SLS410 Load Cell

S-Type Tension Load Cell

The Economic Solution

Tension Weighing

Use the SLS410 in tension weighing applications to convert suspended hoppers or other hanging devices into a weigh system. It can also used to convert mechanical scales to electronic. The robust and economical design is suitable for use in normal industrial environments.

Robust Strain Gauge Design

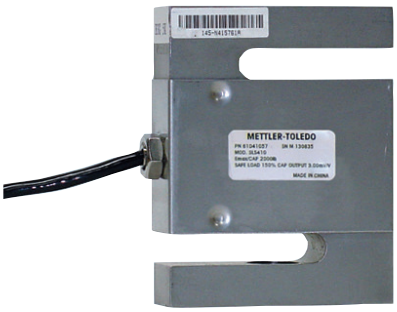
The SLS410 load cell uses a reliable Strain Gauge design with excellent measurement stability.
The high sensitivity output enables the use of economic weight indicators providing a valuable solution.
The wide capacity range provides the optimum selection to maximize signal for your application.

Metric and Inch Versions

The METTLER TOLEDO SLS410 load cell is available with Metric and Inch threads to match the commonly available standards. Due to this common mechanical interface the SLS410 can be easily integrated into most systems.

Tension Weigh Mount

The optional SWS310 Tension Weigh Module provides a complete solution to integrate into your system. Due to the optimized design the best weighing performance is guaranteed. The LC is isolated from the rods while the ground strap provides a bipass for current thus protecting against lighting and welding damage.



SLS410 S-Type Load Cell

Every SLS410 load cell features:

- Reliable Strain Gauge design
- Standard mechanical interface
- Robust design, nickel plated steel
- High output signal 3mV/V
- 0.03% accuracy
- IP67 Protection

Use the SLS410 when economy counts without making compromises in weighing performance. The 0.03% accuracy is suitable for many industrial applications. The high output signal enables use of economic terminals and transmitters while getting the best system performance possible. Thus the SLS410 enables you to design an economic system with excellent weighing performance.

METTLER TOLEDO

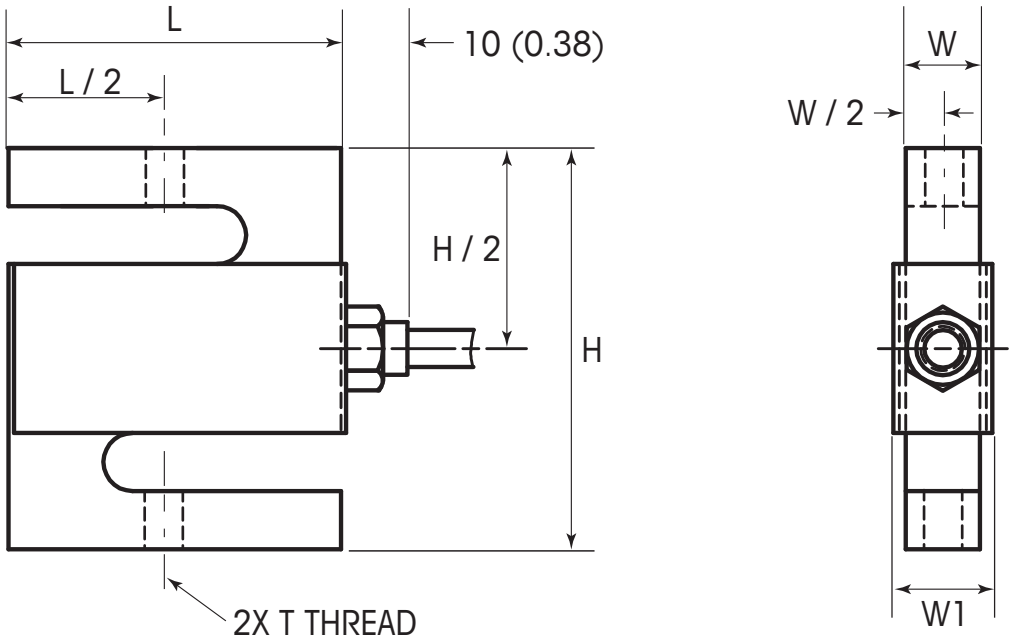
SLS410 Load Cell Specifications

Parameter		Unit of measure	Specification							
Model number			SLS410							
Rated Capacity (R.C.)		kg		50, 100	250, 500	1000	2500	5000	7500	
		lb	50, 100	200, 300	500, 750, 1000, 1500	2000	3000, 5000	10000	15000	20000
Rated Output		mV/V @ R.C.	3.000 ± 0.25%							
Zero load Output		% R.C.	1							
Combined Error[1, 2]		% R.C.	≤ 0.03							
Repeatability Error		% Applied Load	≤ 0.01							
Creep, 30 min.		% Applied Load	≤ 0.03							
Temperature Effect on	Min. Dead Load Output	% R.C./°C (../°F)	≤ 0.0027 (0.0015)							
	Sensitivity	% A.L./°C (../°F)	≤ 0.0014 (0.0008)							
Temperature range	Compensated	°C (°F)	-10 to +40 (+14 to +104)							
	Operating	°C (°F)	-35 to +65 (-30 to +150)							
	Safe storage	°C (°F)	-35 to +85 (-30 to +185)							
Excitation voltage	Recommended	V AC/DC	10							
	Maximum	V AC/DC	18							
Terminal resistance	Excitation	Ω	430 ± 50							
	Output	Ω	350 ± 3.5							
Insulation resistance at 50 VDC		MΩ	> 5000							
Breakdown voltage		V AC	> 500							
Material	Spring element		Nickel-Plated Alloy steel							
	Enclosure		Stainless steel							
	Cable entry fitting		Stainless steel							
	Cable		Polyurethane							
Protection	Type		Potted							
	IP Rating		IP67							
	NEMA Rating		NEMA 6							
Load limit	Safe	% R.C.	150							
	Ultimate		300							
Safe dynamic load		% R.C.	70							
Fatigue life		Cycles @ R.C.	1000000							
Direction of loading			Tension & compression							
Deflection @ R.C., nominal		in	0.008	0.009	0.01	0.01	0.02	0.024	0.025	0.021
		(mm)	(0.17)	(0.24)	(0.25)	(0.25)	(0.50)	(0.60)	(0.64)	(0.53)
Weight, nominal		kg (lb)	0.65 (1.4)	0.7 (1.6)	0.9 (2.0)	1.6 (3.4)	1.8 (4.0)	3 (6.6)	7.3 (6.1)	
Cable length		m (ft)	6 (19.7)							
Overload protection			No							

1) Error due to the combined effect of non-linearity and hysteresis

2) A.L. = Applied Load

SLS410 Load Cell Dimensional Drawings mm [inch]



SLS410 Load Cell Dimensional Drawings mm [inch]

Capacity	Dimensions / Data							
	H	H / 2	L	L / 2	T (2X)	W	W / 2	W I
50 – 300LB	63.5 [2.50]	31.8 [1.25]	50.8 [2.00]	25.4 [1.00]	1 / 4 – 28UNF	12.7 [0.50]	6.4 [0.25]	16.1 [0.63]
500 – 1500LB	63.5 [2.50]	31.8 [1.25]	50.8 [2.00]	25.4 [1.00]	1 / 2 -– 20UNF	19.1 [0.75]	9.5 [0.38]	22.4 [0.88]
2000LB	63.5 [2.50]	31.8 [1.25]	50.8 [2.00]	25.4 [1.00]	1 / 2 – 20UNF	25.4 [1.00]	12.7 [0.50]	28.8 [1.13]
3000LB	101.6 [4.00]	50.8 [2.00]	76.2 [3.00]	38.1 [1.5]	3 / 1 – 20UNF	25.4 [1.00]	12.7 [0.50]	28.8 [1.13]
5000 – 10000LB	101.6 [4.00]	50.8 [2.00]	76.2 [3.00]	38.1 [1.5]	3 / 4 -– 16UNF	25.4 [1.00]	12.7 [0.50]	28.8 [1.13]
15000LB	139.7 [5.50]	69.9 [2.75]	101.6 [4.00]	50.8 [2.00]	1 – 14UNS	31.8 [1.25]	15.9 [0.63]	35.1 [1.38]
20000LB	177.8 [7.00]	88.9 [3.50]	127.0 [5.00]	63.5 [2.50]	1 – 1 / 4 – 12UNF	50.8 [2.00]	25.4 [1.00]	54.2 [2.13]

Capacity	Dimensions / Data							
	H	H / 2	L	L / 2	T (2X)	W	W / 2	W I
50 -100kg	63.5 [2.50]	31.8 [1.25]	50.8 [2.00]	25.4 [1.00]	M8x1.25	12.7 [0.50]	6.4 [0.25]	16.1 [0.63]
250 - 500kg	63.5 [2.50]	31.8 [1.25]	50.8 [2.00]	25.4 [1.00]	M12x1.75	19.1 [0.75]	9.5 [0.38]	22.4 [0.88]
1000kg	63.5 [2.50]	31.8 [1.25]	50.8 [2.00]	25.4 [1.00]	M12x1.75	25.4 [1.00]	12.7 [0.50]	28.8 [1.13]
2500 - 5000 kg	101.6 [4.00]	50.8 [2.00]	76.2 [3.00]	38.1 [1.5]	M20x1.5	25.4 [1.00]	12.7 [0.50]	28.8 [1.13]
7500kg	139.7 [5.50]	69.9 [2.75]	101.6 [4.00]	50.8 [2.00]	M24x2	31.8 [1.25]	15.9 [0.63]	35.1 [1.38]

SLS410 Load Cell
Order Information

Stocked at European Hub, NL31

Description	Item No.
Load cell, model no. SLS410, 50kg	61040291
Load cell, model no. SLS410, 100kg	61040292
Load cell, model no. SLS410, 250kg	61040293
Load cell, model no. SLS410, 500kg	61040294
Load cell, model no. SLS410, 1000kg	61040295
Load cell, model no. SLS410, 2500kg	61040296
Load cell, model no. SLS410, 5000kg	61040297
Load cell, model no. SLS410, 7500kg	61040298

Stocked at Americas Hub, US07

Description	Item No.
Load cell, model no. SLS410, 50lb	61041049
Load cell, model no. SLS410, 100lb	61041050
Load cell, model no. SLS410, 200lb	61041051
Load cell, model no. SLS410, 300lb	61041052
Load cell, model no. SLS410, 500lb	61041053
Load cell, model no. SLS410, 750lb	61041054
Load cell, model no. SLS410, 1000lb	61041055
Load cell, model no. SLS410, 1500lb	61041056
Load cell, model no. SLS410, 2000lb	61041057
Load cell, model no. SLS410, 3000lb	61041058
Load cell, model no. SLS410, 5000lb	61041059
Load cell, model no. SLS410, 10000lb	61041060
Load cell, model no. SLS410, 15000lb	61040280
Load cell, model no. SLS410, 20000lb	61040281

SLS410 Load Cell
Cable Colors

Colour	Function
Red	+ Excitation
Black	– Excitation
Green	+ Signal
White	– Signal
	+ Sense
	– Sense
bare	Shield

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.

Mettler-Toledo, LLC
Industrial Division

Local contact: **www.mt.com/contacts**

MTWT 30414404

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For more information