

General-Purpose Weighing for Tanks, Hoppers, OEM Machinery



Tank Weighing

Available in capacities up to 250,000 lb, SWD440 weigh modules are suitable for weighing heavy-capacity tanks and hoppers.



Load Cells

SWD440 weigh modules are available with load cells made of nickel-plated alloy steel or stainless steel. Both can be used for indoor or outdoor applications. They feature a dual-ended-beam design with potted seals that provide IP67 protection.



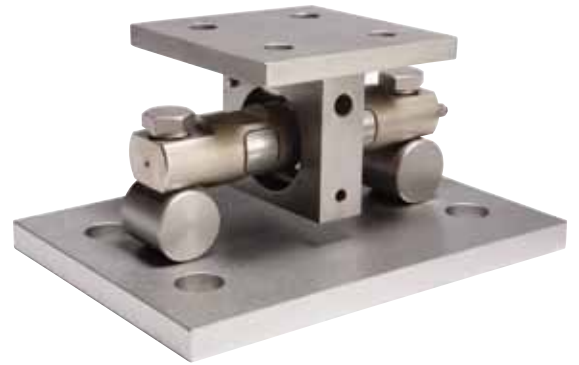
Sliding Suspension

The bearing-pin suspension allows the upper load-receiving plate to slide laterally along a groove at the center of the load cell. This feature compensates for thermal expansion and contraction due to ambient temperature change or internal vessel reactions.



Self-Checking Design

The SWD440 weigh module mounting hardware offers a self-checking design with anti-uplift protection.



SWD440 Weigh Module

SWD440 weigh modules offer good value for general-purpose weighing of tanks, hoppers, and OEM machinery. They use dual-ended-beam load cells to deliver accurate and repeatable weighing. The self-checking design is suitable for static loading in applications where thermal expansion/contraction occurs. Mounting hardware is available in painted carbon steel and stainless steel to stand up to a variety of environments.

- Capacity range: 5K - 250K (2.2 - 113.4t)
- Carbon steel or stainless steel construction
- Self checking for economical system integration
- Uplift protection
- Compensation for thermal expansion/contraction
- Load cells certified by NTEP
- Load cells certified by Factory Mutual

SWD440 Weigh Module Specifications

Weigh Module Parameter	Unit of Measure	Specification										
Model No.		SWD440										
Rated Capacity (R.C.)	t, nominal (klb)	2.2 (5)	4.5 (10)	9.1 (20)	13.6 (30)	18.1 (40)	22.7 (50)	27.2 (60)	45.4 (100)	68 (150)	90.7 (200)	113.4 (250)
Load Limit, Safe ¹	%R.C.	150										
Weight (including load cell), nominal	kg (lb)	16.8 (37)			48.5 (107)			92.1 (203)	94.5 (208)	226.8 (500)	228.9 (505)	
Material		carbon steel / stainless steel										
Finish		painted / glass bead blasted										

Load Cell Parameter	Unit of Measure	Specification										
Model No.		SLD430 / SLD530										
Rated Capacity (R.C.)	t, nominal (klb)	2.2 (5)	4.5 (10)	9.1 (20)	13.6 (30)	18.1 (40)	22.7 (50)	27.2 (60)	45.4 (100)	68 (150)	90.7 (200)	113.4 (250)
Rated Output	mV/V @ R.C.	3.0 ± 0.10%										
Zero Load Output	%R.C.	≤ 1.0										
Combined Error ^{2, 3}	%R.C.	≤ 0.02										
Repeatability Error	%A.L. ⁴	≤ 0.01										
Creep, 30 minutes	%A.L.	≤ 0.03										
Temperature Effect on	Min. Dead Load Output	%R.C./10°C (50°F) ≤ 0.001										
	Sensitivity ³	%A.L./10°C (50°F) ≤ 0.0008										
Temperature Range	Compensated	°C (°F) -10 ~ +40 (+14 ~ +104)										
	Operating	°C (°F) -40 ~ +80 (-40 ~ +176)										
	Safe Storage	°C (°F) -40 ~ +90 (-40 ~ +194)										
NTEP Approval ⁵	Certificate Number	10-098										
	Class	CIII / CIII										
	nmax	5000 / 10,000										
Factory Mutual Approval ⁵	Certificate Number	3036007 and 3036007C										
Excitation Voltage	Recommended	V AC/DC 5 ~ 12										
	Maximum	V AC/DC 15										
Terminal Resistance	Excitation	Ω 700 ± 7										
	Output	Ω 703 ± 4										
Insulation Resistance @ 50VDC	M Ω	> 5000										
Material	Spring Element	Alloy Steel / Stainless Steel										
	Finish	Nickel Plated / Glass Bead Blasted										
	Cable	Polyurethane										
Protection	Type	Potting Compound										
	IP Rating	IP67										
Load Limit	Safe	%R.C. 150										
	Ultimate	%R.C. 300										
Deflection @ R.C., nominal	mm (in)	0.10 (0.004)	0.12 (0.005)	0.16 (0.006)	0.13 (0.005)	0.15 (0.006)	0.16 (0.006)	0.18 (0.007)	0.20 (0.008)	0.18 (0.007)		
Weight, nominal	kg (lb)	1.8 (4)		3.3 (7.3)	8.5 (18.7)			12.1 (26.7)	14.5 (32)	41.2 (90.8)	43.4 (95.7)	
Cable	Length	m (ft) 9.1 (30)										
	Diameter	mm (in) 5 (0.20)				8 (0.31)						

¹ Maximum vertical downward force that can be applied to the top plate.

² Error due to the combined effect of non-linearity and hysteresis.

³ 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.

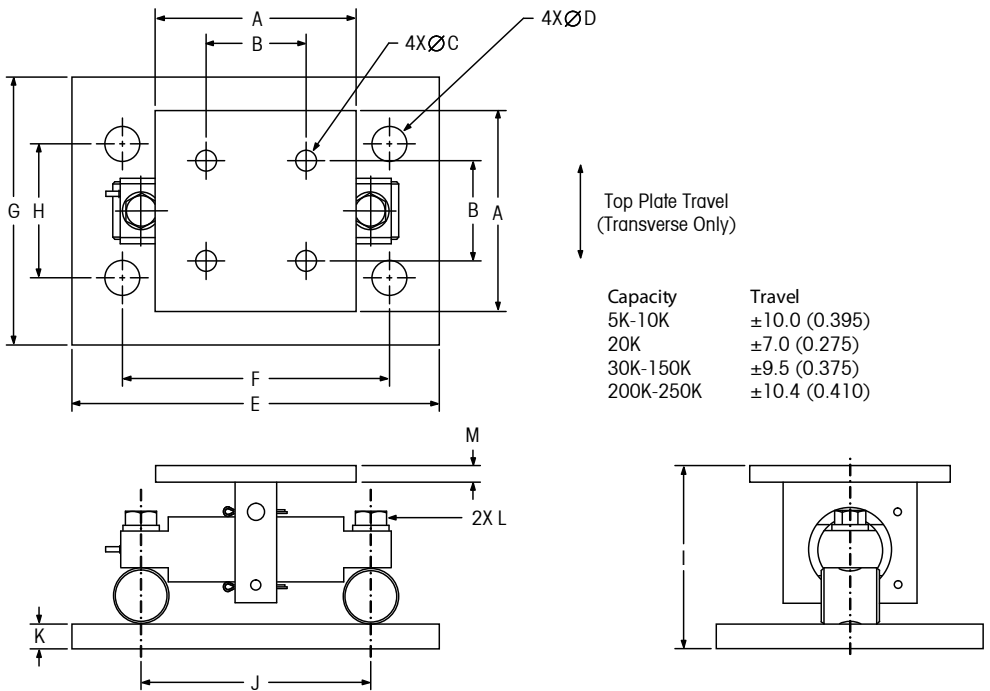
⁴ A.L. = Applied Load.

⁵ See certificate for complete information.

Produced in a facility that is



SWD440 Weigh Module Dimensions

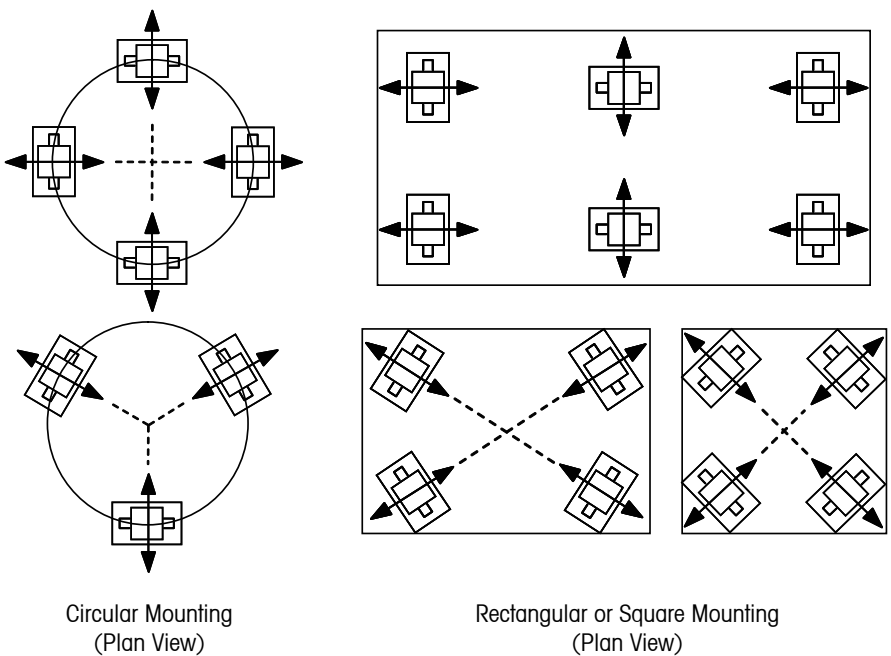


Capacity	Travel
5K-10K	±10.0 (0.395)
20K	±7.0 (0.275)
30K-150K	±9.5 (0.375)
200K-250K	±10.4 (0.410)

Capacity	A	B	C	D	E	F	G	H	I	J	K	L	M
2.2-9.1t (5K-20K)	152.4 (6.00)	76.2 (3.00)	16.0 (0.63)	26.9 (1.06)	279.4 (11.00)	203.2 (8.00)	190.5 (7.50)	101.6 (4.00)	139.2 (5.48)	174.5 (6.87)	19.1 (0.75)	5/8-18	12.7 (0.50)
13.6-27.2t (30K-60K)	203.2 (8.00)	130.3 (5.13)	19.1 (0.75)	31.0 (1.22)	381.0 (15.00)	292.1 (11.50)	254.0 (10.00)	152.4 (6.00)	214.1 (8.43)	215.9 (8.50)	25.4 (1.00)	1-8	19.1 (0.75)
45.4-68t (100K-150K)	254.0 (10.00)	190.5 (7.50)	20.6 (0.81)	35.1 (1.38)	457.2 (18.00)	355.6 (14.00)	304.8 (12.00)	228.6 (9.00)	264.0 (10.39)	241.3 (9.50)	31.8 (1.25)	1-8	31.8 (1.25)
90.7-113.4t (200K-250K)	304.8 (12.00)	228.6 (9.00)	26.9 (1.06)	47.8 (1.88)	660.4 (26.00)	508.0 (20.00)	304.8 (12.00)	152.4 (6.00)	400.0 (15.73)	330.2 (13.00)	50.8 (2.00)	1.5-12	50.8 (2.00)

Dimensions are in mm (inches).

SWD440 Mounting Arrangements



Circular Mounting
(Plan View)

Rectangular or Square Mounting
(Plan View)

SWD440 Cable Colors

Color	Function
Red	+ Excitation
Black	- Excitation
Green	+ Signal
White	- Signal
Bare	Shield

SWD440 Ordering Information

Description	Item No.	Trade Name
SWD440 CS WMA (with load cell), 5K	61043184	SWD440C1005A
SWD440 CS WMA (with load cell), 10K	61043185	SWD440C1010A
SWD440 CS WMA (with load cell), 20K	61043186	SWD440C1020A
SWD440 CS WMA (with load cell), 30K	61043187	SWD440C1030A
SWD440 CS WMA (with load cell), 40K	61043188	SWD440C1040A
SWD440 CS WMA (with load cell), 50K	61043189	SWD440C1050A
SWD440 CS WMA (with load cell), 60K	61043190	SWD440C1060A
SWD440 CS WMA (with load cell), 100K	61043191	SWD440C1100A
SWD440 CS WMA (with load cell), 150K	61043192	SWD440C1150A
SWD440 CS WMA (with load cell), 200K	61043193	SWD440C1200A
SWD440 CS WMA (with load cell), 250K	61043194	SWD440C1250A
SWD440 SS WMA (with load cell), 5K	61043195	SWD440S1005A
SWD440 SS WMA (with load cell), 10K	61043196	SWD440S1010A
SWD440 SS WMA (with load cell), 20K	61043197	SWD440S1020A
SWD440 SS WMA (with load cell), 30K	61043198	SWD440S1030A
SWD440 SS WMA (with load cell), 40K	61043199	SWD440S1040A
SWD440 SS WMA (with load cell), 50K	61043200	SWD440S1050A
SWD440 SS WMA (with load cell), 60K	61043201	SWD440S1060A
SWD440 SS WMA (with load cell), 100K	61043202	SWD440S1100A
SWD440 SS WMA (with load cell), 150K	61043203	SWD440S1150A
SWD440 SS WMA (with load cell), 200K	61043204	SWD440S1200A
SWD440 SS WMA (with load cell), 250K	61043205	SWD440S1250A
SWD440 CS WMK (without load cell), 5-20K	61042140	TB207330-020C
SWD440 CS WMK (without load cell), 30-60K	61042141	TB207330-060C
SWD440 CS WMK (without load cell), 100K	61042142	TB207330-100C
SWD440 CS WMK (without load cell), 150K	61042143	TB207330-150C
SWD440 CS WMK (without load cell), 200-250K	61042144	TB207330-250C
SWD440 SS WMK (without load cell), 5-20K	61042145	TB207330-020S
SWD440 SS WMK (without load cell), 30-60K	61042146	TB207330-060S
SWD440 SS WMK (without load cell), 100K	61042147	TB207330-100S
SWD440 SS WMK (without load cell), 150K	61042148	TB207330-150S
SWD440 SS WMK (without load cell), 200-250K	61042149	TB207330-250S

Load Cell Ordering Information

Description	Item No.	Trade Name
SLD430 Load Cell, 5K*	61042081	TB601449-005
SLD430 Load Cell, 10K*	61042082	TB601449-010
SLD430 Load Cell, 20K*	61042083	TB601449-020
SLD430 Load Cell, 30K*	61042084	TB601449-030
SLD430 Load Cell, 40K*	61042085	TB601449-040
SLD430 Load Cell, 50K*	61042086	TB601449-050
SLD430 Load Cell, 60K*	61042087	TB601449-060
SLD430 Load Cell, 100K*	61042088	TB601449-100
SLD430 Load Cell, 150K*	61042089	TB601449-150
SLD430 Load Cell, 200K*	61042090	TB601449-200
SLD430 Load Cell, 250K*	61042091	TB601449-250
SLD530 Load Cell, 5K, SS	61042092	TB601450-005
SLD530 Load Cell, 10K, SS	61042093	TB601450-010
SLD530 Load Cell, 20K, SS	61042094	TB601450-020
SLD530 Load Cell, 30K, SS	61042095	TB601450-030
SLD530 Load Cell, 40K, SS	61042096	TB601450-040
SLD530 Load Cell, 50K, SS	61042097	TB601450-050
SLD530 Load Cell, 60K, SS	61042098	TB601450-060
SLD530 Load Cell, 100K, SS	61042099	TB601450-100
SLD530 Load Cell, 150K, SS	61042100	TB601450-150
SLD530 Load Cell, 200K, SS	61042101	TB601450-200
SLD530 Load Cell, 250K, SS	61042102	TB601450-250

*Alloy steel



METTLER TOLEDO Service

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

Weigh-Connect-Control-Comply

METTLER TOLEDO embeds intelligence into weighing applications. Our industry leading scale electronics enable users to integrate their gravimetric measurement with applications running on PCs, PLCs, or DCS systems. Our products are designed specifically for industries subject to regulatory controls, such as pharmaceutical, chemical, food and beverage, and has been confirmed by multiple global agency standards including UL, CE, NTEP, and OIML.

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For more information

Specifications subject to change without notice.

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