

Right the First Time

Safe, Accurate, Service Friendly



Tank Weighing

SWB605 PowerMount™ weigh modules offer rugged construction and many features for easy installation and accurate and reliable tank weighing. Standard lift-off bolt copes with tipping forces while vertical safety down-stop provides additional safety.



Conveyors and Mixers

Weigh modules are also designed for dynamic-loading applications such as conveyors, mixers and blenders. SWB605 PowerMount™ provides 360° checking for ease of installation and maximum safety. The rocker pin restores the top plate to its ideal position to maintain accurate, repeatable weight.



Load Cell

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.



Stabilizers

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



Predictive Diagnostics

SWB605 PowerMount™ monitors single load cells for overload, zero drift, foundation problems, etc.; prompting action before system shuts down or measures incorrectly.



SWB605
PowerMount™

Right the First Time

SWB605 PowerMount™ features ensure correct scale system installation, right from the start. Weigh modules do not compromise on safety – all safety features are built-in. The rocker pin design provides the highest level of weighing accuracy. Service features, including SafeLock™ provide easy and trouble free installation. Features:

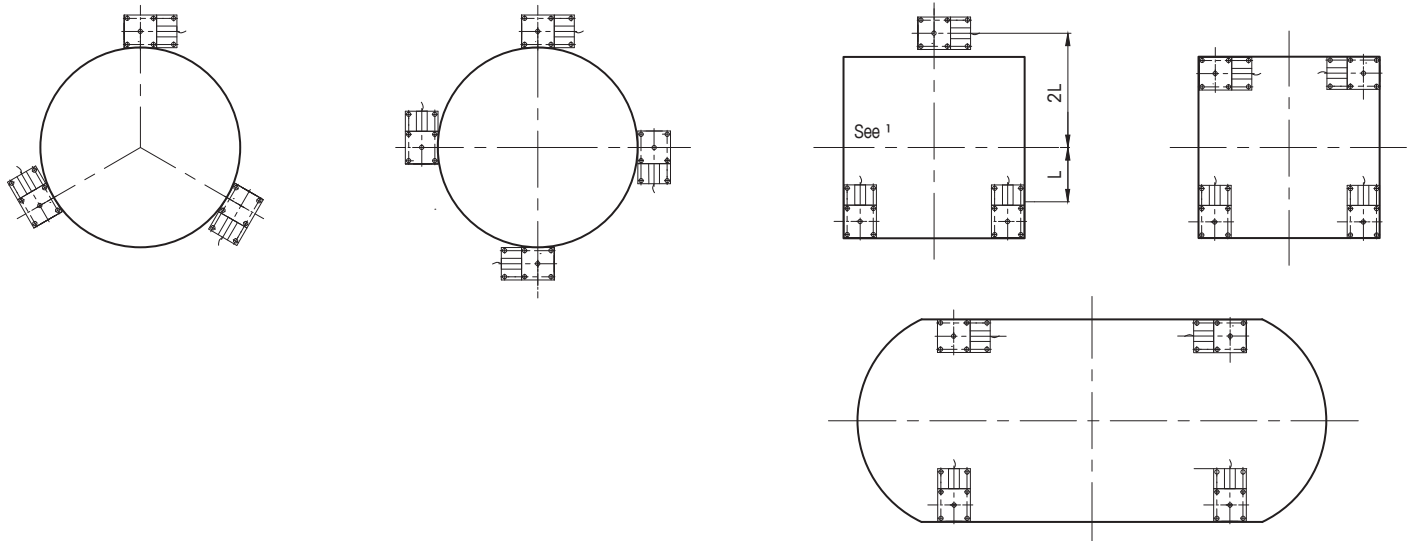
- Integrated lift-off protection
- Vertical safety down-stop
- Full 360° integrated checking
- Ground strap – welding protection
- SafeLock™ – Weigh module locked for installation
- SafeLock™ – Load cell protected for installation
- Dual stabilizer option
- All load cells with IP68/IP69K and fully stainless steel
- Global approvals standard on each load cell
- OIML C3/NTEP III M n:5, OIML C6/NTEP III M n:10 or C10
- Zinc plated or stainless steel mounting hardware
- CalFree™ Plus: Precise calibration on a finger tip

SWB605 PowerMount™ Specifications – Weigh Module

Weigh Module	unit of measure	Specification					
Model No.		SWB605 PowerMount™					
Size		2			3		
Rated Capacity (R.C.)	kg (lb, nominal)	220 (500)	550 (1250)	1100 (2500)	2200 (5000)	4400 (10000)	
Max. Rated Forces ¹⁾							
Max. Compressive Force, Rated	kN (lb)	2.2 (500)	5.4 (1250)	10.8 (2500)	21.6 (5000)	43.2 (10000)	
Max. Horizontal Force, Rated	transverse longitudinal	kN (lb)				7.5 (1685)	15 (3370)
Max. Uplift Force, Rated		kN (lb)				16 (3600)	22.2 (5000)
Max. horizontal force (longitudinal) per stabilizer option, Rated ⁷⁾		kN (lb)				5 (1120)	7.4 (1660)
Max. Yield Forces ^{2) 4)}							
Max. Compressiv Force, Yield	kN (lb)	3.2 (750)	8.1 (1875)	16.2 (3750)	23.3 (5120)	50 (11200)	
Max. Horizontal Force, Yield	transverse longitudinal	kN (lb)				9.8 (2200)	22 (4950)
Max. Uplift Force, Yield		kN (lb)				22 (4950)	34 (7640)
Max. Ultimate Forces ^{3) 4)}							
Max. Compressiv Force, Ultimate ⁵⁾	kN (lb)					90 (20000)	150 (33000)
Max. Horizontal Force, Ultimate	transverse longitudinal	kN (lb)				42 (9400)	48 (10750)
Max. Uplift Force, Ultimate		kN (lb)				50 (11200)	55 (12350)
Restoring Force	%A.L./mm (. /in) ⁶⁾					4.4 (111)	5.5 (140)
Max. top plate travel	transverse longitudinal ⁸⁾	± mm (in)				3 (0.12)	3.5 (0.14)
Weight (including load cell), nominal	kg (lb)	6.6 (14.5)			7 (15.4)		15.4 (34)
Material		carbon steel / 304 stainless steel / 316 stainless steel					
Finish		Zinc Plated / Electropolished / Electropolished					

- 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⁾ The top plate will travel downwards by 5 mm (0.2 inches) before the down-stop engages and this ultimate force can be developed.
- ⁶⁾ % of Applied Load (A.L.) per mm (in) displacement of the top plate (transverse & longitudinal).
- ⁷⁾ 1 or 2 per weigh module. Max permissible longitudinal force per stabilizer.
- ⁸⁾ 0 with Stabilizer.

SWB605 PowerMount™ Weigh Module Arrangements²



- ¹⁾ provide equal distribution, but the stability of this arrangement must be assured
- ²⁾ Weigh modules may be orientated as desired only if stabilizers will not be used

SWB605 PowerMount™ Specifications – Load Cell

Load Cell		unit of measure	Specification													
Item No.			72261196	72261209	72261204	72261197	72261210	72261205	72261198	72261211	72261206	72261199	72261212	72261207	72261200	72261195
Model No.			SLB615D POWERCELL® 12) 13)													
Rated Capacity (R.C.)	kg (lb, nominal)		220 (500)			550 (1250)			1100 (2500)			2200 (5000)			4400 (10000)	
External resolution	Counts @ R.C.		220,000			550,000			1,100,000			2,200,000			440,000	
External resolution tolerance	%		± 0.04	± 0.02		± 0.04	± 0.02		± 0.04	± 0.02		± 0.04	± 0.02		± 0.04	± 0.02
Zero load Output	%R.C.		< 0.1													
Combined Error ^{9) 10)}	%R.C.		C3/III M n:5: ≤ 0.018 / C6/III M n:10: ≤ 0.012 / C10: ≤ 0.007													
Temperature Effect on	Min. Dead load Output	%R.C./°C (./°F)	C3/III M n:5: ≤ 0.0014 (0.0008) / C6/III M n:10: ≤ 0.0007 (0.0004) / C10: ≤ 0.0007 (0.0004)													
	Sensitivity ¹⁰⁾	%A.L./°C (./°F)	C3/III M n:5: ≤ 0.001 (0.0006) / C6/III M n:10: ≤ 0.0005 (0.0003) / C10: ≤ 0.0003 (0.0002)													
Temperature Range	Compensated		-10 ~ +40 (+14 ~ +104)													
	Operating	°C (°F)	-20 ~ +65 (-4 ~ +150)													
	Safe Storage		-40 ~ +80 (-40 ~ +176)													
OIML / European Approval ¹¹⁾	Class		C3	C6	C10	C3	C6	C10	C3	C6	C10	C3	C6	C10	C3	C6
	nmax		3000	6000	10000	3000	6000	10000	3000	6000	10000	3000	6000	10000	3000	6000
	Vmin	kg	0.025	0.01		0.05	0.025		0.1	0.05		0.25	0.1		0.5	0.25
NTEP Approval ¹¹⁾	Class		III M n:5	III M n:10	–	III M n:5	III M n:10	–	III M n:5	III M n:10	–	III M n:5	III M n:10	–	III M n:5	III M n:10
	nmax		5000	10000	–	5000	10000	–	5000	10000	–	5000	10000	–	5000	10000
	Vmin	lb	0.05	0.025	–	0.1		–	0.25		–	0.5		–	1.0	
ATEX Approval ¹¹⁾	Rating		II 3 G Ex nA IIC T6 Gc / II 3 D Ex tc IIIC T85°C Dc													
Factory Mutual Approval ¹¹⁾	Rating, USA		NI / I, II, III / 2 / ABCDFG / T6 Ta = 55°C													
	Rating, Canada		NI / I, II / 2 / ABCDFG / T6 Ta = 55°C / DIP / III / 2 / T6 Ta = 55°C													
Supply Voltage Non-regulated	Range (nominal)	V DC	10 ~ 26													
Overvoltage Protection	Max. Tested (IEEE4-95)	A	2000 (no outdoor lightning conditions)													
Effective System Update Rate (4 load cells)		Hz	40													
Material	Spring Element		stainless steel													
	Type		welded													
Protection	IP Rating		IP68, IP69K													
	NEMA Rating		NEMA 6/6P													
Deflection @ R.C., nominal	mm (in)		0.16 (0.006)			0.25 (0.01)			0.32 (0.013)			0.43 (0.017)			0.72 (0.028)	
Weight, nominal	kg (lb)		1 (2.2)									1.3 (2.9)			2.2 (4.8)	

⁹⁾ Error due to the combined effect of non-linearity and hysteresis.

¹⁰⁾ 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.

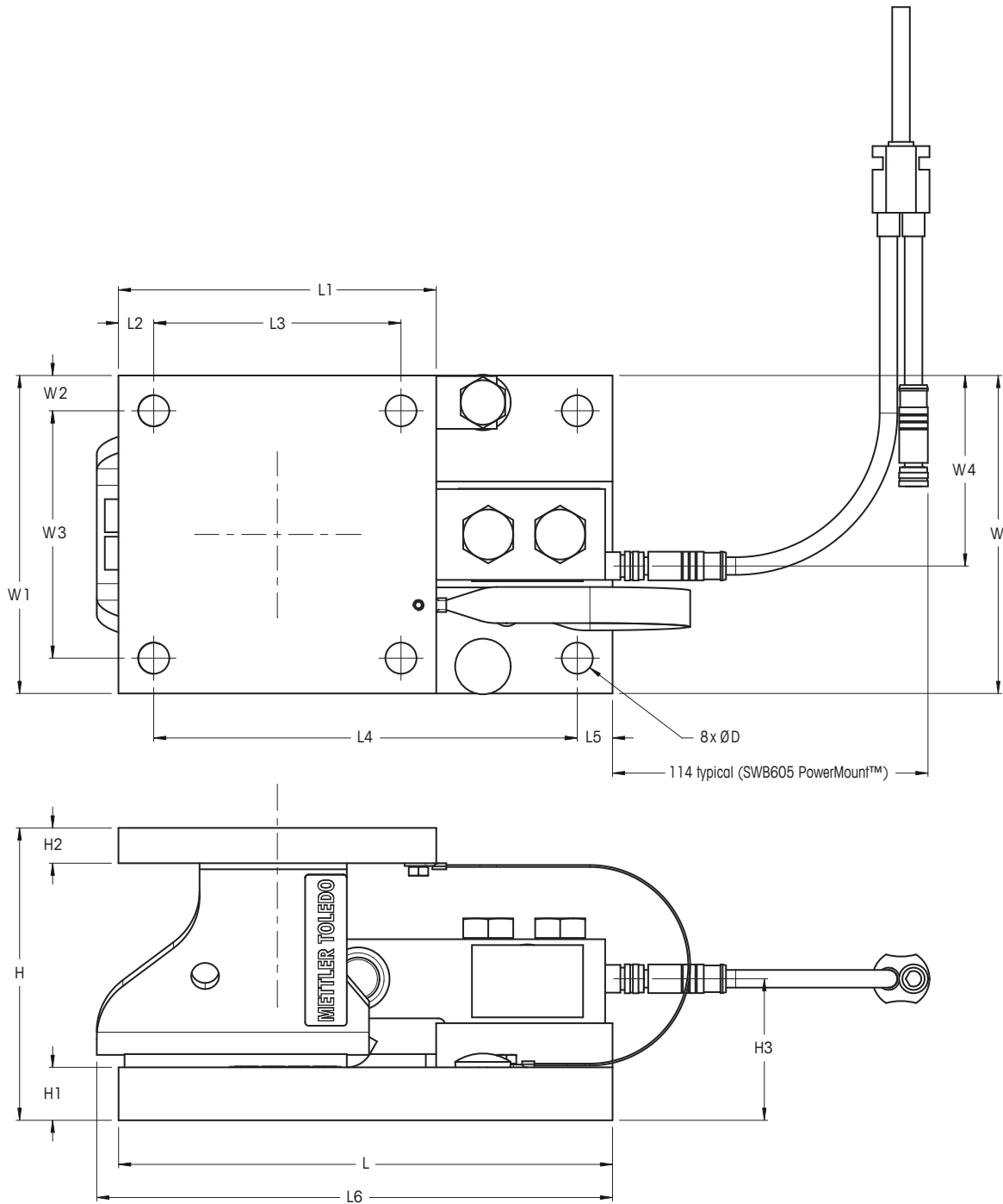
¹¹⁾ See certificate for complete information.

¹²⁾ Max. 14 load cells / terminal

¹³⁾ Max. total cable length 90-300m depending on no. of LC and Terminal



SWB605 PowerMount™ Weigh Module Dimensions mm [inch]



Locations and Dimensions

Size	Capacity	D	H	Hp ¹⁾	H1	H2	H3	L	L1	L2	L3	L4	L5	L6	W	W1	W2	W3	W4 (SWB605)
2	220kg – 1.1t (500lb – 2.5klb)	11.2 (0.44)	105.2 (4.14)	130.6 (5.14)	19.1 (0.75)	12.7 (0.50)	50.9 (2.00)	177.9 (7.00)	114.4 (4.50)	12.7 (0.50)	89.0 (3.5)	152.4 (6.00)	12.7 (0.50)	185.6 (7.31)	114.4 (4.50)	114.4 (4.50)	12.7 (0.50)	89.0 (3.5)	68.6 (2.70)
	2.2t (5 klb)						51.3 (2.02)												70.6 (2.78)
3	4.4t (10klb)	17.5 (0.69)	136.6 (5.38)	162 (6.38)	25.4 (1.00)	19.1 (0.75)	70.3 (2.77)	235.0 (9.25)	152.4 (6.00)	25.4 (1.00)	101.6 (4.00)	184.2 (7.25)	25.4 (1.00)	-	152.4 (6.00)	152.4 (6.00)	25.4 (1.00)	101.6 (4.00)	92.6 (3.65)

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

Order Information SWB605 PowerMount™ – Weigh Module including Load Cell

Order Information, Weigh Module Assembly				Item No.		
Size	Rated Capacity	Description	Class	Material, Weigh Module		
				CS	304	316
2	220kg / 500lb	Weigh Module Assembly	C3 / III M n:5	30090741	30090742	30090743
			C6 / III M n:10	30090753	30090754	30090755
			C10	30096881	30096882	30096883
	550kg / 1,250lb		C3 / III M n:5	30090744	30090745	30090746
			C6 / III M n:10	30090756	30090757	30090758
			C10	30096884	30096885	30096886
	1100kg / 2,500lb		C3 / III M n:5	30090747	30090748	30090749
			C6 / III M n:10	30090759	30090760	30090761
			C10	30096887	30096888	30096889
	2200kg / 5,000lb	C3 / III M n:5	30090750	30090751	30090752	
		C6 / III M n:10	30090762	30090763	30090764	
		C10	30096890	30096891	30096892	
	220-2200kg / 500-5,000lb	Stabilizer ¹⁾	-	61046399	61046400	61046401
		Dead Stand		61010624	61046402	61946403
		Shock/Vibration Pad		61005965		
		Thermal Isolation Pad 80°C		61010620		
Thermal Isolation Pad 170°C		61024642				
3	4400kg / 10000lb	Weigh Module Assembly	C3 / III M n:5	30090765	30090766	30090767
			C6 / III M n:10	30090768	30090769	30090770
	4400kg / 10000lb	Stabilizer ¹⁾	-	61046404	61046405	61046406
		Dead Stand		61010625	61046407	61046408
		Shock/Vibration Pad		61005938		
		Thermal Isolation Pad 80°C		61010621		
		Thermal Isolation Pad 170°C		61037510		

Bolded entries are stocked

¹⁾ 1 or 2 per weigh module.

Order Information, Cables	Item No.						
	Cable, Material / Length						
Description	PU / 2.5m (8.2ft)	PU / 5m (16.4ft)	PU / 10m (32.8ft)	PU / 15m (49.2ft)	PU / 20m (65.6ft)	PU / 30m (98.4ft)	PU / 50m (164ft)
Cable Kit, 3 Load Cells	30207546	30765515	30765516	-	-	-	-
Cable Kit, 4 Load Cells	30207547	30765517	30765518	-	-	-	-
Load Cell Y-Cable	30207922	30765513	30765514	-	-	-	-
Home Run Cable	-	30765519	30208862	30765520	30765521	30095713	30095714
Extension Cable	-	30095636	30095637	-	-	-	-
CAN Termination	30207923						
Blind plug	72263681						
Cable Gland for Home Run Cable with IND780PDX	30095639						

Bolded entries are stocked

Order Information SWB605 PowerMount™ – Weigh Module without Load Cell

- SafeLock™ allows to install weigh module hardware without load cell to avoid sensor damage
- 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.			
		CS	304	316	Class			Dummy Load Cell
					C3 / III M n:5	C6 / III M n:10	C10	
2	220kg / 500lb	61043213	61043222	61046397	72261196	72261209	72261204	68000714
	550kg / 1250lb				72261197	72261210	72261205	
	1100kg / 2500lb				72261198	72261211	72261206	
3	2200kg / 5000lb	61046636	61046637	61046638	72261199	72261212	72261207	61005963
	4400kg / 10000lb	61043214	61043223	61046398	72261200	72261195	–	61005964

Bolded entries are stocked

Home Run Cable POWERCELL® SLB615D

Colour	Function
Yellow	Shield
Blue	CAN_L
White	CAN_H
Red	+ V
Black	- V

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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