SLD425 Load Cell

Double-Ended Shear Beam Load Cell

for economical, no-compromise weighing

Double-ended Shear Beam Weighing

Use the SLD425 in applications requiring center loading to minimize sensitivity to off-center forces. The SLD425 offers an efficient solution by applying the shear beam weighing principle for moderate to medium capacity applications. The cell can also be used to convert mechanical scales to electronic. This robust and economical design is suitable for use in normal to harsh industrial environments.

Robust Strain Gage Design

The SLD425 load cell uses a reliable Strain Gage design with excellent measurement stability. The high sensitivity output enables the use of economic weight indicators, providing a valuable low-cost solution. The wide capacity range offers the optimum selection to maximize signal for your application.

Alloy Steel Construction

The SLD425 is available in maximum capacities ranging from 1,000 lb to 75,000 lbs. Each version is constructed of nickel plated Alloy Steel to ensure good performance even in difficult industrial environments.

SLD425 Shear Beam Load Cell

Use the SLD425 when economy counts in moderate to medium capacity applications and weighing performance cannot be compromised. Every SLD425 load cell features:

- Reliable Strain Gage design
- Standard mechanical interface
- Robust design, alloy steel
- High output signal 3mV/V
- 0.03% combined error
- IP67 Protection
- Minimum sensitivity to off-center forces

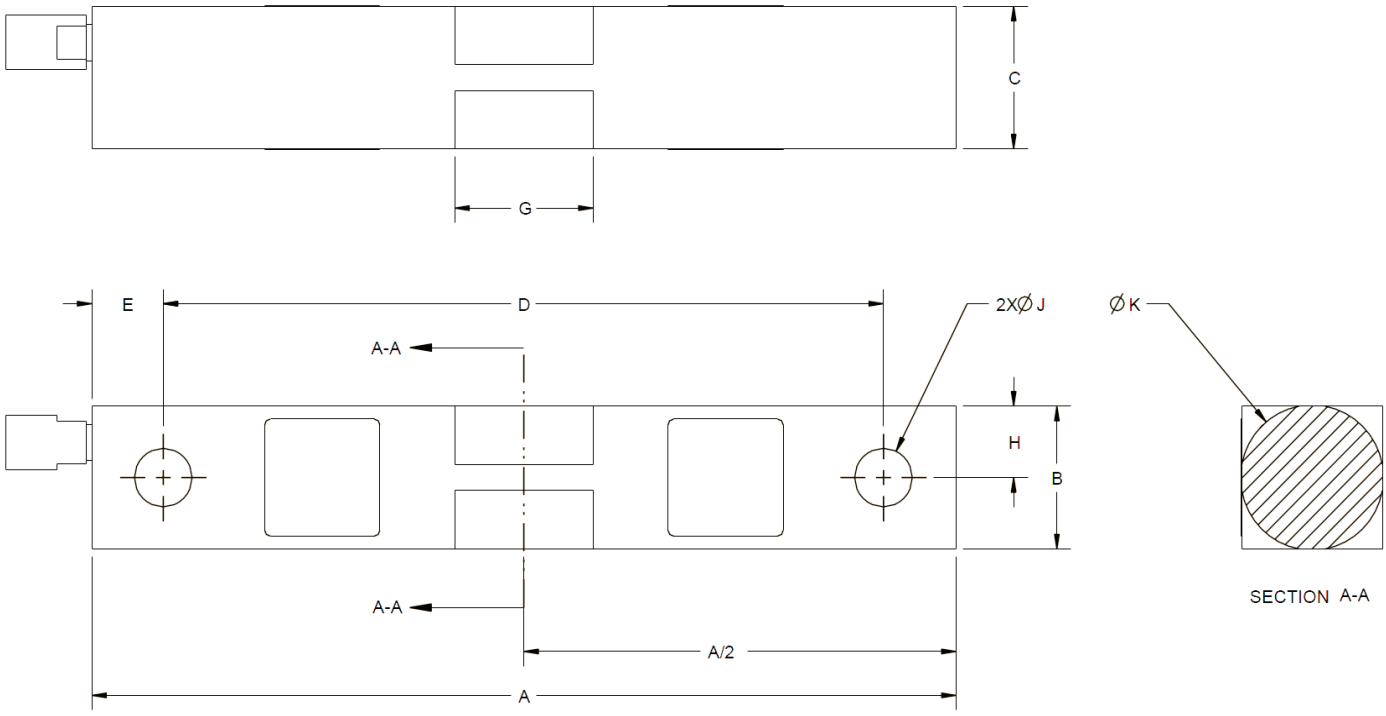
The load cell's 0.03% combined error specification is suitable for many industrial applications, while its high output signal permits the use of economic terminals and transmitters. Together, these features ensure the best possible system performance.

METTLER TOLEDO

Parameter		Unit of measure	Specification[2]									
Model number			SLD425									
Rated Capacity (R.C.)		lb	1000	2000	5000	10000	15000	25000	35000	50000	75000	
Rated Output		mV/V @ R.C.	3.0 ± 0.10%									
Zero load Output		% R.C.	< 1.0									
Combined Error[1]		% R.C.	≤ 0.02									
Repeatability Error		% AL[3]	≤ 0.01									
Creep, 30 minute		% AL[3]	≤ 0.02									
Temperature effect on	Min. Dead Load Output	% R.C./10°C (50°F)	≤ 0.02									
	Sensitivity[2]	% R.C./10°C (50°F)	≤ 0.027									
Temperature range	Compensated	°C (°F)	-10 to + 40 (14 to 104)									
	Operating	°C (°F)	-35 to +65 (-31 to +149)									
	Safe storage	°C (°F)	-54 to +82 (-65 to +180)									
Factory Mutual Approval[4]	Number		3036007									
	Rating		IS/ I, II, III / 1 / ABCDEFG / T4									
			NI / 1 / 2 / ABCD / T4									
			S / 2 / II, III / FG / T4									
	Entity Parameters		Ui = 20V, Ii = 600mA, Pi = 6W									
Excitation voltage	Recommended	V AC/DC	5 to 12									
	Maximum	V AC/DC	18									
Terminal resistance	Excitation	Ω	700 ± 7									
	Output	Ω	700 ± 7									
Insulation resistance at 50 VDC		MΩ	> 5000									
Material	Spring element		Nickel plated alloy steel									
	Cable		Polyurethane									
Protection	Type		Potted, with metal seal									
	IP Rating		IP67									
	NEMA Rating		??									
Load limit	Safe	% R.C.	150									
	Ultimate		300									
Safe dynamic load		% R.C.	100									
Fatigue life		Cycles at R.C.	1,000,000									
Direction of loading			Shear									
Deflection @ R.C., nominal		in (mm)	0.001 (0.02)	0.003 (0.08)	0.008 (0.19)	0.004 (0.11)	0.006 (0.16)	0.01 (0.27)	0.015 (0.37)	0.010 (0.26)	0.021 (0.54)	
Weight, nominal		lb (kg)	2.2 (1)	2.2 (1)	2.2 (1)	5.5 (2.5)	5.5 (2.5)	5.5 (2.5)	5.5 (2.5)	24.2 (11)	24.2 (11)	
Cable length		ft (m)	19.7 (6)									
Overload protection			No									

1. Typical error due to the combined effect of non-linearity and hysteresis
2. Typical values only
3. A.L. = Applied Load
4. Refer to certificate for complete information

SLD425 Load Cell Dimensional Drawing in mm and (inches)



Emax/Cap	A	B	C	D	E	G	H	ØJ	ØK
1,000-5,000 lb	190.5 (7.50)	30.99 (1.22)	30.99 (1.22)	158.75 (6.25)	15.9 (0.63)	30.48 (1.20)	16.76 (0.66)	12.70 (0.50)	31.50 (1.24)
10,000-35,000 lb	222.25 (8.75)	49.15 (1.94)	36.45 (1.435)	190.50 (7.50)	15.9 (0.63)	41.15 (1.62)	24.58 (0.97)	20.57 (0.81)	50.80 (2.00)
50,000-75,000 lb	342.90 (13.50)	74.68 (2.94)	61.98 (2.44)	292.10 (11.50)	25.40 (1.00)	82.55 (3.25)	37.34 (1.47)	33.32 (1.312)	75.95 (2.99)

SLD425 Load Cell Ordering Information

Model Number	Item Number
SLD425, 1000 lb	61043224
SLD425, 2000 lb	61043225
SLD425, 5000 lb	61043226
SLD425, 10000 lb	61043227
SLD425, 15000 lb	61043228
SLD425, 25000 lb	61043229
SLD425, 35000 lb	61043230
SLD425, 50000 lb	61043231
SLD425, 75000 lb	61043232

SLD425 Load Cell Cable Colors

Color	Function
Red	+ Excitation
Black	- Excitation
Green	+ Signal
White	- Signal
	+ Sense
	- Sense
Clear	Shield

Weighing Electronics

METTLER TOLEDO offers a complete family of electronics from simple weighing to application solutions for filling, stock control, batching, formulation, counting and check-weighing.

Full Connectivity

METTLER TOLEDO supplies various data communication interfaces that enable our sensors and instruments to communicate with your PLC, MES, or ERP systems.

Worldwide Services

Our extensive service network is among the best in the world and ensures maximum availability and service life of your product.

METTLER TOLEDO Service

Mettler-Toledo, LLC
1900 Polaris Parkway
Columbus, OH 43240
Phone 800 638 8537

INDB0062.E2

www.mt.com/weigh-modules
For more information