

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

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.

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

SLB515 Load Cell Specifications

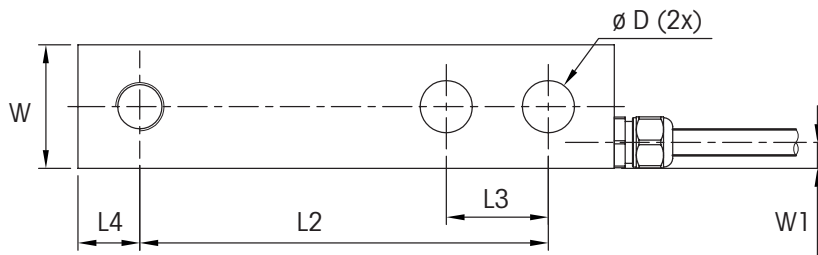
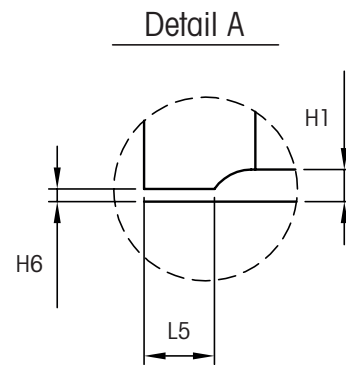
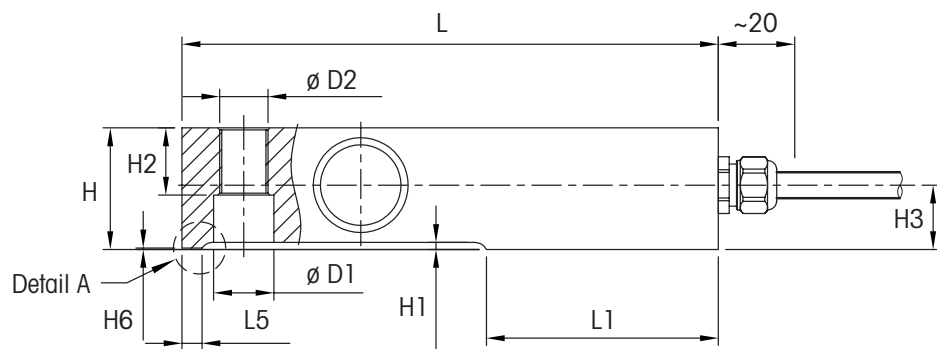
Parameter	Unit of Measure	Specification					
Model No.		SLB515					
Rated Capacity (R.C.)	kg (lb)	110 (250)	220 (500)	550 (1250)	1100 (2500)	2200 (5000)	4400 (10000)
Rated Output	mV/V @R.C.-kg	0.970 ± 0.2%		1.940 ± 0.1%			
	mV/V @R.C.-lb	1.000 ± 0.2%		2.000 ± 0.1%			
Zero load Output	%R.C.	≤ 2		≤ 1			
Combined Error ^{1) 2)}	%R.C.	≤ 0.03		≤ 0.018			≤ 0.026
Repeatability Error	%A.L. ³⁾			≤ 0.01			≤ 0.02
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)				≤ 0.002 (0.0001)
Temperature Range	Compensated		-10 to +40 (+14 to +104)				
	Operating	°C (°F)	-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				
	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, Ii = 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		Vmax = 20V, Imax = 600mA, Pi = 1.25W, Ci = 0, Li = 0					
Excitation Voltage	Recommended	V AC/DC	5 ~ 15				
	Max.		20				
Terminal Resistance	Excitation	Ω	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				
	Cable		Polyurethane (PU)				
Protection	Type		welded				
	IP Rating		IP68, IP69K				
	NEMA Rating		NEMA 6/6P				
Overload Protection		yes			no		
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)	0.14 (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)	3 (9.8), 5 (16.4), 10 (32.8)				
	Diameter	mm (in)	5.2 (0.20)				
	Grade		10.9 (Grade 8)				
Mounting Screw	Size/thread	mm (in)	M12 (1/2-13 UNC)				M20 (3/4-10 UNC)
	Torque, nominal	Nm (ft-lb)	120 (100)				380 (220)
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



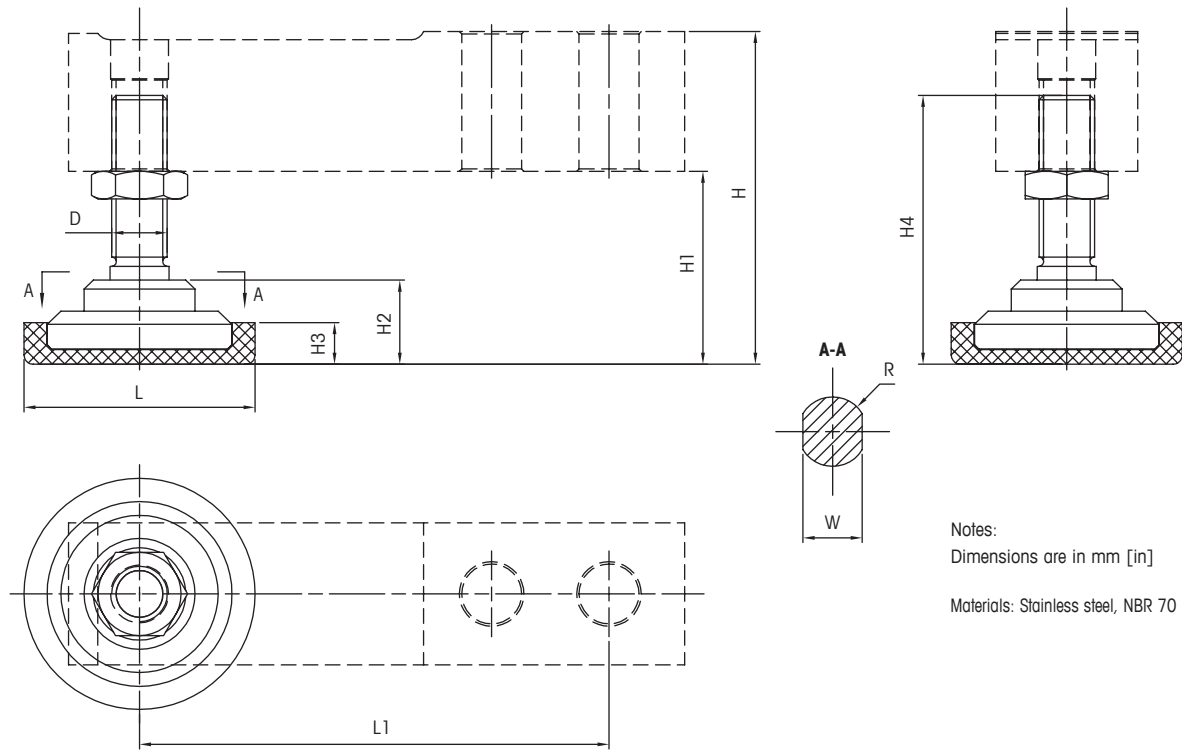
SLB515 Load Cell Dimensional Drawings mm [in]



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

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]

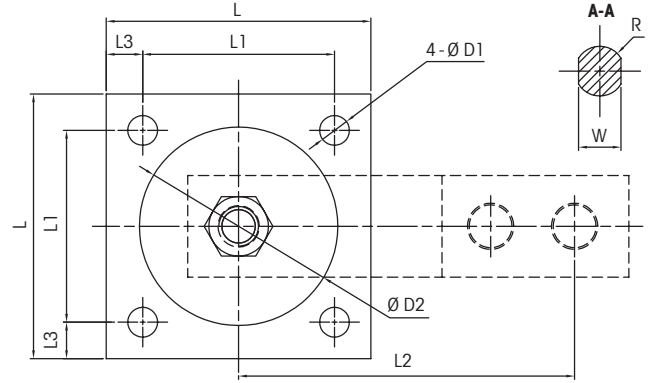
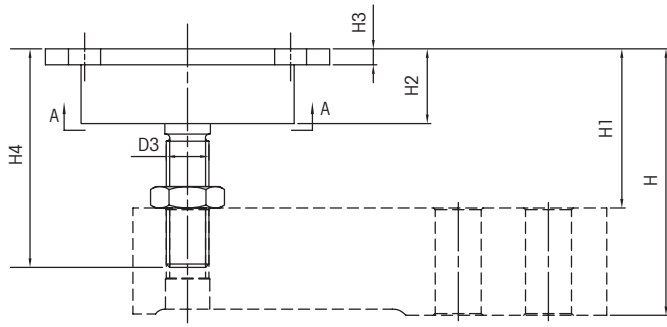
SLB515 Foot Kit FTK mm [in]



Notes:
 Dimensions are in mm [in]
 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 [in]



Notes:

Dimensions are in mm [in]

Materials: Stainless steel, NBR 70

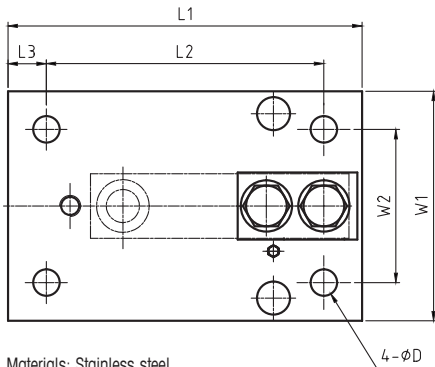
Dimensions and locations

Model	Capacity	D1	D2	D3	H		H1		H2	H3	H4	L	L1	L2	L3	R	W	SH _{MAX} *	SV _{MAX} **	Max. Side load ratings
					min	max	min	max												
EVKT	220–1100 kg	Ø9	Ø60	M12	63	75	32.8	44.8	21.5	4.5	61.5	80	58	101.6	11	7.5	12.8	±3	1	2100N
	[500–2500 lb]				[2.48]	[2.95]	[1.29]	[1.76]												
EVKT	2200 kg	Ø9	Ø60	M12	69.4	81.4	32.8	44.8	21.5	4.5	61.5	80	58	101.6	11	7.5	12.8	±3	1.6	2400N
	[5000 lb]				[2.48]	[2.95]	[1.29]	[1.76]												
EVKT	4400 kg	Ø11	Ø72	M20	91	110	48.1	67.1	29.5	9.5	87.5	100	76	133.4	12	10	20.8	±3	2.2	2800N
	[10 000 lb]				[3.58]	[4.33]	[1.89]	[2.64]												

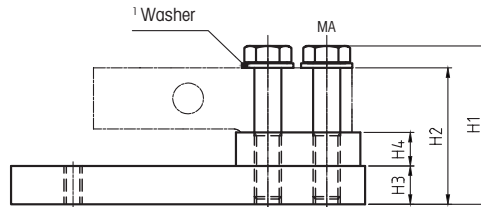
* Max Lateral displacement

** Max vertical displacement incl. load cell

SLB515 Base Plate Kit BPK mm [in]



Materials: Stainless steel



Capacity

Dimensions and Locations

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

¹ Two washers only for 4.4t

² Torque carbon steel version

³ 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	30265370	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			
4400kg / 10000lb	C1/III M n:1.6	30101640	30101641	30101642	30265374	30076303	30076305

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

Global Approvals

The SLB515 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.



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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Subject to technical changes
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