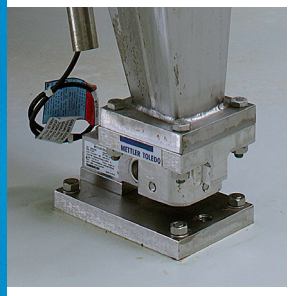
Weigh Module Upgrade Kit

Upgrade to POWERCELL® Technology

Improved Uptime and Accuracy

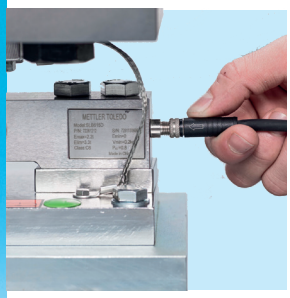


Upgrade Installed Base

Existing weighing installations using FlexMount™ or CenterLign™ weigh modules underneath tanks, silos, hoppers, conveyors or any other customized solutions can be upgraded with POWERCELL® technology. The SLB615D POWERCELL® improves their uptime, functionality and accuracy.

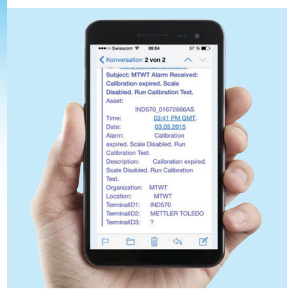
Predictive Diagnostics

The on-board microprocessors inside the POWERCELL® load cell adjust the weighing signal to compensate for environmental changes. That allows accurate weighing regardless of the effects of temperature, linearity, hysteresis and creep.



Fast Installation

POWERCELL® load cells are connected in a daisy-chain network. The IP68/IP69K-protected quick-release connectors make maintenance and installation fast and easy. It also eliminates junction boxes. The entire system design supports the replacement of load cells and cables without labor-intensive recalibration.



Alerts to Mobile Devices

The PowerMount™ technology continuously reads the load-cell signal to verify proper functionality. Operators can be alerted to variances with an email, text message or log file entry, depending on preference. That helps users to avoid poor quality, waste and downtime.

Upgrade Kit to POWERCELL®

for installed Weigh Modules

POWERCELL® weighing technology offers high accuracy combined with real-time diagnostics to avoid downtime caused by unnoticed faults. The technology is also available within existing installations using 0958 FlexMount™ or 0958 CenterLign™ weigh modules.

- SLB615D POWERCELL® load cells from 220– 4.400kg substitute the 0745A load cell in 0958 FlexMount™ and 0958 CenterLign™ weigh modules.
- Legal for trade approvals include: OIML: C3, C6, C10 and NTEP: IIIM n:5, III Mn:10
- Hazardous-area approvals: ATEX, FM
- No need for junction boxes increases uptime
- Plug-and-play cables speed up installation and reduce repair time
- CalFree™Plus is available for easy calibration without test weights and future exchange of load cells without re-calibration

METTLER TOLEDO

SLB615D POWERCELL® Specifications

Parameter		unit of measure	Specification												
Model No.			POWERCELL® SLB615D (5)												
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
Min. Increment Size, typical		g (lb)	4.4 (0.01)			11 (0.025)			22 (0.05)			44 (0.1)			88 (0.2)
Zero load Output		%R.C.	<0.1												
Combined Error[1) 2)]		%R.C.	C3/IIIM n:5: ≤0.018 ; C6/IIIM n:10: ≤ 0.012 ; C10: ≤0.007												
Repeatability Error		%A.L.[3)]	C3/IIIM n:5: ≤0.01 ; C6/IIIM n:10: ≤ 0.005 ; C10: ≤0.003												
Creep, 30 minute		%A.L.	C3/IIIM n:5: ≤0.017 ; C6/IIIM n:10: ≤ 0.008 ; C10: ≤0.005												
Min. Dead Load Output Retrun (DR), 30 min		%A.L.	C3/IIIM n:5: ≤0.017 ; C6/IIIM n:10: ≤ 0.008 ; C10: ≤0.005												
Temperature Effect on	Min. Dead load	%R.C./°C (../°F)	0.0014 (0.0008)	C3/IIIM n:5: ≤ 0.0011 (0.0006) / C6/IIIM n:10: ≤ 0.0007 (0.0004) / C10: ≤ 0.0007 (0.0004)											0.0009 (0.0005)
	Sensitivity[2)]	%A.L./°C (../°F)	C3/IIIM n:5: ≤0.001(0.0006) ; C6/IIIM n:10: ≤ 0.0005(0.0003) ; C10: ≤0.0003(0.0002)												
Effective System Update Rate (4 load cells)		Hz	40												
Temperature Range	Compensated	°C (°F)	-10 to +40 (+14 to +104)												
	Operating		-20 to +65 (-4 to +150)												
	Safe Storage		-40 to +80 (-40 to +176)												
OIML / European Approval[4)]	European Cert. No.		R60/2000-CN1-13.01 / NMi TC8489												
	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
	PLC		0.8												
	Humidity Symbol		CH												
	Min. dead load	kg	0												
	Z		3000	600	10000	3000	6000	10000	3000	6000	10000	3000	6000	10000	3000	6000
	Barometric Pressure Effect		None												
NTEP Approval[4)]	Number		13-118												
	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		5'000	10000	-	5'000	10'000	-	5'000	10'000	-	5'000	10'000	-	5'000	10'000
	vmin	lb	0.05	0.025		0.095	0.065		0.19	0.13		0.38	0.26		0.76	0.65
	Min. dead load	lb	0												
ATEX Approval[4)]	Number. cat. 3		DEKRA 14ATEX0030												
	Rating		II 3 G Ex nA IIC T6 Gc / II 3 D Ex tc IIIC T85°C Dc												
	Entity Parameters		Umax = 28V, Imax = 50mA, Pmax = 0.5W (7)												
IECEx Approval[4)]			Ex nA IIC T6 Gc / Ex ec IIC T6 Gc / Ex tc IIIC T85°C Dc												
FM Approval, USA / Canada[4)]	Number, USA / Canada		3050641 / 3050641C												
	Rating, USA		NI / I, II / 2 / ABCDFG / T6 Ta = 55°C												
	Rating, Canada		NI / I, II / 2 / ABCDFG / T6 Ta = 55°C / DIP / III / 2 / T6 Ta = 55°C												
	Entity Parameters		Vmax = 28V, Imax = 50mA, Ci = 0.3nF, Li = 0												
	System Drawing no. USA		30095703												
	System Drawing no. Canada		30095704												
Insulation Resistance @50VDC		MΩ	≥ 2000												
Breakdown Voltage		V AC	≥ 500												
Supply Voltage	Range (nominal)	V DC	10-26												
Non-regulated	Typical		24												
Overvoltage Protection	Max. Tested	A	2000 (no outdoor lightning conditions)												
Warm-up Time from Cold Start			15												
Communications			Controller Area Network (CAN), Encrypted												
			Can Open												
Effective System Update Rate (4 load cells)			40												
ESD rating			8												
Span Stability, typical (peak to peak in 1 min)			15												
Immunity	OIML R60	V/m	10												
Material	Spring Element		Stainless Steel												
	Enclosure		304 Stainless Steel, Electropolished												
	Connectors		Stainless Steel												
	Cable		Polyurethane (PU)												
Protection	Type		Welded												
	IP Rating		IP68, IP69K												
	NEMA Rating		NEMA 6P												
Overload Protection			yes									no			
Load Limit	Safe	%R.C.	150												
	Ultimate		300												
Safe Dynamic Load		%R.C.	70												
Fatigue Life		cycles @ R.C.	> 1,000,000												
Direction of Loading			beam												
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		kg (lb)	1 (2.2)									1.3 (2.9)			2.2 (4.8)
Cable			Polyurethane, 11mm Connector, 21mm Branch Housing (200mm Distance to LC), Req. Conduit ≥12mm (0.5")												
			Polyurethane, 6mm Jacket, 21mm Branch Housing (200mm Distance to LC), 4 Conductors, Internal Shield with Drain Wires, Req. Conduit ≥12mm(0.5")												
Connectors			Quick-Connect												
Mounting Screw	Grade		10.9 (Grade 8)												
	Size/thread	mm (in)	M12 (1/2-13 UNC)												M18x1,5 (3/4-10 UNC)
	Torque, nominal	Nm (ft-lb)	120 (100)												275 (220)

[1)] Error due to the combined effect of non-linearity and hysteresis
[2)] 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.
[3)] A.L. = Applied Load
[4)] See certificate for complete information.
[5)] Max. 14 load cells / terminal
[6)] Max. total cable length 90-300m depending on no. of LC and Terminal.
[7)] / Load Cell
[8)] 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

Order Information Load Cell

Rated Capacity	Description	Class	Item number
220kg / 500lb	SLB615D POWERCELL® model no.	C3 / 5,000 NTEP	**30450308**
		C6 / 10,000 NTEP	**30450311**
		C10	**30450314**
550kg / 1,250lb		C3 / 5,000 NTEP	**30450317**
		C6 / 10,000 NTEP	**30450320**
		C10	**30450323**
1100kg / 2,500lb		C3 / 5,000 NTEP	**30450326**
		C6 / 10,000 NTEP	**30450329**
		C10	**30450332**
2200kg / 5,000lb		C3 / 5,000 NTEP	**30450335**
		C6 / 10,000 NTEP	**30450338**
		C10	**30450341**
4400kg / 10000lb		C3 / III M n:5	**30450344**
		C6 / III M n:10	**30450347**

Bolded entries are stocked

Order Information Upgrade Kit

Description	Replacement for	Item number
POWERCELL® Upgrade Kit 0958CL CS 1.1T	0958 CenterLign™, carbon steel from 220kg to 1,100kg (500lbs - 2.500lbs)	**30236170**
POWERCELL® Upgrade Kit 0958CL CS 2.2T	0958 CenterLign™, carbon steel for 2,200 kg (5.000lbs)	**30236171**
POWERCELL® Upgrade Kit 0958CL CS 4.4T	0958 CenterLign™, carbon steel for 4,400kg (10.000lbs)	**30236172**
POWERCELL® Upgrade Kit 0958CL SS 1.1T	0958 CenterLign™, stainless steel from 220kg to 1,100kg (500lbs - 2.500lbs)	**30236173**
POWERCELL® Upgrade Kit 0958CL SS 2.2T	0958 CenterLign™, stainless steel for 2,200kg (5.000lbs)	**30236174**
POWERCELL® Upgrade Kit 0958CL SS 4.4T	0958 CenterLign™, stainless steel for 4,400kg (10.000lbs)	**30236175**
POWERCELL® Upgrade Kit 0958FM CS 1.1T	0958 FlexMount™, carbon steel from 220kg - 1,100kg (500lbs - 2.500lbs)	**30236176**
POWERCELL® Upgrade Kit 0958FM CS 2.2T	0958 FlexMount™, carbon steel for 2,200 kg (5.000lbs)	**30236177**
POWERCELL® Upgrade Kit 0958FM CS 4.4T	0958 FlexMount™, carbon steel for 4,400kg (10.000lbs)	**30236178**
POWERCELL® Upgrade Kit 0958 FM SS 1.1T	0958 FlexMount™, stainless steel from 220kg - 1,100kg (500lbs - 2.500lbs)	**30236179**
POWERCELL® Upgrade Kit 0958FM SS 2.2T	0958 FlexMount™, stainless steel for 2,200kg (5.000lbs)	**30236180**
POWERCELL® Upgrade Kit 0958FM SS 4.4T	0958 FlexMount™, stainless steel for 4,400kg (10.000lbs)	**30236181**

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Upgrade kit for 0958 FlexMount™

Upgrade kit for 0958 CenterLign™

Each upgrade kit consists of:
- Load Cell bolts
- Hardened Load Cell Spacer
- Load Pin
- Gasket
- Lubrication Packet
- Upgrade Instructions

Order Information Pre-configured Plug & Play Cables

Load Cell Cable

Home Run Cable

Bus Termination

Description	Cable, Material / Length / Item number						
	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	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**
Extension Cable	-	**30382970**	**30382971**	-	-	-	-
CAN Termination	**30382989**						
Blind Plug	**30417485**						
Cable Gland for Home Run Cable with IND780PDX	**30095639**						

Bolded entries are stocked

Home Run Cable SLB615D POWERCELL®

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

Watch the video about Upgrading existing weighing installations under: **www.mt.com/ind-wm-upgrade**

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.

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Printed in Switzerland MTSI 30246732
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