

Right-the-First-Time Integration

Safe, Accurate, Service-Friendly



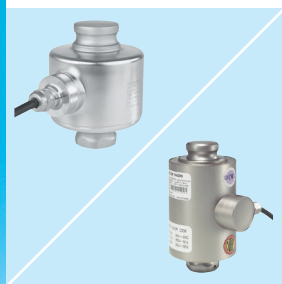
No Compromise on Safety

SWC515-A PinMount™ 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 PinMount™ 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 harsh 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

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
- Dual stabilizer option
- Stainless steel load cell with IP68/69k ratings
- IECEx, ATEX and FM haphazards approvals
- OIML C3/NTEP III M n:5
- Zinc plated or stainless steel mounting hardware
- Calfree™ — calibration without test weights
- EN1090 structural safety standard (Europe only)

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SWC515-A PinMount™ Specifications – 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 ⁽¹⁾								
	Max. Compressive Force, Rated		kN (klb)	74 (16.5)	145 (33)	220 (50)	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)	505 (110)	855 (190)
	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)	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)	0.8 (19)	2 (51)
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 (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⁾ O with Stabilizer

SWC515-A PinMount™ Specifications – Load Cell

LOAD CELL		Unit of measure	Specification				
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 ^{8) 9)}		%R.C.	≤ 0.018				
Temperature effect on	Min. dead load output	%R.C./°C (./°F)	≤ 0.0018 (0.0010)			≤ 0.0021 (0.0011)	
	Sensitivity ⁹⁾	%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 ¹⁰⁾	Class		C3				
	nmax		3000				
	Y		7800			6666	
NTEP approval ¹⁰⁾	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 ¹⁰⁾	Rating		II 2 G Ex ia IIC T6...T4 Gb II 2 D Ex ia IIIC T51°, T60°, 64° Db			II 2 G Ex ib IIC T6...T4 Gb II 2 D Ex ib IIIC T55°...T60° Db	
			II 3 G Ex ic IIC T6...T4 Gc II 3 G Ex ec IIC T6...T4 Gc II 3 D Ex tc IIIC T51°, T56° Dc			II 3 G Ex ic IIC T6...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 Gb Ex ia IIIC T51 °C, T60 °C, T64 °C Db			Ex ib IIC T6...T4 Gb Ex ib IIIC T55°C...T60°C Db	
			Ex ic IIC T6...T4 Gc Ex ec IIC T6...T4 Gc Ex tc IIIC T51 °C, T56 °C Dc			Ex ic IIC T6...T4 Gc / Ex nA IIC T6 Gc Ex ec IIC T6 Gc / Ex tc IIIC T60°C Dc	
Factory mutual approval ¹⁰⁾	Rating, USA		IS / I, II, III / 1 / ABCDEFG / T5 Ta= -40°C to +55°C			IS / I, II, III / 1 / ABCDEFG / T4 Ta= -40°C to +50°C	
			NI / I,II,III / 2 / ABCDFG / T6. Ta = -40°C to +55°C			IS / I, II, III / 1 / ABCDEFG / T4 Ta= -40°C to +50°C	
	Rating, Canada	cFM	IS / I, II, III / 1 / ABCDEFG / T5 TA= -40°C to +55°C			IS / I,II,III / 1 / ABCDEFG / T4 Ta = -40°C to +50°C	
		CSA	NI / I / 2 / ABCD / T6 Ta = -40°C to +55°C, DIP/II,III/2/FG			NI / I / 2 / ABCD / T4 Ta = -40°C to +50°C, DIP/II,III/2/FG	
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				
Protection	Type		Welded				
	IP rating		IP68, IP69K			IP68	
	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.



0782 Cable Colour

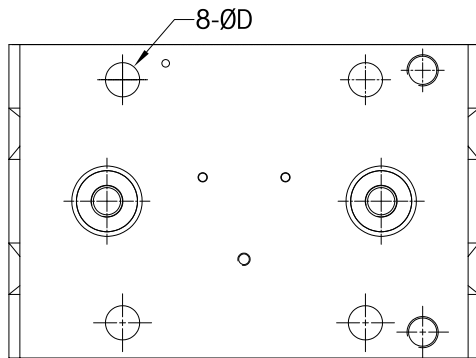
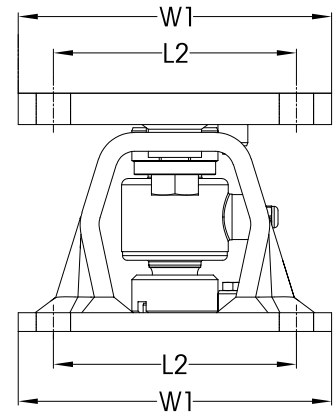
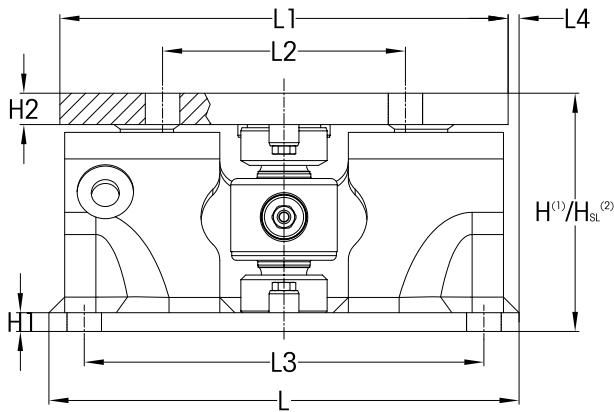
Colour	Function
Green	+ Excitation
Black	- Excitation
White	+ Signal
Red	- Signal
Yellow	+ Sense
Blue	- Sense
Yellow (long)	Shield

SLC611 Cable Colour

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

Weigh Module Dimensions mm [in]

SWC515-A PinMount™



		Dimensions and Locations mm(in)												
Size	Capacity	H ¹	H _{sl} ⁽²⁾	H1	H2	H3	L	L1	L2	L3	L4	L5	W	D
1	7.5, 15, 22.5 † (16.5, 33, 49.6 klb)	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 (6.10)	255.0 (10.04)	7.0 (0.28)	50.0 (1.97)	220.0 (8.66)	22.0 (0.87)
2	20, 30, 50 † (44, 66, 110 klb)	235.0 (9.25)	237.0 (9.33)	21.0 (0.83)	26.0 (1.02)	33.0 (1.30)	365.0 (14.37)	365.0 (14.37)	200.0 (7.87)	315.0 (12.40)	-	55.0 (2.16)	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



SWC515-A PinMount™

Download page, including 2D/3D drawings:

► www.mt.com/ind-downloads-pinmount



SLC611 load cell download page:

► www.mt.com/ind-downloads-slc611



0782 load cell download page:

► www.mt.com/ind-downloads-0782

Order Information SWC515-A PinMount™ – Weigh Module with Load Cell

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)	30730500	30730507
	15 t / 33 klb				30730536	30730543
	22.5 t / 49.6 klb				30730501	30730518
2	30 t / 66 klb	Weigh Module Assembly	C3/III M n:10	PVC / 13 m (42.5ft)	30730537	30730544
	50 t / 110 klb				30730502	30730519
					30730538	30730545
	30 t / 66 klb	Weigh Module Assembly	C3/III M n:10	PVC / 13 m (42.5ft)	30730503	30730520
	50 t / 110 klb				30730539	30730546
					30730504	30730521
		Weigh Module Assembly	C3/III M n:10	PVC / 13 m (42.5ft)	30730540	30730547

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				Suitable load cells						
Size	Rated capacity	Item No.		Class	Item No.					Dummy load cell
		Material, weigh module			Cable, material/length					
		Zinc plated	304		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	7.5 t / 16.5 klb	30730505 30730541	30730522 30730548	C3/III M n:5	30058060	30058064	30105781	30105786	-	30238196
	15 t / 33 klb			C3/III M n:5	30058061	30058065	30105783	30105788		
	22.5 t / 49.6 klb			C3/III M n:5	30058062	30058066	30105784	30105789		
2	30 t / 66 klb	30730506 30730542	30730523 30730549	C3/IIIL M n:10	-	-	-	-	71201709	72188111
	50 t / 110 klb			C3/IIIL M n:10					71201710	

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.

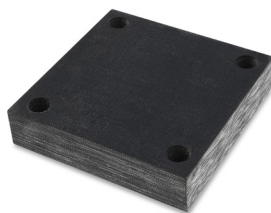


Stabilizers

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.

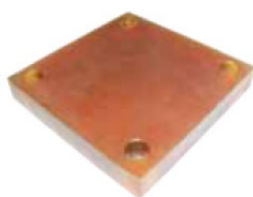
Rated Capacity	Item Nr.	
-	Zinc Plated	304
7.5 - 22.5 t / 16.5 - 49.6 klb	30732118	30732119
30 - 50 t / 66 - 110 klb	30732120	30732121



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
		Zinc Plated	304	
80°C	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	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

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.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



IND360 Automation Indicator:

► www.mt.com/ind360



IND570 Industrial Indicator:

► www.mt.com/ind570



IND780 Industrial Indicator:

► www.mt.com/ind780



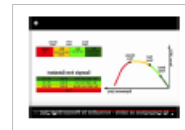
Weigh Module Knowledge Base



Weigh Module Proven Safety Video

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



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



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



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=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

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

Subject to technical changes
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