

Right the First Time

Safe, Accurate, Service Friendly



Tank Weighing

SWC515 PinMount™ POWERCELL® weigh modules offer rugged construction and many features for easy installation and accurate and reliable tank weighing. Included as standard are 360° stops and two lift-off bolts to cope with wind forces, while two vertical down-stops provide additional safety.



Conveyors and Mixers

SWC515 PinMount™ POWERCELL® weigh modules are also designed for dynamic-loading applications such as conveyors, mixers, and blenders. SWC515 PinMount™ POWERCELL® provides 360° checking for ease of installation and maximum safety. The rocker pin load cell restores the top plate to its ideal position to maintain accurate, repeatable weight.



Shown with PDX® Load Cell



Load Cells

POWERCELL® PDX® 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.



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, guaranteeing the best weighing performance.



Predictive Diagnostics PDX®

Monitor individual load cells for overload, temperature extremes, zero drift, etc. 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.

Right the First Time

SWC515 PinMount™ POWERCELL® features ensure correct scale system installation, right from the start. PinMount does not compromise on safety – all safety features are provided as standard. The rocker pin design provides the highest level of weighing accuracy. Installation features including SafeLock™ ensure easy and trouble free installation. SWC515 PinMount™ POWERCELL® features:

- Dual integrated lift-off protection
- Dual vertical safety down-stop
- Full 360° integrated checking
- Ground strap – welding protection
- SafeLock™ – Weigh module locked for installation
- SafeLock™ – Load cell protected for installation
- Dual stabilizer option
- Capacity range: 20t – 90t
- Analog or POWERCELL® PDX® load cell
- All load cells with IP68/IP69K and fully stainless steel
- Global approvals standard on each load cell
- Zinc plated or stainless steel mounting hardware
- CalFree™: Calibration without test weights

SWC515 PinMount™ POWERCELL® Weigh Module Specifications – POWERCELL®

WEIGH MODULE	unit of measure	Specification			
Model No.		SWC515 PinMount™ POWERCELL®			
Size		2		3A	
Rated Capacity (R.C.)	† (klb, nominal)	20 (44)	30 (66)	50 (110)	90 (198)
Max. Rated Forces ¹⁾					
Max. Compressive Force, Rated	kN (klb)	195 (44)	290 (65)	490 (110)	880 (198)
Max Horizontal Force, Rated	kN (klb)	transverse		100 (22)	
		longitudinal			
Max. Uplift Force, Rated	kN (klb)	150 (33)		190 (43)	
Max. horizontal force (longitudinal) per stabilizer option, Rated ⁶⁾	kN (klb)	35 (7.7)		50 (11.2)	
Max. Yield Forces ^{2) 4)}					
Max. Compressive Force, Yield	kN (klb)	390 (87)	580 (130)	680 (150)	1320 (290)
Max. Horizontal Force, Yield	kN (klb)	transverse		135 (30)	
		longitudinal			
Max. Uplift Force, Yield	kN (klb)	200 (45)		265 (60)	
Max. Ultimate Forces ^{3) 4)}					
Max. Compressive Force, Ultimate	kN (klb)	580 (130)	680 (150)		1320 (290)
Max. Horizontal Force, Ultimate	kN (klb)	transverse		360 (80)	
		longitudinal			
Max. Uplift Force, Ultimate	kN (klb)	390 (88)		485 (109)	
Restoring Force	%A.L./mm (./.in) ⁵⁾	1.8 (46)		1.6 (41)	
Max. top plate travel	± mm (in)	transverse		± 5 (0.2)	
		longitudinal ⁷⁾		± 5 (0.2)	
Weight (including load cell), nominal	kg (lb)	55 (120)		110 (242)	
Material		carbon steel / 304 stainless steel			
Finish		Zinc Plated / Electropolished			

LOAD CELL	unit of measure	Specification							
Item No.		42904882	42904883	42904884	42904891	42904892	72238150	72238147	
Model No.		PowerCell® PDX® SLC820							
Rated Capacity (R.C.)	† (klb, nominal)	20 (44)	30 (66)	50 (110)		90 (198)			
External resolution	Counts @ R.C.	200000 ± 0.04	300000 ± 0.04	500000 ± 0.04		900000 ± 0.04			
Zero load Output	%R.C.	≤ 0.1							
Combined Error ^{8) 9)}	%R.C.	≤ 0.018	≤ 0.015	≤ 0.018	≤ 0.015	≤ 0.018	≤ 0.015		
Repeatability Error	%A.L.	≤ 0.010	≤ 0.008	≤ 0.01	≤ 0.008	≤ 0.01	≤ 0.008		
Creep, 30 minute	%A.L.	≤ 0.015	≤ 0.0125	≤ 0.015	≤ 0.0125	≤ 0.015	≤ 0.0125		
Min. Dead Load Output Return (DR), 30 min	%A.L.	≤ 0.015	≤ 0.0125	≤ 0.015	≤ 0.0125	≤ 0.015	≤ 0.0125		
Temperature Effect on	Min. Dead load Output	%R.C./°C (./.°F)	≤ 0.0028 (0.0016)	≤ 0.0025 (0.0014)	≤ 0.0013 (0.0007)	≤ 0.0018 (0.001)	≤ 0.0013 (0.0007)	≤ 0.0014 (0.0008)	≤ 0.001 (0.0006)
	Sensitivity ⁹⁾	%A.L./°C (./.°F)	≤ 0.001 (0.0006)	≤ 0.0008 (0.0004)	≤ 0.001 (0.0006)	≤ 0.0008 (0.0004)	≤ 0.001 (0.0006)	≤ 0.001 (0.0006)	≤ 0.0008 (0.0004)
Temperature Range	Compensated	-10 ~ +40 (-14 ~ +104)							
	Operating	-30 ~ +55 (-22 ~ +131)							
	Safe Storage	-40 ~ +80 (-40 ~ +176)							
OIML / European Approval ¹⁰⁾	Class	C3	C3	C4	C3	C4	C3	C4	
	nmax	3000	3000	4000	3000	4000	3000	4000	
	Vmin	kg (lb)	3.5 (7.7)	4.7 (10.4)	2.4 (5.3)	5.7 (12.6)	4 (8.8)	8.1 (17.9)	6.3 (13.9)
NTEP Approval ¹⁰⁾	Class	IIIL M	IIIL M	–	IIIL M	–	IIIL M	–	
	nmax	10000	10000	–	10000	–	10000	–	
	Vmin	kg (lb)	1.3 (2.9)	1.8 (4)	–	2.2 (4.9)	–	3.2 (7.1)	–
ATEX Approval ¹⁰⁾	Rating	II 3 G Ex nA IIC T6 Gc / II 3 D Ex tc IIIC T85°Dc IP6X							
IECEx Approval ¹⁰⁾	Rating, USA	Ex nA IIC T6 Gc / Ex tc IIIC T85° C Dc IP6X							
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)						
Overvoltage Protection	Max. Tested (IEEE4-95)	A	> 80000						
Effective System Update Rate	Hz	83 (with 4 cells), 50 (with 6 cells), 25 (with 14 cells), 15 (with 24 cells)							
Material	Spring Element	stainless steel							
	Type	welded							
Protection	IP Rating	IP68, IP69K							
	NEMA Rating	NEMA 6/6P							
Deflection @ R.C., nominal	mm (in)	0.36 (0.014)	0.51 (0.02)	0.71 (0.028)		1.02 (0.04)			
Weight, nominal	kg (lb)	3.0 (6.6)		3.2 (7.0)		7.5 (16.6)			

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.

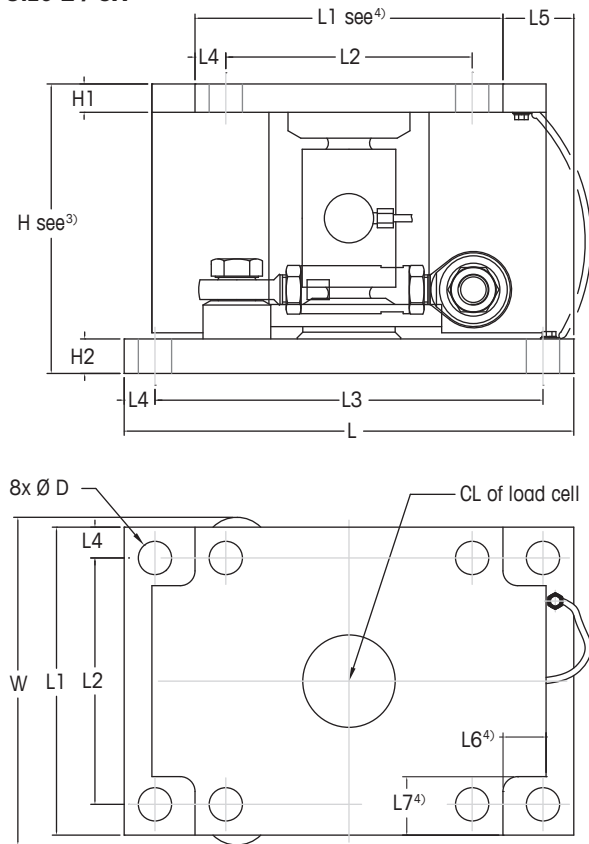
⁹⁾ Typical values only. The sum of errors due to Combined Error and Temperature Effect on Sensitivity comply with the requirements of OIML R60 and NIST HB44.

¹⁰⁾ See certificate for complete information.



SWC515 PinMount™ Weigh Module Dimensions mm [inch]

Size 2 / 3A



Size	Capacity	Dimensions and locations														Tank Leg Plate		
		D	H	HS ²⁾	HP ¹⁾	H1	H2	L ⁴⁾	L1	L2	L3	L4	L5	L6 ⁴⁾	L7 ⁴⁾	W	Thickness	Dimensions
2	20, 30, 50t	26	235	268	293.4	23	28	365	250	200	315	25	57.5	35	47.5	273	min 50	250 x 250
	[44, 66, 110 klb]	[1.02]	[9.25]	[10.55]	[11.55]	[0.91]	[1.1]	[14.37]	[9.84]	[7.87]	[12.4]	[0.98]	[2.26]	[1.38]	[1.87]	[10.75]	[2]	[9.84 x 9.84]
3A	90t	32	329.5	367.5	392.9	30	33	440	300	235	375	32.5	70	40	52.5	321	min 60	300 x 300
	[198 klb]	[1.26]	[12.97]	[14.47]	[15.47]	[1.18]	[1.30]	[17.32]	[11.81]	[9.25]	[14.76]	[1.28]	[2.76]	[1.57]	[2.07]	[12.63]	[2.4]	[11.81 x 11.81]

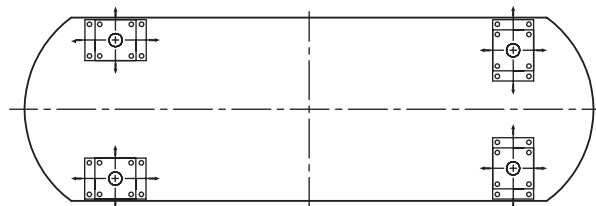
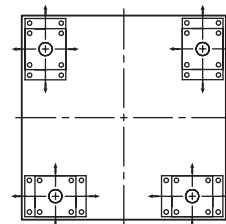
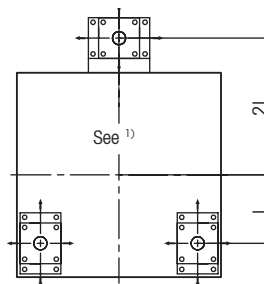
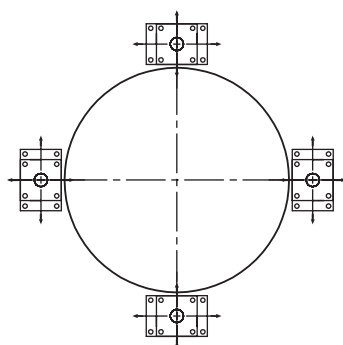
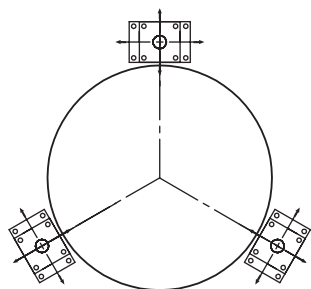
¹⁾ Height when using thermal isolation pad or shock/vibration pad

²⁾ Height when using spacer plate

³⁾ Shipping/Installation height is 2 mm [0.08 inches] taller

⁴⁾ Designed for square tank leg plate above top plate

SWC515 PinMount™ Weigh Module Arrangements



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

Order Information SWC515 PinMount™ POWERCELL® – Weight Module including Load Cell

Order Information, Weigh Module Assembly				Item No.	
Size	Rated Capacity	Description	Class	Material, Weigh Module	
				Zinc Plated	304
2	20 t / 44 klb	Weigh Module Assembly	C3/III M n:10	72262440	72262441
	30 t / 66 klb			72255118	72255120
	50 t / 110 klb			72255119	72255121
	20 - 50 t / 44 - 110 klb	Stabilizer ¹⁾	-	72248968	72248969
		Spacer Plate		72249203	72249206
		Dead Stand		72249173	72249174
		Shock/Vibration Pad ²⁾		72255072	72255075
		Thermal Isolation Pad 80°C ²⁾		72255073	72255076
		Thermal Isolation Pad 170°C ²⁾		72255074	72255077
3A	90 t / 198 klb	Weigh Module Assembly	C3/III M n:10	30057238	30057237
	90 - 198 klb	Stabilizer ¹⁾	-	72248970	72248971
		Spacer Plate		72249213	72249214
		Dead Stand		72249175	72249176
		Shock/Vibration Pad ²⁾		72255078	72255081
		Thermal Isolation Pad 80°C ²⁾		72255079	72255082
		Thermal Isolation Pad 170°C ²⁾		72255080	72255083

Bolded entries are stocked

¹⁾ 1 or 2 per weigh module.

²⁾ Includes Spacer Plate

Order Information SWC515 PinMount™ PDX® Cables – Weight Module including Load Cell

Description	Item No.						
	Cable Length						
	5m (16.4ft)	10m (32.8ft)	20m (65.6ft)	30m (98.4ft)	40m (131ft)	50m (164ft)	60m - 300m (197 - 984ft)
Cable Kit, 3 Load Cells	61045291	61045292	-	-	-	-	-
Cable Kit, 4 Load Cells	61045293	61045294	-	-	-	-	-
Home Run Cable available from 10 m to 300 m in 10 m steps	-	61044730	61044731	61044732	61044733	61044734	61044735 - 61044765

Bolded entries are stocked

Order Information SWC515 PinMount™ POWERCELL® – Weigh Module without Load Cell

- SafeLock™ allows installation of weigh module hardware without load cell to avoid sensor damage
- Combine weigh module with other load cells (with C4, 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.		Dummy Load Cell
		Zinc Plated	304	Class		
				C3 / IIL M n:10	C4	
2	20 t / 44 klb	72255116	72255117	42904882	–	72255084
	30 t / 66 klb			42904883	42904884	
	50 t / 110 klb			42904891	42904892	
3A	90 t / 198 klb	30069755	30069754	72238150	72238147	30085236

Bolded entries are stocked

Full Connectivity

METTLER TOLEDO supplies various data communication interfaces that enable our sensors and instruments to communicate with your PLC, MES, or ERP systems.



METTLER TOLEDO Service

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

Weighing Electronics

METTLER TOLEDO offers a complete family of electronics from simple weighing to application solutions for filling, stock control, batching, formulation, counting, and checkweighing.



Quality certificate ISO 9001
Environment certificate ISO 14001

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