

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.



Predictive Maintenance

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



SWB605
PowerMount™

SWB605 PowerMount™ Know What's Ahead

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:

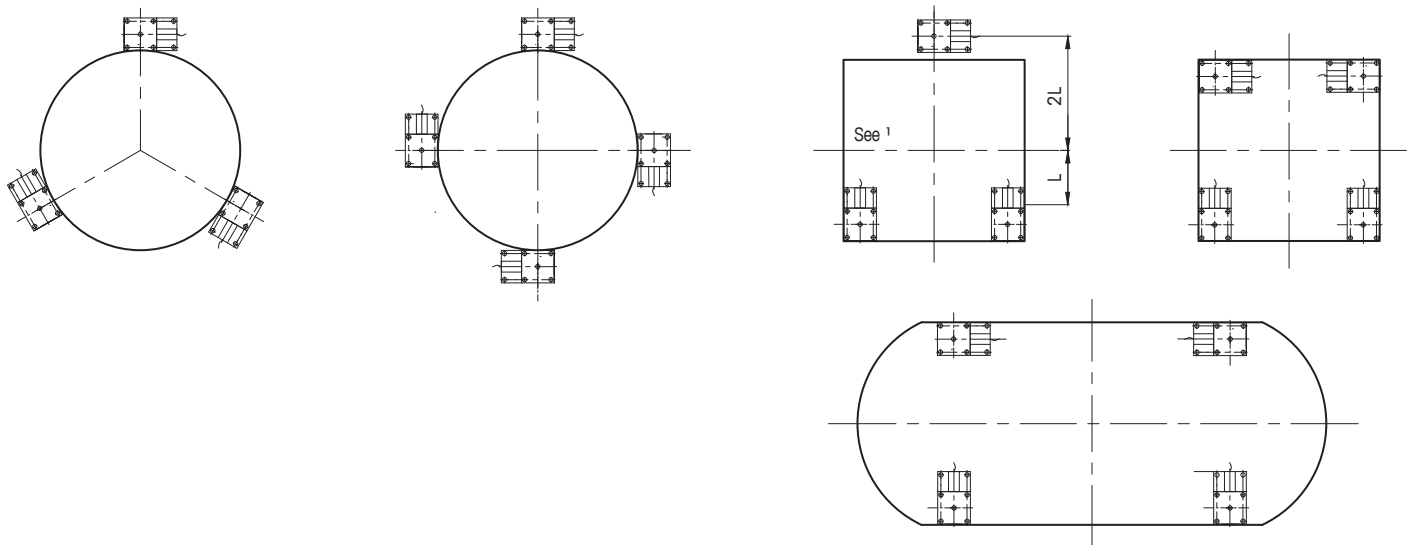
- Integrated lift-off protection
- Vertical safety down-stop
- Full 360° integrated checking
- Ground strap – welding protection
- SafeLock™ – Weigh module locked for installation
- SafeLock™ – Load cell protected for installation
- Dual stabilizer option
- All load cells with IP68/IP69K and fully stainless 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	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. compressive force, yield	kN (lb)	3.2 (750)	8.1 (1875)	16.2 (3750)	23.3 (5120)	50 (11200)
Max. horizontal force, yield	kN (lb)	9.8 (2200)				22 (4950)
Max. uplift force, yield	kN (lb)	22 (4950)				34 (7640)
Max. ultimate forces ^{3) 4)}						
Max. compressive force, ultimate ⁵⁾	kN (lb)	90 (20000)				150 (33000)
Max. horizontal force, ultimate	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	± 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 and 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													
		30450308	30450311	30450314	30450317	30450320	30450323	30450326	30450329	30450332	30450335	30450338	30539636	30450344	30450347
Item No.		SLB615D POWERCELL ^{(12) (13)}													
Model No.		SLB615D POWERCELL ^{(12) (13)}													
Rated capacity (R.C.)	kg (lb, nominal)	220 (500)			550 (1250)			1100 (2500)			2200 (5000)			4400 (10000)	
Min. increment size, typical ⁽¹⁴⁾	g (lb)	4.4 (0.01)			11 (0.025)			22 (0.05)			44 (0.1)			88 (0.2)	
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 n:5: ≤ 0.018 / C6/III n:10: ≤ 0.012 / C10: ≤ 0.007													
Temperature effect on	Min. dead load output	%R.C./°C (./°F)	0.0014 (0.0008)	C3/III n:5: ≤ 0.0011 (0.0006) / C6/III n:10: ≤ 0.0007 (0.0004) / C10: ≤ 0.0007 (0.0004)											0.0009 (0.0005)
	Sensitivity ⁽¹⁰⁾	%A.L./°C (./°F)	C3/III n:5: ≤ 0.001 (0.0006) / C6/III 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	g	20	10	37	25	70	50	150	100	290	250			
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	–	0.095	0.065	–	0.19	0.13	–	0.38	0.26	–	0.76
ATEX approval ⁽¹¹⁾	Rating	II 3 G Ex nA IIC T6 Gc / II 3 D Ex tc IIIC T85 °C Dc													
IECEX approval ⁽¹¹⁾	Rating	Ex nA IIC T6 Gc / Ex ec IIC T6 Gc / 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 (IEEE4-95)	Max. tested	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.

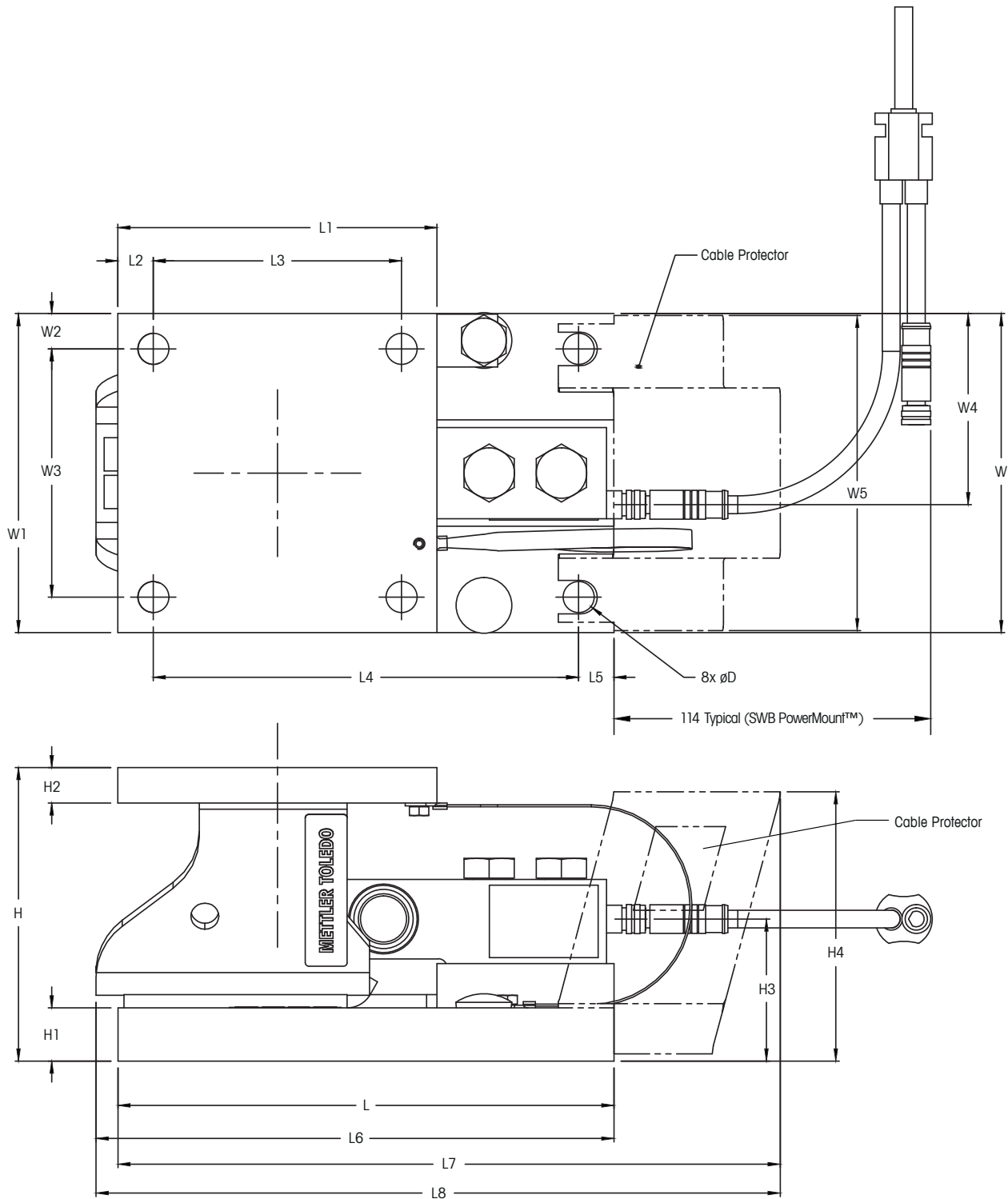
⁽¹²⁾ Max. 14 load cells / terminal

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

⁽¹⁴⁾ 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



SWB605 PowerMount™ Weigh Module with Optional Cable Protector Dimensions mm [in]



Size	Capacity	Locations and dimensions																				
		D	H	H1	H2	H3	H4	L	L1	L2	L3	L4	L5	L6	L7	L8	W	W1	W2	W3	W4	W5
2	220kg – 1.1t (500lb – 2.5klb)	11.2 (0.44)	105.2 (4.14)	19.1 (0.75)	12.7 (0.50)	50.9 (2.00)	96.6 (3.80)	177.8 (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)	-	244.6 (9.63)	114.4 (4.50)	114.4 (4.50)	12.7 (0.50)	89.0 (3.5)	68.6 (2.70)	113.0 (4.45)
	2.2t (5klb)					51.3 (2.02)															70.6 (2.78)	
3	4.4t (10klb)	17.5 (0.69)	136.6 (5.38)	25.4 (1.00)	19.1 (0.75)	70.3 (2.77)	132.9 (5.23)	235.0 (9.25)	152.4 (6.00)	25.4 (1.00)	101.6 (4.00)	184.2 (7.25)	25.4 (1.00)	-	298.0 (11.73)	-	152.4 (6.00)	152.4 (6.00)	25.4 (1.00)	101.6 (4.00)	92.6 (3.65)	143.0 (5.63)

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
	C3 / III M n:5		30090744	30090745	30090746	
	C6 / III M n:10		30090756	30090757	30090758	
	C10		30096884	30096885	30096886	
	C3 / III M n:5		30090747	30090748	30090749	
	C6 / III M n:10		30090759	30090760	30090761	
	C10		30096887	30096888	30096889	
	550kg / 1,250lb	C3 / III M n:5	30090750	30090751	30090752	
		C6 / III M n:10	30090762	30090763	30090764	
		C10	30096890	30096891	30096892	
	1100kg / 2,500lb	Weigh module assembly	C3 / III M n:5	30090765	30090766	30090767
			C6 / III M n:10	30090768	30090769	30090770
			C10	30096890	30096891	30096892
			Stabilizer ¹⁾	61046399	61046400	61046401
			Dead stand	61010624	61046402	61946403
			Shock/Vibration pad	61005965		
220-2200kg / 500-5,000lb	-	Thermal isolation pad 80 °C	61010620			
		Thermal isolation pad 170 °C	61024642			
		Cable protector	30315554			
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		
			Cable protector	30315555		

Bolded entries are stocked

¹⁾ 1 or 2 per weigh module.

Description	Item No.								
	Cable, material / length								
	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)	PU / 100m (328ft)	PU / 200m (656ft)
Cable kit, 3 load cells	30382994	30382990	30382991	-	-	-	-	-	-
Cable kit, 4 load cells	30382995	30382992	30382993	-	-	-	-	-	-
Load cell Y-Cable	30382975	30382976	30382977	-	-	-	-	-	-
Home run cable	-	30382980	30382981	30382982	30382983	30382984	30382985	30382986	30423113
Extension cable	-	30382970	30382971	-	-	-	-	-	-
CAN termination	30382989								
Blind plug	30417485								
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.			Dummy load cell
		CS	304	316	Class			
					C3 / III M n:5	C6 / III M n:10	C10	
2	220kg / 500lb	61043213	61043222	61046397	30450308	30450311	30450314	68000714
	550kg / 1250lb				30450317	30450320	30450323	
	1100kg / 2500lb				30450326	30450329	30450332	
	2200kg / 5000lb				30450335	30450338	30539636	
3	4400kg / 10000lb	61043214	61043223	61046398	30450344	30450347	-	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.



Weighing Electronics

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



METTLER TOLEDO Service

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

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For more information

METTLER TOLEDO Group

Industrial Division
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Subject to technical changes
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