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

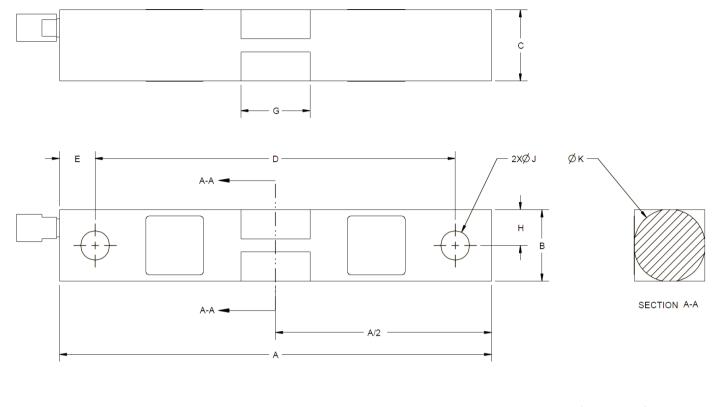
The load cell's 0.03% combined error specification is suitable for many industrial applications, while its high output signal permits the use of economic terminals and transmitters. Together, these features ensure the best possible system performance.



Model number Revise Capperty (R.C.) Ib 1000 2000 3000 30000 30000 30000 700000 700000 700000 700000 700000000	Parameter		Unit of measure	f measure Specification ²									
Rollad Output	Model number						SLD)425					
2ero load Output	Rated Capacity (R.C.)		Ib	1000	2000	5000	10000	15000	25000	35000	50000	75000	
Combined Error	Rated Output		mV/V @ R.C.	3.0 ± 0.10%									
Repeatability Error % AL2 (rep. 30 minute) ≤ 0.01 Creep, 30 minute % AL3 (s. 2.002) Temperature affect on Emperature affect on Emperature range (some state) Min. Dead Load Output (sc. 7°) (Zero load Output		% R.C.	< 1.0									
Creep, 30 minute	Combined Error ¹		% R.C.										
Temperature effect on Min. Deod Load Output % R.C./10°C (50°F) ≤ 0.027	Repeatability Error		% AL ³	≤ 0.01									
Sensitivity	Creep, 30 minute		% AL ³	≤ 0.02									
Sessibility 2		Min. Dead Load Output	% R.C./10°C (50°F)	≤ 0.02									
Temperature range	Temperature effect on	Sensitivity ²	% R.C./10°C (50°F)	≤ 0.027									
Safe storage C (°F) -54 to +82 (+66 to +180)		Compensated	°C (°F)	-10 to + 40 (14 to 104)									
Number S036007	Temperature range	Operating	°C (°F)	-35 to +65 (-31 to +149)									
Rading		Safe storage	°C (°F)	-54 to +82 (-65 to +180)									
Pactory Mutual Approval		Number											
Approval4 Facility Parameters S / 2 / III III / Fe / T4		Rating											
Entity Parameters S / 2 / II, III / F6 / T4													
Recommended V AC/DC 5 to 12	Approvar			S / 2 / II, III / FG / T4									
Maximum		Entity Parameters		Ui = 20V, Ii = 600mA, Pi = 6W									
Maximum VAC/DC 18		Recommended	V AC/DC	5 to 12									
Terminal resistance Output Ω 700 ± 7	Excitation voltage	Maximum	V AC/DC	18									
Output Ω 700 ± 7 Insulation resistance at 50 VDC MΩ > 5000 Material Spring element Nickel plated alloy steel Protection Type Potted, with metal seal IP Rating IP Rating Protection IMAR Rating Protection Load limit Safe Ultimate % R.C. 150 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) (0.08) (0.08) (0.08) (0.19) (0.11) (0.16) (0.17) (0.27) (0.37) (0.27) (0.26) (0.54) Weight, nominal Ib (kg) 2.2 (1) 2.2 (1) 2.2 (1) 5.5 (2.5) 5.5 (2.5) 5.5 (2.5) 24.2 (11) 24.2 (11) Coble length ff (m) 1.2 (1) 2.2 (1) 2.2 (1) 5.5 (2.5) 5.5 (2.5) <t< td=""><td>Townsteed as distance.</td><td>Excitation</td><td>Ω</td><td colspan="8">700 ± 7</td></t<>	Townsteed as distance.	Excitation	Ω	700 ± 7									
Nickel plated alloy steel Polyurethane Polyurethane	Terminal resistance	Output	Ω	700 ± 7									
Cable Polyurethane Potted, with metal seal Potted, with metal	Insulation resistance at 50 VDC		ΜΩ	> 5000									
Type	Madagara	Spring element		Nickel plated alloy steel									
Protection IP Rating IP67	Material	Cable		Polyurethane									
NEMA Rating Property Proper		Туре		Potted, with metal seal									
Safe Weight, nominal Safe Safe Weight, nominal Safe Safe Safe Weight, nominal Safe Safe Safe Weight, nominal Safe	Protection	IP Rating		IP67									
Safe dynamic load Weight, nominal Weight (mm) Weig		NEMA Rating		n									
Ultimate 300 Safe dynamic load % R.C. Fatigue life Cycles at R.C. Direction of loading Shear Deflection @ R.C., nominal in (mm) 0.001 (0.02) (0.08) (0.08) (0.19) (0.11) (0.11) (0.16) (0.27) (0.37) (0.26) (0.26) (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) 24.2 (11) 24.2 (11) Cable length ff (m) 19.7 (6)		Safe	0/ 5.0	150									
Fatigue life Cycles at R.C. Direction of loading Shear Deflection @ R.C., nominal in (mm) 0.001 (0.02) (0.08) (0.19) (0.11) (0.11) (0.16) (0.27) (0.37) (0.26) (0.54) (0.54) (0.54) (0.54) (0.54) (0.54) (0.54) (0.54) (0.54) (0.54) (0.55) (0	Load limit	Ultimate	- % R.C.	300									
Direction of loading Shear Deflection @ R.C., nominal in (mm) 0.001 (0.02) (0.08) (0.08) (0.19) (0.11) (0.11) (0.16) (0.27) (0.37) (0.37) (0.26) (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) 24.2 (11) 24.2 (11) Cable length ff (m) 19.7 (6)	Safe dynamic load		% R.C.	100									
Deflection @ R.C., nominal in (mm) 0.001 (0.02) 0.003 (0.08) 0.008 (0.19) 0.004 (0.11) 0.006 (0.27) 0.015 (0.37) 0.010 (0.26) 0.021 (0.54) Weight, nominal Ib (kg) 2.2 (1) 2.2 (1) 2.2 (1) 5.5 (2.5) 5.5 (2.5) 5.5 (2.5) 24.2 (11) 24.2 (11) Cable length ff (m) 19.7 (6)	Fatigue life		Cycles at R.C.	1,000,000									
Weight, nominal Ib (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 ff (m) 19.7 (6)	Direction of loading							Shear					
Cable length ff (m) 19.7 (6)	Deflection @ R.C., nominal		in (mm)										
	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)	
Overload protection No	Cable length		ft (m)				,	19.7 (6)					
	Overload protection							No	1	1	1		

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

SLD425 Load Cell Dimensional Drawing in mm and (inches)



Emax/Cap	A	В	С	D	E	G	Н	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 checkweighing.



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

Subject to technical changes © 05/2015 Mettler-Toledo, LLC INDB0062.E2 www.mt.com/weigh-modules...

For more information