

Right-the-First-Time Integration Safe, Accurate, Service-Friendly



No Compromise on Safety

SWC615-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

SWC615-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.



Smart Load Cells

POWERCELL® load cells have a rocker-pin design that automatically aligns load forces for accurate weighing. These hermetically sealed load cells are rated IP68/IP69K and can be used in all environments. The load cells are easy to inspect or replace and provide proactive alerts in case of damage.



Condition Monitoring

Monitor individual load cells for overload, temperature extremes, zero drift, and more. Breach detection warns if the load cell's hermetic seal has been broken. This enables reaction before the system weighs incorrectly or shuts down completely to ensure the highest uptime.



SWC615-A PowerMount™ Easy-to-Integrate Weigh Modules

SWC615-A PowerMount™ 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

SWC615-A PowerMount™ Weigh Module

WEIGH MODULE		Unit of measure	Specification					
Model No.			SWC615-A PowerMount™					
Size			1			2		
Rated Capacity (R.C.)		t (klb, nominal)	7.5 (16.5)	15 (33)	22.5 (49.6)	20 (44)	30 (66)	50 (110)
Max. Rated Forces ⁽¹⁾								
Max. Compressive Force, Rated		kN (klb)	74 (16.5)	145 (33)	220 (50)	195 (44)	290 (65)	490 (110)
Max. Horizontal Force, Rated	transverse	kN (klb)	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 ⁽⁶⁾		kN (klb)	22 (5)			35 (7.7)		
Max. Yield Forces ⁽²⁾⁽⁴⁾								
Max. Compressive Force, Yield		kN (klb)	145 (33)	294 (67)	440 (97)	390 (87)	580 (130)	980 (215)
Max. Horizontal Force, Yield	transverse	kN (klb)	114 (25)			155 (35)		
	longitudinal		214 (48)			217 (48)		
Max. Uplift Force, Yield		kN (klb)	171 (38)			287 (64)		
Max. Ultimate Forces ⁽³⁾⁽⁴⁾								
Max. Compressive Force, Ultimate		kN (klb)	220 (50)	420 (94)	660 (147)	580 (130)	883(194)	1470 (323)
Max. Horizontal Force, Ultimate	transverse	kN (klb)	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)	1.8 (46)		
Max. top plate travel	transverse	± mm (in)	± 5 (0.2)					
	longitudinal ⁽⁷⁾		± 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)		

LOAD CELL		Unit of measure	Specification							
Item No.			30092515	30092516	30092517	42904882	42904883	42904884	42904891	42904892
Model No.			POWERCELL® SLC611D			POWERCELL® PDX® SLC820				
Rated Capacity (R.C.)		t (klb, nominal)	7.5 (17)	15 (33)	22.5 (50)	20 (44)	30 (66)		50 (110)	
Min. Increment Size, typical ⁽¹¹⁾		kg (lb)	0.15 (0.33)	0.3 (0.66)	0.45 (1)	0.4 (0.88)	0.6 (1.3)		1 (2.2)	
Zero load Output		%R.C.	≤ 0.5			≤ 0.1				
Combined Error ⁽⁸⁾⁽⁹⁾		%R.C.	≤ 0.018			≤ 0.018	≤ 0.015	≤ 0.018	≤ 0.015	
Repeatability Error		%A.L.	≤ 0.010			≤ 0.010	≤ 0.008	≤ 0.01	≤ 0.008	
Creep, 30 minute		%A.L.	≤ 0.015			≤ 0.015	≤ 0.0125	≤ 0.015	≤ 0.0125	
Min. Dead Load Output Return (DR), 30 min.		%A.L.	≤ 0.015			≤ 0.015	≤ 0.0125	≤ 0.015	≤ 0.0125	

Technical Specifications

SLC611D / SLC820 Load Cells

LOAD CELL		Unit of measure	Specification							
Temperature Effect on	Min. Dead load Output	%R.C./°C (./°F)	0.0014 (0.0008)			≤ 0.0020 (0.0011)	≤ 0.0014 (0.0008)	≤ 0.0013 (0.0007)	≤ 0.0014 (0.0008)	≤ 0.0013 (0.0007)
	Sensitivity ⁽⁹⁾	%A.L./°C (./°F)	≤ 0.001 (0.0006)			≤ 0.001 (0.0006)		≤ 0.0008 (0.0004)	≤ 0.001 (0.0006)	≤ 0.0008 (0.0004)
Temperature Range	Compensated	°C (°F)	-10 +40 (+14 ~ +104)			-10 to +40 (+14 to +104)				
	Operating		-40 ~ +55 (-40 ~ +131)			-30 to +55 (-22 to +131)				
	Safe Storage		-40 ~ +80 (-40 ~ +176)			-40 to +80 (-40 to +176)				
OIML / European Approval ⁽¹⁰⁾	Class		C3			C3	C3	C4	C3	C4
	nmax		3000			3000	3000	4000	3000	4000
	Vmin	kg	0.83	1.67	2.5	2.5	2.7	2.4	4.5	4.0
NTEP Approval ⁽¹⁰⁾	Class		III M			IIII M				
	nmax		5000			10000				
	Vmin	lb	2.2	4.2	6.3	2.1	2.2	2.0	3.8	3.4
ATEX Approval ⁽¹⁰⁾	Cat 2		II 2 G Ex ib IIB T4 Gb / II 2 D Ex ib IIIC T130° C Db							
	Cat 3		II 3 G Ex ec IIC T6 Gc; II 3 G Ex nA IIC T6 Gc; II 3 D Ex tc IIIC T85°C Dc			II 3 G Ex nA nC IIC T6 Gc / II 3 G Ex ec nC IIC T6 Gc / II 3 D Ex tc IIIC T85°C Dc				
IECEX Approval ⁽¹⁰⁾			Ex ib IIB T4 Gb / Ex ib IIIC T130°C Db Ex ec IIC T6 Gc / Ex nA IIC T6 Gc / Ex tc IIIC T85°C			Ex ib IIB T4 Gb / Ex ib IIIC T130°C Db Ex nA nC IIC T6 Gc / Ex ec nC IIC T6 Gc / Ex tc IIIC T85°C Dc				
FM Approval ⁽¹⁰⁾	Div. 1 US		IS / I, II, III / 1 / CDEFG ; 1 / 1 / AEx ib / IIB / T4 / Gb ; 21 / AEx ib / IIIC / T130°C / Db							
	Div. 1 Canada		IS / I, II, III / 1 / CDEFG / T4 ; 1 / Ex ib / IIB / T4 ; Gb ; 21 / Ex ib / IIIC / T130°C ; Db							
	Div. 2 US		NI / I,II,III / 2 / CDFG/T6 Ta= -40°C to +55°C NI / I, II,III Division 2, Groups A, B, C, D, F G; T6 Ta = -40°C to +55°C			-				
	Div.2 Canada		NNI / I,II,III / 2 / CDFG/T6 Ta= -40°C to 55°C ; NI / I,II,III / 2 / ABCDFG/T6 Ta= -40°C to 55°C			-				
UL /cUL Approval ⁽¹⁰⁾	Rating		-			I, II, III, Division 2, Groups C, D, F, G, T6				
Supply Voltage Non-regulated	Typical	V DC	12-24 (external supply)			12-24 (external supply)				
Overvoltage Protection	A		2500			> 80000				
Effective System Update Rate	Hz		100 (with 4 cells)			83 (with 4 cells), 50 (with 6 cells), 25 (with 14 cells), 15 (with 24 cells)				
Material	Spring Element		Stainless Steel			Stainless Steel				
Protection	Type		welded			welded				
	IP Rating		IP68/IP69K			IP68, IP69K				
	NEMA Rating		NEMA 6/6P			NEMA 6/6P				
Deflection @ R.C., nominal	mm (in)	0.2 (0.008)	0.37 (0.015)	0.49 (0.019)	0.36 (0.014)	0.51 (0.02)		0.71 (0.028)		
Weight, nominal	kg (lb)	1.2 (2.6)			3.0 (6.6)		3.2 (7.0)			

(1) The weigh module is rated for these forces in normal operation, a Factor of Safety 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 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

(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.

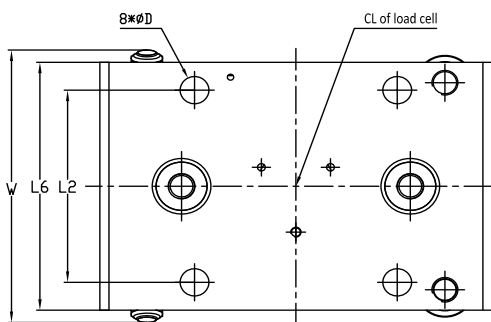
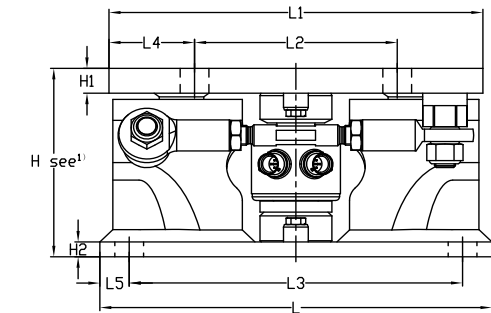
(11) Calculate the scale's minimum increment size by multiplying this value by the square root of the number of load cells. For non Legal-For-Trade Applications



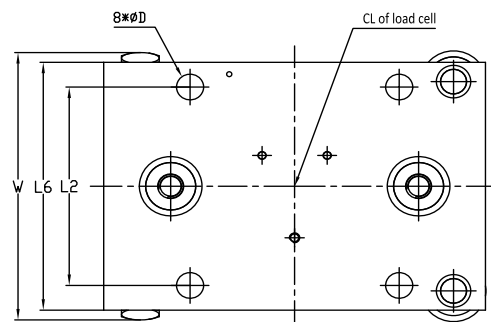
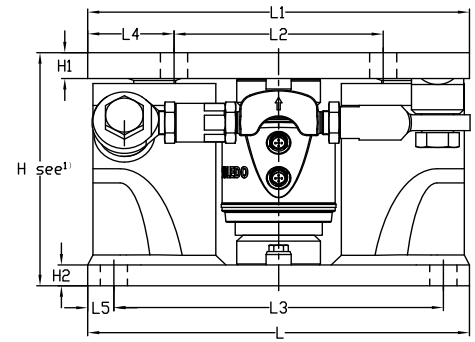
Weigh Module Dimensions mm [in]

SWC615-A PowerMount™

Size 1



Size 2

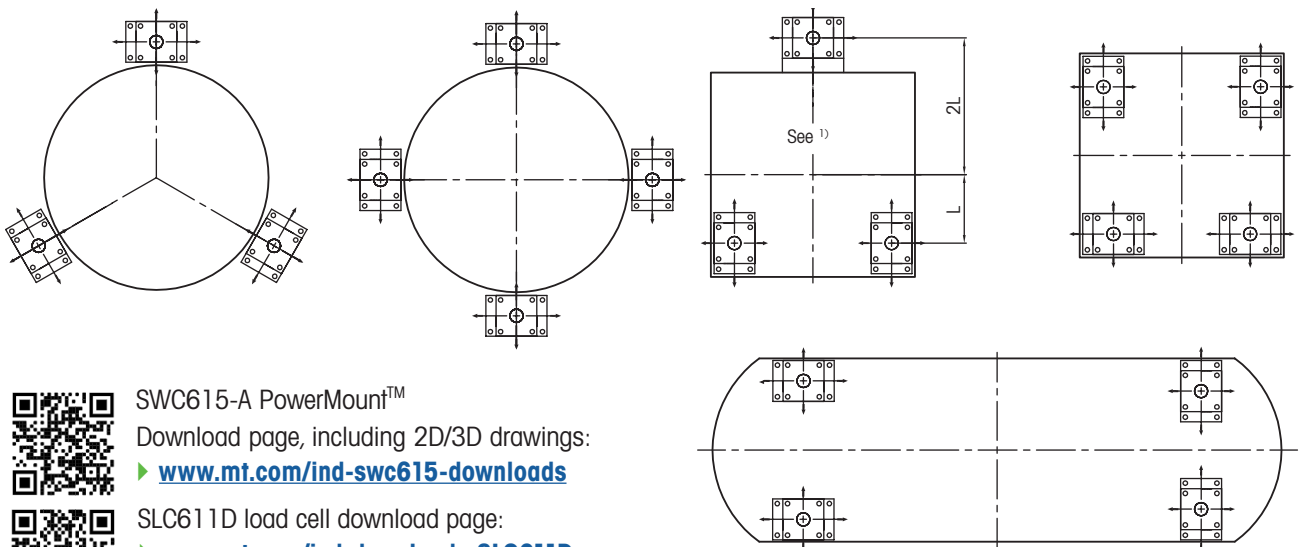


Dimensions and locations

Tank leg plate

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

SWC615-A PowerMount™ Weigh Module Arrangements



SWC615-A PowerMount™
Download page, including 2D/3D drawings:

▶ www.mt.com/ind-swc615-downloads



SLC611D load cell download page:

▶ www.mt.com/ind-downloads-SLC611D



More information on SLC820 load cell:

▶ <https://www.mt.com/ind-download-SLC820>

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

Order Information

SWC615-A PowerMount™ – Weigh Module**SWC615-A PowerMount™ EN1090 – Weigh Module (Europe only)**

Order Information, Weigh Module Assembly				Item No.	
Size	Rated Capacity	Description	Class	Material, Weigh Module	
				Zinc Plated	304
1	7.5 t / 17 klb	Weigh Module Assembly	C3 / III M n:5	30730524 / 30730550	30730530 / 30730556
	15 t / 33 klb			30730525 / 30730551	30730531 / 30730557
	22.5 t / 50 klb			30730526 / 30730552	30730532 / 30730558
2	20 t / 44 klb	Weigh Module Assembly	C3 / III M n:10	30730527 / 30730553	30730533 / 30730559
	30 t / 66 klb			30730528 / 30730554	30730534 / 30730560
	50 t / 110 klb			30730529 / 30730555	30730535 / 30730561

Bolded entries are stocked

Order Information SWC615-A PowerMount™ – Weigh Module without Load Cell

SWC615-A PowerMount™ – Weigh Module without Load Cell / SWC615-A PowerMount™ 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 other load cells (special cable lengths, etc.)
- Use weigh module with dummy load cell for level detection systems

Order Information, Weigh Module Kit		Item No.		Suitable Load Cells		
Size	Rated Capacity	Material, Weigh Module		Item No.		
		Zinc Plated	304	C3 / III M n:10	C4	Dummy Load Cell
1	7.5 t / 17 klb	30730505 30730541	30730522 30730548	30092515	-	30238196
	15 t / 33 klb			30092516	-	
	22.5 t / 50 klb			30092517	-	
2	20 t / 44 klb	30732122 30732124	30732123 30732125	42904882	-	72255084
	30 t / 66 klb			42904883	42904884	
	50 t / 110 klb			42904891	42904892	

Bolded entries are stocked

Order Information, Cables	Item No.							
	Cable, Material / Length							
	PU / 3m (10ft)	PU / 5m (16.4ft)	PU / 10m (32.8ft)	PU / 20m (65.6ft)	PU / 30m (100ft)	PU / 50m (166ft)	PU / 100m (333ft)	PU / 150m (500ft)
Cable Kit, 3 Load cells	30302750	30302751	30302752	30302753	-	-	-	-
Cable Kit, 4 Load cells	30302754	30302755	30302756	30302757	-	-	-	-
Load Cell - Load Cell Cable	30302766	30302767	30302768	30302769	-	-	-	-
Home Run Cable	-	30302758	30302759	30302760	30302761	30302762	30302763	30302764
Braided Cable Kit, 3 Load cells	-	61045291	61045292	-	-	-	-	-
Braided Cable Kit, 4 Load cells	-	61045293	61045294	-	-	-	-	-
Braided Home Run Cable	-	-	61044730	61044731	61044732	61044734	61044739	61044749
Cable Extension Adapter	30220628							
CAN Termination Load Cell	30302770							
Blind Cap Connector Load Cell	30302771							
Cable Gland for Home Run Cable with IND780PDX	30095639							

Bolded entries are stocked

Weigh Module Accessories

SWC615-A PowerMount™

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.

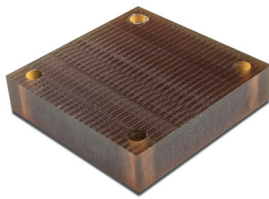


Stabilizers

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**

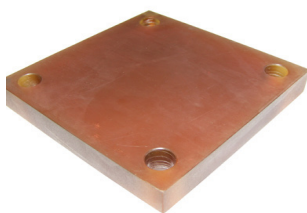


Shock/vibration pad

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	72246646	72207262
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	72246647	72207263
30 - 50 t / 66 - 110 klb	72255073	72255076
170°C	Zinc Plated	304
7.5 - 22.5 t / 16.5 - 49.6 klb	72246648	72207264
30 - 50 t / 66 - 110 klb	72255074	72255077

* **Bolded entries are stocked**

Related Products

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



IND360 Automation Indicator:
 ▶ www.mt.com/ind360



IND570 Industrial Indicator:
 ▶ www.mt.com/ind570



IND780 Industrial Indicator:
 ▶ 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



METTLER TOLEDO Service

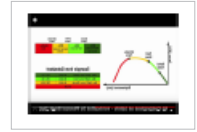
Weigh Module Knowledge Base



Weigh Module Proven Safety Video

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

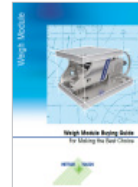
► <https://www.youtube.com/watch?v=jmOzLrB9HdA>



Weigh Module buying Guide

This weigh module buying guide helps engineers to select the right weigh module for their application.

► www.mt.com/ind-wm-buying-guide



Dos and Don'ts

Best practices in the application of Weigh Modules to custom scales explained simply.

► www.mt.com/ind-wm-dos-donts



Tank Scale Calibration Methods

In this document, we discuss the six common methods to calibrate a tank scale including pros and cons and then illustrate each method through use cases.

► www.mt.com/ind-tankscalecalibration



PinMount installation video

Watch the video for installation details of the PowerMount Weigh Modules. Details of the SafeLock plates, and optional Stabilizers are also explained.

► www.youtube.com/watch?v=WUndgvfxsCQ



Further Readings

Safety-Related Force Ratings:

www.mt.com/ind-wp-safety

Weighing Accuracy in Tank Scales:

www.mt.com/ind-weighing-accuracy-brochure

Analog and PowerMount™ Weigh Modules:

www.mt.com/ind-modern-weigh-modules-WP

Weigh Module Systems Handbook:

www.mt.com/ind-system-handbook

Weightless Tank Scale Calibration:

www.mt.com/ind-weightless-tank-scale-calibration-WP

RapidCal Tank Scale Calibration:

www.mt.com/ind-rapidcal



METTLER TOLEDO Group

Industrial Division

Local contact: www.mt.com/contacts

Subject to technical changes

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