

# No Compromise on Performance



### Floor Scales

Use the SLB215 load cell in platform and floor scales. With threaded load-introduction hole, the load cell can be used with a threaded foot for easy levelling. Due to the hermetic welded design reliability in most industrial environments is guaranteed. The full set of approvals provides maximum applicability and safety in these applications.



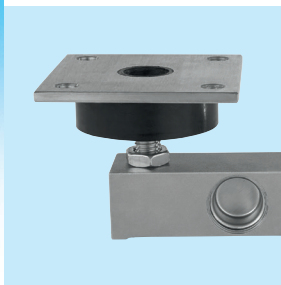
### Tank Weighing

The capacity range from 220 kg to 4.4 t allows the weighing of tanks, hoppers and silos. Various accessories are available to ease installation and to ensure good performance



### Hermetically Sealed

SLB215 load cells are made from nickel plated tool steel but are hermetically sealed, something normally available only on higher end stainless steel models. This protects the load cell from damp for the best stability and measuring performance.



### Accessories

The optional accessories for proper load introduction guarantee the optimal performance in conjunction with thermal expansion and vibration.



### SLB215 Beam Load Cells

### Easy Integration with Threaded Load Introduction

The SLB215 is approved for use in various applications in Europe, Asia, America and almost everywhere else in the world. If an approval is required, the SLB215 probably already complies.

Every SLB215 beam load cell features:

- Threaded load introduction hole
- OIML C3 and NTEP III M 5,000d approvals (up to 2.2 t)
- ATEX Zone1/2 and 21/22 approvals
- IECEx Approvals
- FM Class I,II,III Div 1&2 approvals
- Nickel plated steel
- Hermetically sealed design

# SLB215 Load Cell Specifications

Parameter		unit of measure	Specification						
SLB215									
Rated Capacity (R.C.)		kg (lb, nominal)	110 (250)	220 (500)	550 (1250)	1100 (2500)	2200 (5000)	4400 (10000)	
Rated Output		mVV @R.C. - kg	0.970 ± 0.002						
		mVV @R.C. - lb	2.000 ± 0.002						
Zero load Output		%R.C.	≤ 1.0						
Combined Error <sup>1,2</sup>		%R.C.	≤ 0.018						
Repeatability Error		%A.L. (3)	≤ 0.01						
Creep, 30 minute		%A.L.	≤ 0.0167						
Min. Dead Load Output Return (DR), 30 min		%A.L.	≤ 0.0167						
Temperature Effect on		Min. Dead load Output	%R.C./°C (./°F) ≤ 0.0023 (0.0013)						
		Sensitivity <sup>2</sup>	%A.L./°C (./°F) ≤ 0.0009 (0.0005)						
Temperature Range		Compensated	-10 ~ +40 (+14 ~ +104)						
		Operating	-40 ~ +65 (-40 ~ +150)						
		Safe Storage	-40 ~ +80 (-40 ~ +176)						
OIML / European Approval <sup>4</sup>		OIML Cert. No.	R60/2000-NL1-13.19						
		European Cert. No.	TC8311						
		Class	C3						
		nmax	3000						
		Y	6000						
		PLC	0.7						
		Humidity Symbol	None						
		Min. dead load	kg (lb)	0.4 (0.88)					
		Z	3000						
NTEP Approval <sup>4</sup>		Number	13-081						
		Class	III M						
		nmax	5000						
		Vmin	kg (lb)	0.018 (0.04)	0.037 (0.08)	0.092 (0.20)	0.183 (0.40)	0.367 (0.81)	0.73 (1.62)
		Min. dead load	kg (lb)	0 (0)					
ATEX Approval <sup>4</sup>		Number, cat. 2	DEKRA 13ATEX0081						
		Number, cat. 3	DEKRA 13ATEX0082						
		Rating	II 2 G Ex ib IIC T4 Gb						
			II 2 D Ex ib IIIC T100°C Db						
			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						
Entity Parameters	Ui=20V, li=600mA, Pi=1.25W, Ci=0.2nF/m (5), Li=1µH/m (5)								
IECEX Approval <sup>4</sup>		Number	IECEX DEK 20.0086X						
		Rating	Ex ib IIC T4 Gb; Ex ic IIC T4 Gc; Ex ec IIC T4 Gc						
			Ex ib IIIC T100 °C Db; Ex tc IIIC T100 °C Dc						
Entity Parameters	Ui=20V, li=600mA, Pi=1.25W, Ci=1.2nF, Li=6µH; Urated = 20V, Irated = 55mA								
Factory Mutual Approval US/Canada <sup>4</sup>		Number, USA / Canada	FM18US0025 / FM18CA0032						
		Rating USA	IS / I, II, III / 1 / ABCDEFG / T4 Entity						
			NI / 1 / 2 / ABCD / T6 NIFW; S / II, III / 2 / FG / T6						
		Rating Canada	IS / I, II, III / 1 / ABCDEFG / T4 Entity						
			NI / 1 / 2 / ABCD / T6 NIFW; DIP / II, III / 2 / FG / T6						
Entity Parameters	Vmax=20V, Imax=600mA, Pi=1.25W, Ci=0, Li=0; NIFW: Vmax=20V, Imax=600mA, Ci= 0, Li=0								
System Drawing No, USA		30032271							
Excitation Voltage		Recommended	5~15						
		Max.	20						
Terminal Resistance		Excitation	350±4						
		Output	350±1						

Parameter		unit of measure	Specification					
Insulation Resistance @50VDC		MΩ	>5000					
Breakdown Voltage		V AC	>500					
Material	Spring Element		Alloy Steel					
	Enclosure		304 stainless steel					
	Cable entry fitting		304 stainless steel					
	Cable		PVC					
Finish			Nickel plated					
Protection	Type		Welded					
	IP Rating		IP67					
	NEMA Rating		NEMA 6					
Load Limit	Safe	%R.C.	150					
	Ultimate		300					
Safe Side Load		%R.C.	100					
Safe Dynamic Load		%R.C.	70					
Fatigue Life		cycles @R.C.	> 1,000,000					
Direction of Loading			Beam					
Deflection @ R.C., nominal		mm (in)	0.07 (0.003)	0.14 (0.005)	0.23 (0.009)	0.26 (0.01)	0.37 (0.015)	0.6 (0.024)
Weight, nominal		kg (lb)	1 (2.2)			1.4 (3.1)	2.4 (5.3)	
Cable	Length	m (ft)	5, 10 (16.4, 32.8)					
	Diameter	mm (in)	5.2 (0.20)					
Barometric Pressure Effect on Zero Load Output		kg/kPa (lb/in.Hg)	None					
Overload Protection			Yes			No		
Mounting Screw	Grade		10.9 (Grade 8)					
	Size/thread	mm (in)	M12 (1/2-13 UNC)				M20 (3/4-10 UNC)	
	Engaged Length	mm (in)	-					
	Torque, nominal	N.m (ft-lb)	98 (82)				330 (190) M18: 275 (158)	
Drawing No.	Dimensions		30076301					
	2D		30094485					
	3D		30094486					

<sup>1)</sup> Error due to the combined effect of non-linearity and hysteresis

<sup>2)</sup> 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

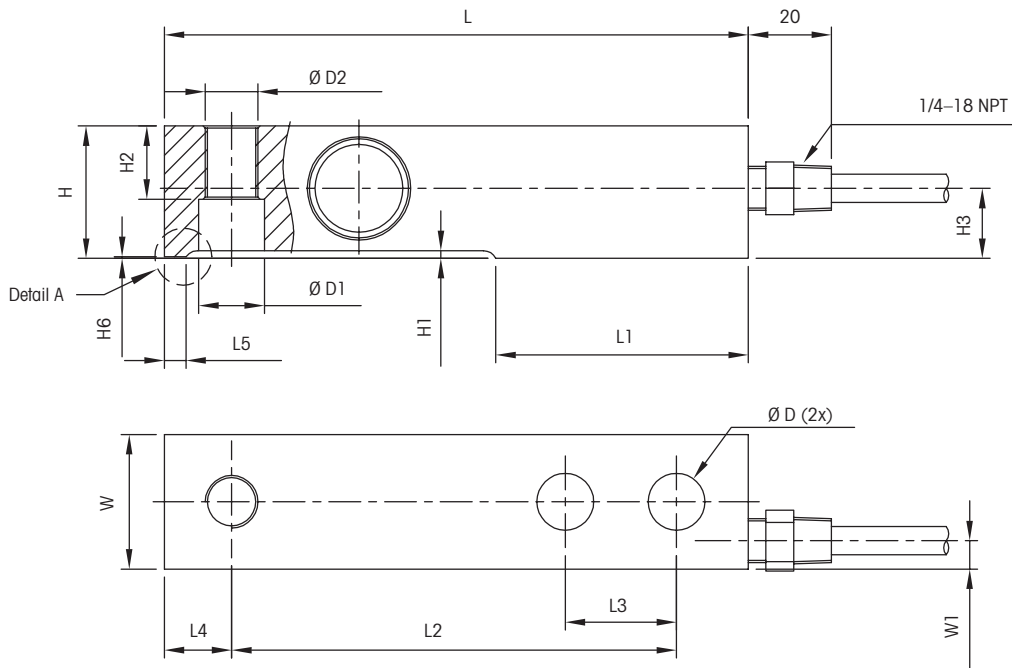
<sup>3)</sup> A.L. = Applied Load

<sup>4)</sup> See certificate for complete information.

<sup>5)</sup> /m Load cell cable

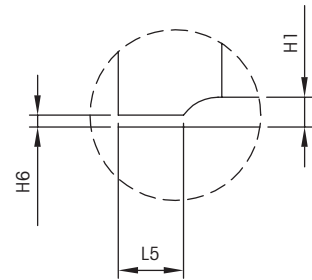


# SLB215 Load Cell Dimensional Drawings mm [in]



- Notes:
- Dimensions are in mm [in]
  - Cable length 3m, 5m, 10m
  - Overload stop on 110-1100kg [500-2500lb] only

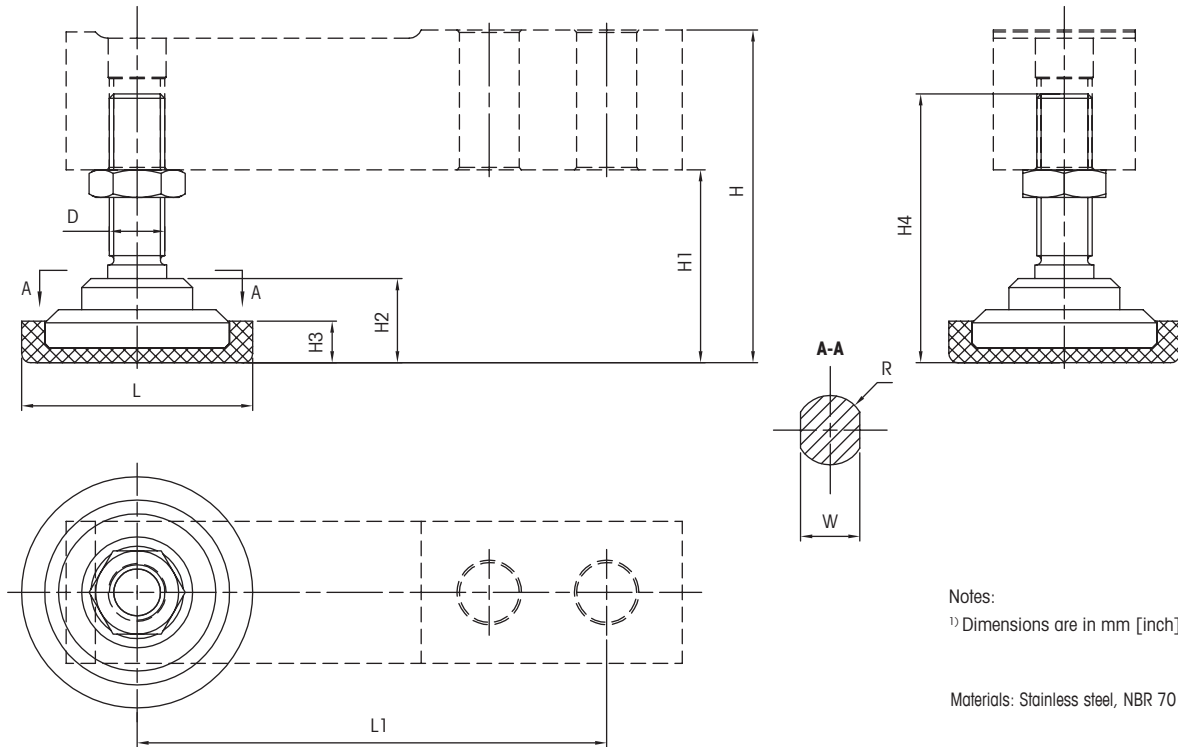
Detail A



Dimensions and locations

Model	Capacity	D (2x)	D1	D2	H	H1	H2	H3	H6	L	L1	L2	L3	L4	L5	W	W1
SLB215	110-1100 kg [250lb-2500lb]	13.0 [0.51]	12.5 [0.49]	M12	30.2 [1.19]	1.8 [0.07]	20 [0.79]	16.0 [0.63]	0.48 [0.02]	133.4 [5.25]	56.5 [2.22]	101.6 [4.00]	25.4 [1.00]	15.4 [0.61]	6.4 [0.25]	30.7 [1.21]	6.5 [0.26]
SLB215	2200 kg [5000 lb]	13.0 [0.51]	12.5 [0.49]	M12	36.6 [1.44]	2.6 [0.10]	20 [0.79]	19.6 [0.77]	2.6 [0.10]	136.7 [5.38]	55.6 [2.19]	101.6 [4.00]	25.4 [1.00]	18.4 [0.72]		36.8 [1.45]	6.0 [0.24]
SLB215	4400 kg [10 000 lb]	20.5 [0.81]	22.2 [0.87]	M20	42.9 [1.69]	2.5 [0.10]	20 [0.79]	22.7 [0.89]	2.5 [0.10]	171.5 [6.75]	73.8 [2.91]	133.4 [5.25]	38.1 [1.50]	21.4 [0.84]		42.9 [1.69]	6.0 [0.24]

# SLB215 Foot Kit FTKT mm [in]

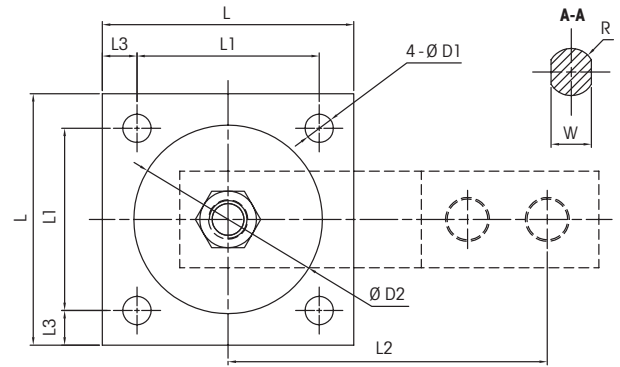
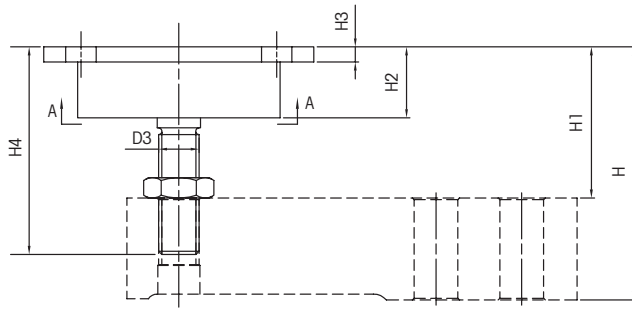


Notes:  
 1) Dimensions are in mm [inch]

Materials: Stainless steel, NBR 70

Model	Capacity	Dimensions and locations											
		L	L1	D	H		H1		H2	H3	H4	R	W
					min.	max.	min.	max.					
FTKT	110–1100 kg	Ø50	101.6	M12	60	72	29.8	41.8	18.2	9	58.2	7.5	12.8
	[500–2500 lb]	[Ø1.97]	[4.00]		[2.36]	[2.84]	[1.17]	[1.65]	[0.72]	[0.35]	[2.29]	[0.30]	[0.50]
FTKT	2200 kg	Ø50	101.6	M12	66.4	78.4	29.8	41.8	18.2	9	58.2	7.5	12.8
	[5000 lb]	[Ø1.97]	[4.00]		[2.61]	[3.09]	[1.17]	[1.65]	[0.72]	[0.35]	[2.29]	[0.30]	[0.50]
FTKT	4400 kg	Ø70	133.4	M20	91	110	48.1	67.1	29.5	17	87.5	10	20.8
	[10 000 lb]	[Ø2.76]	[5.25]		[3.58]	[4.33]	[1.89]	[2.64]	[1.16]	[0.67]	[3.44]	[0.39]	[0.82]

## SLB215 Expansion and Vibration Kit EVKT mm [in]



Materials: Stainless steel, NBR 70

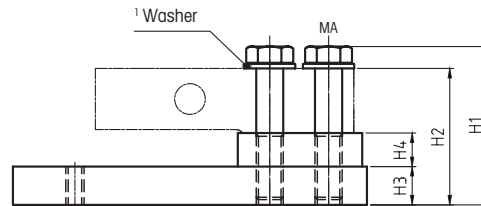
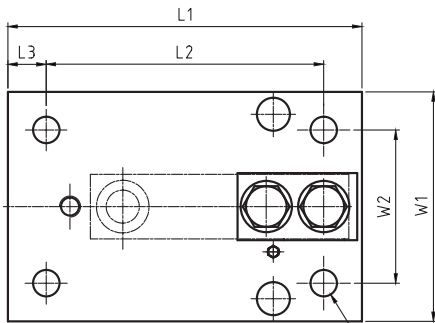
Notes:  
1) Dimensions are in mm [inch]

Model	Capacity	D1	D2	D3	Dimensions and locations														SH <sub>MAX</sub> *	SV <sub>MAX</sub> **	Max. Side load ratings
					H		H1		H2	H3	H4	L	L1	L2	L3	R	W				
					min.	max.	min.	max.													
EVKT	110–1100 kg [500–2500 lb]	Ø9 [Ø0.35]	Ø60 [Ø2.36]	M12	63 [2.48]	75 [2.95]	32.8 [1.29]	44.8 [1.76]	21.5 [0.85]	4.5 [0.18]	61.5 [2.42]	80 [3.15]	58 [2.28]	101.6 [4.00]	11 [0.43]	7.5 [0.30]	12.8 [0.50]	±3 [±0.12]	1 [0.04]	2100N	
EVKT	2200 kg [5000 lb]	Ø9 [Ø0.35]	Ø60 [Ø2.36]	M12	69.4 [2.73]	81.4 [3.21]	32.8 [1.29]	44.8 [1.76]	21.5 [0.85]	4.5 [0.18]	61.5 [2.42]	80 [3.15]	58 [2.28]	101.6 [4.00]	11 [0.43]	7.5 [0.30]	12.8 [0.50]	±3 [±0.12]	1.6 [0.07]	2400N	
EVKT	4400 kg [10 000 lb]	Ø11 [Ø0.43]	Ø72 [Ø2.83]	M20	91 [3.58]	110 [4.33]	48.1 [1.89]	67.1 [2.64]	29.5 [1.16]	9.5 [0.37]	87.5 [3.44]	100 [3.94]	76 [2.99]	133.4 [5.25]	12 [0.47]	10 [0.39]	20.8 [0.82]	±3 [±0.12]	2.2 [0.09]	2800N	

\* Max Lateral displacement

\*\* Max vertical displacement incl. load cell

## SLB215 Base Plate Kit BPK mm [in]



Materials: Zinc plated steel

Capacity	Dimensions and locations											
	L1	L2	L3	W1	W2	H1	H2	H3	H4	D	<sup>2</sup> MA <sub>CS</sub>	<sup>3</sup> MA <sub>SS</sub>
110 kg–1.1 t [250–2500 lb]	177.9 [7.00]	152.4 [6.00]	12.7 [0.50]	114.4 [4.50]	89.0 [3.50]	72.6 [2.86]	65.1 [2.56]	19.1 [0.75]	15.88 [0.625]	11.2 [0.44]	98Nm [72lb-ft]	98Nm [72lb-ft]
2.2 t [5000 lb]									12.7 [0.5]			
4.4 t [10,000 lb]	235.0 [9.25]	184.2 [7.25]	25.4 [1.00]	152.4 [6.00]	101.6 [4.00]	105.0 [4.13]	90.5 [3.56]	25.4 [1.00]	22.2 [0.87]	17.5 [0.69]	270Nm [200lb-ft]	270Nm [200lb-ft]

<sup>1</sup> Two washers only for 4.4t

<sup>2</sup> Torque carbon steel version

<sup>3</sup> Torque stainless steel version

## SLB215 Load Cell Order Information

### Order Information

Description		Item No.
Load cell, model no.	SLB215-110kg (250lb) C3 5m (16.4ft) Ex	30328249
Load cell, model no.	SLB215-110kg (250lb) C3 10m (32.8ft) Ex	30328250
Load cell, model no.	SLB215-220kg (500lb) C3 5m (16.4ft) Ex	72258650
Load cell, model no.	SLB215-220kg (500lb) C3 10m (32.8ft) Ex	72258654
Load cell, model no.	SLB215-550kg (1250lb) C3 5m (16.4ft) Ex	72258656
Load cell, model no.	SLB215-550kg (1250lb) C3 10m (32.8ft) Ex	72258660
Load cell, model no.	SLB215-1.1t (2500lb) C3 5m (16.4ft) Ex	72258693
Load cell, model no.	SLB215-1.1t (2500lb) C3 10m (32.8ft) Ex	72258697
Load cell, model no.	SLB215-2.2t (5000lb) C3 5m (16.4ft) Ex	72258699
Load cell, model no.	SLB215-2.2t (5000lb) C3 10m (32.8ft) Ex	72258703
Load cell, model no.	SLB215-4.4t (10000lb) C1 5m (16.4ft) Ex	72258710
Load cell, model no.	SLB215-4.4t (10000lb) C1 10m (32.8ft) Ex	72258714

### Options

Base Plate Kit BPK	Carbon Steel 110kg-1.1t (250-2500lb)	30265369
Base Plate Kit BPK	Carbon Steel 2.2t (5000lb)	30265371
Base Plate Kit BPK	Carbon Steel 4.4t (1000lb)	30265373
Expansion+Vibr Kit EVKT	Stainless Steel 110kg-2.2t (500-5000lb)	30076302
Expansion+Vibr Kit EVKT	Stainless Steel 4.4t (10000lb)	30076303
Foot Kit FTKT	Stainless Steel 110kg-2.2t (500-5000lb)	30076304
Foot Kit FTKT	Stainless Steel 4.4t (10000lb)	30076305

## Global Approvals

The SLB215 is provided with all listed approvals. No need to think about options and additional charges. Simplifies the conduct of global business, order processing and service-part stocking.



## SLB215 Load Cell Cable Colours

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

\* Connected to spring element

## 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](http://www.mt.com/contacts)

Subject to technical changes

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For more information

