
					<b>30730539</b>	<b>30730546</b>
	50 t / 110 klb				<b>30730504</b>	<b>30730521</b>
					<b>30730540</b>	<b>30730547</b>

**Bolded entries are stocked**

## Order Information SWC515-A PinMount™ – Weigh Module without Load Cell

**SWC515-A PinMount™ – Weigh Module without Load Cell /  
SWC515-A PinMount™ EN1090 – Weigh Module without Load Cell (Europe only)**

- SafeLock™ allows installation of weigh module hardware without load cell to avoid sensor damage
- Combine weigh module with special cable length and cable material
- Use weigh module with dummy load cell for level-detection systems

Order information, weigh module kit		Item No.		Suitable load cells					Dummy load cell
Size	Rated capacity Class	Material, weigh module		Item No.					
		Zinc plated	304	Cable, material/length					
				PU / 12 m (39.4 ft)	PU / 20 m (65.6ft)	FEP / 12 m (39.4 ft)	FEP / 20 m (65.6ft)	PVC / 13 m (42.5ft)	
1	<b>7.5 t / 16.5 klb</b> C3/III M n:5	<b>30730505</b> <b>30730541</b>	<b>30730522</b> <b>30730548</b>	<b>30058060</b>	<b>30058064</b>	<b>30105781</b>	<b>30105786</b>	-	<b>30238196</b>
	<b>15 t / 33 klb</b> C3/III M n:5			<b>30058061</b>	<b>30058065</b>	<b>30105783</b>	<b>30105788</b>		
	<b>22.5 t / 49.6 klb</b> C3/III M n:5			<b>30058062</b>	<b>30058066</b>	<b>30105784</b>	<b>30105789</b>		
2	<b>30 t / 66 klb</b> C3/IIIL M n:10	<b>30730506</b>	<b>30730523</b>	-	-	-	-	<b>71201709</b>	<b>72188111</b>
	<b>50 t / 110 klb</b> C3/IIIL M n:10	<b>30730542</b>	<b>30730549</b>					<b>71201710</b>	

**Bolded entries are stocked**

## Weigh Module Accessories

### SWC515-A PinMount™ Weigh Module

METTLER TOLEDO offers an extensive range of accessories for weigh modules and load cells. These help to ensure proper installation and minimize the risk of downtime due to environmental influences.

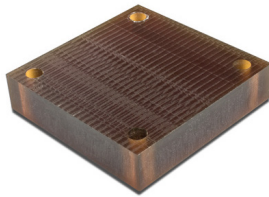


#### Stabilizers

Stabilizers are used to stabilize a scale subject to heavy vibration, high torque, or in-motion weighing. Each weigh module can host one or two stabilizers. With stabilizers installed, thermal expansion is still possible, so that you can achieve the best weighing performance. Stabilizers (and weigh modules) shall be installed perpendicular to the direction of thermal expansion/contraction. For details see the Installation Guide on the product download page, linked on page 4 of this datasheet.

Rated Capacity	Item Nr.	
	-	Zinc Plated
7.5 - 22.5 t / 16.5 - 49.6 klb	30732118	30732119
30 - 50 t / 66 - 110 klb	30732120	30732121

\* **Bolded entries are stocked**

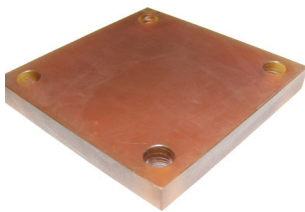


#### Shock/vibration pad

These pads are used to protect weigh modules from shock loading of the scale and to dampen vibrations that might be transmitted from scale to weigh module.

Rated Capacity	Item Nr.	
	-	Zinc Plated
7.5 - 22.5 t / 16.5 - 49.6 klb	<b>72246646</b>	<b>72207262</b>
30 - 50 t / 66 - 110 klb	72255072	72255075

\* **Bolded entries are stocked**



#### Thermal pads

Thermal pads are used in the case of hot tanks. They protect the load cell from temperature load caused by convection, thereby increasing accuracy and the lifespan of the system.

Rated Capacity	Item Nr.	
	80°C	Zinc Plated
7.5 - 22.5 t / 16.5 - 49.6 klb	<b>72246647</b>	<b>72207263</b>
30 - 50 t / 66 - 110 klb	<b>72255073</b>	<b>72255076</b>
170°C	Zinc Plated	304
7.5 - 22.5 t / 16.5 - 49.6 klb	<b>72246648</b>	<b>72207264</b>
30 - 50 t / 66 - 110 klb	<b>72255074</b>	<b>72255077</b>

\* **Bolded entries are stocked**

## Related Products

### Precision Junction Boxes

Precision junction boxes connect the load cells and transfer the signal to the weighing indicator or transmitter.



Junction Box:

► [www.mt.com/ind-downloads-precision-junctionbox](http://www.mt.com/ind-downloads-precision-junctionbox)



### Weighing Indicators and Transmitters

METTLER TOLEDO offers a complete family of weighing indicators, controllers and transmitters for applications from simple weighing to filling, stock control, batching, formulation, counting, or checkweighing.



ACT350 Weight Transmitter:

► [www.mt.com/ind-act350](http://www.mt.com/ind-act350)



IND360 Automation Indicator:

► [www.mt.com/ind360](http://www.mt.com/ind360)



IND570 Industrial Indicator:

► [www.mt.com/ind570](http://www.mt.com/ind570)



IND780 Industrial Indicator:

► [www.mt.com/ind780](http://www.mt.com/ind780)



### METTLER TOLEDO Service

Our extensive service network is among the best in the world and ensures maximum uptime and optimized performance of your weighing solution. RapidCal™ from METTLER TOLEDO offers an economical tank scale calibration method that is traceable and achieved without using test weights or purified liquids.



Learn more about RapidCal™:

► [www.mt.com/ind-rapidcal](http://www.mt.com/ind-rapidcal)



**METTLER TOLEDO** Service

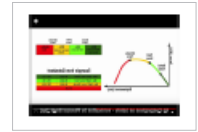
# Weigh Module Knowledge Base



## Weigh Module Proven Safety Video

Watch the video to understand how force ratings are tested and how mechanical safety of weigh modules are ensured.

▶ <https://www.youtube.com/watch?v=jmOzLrB9HdA>



## Weigh Module Buying Guide

Ensure that you make the proper weigh module selection with the support of our free Weigh Module Buying Guide.

▶ [www.mt.com/ind-wm-buying-guide](http://www.mt.com/ind-wm-buying-guide)



## Dos and Don'ts

Discover best practices for weigh module installation and integration in custom scales with straightforward, real-world examples..

▶ [www.mt.com/ind-wm-dos-donts](http://www.mt.com/ind-wm-dos-donts)



## Tank Scale Calibration Methods

In this document, we discuss the six common methods to calibrate tank scales and then illustrate each method with practical use cases.

▶ [www.mt.com/ind-tankscalecalibration](http://www.mt.com/ind-tankscalecalibration)



## PinMount™ Installation Video

Learn how to install PinMount™ weigh modules, and understand the benefits of SafeLock™ technology and the optional stabilizers.

▶ [www.youtube.com/watch?v=WUdgvfxsCQ](http://www.youtube.com/watch?v=WUdgvfxsCQ)



## Further Readings

Safety-Related Force Ratings:

[www.mt.com/ind-wp-safety](http://www.mt.com/ind-wp-safety)

Weighing Accuracy in Tank Scales:

[www.mt.com/ind-weighing-accuracy-brochure](http://www.mt.com/ind-weighing-accuracy-brochure)

Analog and PowerMount™ Weigh Modules:

[www.mt.com/ind-modern-weigh-modules-WP](http://www.mt.com/ind-modern-weigh-modules-WP)

Weigh Module Systems Handbook:

[www.mt.com/ind-system-handbook](http://www.mt.com/ind-system-handbook)

Weightless Tank Scale Calibration:

[www.mt.com/ind-weightless-tank-scale-calibration-WP](http://www.mt.com/ind-weightless-tank-scale-calibration-WP)

RapidCal™ Tank Scale Calibration:

[www.mt.com/ind-rapidcal](http://www.mt.com/ind-rapidcal)

## METTLER TOLEDO Group

Industrial Division

Local contact: [www.mt.com/contacts](http://www.mt.com/contacts)

[www.mt.com](http://www.mt.com)

For more information



Subject to technical changes

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