

## SSLP STAINLESS STEEL LOW PROFILE UNIVERSAL LOAD CELL (U.S. & METRIC)

The SSLP series of load cells are based on the conventional low profile or pancake load cell principle. The internal construction is a diaphragm design, offering a lower cost solution to conventional shear web designs, while still offering high natural frequency, low deflection and excellent resistance to side and torsion forces. The SSLP is constructed from stainless steel to give excellent corrosion protection. There is an optional mounting base available, which is required if the load cell is to be used in tension. The mounting base is also constructed from stainless steel. The standard load cell is supplied with an integral cable and the facility to attach a protective hose or conduit. It is ideally suited to many testing applications where high stability and low height are essential requirements, the SSLP can be supplied calibrated as a complete ready-to-go system. Also available is a range of associated instrumentation.

### FEATURES & BENEFITS

- Capacities from 2.5 to 5000 kN (562 to 1,124K lbf)
- Stainless Steel Construction
- Environmentally Sealed to IP67
- Low Profile
- Hose/Conduit Fitting at Cable Exit
- High Thermal Stability

### OPTIONS

- Base (Recommended)
- Custom Base
- Custom Top Plate
- Load Cap Assembly
- TEDS Option
- Custom Cable Length
- ATEX Version Available
- Internally Amplified
- Multiple Bridges
- Submersible
- Tension Calibration Available
- Tension and Compression Calibration Available

### TYPICAL APPLICATIONS

- Structural Testing
- Jack Load Monitoring
- Airframe Testing
- Material Test Machine Feedback
- Fatigue Testing Rigs

### STANDARD CONFIGURATION



Model SSLP1-25kN (Shown)



Model SSLP1-25kN with Base (Shown)



Model SSLP1-25kN with Base and Load Cap (Shown)

### ELECTRICAL

SSLP1-SSLP4 2.5 - 1000 kN (562 - 224.8K lbf) PVC 4-CORE CABLE	
DESCRIPTION	WIRE COLOR
+Exc	Red
-Exc	Black
+Out	White
-Out	Yellow

SSLP5-SSLP6 2000 - 5000 kN (449.6K - 1124K lbf) PVC 6-CORE CABLE	
DESCRIPTION	WIRE COLOR
+Exc	Red
-Exc	Black
+Sen	Orange
-Sen	Blue
+Out	White
-Out	Yellow

*U.S. dimensions and capacities are provided for conversion only. Standard products have International System of Units (SI) capacities and dimensions.*

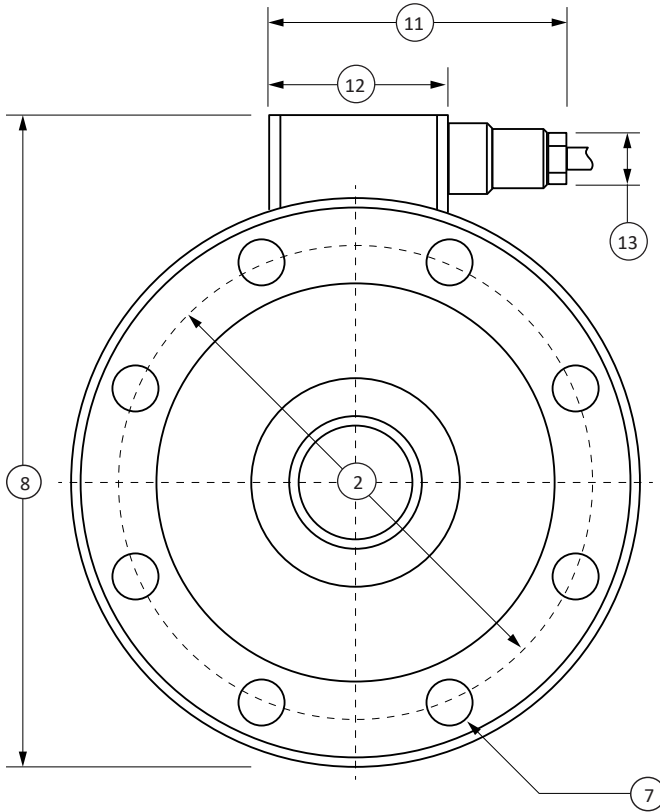
## SSLP STAINLESS STEEL LOW PROFILE UNIVERSAL LOAD CELL (U.S. & METRIC)

### SPECIFICATIONS

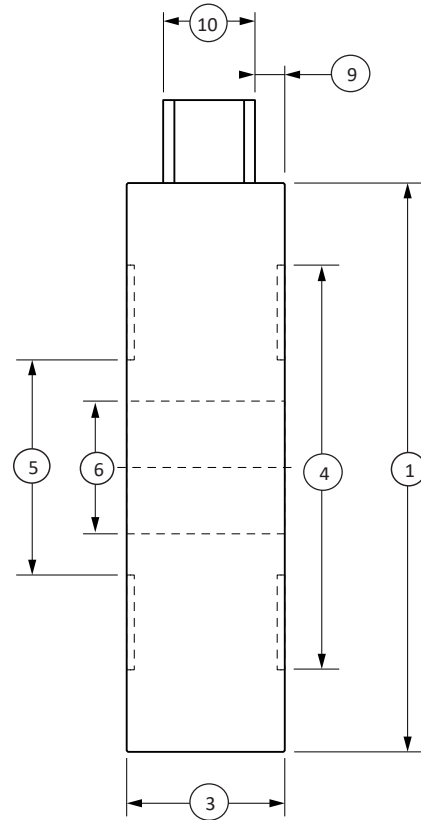
Model	SSLP1					SSLP2		SSLP3			SSLP4		SSLP5	SSLP6									
Capacity	kN	2.5	5	10	25	50	50	100	200	300	500	750	1000	2000	3000	5000							
	lbf	562	1124	2248	5620	11.24K	11.24K	22.48K	44.96K	67.44K	112.4K	168.6K	224.8K	449.6K	674.4K	1124K							
Non-Repeatability - %RO	≤±0.1 down to 10																						
Non-Linearity - % FS	≤±0.05											≤±0.1											
Hysteresis - % FS	≤±0.05											≤±0.1											
Temperature effect on zero - %RO / deg	°C	≤±0.0028																					
Temperature effect on sensitivity - %RO / deg	°C	≤±0.0024																					
Effect of side loads at 10% FSO - %RO	<±0.03																						
Nominal sensitivity - mV/V	2																						
Sensitivity tolerance - % FSO	≤±0.1																						
Input resistance - Ohm	800 ±20						430 ±20																
Output resistance - Ohm	705 ±2						352 ±2																
Insulation resistance - G Ohm	>5																						
Zero balance - % FSO	≤±1																						
Recommended V, MAX V	10, 18																						
Safe Overload - % CAP	150																						
Natural Frequency - kHz	2.5			4.8		8.6		3.8		5.8		5.7		7.3		9.8		3.2		2.7		2.8	
Ultimate load	>300%																						
Maximum side load	100%																						
Maximum permissible dynamic load	75%																						
Deflection	mm	~0.06			~0.09		~0.17		~0.23			~0.21											
	in	0.002			0.004		0.007		0.009			0.008											
Temperature nominal range	°C	-10 to 40																					
	°F	14 to 104																					
Service temperature	°C	-10 to 70																					
	°F	14 to 158																					
Storage temperature	°C	-20 to 80																					
	°F	-4 to 176																					
Environmental protection level	IP67																						
Weight	kg	1.6					2.5		5.8		6.8		16.5		35		63						
	lbs	3.5					5.5		12.8		15.0		36.4		77.2		138.9						
Electrical connections - PVC cable	m	5																					
	ft	16.4																					
Calibration	Compression Only Standard (Tension or Tension and Compression Optional)																						

## SSLP STAINLESS STEEL LOW PROFILE UNIVERSAL LOAD CELL (U.S. & METRIC)

TOP VIEW



SIDE VIEW



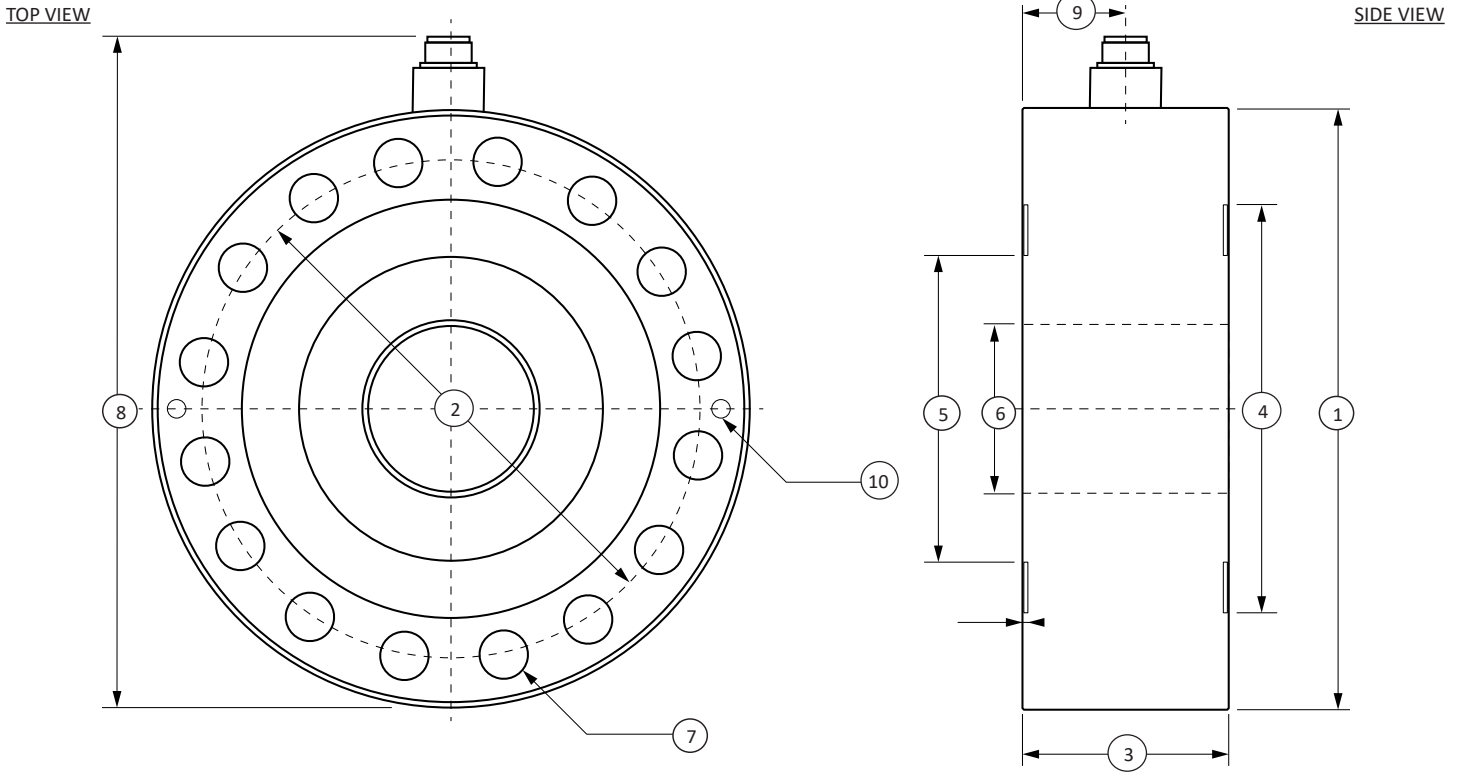
### DIMENSIONS

See Drawing	CAPACITY									
	SSLP1		SSLP2		SSLP3				SSLP4	
	Metric (kN)	U.S. (lbf)	Metric (kN)	U.S. (lbf)	Metric (kN)	U.S. (lbf)	Metric (kN)	U.S. (lbf)	Metric (kN)	U.S. (lbf)
	2.5, 5, 10, 25, 50*	562, 1124, 2248, 5620, 11.24K*	50, 100	11.24K, 22.48K	200, 300	44.96K, 67.44K	500	168.6K	750, 1000	168.6K, 224.8K
	mm	in	mm	in	mm	in	mm	in	mm	in
(1)	Ø100	Ø3.94	Ø127	Ø5.0	Ø165	Ø6.50	Ø165	Ø6.50	Ø230	Ø9.06
(2)	Ø86	Ø3.39	Ø110	Ø4.33	Ø138	Ø5.43	Ø138	Ø5.43	Ø185	Ø7.28
(3)	35	1.38	35	1.38	50	1.97	60	2.36	80	3.15
(4)	Ø72	Ø2.83	Ø92	Ø3.62	Ø108	Ø4.25	Ø108	Ø4.25	Ø145	Ø5.71
(5)	Ø32	Ø1.26	Ø47	Ø1.85	Ø62	Ø2.44	Ø62	Ø2.44	Ø98	Ø3.86
(6)	M20 x 1.5		M30 x 2		M42 x 3		M42 x 3		M60 x 3	
(7)	6 x Ø9	6 x Ø0.35	8 x Ø10.5	8 x Ø0.41	12 x Ø17	12 x Ø0.67	12 x Ø17	12 x Ø0.67	12 x Ø26	12 x Ø1.02
(8)	121	4.76	149	5.87	188	7.40	188	7.40	254	10.0
(9)	7.5	0.30	7.5	0.30	15	0.59	20	0.79	30	1.18
(10)	20	0.79	20	0.79	20	0.79	20	0.79	20	0.79
(11)	66	2.60	66	2.60	66	2.60	66	2.60	66	2.60
(12)	40	1.57	40	1.57	40	1.57	40	1.57	40	1.57
(13)	6.35	0.25	6.35	0.25	6.35	0.25	6.35	0.25	6.35	0.25

\* Suitable for use in tension up to 25 kN (5620 lbf)

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## SSLP STAINLESS STEEL LOW PROFILE UNIVERSAL LOAD CELL (U.S. & METRIC)



### DIMENSIONS

See Drawing	CAPACITY					
	SSLP5		SSLP6			
	Metric (kN)	U.S. (lbf)	Metric (kN)	U.S. (lbf)	Metric (kN)	U.S. (lbf)
	2000	449.6K	3000*	674.4K*	5000*	1142K*
	mm	in	mm	in	mm	in
(1)	Ø300	Ø11.81	Ø350	Ø13.78	Ø350	Ø13.78
(2)	Ø250	Ø9.84	Ø294	Ø11.57	Ø294	Ø11.57
(3)	100	3.94	120	4.72	130	5.12
(4)	Ø198	Ø7.80	Ø238	Ø9.37	Ø238	Ø9.37
(5)	Ø132	Ø5.20	Ø178	Ø7.01	Ø178	Ø7.01
(6)	M100 x 3		M100 x 3		M100 x 3	
(7)	16 x Ø25	16 x Ø0.98	16 x Ø28	16 x Ø1.10	16 x Ø28	16 x Ø1.10
(8)	339	13.35	389	15.32	389	15.32
(9)	50	1.97	60	2.36	65	2.56
(10)	Lifting Holes					

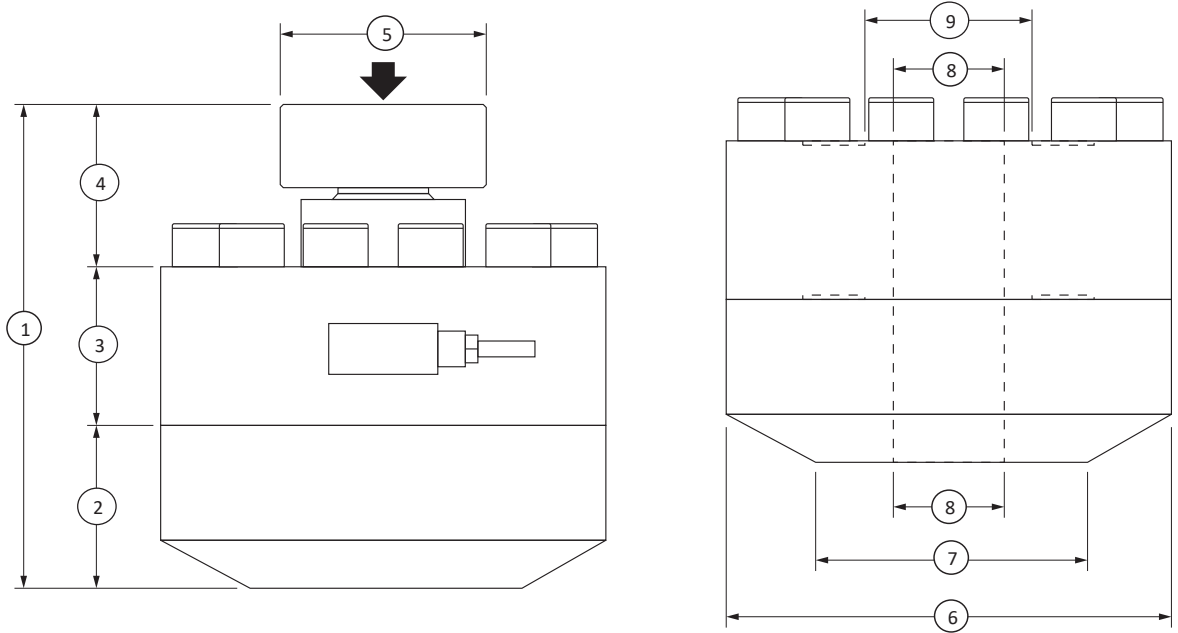
\* Suitable for use in tension up to 2500 kN (562K lbf)

## SSLP STAINLESS STEEL LOW PROFILE UNIVERSAL LOAD CELL (U.S. & METRIC)

BASE AND CAP ASSEMBLY  
NOT INCLUDED

Bolt Size	Tightening Torque	
	Nm	ft lb.
M8	40	30
M10	70	52
M16	368	270
M24	460	340
M27	1500	1,110

For optimum performance, Interface recommends 12.9 grade socket head cap screws to bolt down the load cell to any mounting assemblies. If a load cell is ordered with an optional mounting base, then this will be supplied pre-assembled and torqued down.



### DIMENSIONS

See Drawing	CAPACITY							
	SSLP1		SSLP2		SSLP3			
	Metric (kN)	U.S. (lbf)	Metric (kN)	U.S. (lbf)	Metric (kN)	U.S. (lbf)	Metric (kN)	U.S. (lbf)
	2.5, 5, 10, 25, 50	562, 1124, 2248, 5620, 11.24K	50, 100	11.24K, 22.48K	200, 300	44.96K, 67.44K	500	168.6K
mm	in	mm	in	mm	in	mm	in	
(1)	108	4.25	108	4.25	169	6.65	179	7.05
(2)	37	1.46	37	1.46	60	2.36	60	2.36
(3)	35	1.38	35	1.38	50	1.97	60	1.97
(4)	36	1.42	36	1.42	59	2.32	59	2.32
(5)	Ø57	Ø2.24	Ø76	Ø2.99	Ø76	Ø2.99	Ø76	Ø2.99
(6)	Ø100	Ø3.94	Ø127	Ø5.00	Ø165	Ø6.50	Ø165	Ø6.50
(7)	Ø70	Ø2.76	Ø100	Ø3.94	Ø100	Ø3.94	Ø100	Ø3.94
(8)	M20 X 1.5		M30 X 2		M42 X 3		M42 X 3	
(9)	Ø32	Ø1.26	Ø47	Ø1.85	Ø62	Ø2.44	Ø62	Ø2.44

See Drawing	CAPACITY							
	SSLP4		SSLP5		SSLP6			
	Metric (kN)	U.S. (lbf)	Metric (kN)	U.S. (lbf)	Metric (kN)	U.S. (lbf)	Metric (kN)	U.S. (lbf)
	750, 1000	168.6K, 224.8K	2000	449.6K	3000	674.4K	5000	1142K
mm	in	mm	in	mm	in	mm	in	
(1)	252	9.92	309	12.17	384	15.12	394	15.51
(2)	85	3.35	85	3.35	120	4.72	120	4.72
(3)	80	3.15	100	3.94	120	4.72	130	5.12
(4)	87	3.43	124	4.88	144	5.67	144	5.67
(5)	Ø126	Ø4.96	Ø129	Ø5.08	Ø168	Ø6.61	Ø168	Ø6.61
(6)	Ø230	Ø9.06	Ø300	Ø11.81	Ø350	Ø13.78	Ø350	Ø13.78
(7)	Ø180	Ø7.09	Ø250	Ø9.84	Ø330	Ø12.99	Ø330	Ø12.99
(8)	M60 X 3		M100 X 3		M100 X 3		M100 X 3	
(9)	Ø98	Ø3.86	Ø132	Ø5.20	Ø178	Ø7.01	Ø178	Ø7.01

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