

Global Usage

Fully Approved for Accuracy and Safety



Floor Scales

Use the SLB515 load cell in platform and floor scales. Due to the hermetic welded design the SLB515 is ideal for harsh environments in process and food applications. The full set of approvals provides maximum applicability and safety in these applications.



Tank Weighing

The capacity range from 110kg to 4.4t allows the weighing of tanks and silos. The stainless steel design, hermetic sealing and IP68/IP69K protection provides the best reliability in tank and hopper weighing applications in harsh environments in process and food applications.



Hermetically Sealed

SLB515 load cells are made from stainless steel and hermetically sealed by laser welding. 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.



SLB515 Beam Load Cell Fully Approved

SLB515 beam load cell features:

- Threaded load introduction
- OIML C3 and NTEP III M 5K approval
- ATEX Zone1/2 and 21/22 approvals
- FM Class I,II,III Div 1&2 approvals for USA & Canada
- Stainless steel
- Hermetically sealed design
- IP68, IP69K protection class

The SLB515 is approved for use in various applications in Europe, Asia, America and almost everywhere else in the world. If an approval is required, the SLB515 probably already complies.

Even if needed for hazardous areas later, the SLB515 is already prepared.

METTLER TOLEDO

SLB515 Load Cell Specifications

Parameter	Unit of Measure	Specification						
Model No.		SLB515						
Rated Capacity (R.C.)	kg (lb)	110 (250)	220 (500)	550 (1250)	1100 (2500)	2200 (5000)	4400 (10000)	
Rated Output	mV/V @R.C.-kg	1.940 ± 0.1%						
	mV/V @R.C.-lb	2.000 ± 0.1%						
Zero load Output	%R.C.	≤ 1						
Combined Error ^{1) 2)}	%R.C.	≤ 0.018						
Repeatability Error	%A.L. ³⁾	≤ 0.01						
Creep, 30 minute	%A.L.	≤ 0.017						
Min. Dead Load Output Return (DR), 30 min	%A.L.	≤ 0.017						
Temperature Effect on	Min. Dead load Output	%R.C./°C (./°F)	≤ 0.0032 (0.0018)	≤ 0.0016 (0.0009)	≤ 0.0013 (0.0007)		≤ 0.0016 (0.0009)	
	Sensitivity ²⁾	%A.L./°C (./°F)	≤ 0.001 (0.0006)					
Temperature Range	Compensated	-10 to +40 (+14 to +104)						
	Operating	-40 to +65 (-40 to +150)						
	Safe Storage	-40 to +80 (-40 to +176)						
OIML / European Approval ⁴⁾	Number, OIML Cert. No.	TBD / TC8758						
	Class	C3				C1		
	nmax	3000						
	Vmin	g	25	50	100	250	500	
	PLC	0.7						
	Humidity Symbol	CH						
	Min. dead load	kg	0					
	Z	3000				1000		
	Barometric Pressure Effect	none						
	NTEP Approval ⁴⁾	Number	15-052					
Class		III M						
nmax		5000				1600		
Vmin		lb	0.05	0.1	0.25	0.5	1	
Min. dead load		lb	0					
ATEX Approval ⁴⁾	Number, cat. 2 / cat. 3	DEKRA 13ATEX0081 / DEKRA 13ATEX0082						
	Rating, cat. 2	II 2 G Ex ia IIC T4 Gb / II 2 D Ex ib IIIC T100°C Db						
	Rating, cat. 3	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/Un = 20V, li = 600mA, Pi = 1.25W, Ci = 0.2nF/m (5), Li = 1µH/m (5)							
FM Approval, USA / Canada ⁴⁾	Number, USA / Canada	3005885 / 3025753C						
	Rating, USA	IS / I,II,III / 1 / ABCDEFG / T4						
	Rating, Canada	NI / I / 2 / ABCD / T6; S / II, III / 2 / FG / T6						
		IS / I,II,III / 1 / ABCDEFG / T4						
	Entity Parameters	NI / I / 2 / ABCD / T6; DIP / II, III / 2 / FG / T6						
System Drawing No	30136756							
Excitation Voltage	Recommended	5 ~ 15						
	Max.	20						
Terminal Resistance	Excitation	382 ± 4						
	Output	350 ± 1						
Insulation Resistance @50VDC	MΩ	> 5000						
Breakdown Voltage	V AC	> 500						
Material	Spring Element	stainless steel						
	Enclosure	304 stainless steel						
	Cable entry fitting	304 stainless steel						
Protection	Cable	Polyurethane (PU)						
	Type	welded						
	IP Rating	IP68, IP69K						
NEMA Rating	NEMA 6/6P							
Overload Protection		yes				no		
Load Limit	Safe	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)	0.14 (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	3 (9.8), 5 (16.4), 10 (32.8)						
	Diameter	5.2 (0.20)						
	Grade	10.9 (Grade 8)						
Mounting Screw	Size/thread	M12 (1/2-13 UNC)				M20 (3/4-10 UNC)		
	Torque, nominal	120 (100)						
Drawing No.	Dimensions	30136761						
	To-Scale	30136762						

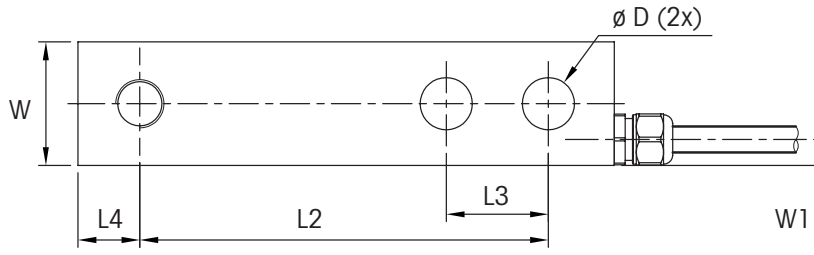
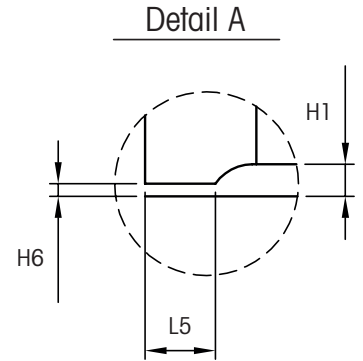
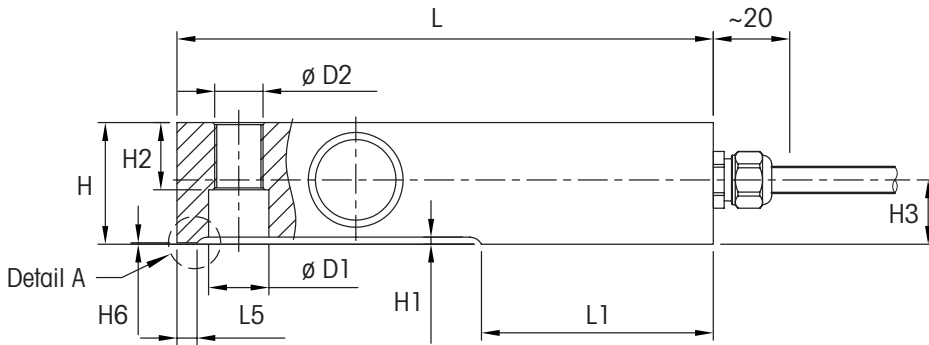
¹⁾ Error due to the combined effect of non-linearity and hysteresis
²⁾ Typical values only. The sum of errors due to Combined Error and Temperature Effect on Sensitivity comply with the requirements of OIML R60 and NIST HB44.

³⁾ A.L. = Applied Load
⁴⁾ See certificate for complete information.
⁵⁾ (5)/m Load Cell Cable



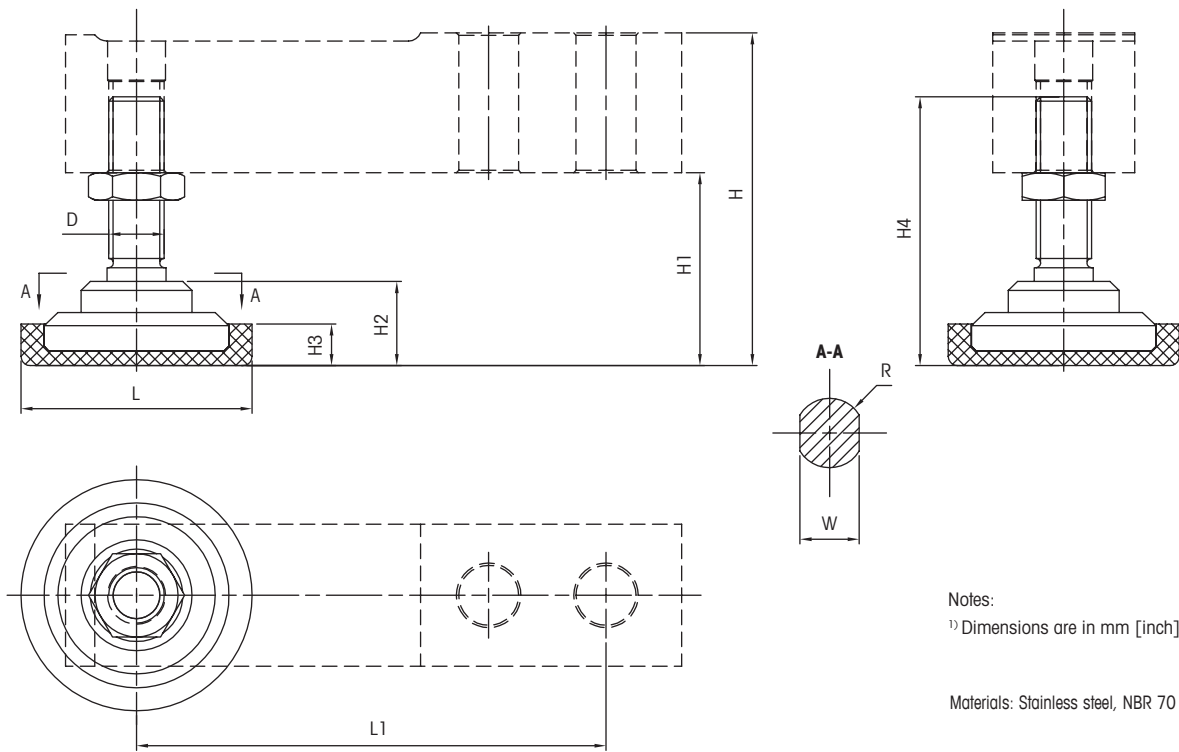
SLB515 Load Cell Dimensional Drawings mm [inch]

Model	Capacity	Dimensions and locations															
		D (2x)	D1	D2	H	H1	H2	H3	H6	L	L1	L2	L3	L4	L5	W	W1
SLB515	220-1100 kg [500-2500 lb]	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]
	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]
	4400 kg [10000 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]	53.8 [2.91]	133.4 [5.25]	38.1 [1.50]	21.4 [0.84]	-	42.9 [1.69]	6.0 [0.24]



- Notes:
1. Dimensions are in mm [inch]
 2. Cable length 3m, 5m, 10m.
 3. Overload stop on 220kg-1100kg [500-2500 lb] only.

SLB515 Foot Kit FTK mm [inch]

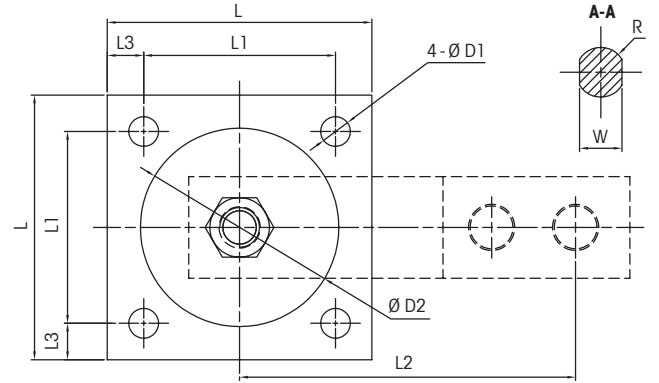
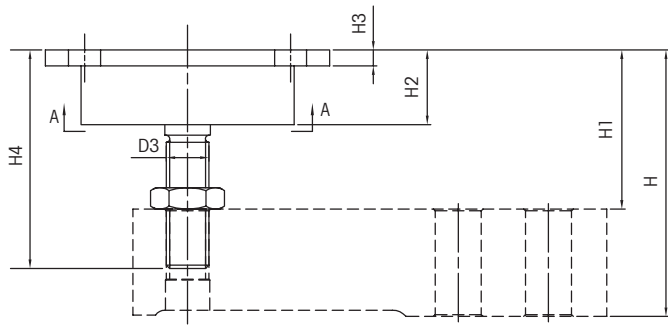


Notes:
 1) Dimensions are in mm [inch]

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	220-1100 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]

SLB515 Expansion + Vibration Kit EVK mm [inch]

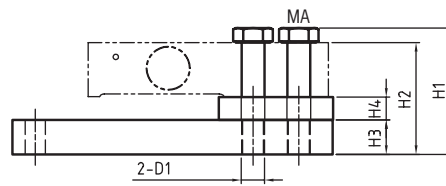
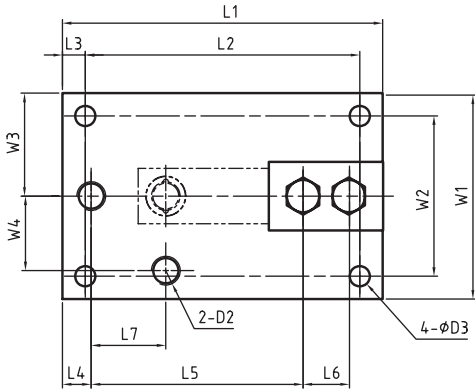


Materials: Stainless steel, NBR 70
 Notes: 1) Dimensions are in mm [inch]

Model	Capacity	D1	D2	D3	H		H1		H2	H3	H4	L	L1	L2	L3	R	W	S _{max} *
					min	max	min	max										
EVKT	220-1100 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]
EVKT	2200 kg [5000 lb]	Ø9 [Ø0.35]	Ø60 [Ø2.36]	M12	69.4 [2.73]	81.4 [3.19]	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]
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]

*MAX Lateral displacement

SLB515 Base Plate Kit BPK mm [inch]



Materials: Stainless steel or painted steel

Capacity	Dimensions and Locations										
	L1	L2	L3	L4	L5	L6	L7	W1	W2	W3	W4
110 kg-1.1 t [250-2500 lb]	177.8 [7]	152.4 [6]	12.7 [0.5]	16.0 [0.63]	117.6 [4.63]	25.4 [1]	41.4 [1.63]	114.3 [4.5]	88.9 [3.5]	57.2 [2.25]	41.4 [1.63]
2.2 t [5000 lb]	177.8 [7]	152.4 [6]	12.7 [0.5]	16.0 [0.63]	117.6 [4.63]	25.4 [1]	41.4 [1.63]	114.3 [4.5]	88.9 [3.5]	57.2 [2.25]	41.4 [1.63]
4.4 t [10,000 lb]	235.0 [9.25]	184.2 [7.25]	25.4 [1]	22.4 [0.88]	149.4 [5.88]	38.1 [1.5]	54.1 [2.13]	152.4 [6]	101.6 [4]	76.2 [3]	54.1 [2.13]

Capacity	Dimensions and Locations									
	H1	H2	H3	H4	D1	D2	D3	MA cs ¹	MA ss ²	
110 kg-1.1 t [250-2500 lb]	70.2 [2.76]	62.0 [2.44]	19.1 [0.75]	12.7 [0.5]	M12	M16	11.2 [0.44]	136 Nm [100 lb-ft]	100 Nm [75 lb-ft]	
2.2 t [5000 lb]	76.5 [3.01]	68.4 [2.96]	19.1 [0.75]	12.7 [0.5]	M12	M16	11.2 [0.44]	136 Nm [100 lb-ft]	100 Nm [75 lb-ft]	
4.4 t [10,000 lb]	99.6 [3.92]	87.4 [3.44]	25.4 [1]	19.1 [0.75]	M18	M18	17.5 [0.69]	340 Nm [250 lb-ft]	270 Nm [200 lb-ft]	

1) Torque carbon steel version 2) Torque stainless steel version

SLB515 Load Cell Order Information

Order Information		Item No., Load Cell			Item No., Options		
Rated Capacity	Class	Cable, Material / Length			Base Plate Kit BPK, 304	Expansion+ Vibr Kit EVKT	Foot Kit FTKT
		PU / 3 m (9.8 ft)	PU / 5 m (16.4 ft)	PU / 10 m 32.8 ft)			
110kg / 250lb	0.03%	30101610	30101611	30101612	72208666	30076302	30076304
220kg / 500lb	C3/III M n:5	30101616	30101617	30101618			
550kg / 1250lb	C3/III M n:5	30101622	30101623	30101624			
1100kg / 2500lb	C3/III M n:5	30101628	30101629	30101630			
2200kg / 5000lb	C3/III M n:5	30101634	30101635	30101636	72209168	30076303	30076305
4400kg / 10000lb	C1/III M n:1.6	30101640	30101641	30101642	72208667		

Bolded entries are stocked

SLB515 Load Cell Cable Colours

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

*Connected to Spring Element

