

Right the First Time

Safe, Accurate, Service Friendly



Tank Weighing

SWB505 MultiMount™ 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. SWB505 MultiMount™ 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

Load cells have a rocker pin design that automatically aligns load forces for accurate weighing. These hermetically sealed load cells are rated IP68 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.



SWB505
MultiMount™

SWB505 MultiMount™ Right the First Time

SWB505 MultiMount™ 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 or OIML C6/NTEP III M n:10
- Zinc plated or stainless steel mounting hardware
- CalFree™: Calibration without test weights

SWB505 MultiMount™ Specifications – Weigh Module

Weigh module	Unit of measure	Specification													
		1										2			3
Model No.		SWB505 MultiMount™													
Size															
Rated capacity	kg (lb, nominal)	5 (11)	10 (22)	20 (44)	30 (66)	50 (110)	100 (220)	200 (440)	300 (660)	110 (250)	220 (500)	550 (1250)	1100 (2500)	2200 (5000)	4400 (10000)
Max. rated forces ¹⁾															
Max. compressive force, rated	kN (lb)	0.05 (11)	0.1 (22)	0.2 (44)	0.3 (66)	0.5 (110)	1 (220)	2 (440)	3 (660)	1.1 (250)	2.2 (500)	5.4 (1250)	10.8 (2500)	21.6 (5000)	43.2 (10000)
Max. horizontal Force, rated	kN (lb)	4.5 (1010)									7.5 (1685)			15 (3370)	
Max. uplift force, rated	kN (lb)	5.5 (1230)									16 (3600)			22.2 (5000)	
Max. horizontal force (longitudinal) per stabilizer option, rated ⁷⁾	kN (lb)	1.5 (675)									5 (1120)			7.4 (1660)	
Max. yield forces ^{2) 4)}															
Max. compressive force, yield	kN (lb)	0.074 (16.5)	0.15 (33)	0.29 (66)	0.44 (99)	0.74 (165)	1.47 (330)	2.94 (660)	4.4 (990)	1.62 (375)	3.2 (750)	8.1 (1875)	16.2 (3750)	23.3 (5120)	50 (11200)
Max. horizontal Force, yield	kN (lb)	6.6 (1480)									9.8 (2200)			22 (4950)	
Max. uplift force, yield	kN (lb)	7.7 (1730)									22 (4950)			34 (7640)	
Max. ultimate forces ^{3) 4)}															
Max. compressive force, ultimate ⁵⁾	kN (lb)	65 (14600)									90 (20000)			150 (33000)	
Max. horizontal Force, ultimate	kN (lb)	17 (3800)									42 (9400)			48 (10750)	
Max. uplift force, ultimate	kN (lb)	22 (4950)									50 (11200)			55 (12350)	
Restoring force	%A.L./mm (.../in) ⁶⁾	7.4 (190)									4.4 (111)			5.5 (140)	
Max. top plate travel	± mm (in)	2.5 (0.10)									3 (0.12)			3.5 (0.14)	
Weight (including load cell), nominal	kg (lb)	4 (8.8)									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.

SWB505 MultiMount™ Specifications – Load Cell

Load cell	Unit of measure	Specification																		
Item No.	0.03%															30129791				
	0.05%	71209934																		
	C3 / III s n:3 / III M n:5		71209642	71201556		71201557	71201558	71201559	71201560											
	C3 / III M n:5															30091046	30091050	30091054	30039033	30094400
	C6				30212721	30212722	30212723	30212724	30212725											
	C6 / III M n:10															30091047	30091051	30091055	30039034	30094401
Model No.		MTB										0745A								
Rated capacity (R.C.)	kg (lb, nominal)	5 (11)	10 (22)	20 (44)	30 (66)	50 (110)	100 (220)	200 (441)	300 (661)	110 (250)	220 (500)	550 (1250)	1100 (2500)	2200 (5000)	4400 (10000)					
Rated output	mV/V @R.C.-kg	2 ± 0.1%									0.970 ± 0.2%		1.940 ± 0.1%							
	mV/V @R.C.-lb	-									1.000 ± 0.2%		2.000 ± 0.1%							
Combined error ⁹⁾ ¹⁰⁾	%R.C.	C3: ≤ 0.018 / C6: ≤ 0.012									≤ 0.03		C3: ≤ 0.018 / C6: ≤ 0.012							
Temperature effect on	Min. dead load output	%R.C./°C (./°F) C3: ≤ 0.001 (0.0006) / C6: ≤ 0.001 (0.0006)									≤ 0.0027 (0.0015)		C3: ≤ 0.0013 (0.0007) / C6: ≤ 0.0013 (0.0007)							
	Sensitivity ¹⁰⁾	%A.L./°C (./°F) C3: ≤ 0.001 (0.0006) / C6: ≤ 0.0005 (0.0003)									≤ 0.0014 (0.0008)		C3: ≤ 0.001 (0.0006) / C6: ≤ 0.0005 (0.0003)							
Temperature range	Compensated	-10 ~ +40 (+14 ~ +104)									-10 to +40 (+14 to +104)									
	Operating	-40 ~ +65 (-40 ~ +150)									-40 to +65 (-40 to +150)									
	Safe storage	-40 ~ +80 (-40 ~ +176)									-40 to +80 (-40 to +176)									
OIML / European approval ¹¹⁾	Class	-									-									
	nmax	C3 3000			C6 6000		C3 / C6 3000 / 6000				C3 / C6 3000 / 6000									
	Y	12000									11000									
NTEP approval ¹¹⁾	Class	III S / III M									III M / III M									
	nmax	3000 / 5000									5000 / 10000									
	Vmin	kg (lb)	R.C./12000									0.022	0.056	0.114 (0.25)	0.227 (0.50)	0.454 (1.0)				
ATEX approval ¹¹⁾	Rating	II 2 G Ex ib IIC T4 / II 2 D ibD 21 IP6X T135 °C									II 2 G Ex ia IIC T4 Gb / II 2 D Ex ia IIIC T100 °C Db									
		II 3 G Ex nA II T4 / II 3 G Ex nL IIC T4 / II 3 D Ex tD A22 IP6X T135 °C									II 3 G Ex ic IIC T4 Gc / II 3 G Ex nA IIC T4 Gc / II 3 D Ex tc IIIC T100 °C Dc									
IECEX approval ¹¹⁾	Number	IECEX DEK 16.0031X									IECEX DEK 15.0017									
	Rating	Ex ib IIC T4 Gb / Ex ib IIIC T135 °C Db / Ex ic IIC T4 Gc / Ex nA IIC T4 Gc / Ex tc IIIC T135 °C Dc									Ex ia IIC T4 Gb / Ex ia IIIC T100 °C DbEx ic IIC T4 Gc / Ex nA IIC T4 Gc / Ex tc IIIC T100 °C Dc									
	Entity parameters	Ui = 25V, li = 600mA, Pi = 1.25W, Ci = 0.2nF/m, Li = 1µH/m / Un = 25V									Ui = 25V, li = 600mA, Pi = 1.25W, Ci = 5nF, Li = 30µH / Un = 25V, Ci = 5 nF									
Factory mutual approval ¹¹⁾	Rating, USA	IS / I, II, III / 1 / ABCDEFG / T4									IS / I, II, III / 1 / ABCDEFG / T4									
		NI / 1 / 2 / ABCD / T6 / S / II, III / 2 / FG / T6									NI / 1 / 2 / ABCD / T6 / S / II, III / 2 / FG / T6									
	Rating, Canada	IS / I, II, III / 1 / ABCDEFG / T4									IS / I, II, III / 1 / ABCDEFG / T4									
Excitation voltage	Recommended	V AC/DC									C3: 5~15 / C6: 5~10									
	Max.										20									
											15									
Terminal resistance	Excitation										≥ 383									
	Output										350 ± 1									
Material	Spring element	Stainless steel									Stainless steel									
	Type	Welded									Welded									
Protection	IP rating	IP 68 , IP69K									IP 68 , IP69K									
	NEMA rating	NEMA 6/6P									NEMA 6/6P									
Weight, nominal	kg (lb)	0.6 (1.3)									0.9 (2)			1.3 (2.9)	2 (4.4)					
Cable length	Lenght	m (ft)									3 (9.8) / 5 (16.4)									
	Diameter	mm (in)									5.8 (0.23)									
											PU: 2 (6.6), 3 (9.8), 5 (16.4), 10 (32.8) / FEP: 3 (9.8), 5 (16.4), 10 (32.8)									
											PU: 5.2 (0.2) / FEP: 5.3 (0.21)									

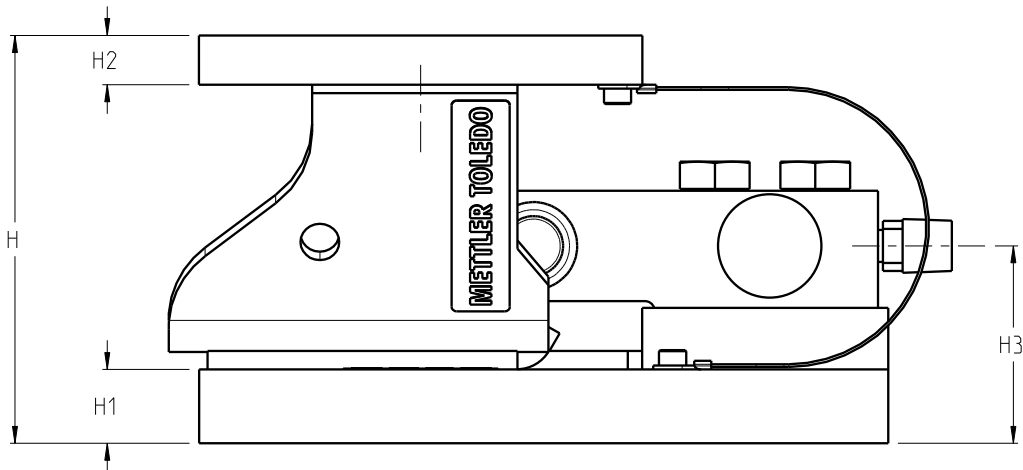
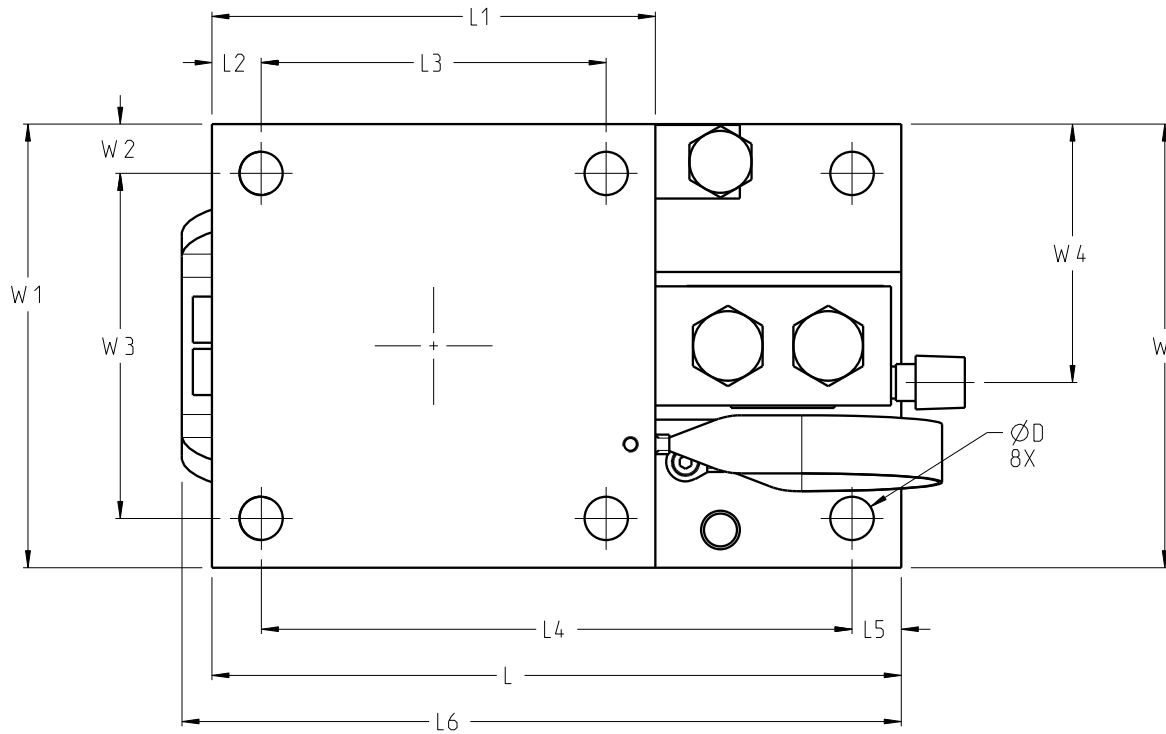
⁹⁾ Error due to the combined effect of non-linearity and hysteresis.

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.



SWB505 MultiMount™ Weigh Module Dimensions mm [in]



Size	Capacity	Locations and dimensions																
		D	H	H1	H2	H3	L	L1	L2	L3	L4	L5	L6	W	W1	W2	W3	W4
1	5 kg – 300 kg (11 lb – 600 lb)	10 (0.4)	83 (3.3)	12.7 (0.50)	8 (0.3)	41.0 (1.61)	165 (6.5)	102 (4.0)	10 (0.4)	82 (3.2)	145 (5.7)	10 (0.4)	-	102 (4.0)	102 (4.0)	10 (0.4)	82 (3.3)	60.0 (2.36)
2	110 kg – 1.1 t (250 lb – 2.5 klb)	11.2 (0.44)	105.2 (4.14)	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)	66.6 (2.62)
	51.3 (2.02)					69.7 (2.74)												
3	4.4 t (10 klb)	17.5 (0.69)	136.6 (5.38)	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)	91.7 (3.61)

Order Information SWB505 MultiMount™ – Weigh Module Including Load Cell

Order information, weigh module assembly					Item No.		
Size	Rated capacity	Description	Class / description	Cable, material/lenght	Material		
					CS	304	316
1	5kg / 11lb	Weigh module assembly	0.05%	PVC / 3 m (9.8ft)	30040372	30040863	30040920
	10kg / 22lb		C3 / III s n:3 / III M n:5		30040373	30040864	30040921
	20kg / 44lb		C3 / III s n:3 / III M n:5		30040374	30040865	30040922
	30kg / 66lb		C6		30219963	30219968	30219973
	50kg / 110lb		C3 / III s n:3 / III M n:5		30040375	30040866	30040923
			C6		30219964	30219969	30219974
	100kg / 220lb		C3 / III s n:3 / III M n:5		30040376	30040867	30040924
			C6		30219965	30219970	30219975
	200kg / 440lb		C3 / III s n:3 / III M n:5		30040861	30040868	30040925
			C6		30219966	30219971	30219976
	300kg / 661lb	C3 / III s n:3 / III M n:5	30040862	30040869	30040926		
		C6	30219967	30219972	30219977		
	5-300kg / 11-661lb	Stabilizer	-	-	30040930		30040931
		Dead stand			30025909		30025913
Shock/Vibration pad		30040932					
Thermal isolation pad 80 °C		30040933					
Thermal isolation pad 170 °C		30040935					
2	110kg / 250lb	Weigh module assembly	0.03%	PU / 5 m (32.8ft)	61043206	61043215	61046391
	220kg / 500lb		C3 / III M n:5		61043207	61043216	61046392
			C6 / III M n:10		30096895	30131902	30131907
	550kg / 1,250lb		C3 / III M n:5		61043208	61043217	61046393
			C6 / III M n:10		30096896	30131903	30131908
	1100kg / 2,500lb		C3 / III M n:5		61043209	61043218	61046394
			C6 / III M n:10		30096897	30131904	30131909
	2200kg / 5,000lb		C3 / III M n:5		61043210	61043219	61046395
		C6 / III M n:10	30096898	30131905	30131910		
	110-2200kg / 250-5,000lb	Stabilizer	-	-	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 / 10,000lb	Weigh module assembly	C3 / III M n:5	PU / 10 m (32.8ft)	61043211	61043220	61046396
			C6 / III M n:10	PU / 10 m (32.8ft)	30131911	30131912	30131913
	4400kg / 10,000lb	Stabilizer	-	-	61046404	61046405	61046406
					61010625	61046407	61046408
					61005938		
					61010621		
					61037510		

Bolded entries are stocked

Order Information SWB505 MultiMount™ – Weigh Module without Load Cell

- SafeLock™ allows to install 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		Item No.			Suitable load cells								
Size	Rated capacity	Material			Class	Item No.							Dummy load cell
		CS	304	316		Cable, material/length							
	PVC / 3 m (10ft)				PVC / 5 m (16.6ft)								
1	5kg / 11lb	30040927	30040928	30040929	0.05%	-	71209934	72208033	-	-	-	-	30025910
	10kg / 22lb				71209642		72208034						
	20kg / 44lb				71201556		72208035						
	30kg / 66lb				30212721		30226939						
	50kg / 110lb				71201557		72208036						
					30212722		30226940						
	100kg / 220lb				71201558		72208037						
					30212723		30226941						
	200kg / 440lb				71201559		72208038						
					30212724		30226942						
	71201560	72208039											
	30212725	30226943											
					PU / 2 m (6.6ft)	PU / 3 m (10ft)	PU / 5 m (16.6ft)	PU / 10 m (33ft)	FEP / 3 m (10ft)	FEP / 5 m (16.6ft)	FEP / 10 m (33ft)		
2	110kg / 250lb	61043213	61043222	61046397	0.03%	30129790	30129729	30129791	30129792	30129793	30129794	30129795	68000714
	220kg / 500lb				C3 / III M n:5	30091034	30129604	30091046	30094384	42111204	30094412	30094432	
					C6 / III M n:10	30091035	30129605	30091047	30094385	42111205	30094413	30094433	
	550kg / 1250lb				C3 / III M n:5	30091038	30129606	30091050	30094388	42111224	30094416	30094436	
					C6 / III M n:10	30091039	30129607	30091051	30094389	42111225	30094417	30094437	
	1100kg / 2500lb				C3 / III M n:5	30091042	30129608	30091054	30094392	42111244	30094420	30094440	
	C6 / III M n:10	30091043	30129609	30091055	30094393	42111245	30094421	30094441					
	2200kg / 5000lb	61046636	61046637	61046638	C3 / III M n:5	30091026	30039031	30039033	30094396	30094404	30094424	30094444	61005963
					C6 / III M n:10	30091027	30039032	30039034	30094397	30094405	30094425	30094445	
3	4400kg / 10000lb	61043214	61043223	61046398	C3 / III M n:5	30091030	30039041	30039043	30094400	30094408	30094428	30094448	61005964
					C6 / III M n:10	30091031	30039042	30039044	30094401	30094409	30094429	30094449	

Bolded entries are stocked

SWB505 MultiMount™ Cable Colour MTB

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

SWB505 MultiMount™ Cable Colour 0745A

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

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.

METTLER TOLEDO Group

Industrial Division
Local contact: www.mt.com/contacts

Subject to technical changes
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For more information

