SWC615-A PowerMount™

Right-the-First-Time Integration

Safe, Accurate, Smart

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™

Know What's Ahead

Key Product Features:

- Full mechanical safety - anti-uplift protection, down-stop protection and 360° checking
- Ground strap – welding protection
- SafeLock™ – protection during transportation and installation
- Stainless steel load cell with IP68/IP69K ratings
- Zinc plated or stainless steel mounting hardware
- IECEx, ATEX and FM hazardous approvals OIML C3/NTEP III M n:5, OIML C6/NTEP III M n:10
- CalFree™ Plus – Straightforward commissioning
- EN1090 structural safety standard (Europe only)
- Smart condition monitoring enabled by POWERCELL® technology
- Standard connector for easy cabling

Content

METTLER TOLEDO

SWC615-A PowerMount™ Specifications - 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					
Finish				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 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 stablizer.
(7) 0 with Stabilizer

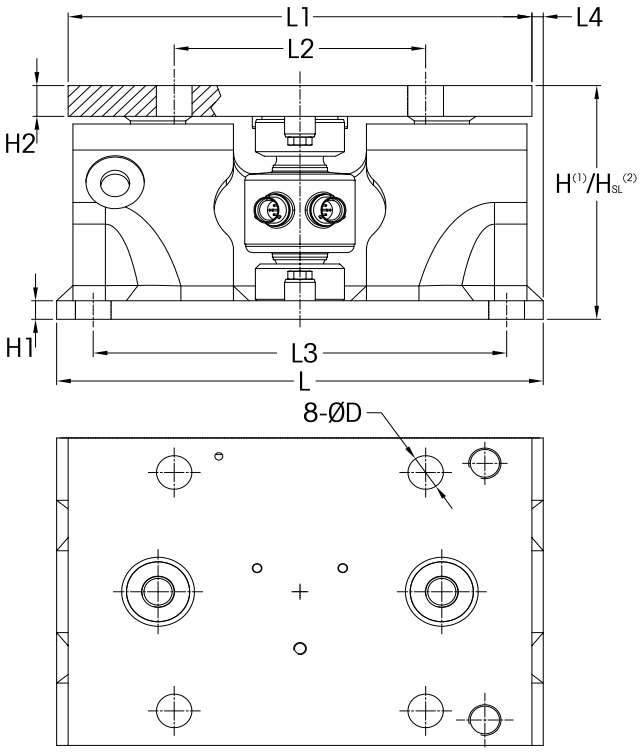
SWC615-A PowerMount™ Specifications - Load Cell

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.	C3/IIIM n:5: ≤ 0.018, C6/IIIM n:10: ≤ 0.013						C3/III L n:5: ≤ 0.018, C6/IIIL M n:10: ≤ 0.013				
Repeatability Error		%A.L.	C3/IIIM n:5: ≤ 0.01, C6/IIIM n:10: ≤ 0.005						C3/III L n:5: ≤ 0.01, C6/IIIL M n:10: ≤ 0.005				
Creep, 30 minute		%A.L.	C3/IIIM n:5: ≤ 0.015, C6/IIIM n:10: ≤ 0.008						C3/III L n:5: ≤ 0.015, C6/IIIL M n:10: ≤ 0.008				
Min. Dead Load Output Return (DR), 30 min.		%A.L.	C3/IIIM n:5: ≤ 0.015, C6/IIIM n:10: ≤ 0.008						C3/III L n:5: ≤ 0.015, C6/IIIL M n:10: ≤ 0.008				
Temperature Effect on	Min. Dead load Output	%R.C./°C (../°F)	C3/IIIM n:5: ≤ 0.0014, C6/IIIM n:10: ≤ 0.0012						C3/III L n:5: ≤ 0.0014, C6/IIIL M n:10: ≤ 0.0008				
	Sensitivity [9]	%A.L./°C (../°F)	C3/IIIM n:5: ≤ 0.0013, C6/IIIM n:10: ≤ 0.0007						C3/III L n:5: ≤ 0.0013, C6/IIIL M n:10: ≤ 0.0007				
Temperature Range	Compensated	°C (°F)	-10 ~ +40 (+14 ~ +104)						-10 ~ +40 (+14 to +104)				
	Operating		-40 ~ +55 (-40 ~ +131)						-30 ~ +55 (-22 to +131)				
	Safe Storage		-40 ~ +80 (-40 ~ +176)						-40 ~ +80 (-40 to +176)				
OIML / European Approval [10]	Class		C3	C6	C3	C6	C3	C6	C3	C3	C6	C3	C6
	nmax		3000	6000	3000	6000	3000	6000	3000	3000	4000	3000	4000
	Vmin	kg	0.68	0.45	1.36	0.91	2.05	1.73	2	2.1	1.5	3.5	2.5
NTEP Approval [10]	Class		III M						IIIL M				
	nmax		10000						10000				
	Vmin	lb	1.55	1.0	3.0	2.0	4.55	3.82	2.1	2.2	/	3.8	/
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 ; I / 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 Class I Zone 2 IIC T6 Gc, Zone 22 IIIB T85° Dc NI / I, II,III Division 2, Groups A, B, C, D, F G; T6 Ta = -40°C to +55°C						NI / I, II, III / 2 / ABCDFG / T6 Zone 2 AEx ec nC IIC T6 Gc Zone 2 AEx nA nC IIC T6 Gc Zone 22 AEx tc IIIC T85°C Dc -40°C < Ta < +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										
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)	1.1						3.0 (6.6)			3.2 (7.0)	

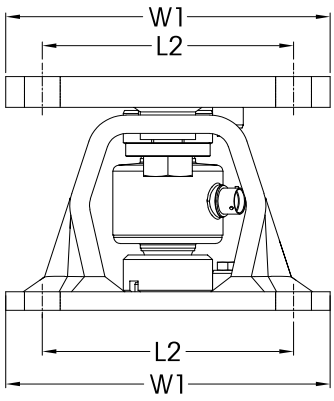
(8) Error due to the combined effect of non-linearity and hysteresis.
(9) Typical values only. The sum of errors due to Combined Error and Temperature Effect on Sensitivity comply with the requirements of OIML R60 and NIST HB44.
(10) See certificate for complete information.
(11) Calculate the scale's minimum increment size by multiplying this value by the square root of the number of load cells. For non Legal-For-Trade Applications

SWC615-A PowerMount™ Weigh Module Dimensions mm [in]

Size 1



Size 2



		Dimensions and locations											
Size	**Capacity**	H(1)	H_{SL}(2)	H1	H2	H3	L	L1	L2	L3	L4	W1	D
1	7.5, 15, 22.5t (16.5, 33, 49.6klb)	152.0 (5.98)	154.0 (6.06)	12.0 (0.47)	20.0 (0.79)	20.0 (0.79)	300.0 (11.8)	286.0 (11.26)	155.0 (6.1)	255.0 (10.04)	7.0 (0.28)	220.0 (8.66)	22.0 (0.87)
2	20, 30, 50t (44, 66, 110klb)	235.0 (9.25)	237.0 (9.33)	21.0 (0.839	26.0 (1.02)	33.0 (1.30)	365.0 (14.37)	365.0 (14.37)	200.0 (7.87)	315.0 (12.4)	-	273.0 (10.75)	26.0 (1.02)

(1) H Height when activating weigh module by removing SafeLock™ plates.

(2) H_{SL} Height when shipping or mounting weigh module with SafeLock™ plates.

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**

Order Information SWC615-A PowerMount™ - Weigh Module with Load Cell

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

Order Information, Weigh Module Assembly				Item No.	
				Material, Weigh Module	
Size	Rated Capacity	Description	Class	Zinc Plated	304
1	7.5 t /17 klb	Weigh Module Assembly	C3 / III M n:5	**30730524 / 30730550**	**30730530 / 30730556**
			C6 / III M n:10	**30897223 / 30897233**	**30897218 / 30897228**
	15 t / 33 klb		C3 / III M n:5	**30730525 / 30730551**	**30730531 / 30730557**
			C6 / III M n:10	**30897224 / 30897234**	**30897219 / 30897229**
	22.5 t / 50 klb		C3 / III M n:5	**30730526 / 30730552**	**30730532 / 30730558**
			C6 / III M n:10	**30897225 / 30897235**	**30897220 / 30897230**
2	20 t / 44 klb	Weigh Module Assembly	C3 / III M n:5	**30730527 / 30730553**	**30730533 / 30730559**
	30 t / 66 klb		C3 / III M n:5	**30730528 / 30730554**	**30730534 / 30730560**
			C6 / III M n:10	**30897226 / 30897236**	**30897221 / 30897231**
	50 t / 110 klb		C3 / III M n:5	**30730529 / 30730555**	**30730535 / 30730561**
			C6 / III M n:10	**30897227 / 30897237**	**30897222 / 30897232**

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

Order Information, Weigh Module Kit		Item No.		Suitable Load Cells		
Size	Rated Capacity	Material, Weigh Module		Item No.		
		Carbon Steel	304	C3 / III(L) M n:5	C6 / III(L) M n:10	Dummy Load Cell
1	7.5 t /17 klb	**30730505 30730541**	**30730522 30730548**	**30092515**	**30129833**	**30238196**
	15 t / 33 klb			**30092516**	**30129835**	
	22.5 t / 50 klb			**30092517**	**30129836**	
2	20 t / 44 klb	**30732122 30732124**	**30732123 30732125**	**42904882**	-	**72255084**
	30 t / 66 klb			**42904883**	**42904885**	
	50 t / 110 klb			**42904891**	**30290638**	

Bolded entries are stocked

	Item No.							
	Cable, Material / Length							
Order Information, Cables	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

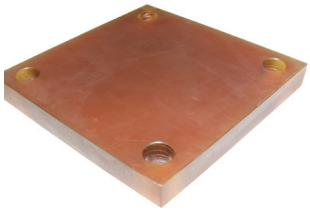
Stabilizers are used to stabilize a scale subject to heavy vibration, high torque, or in-motion weighing. Each weigh module can host one or two stabilizers. With stabilizers installed, thermal expansion is still possible, so that you can achieve the best weighing performance. Stabilizers (and weigh modules)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

Rated Capacity	Item Nr.	
-	Zinc Plated	304
7.5 - 22.5 t / 16.5 - 49.6 klb	30732118	30732119
30 - 50 t / 66 - 110 klb	30732120	30732121

Shock/vibration pad

Shock/vibration pads are used for reducing load peaks in the case of decreasing loads or vibrations. This effect is achieved through the installation of a relatively soft material with high internal damping.

Rated Capacity	Item Nr.		Height of Pad, mm / in
-	Zinc Plated	304	-
7.5 - 22.5 t / 16.5 - 49.6 klb	72246646	72207262	40.4 / 1.59
30 - 50 t / 66 - 110 klb	72255072	72255075	58.4 / 2.30



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.		Height of Pad, mm / in
80°C	Zinc Plated	304	-
7.5 - 22.5 t / 16.5 - 49.6 klb	72246647	72207263	40.4 / 1.59
30 - 50 t / 66 - 110 klb	72255073	72255076	58.4 / 2.30
170°C	Zinc Plated	304	-
7.5 - 22.5 t / 16.5 - 49.6 klb	72246648	72207264	40.4 / 1.59
30 - 50 t / 66 - 110 klb	72255074	72255077	58.4 / 2.30

Shim Kit

For optimal weigh module alignment thin plates of metal can be used to level the tank scale and evenly distribute the load.
Each Shim Set contains 3x 0.5mm and 3x 1mm plates

Rated capacity	Item Nr.	
-	Zinc Plated	304
7.5 - 22.5 t / 16.5 - 49.6 klb	30693514	
30 - 50 t / 66 - 110 klb	30693515	

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

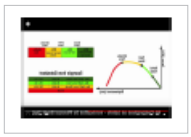
IND360 Automation Indicator:
www.mt.com/ind360

IND570 Industrial Indicator:
www.mt.com/ind570

IND780 Industrial Indicator:
www.mt.com/ind780

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**

PowerMount 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**

Service Offering

Explore Our Service Solutions

Maximize the Value of Your Tank Weighing Systems

METTLER TOLEDO helps to increase the value of your tank scales, maximize your equipment lifetime, and protect your investment. Leverage our unique RapidCal™ calibration technology to improve your efficiency, performance, and productivity.

Designing and installing tank weighing systems

RapidCal™ is a fast, hassle-free calibration method for most tank, reactor, hopper, and silo scales. Design your tanks ready for RapidCal to increase your efficiency during site acceptance tests, and win more business by offering unique benefits to your customer, including minimized downtime for calibration, simplified compliance, and less material waste.

With minimal implementation effort, step-by-step guidance, and technical drawings, you can take your systems to the next level and strengthen your customer relationships.

Operating tank weighing systems

Tank weighing systems in production must be calibrated for quality and compliance at regular intervals.

METTLER TOLEDO's RapidCal™ calibration takes only about one hour to complete and helps you to achieve your sustainability goals because it does not require expensive substitution materials. RapidCal is also available as ISO17025 accredited calibration service in select countries.

Learn more about RapidCal™:
▸ **www.mt.com/IND-rapidcal**

METTLER TOLEDO Service

Our extensive service network is among the best in the world and ensures maximum availability and service life of your product.

www.mt.com
For more information

METTLER TOLEDO Group
Industrial Division
Local contact: www.mt.com/contacts

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