



Technical Specifications

Load Link III Tension Load Cell

A full-bridge, precision tension load cell for suspended in-process vessels for weighing or batching applications.

The Load Link III tension load cell utilizes the latest technology in full-bridge metal foil gauges to deliver a high-accuracy weighing system for suspended in-process vessels. The technology starts with a unique alloy used in the construction of the strain gauge. This alloy provides a substantially greater fatigue life which results in a longer load cell life for an application. More importantly, the special gauge material offers a more inherently temperature stable output simplifying the temperature compensation circuit. This eliminates the traditional temperature sensitive resistors in the full-bridge circuit, increasing its reliability as well as its overall temperature performance.

The Load Link III has no moving parts to wear out or fall out of adjustment. Its traditional S-shape provides easy mounting to the vessel and easy replacement of existing S-cell tension systems using the optional rod ends or clevis assemblies. A 3mV/V output provides a high signal-to-noise ratio and greater resolution in precision measurement applications. It is waterproof, making it ideal for outdoor as well as indoor applications.



Features & Benefits

High-Performance,

Full-Bridge Tension Cell

Provides high accuracy weighing of suspended vessels.

Unique Alloy Metal

Full-Bridge Foil Gauges

Improved fatigue and temperature stability load cell life compared to traditional metal gauges. Reduces maintenance.

Waterproof Design

Prevents damage or measurement errors from moisture buildup.

SAE and Metric Mounting Threads

For easy mounting of optional rod ends or clevis assemblies. For new or existing vessels.

Specifications

Overload Rating

Functional Integrity: ±150% of rated capacity

Mechanical Integrity: ±400% of rated capacity

Input

Excitation Voltage - Standard: 10 VDC

Excitation Voltage - Maximum: 15 VDC

Input Resistance: 350 + 50/-3.5 ohms

Output

Non-linearity: ± 0.05% of rated output

Hysteresis: ± 0.03% of rated output

Non-repeatability: ± 0.02% of rated output

Creep (after 20 minutes): ± 0.025% of rated output
(determined at rated capacity; performance at reduced loads proportional to applied load)

Nominal Output: 3mV/V

Zero Balance: ±1% of rated output

Output Resistance: 350 ± 3.5 ohms

Environmental

Temperature Range - Operational:

-65° to 200°F (-55° to 90°C)

Temperature Range - Compensated:

0° to 150°F (-15° to 65°C)

Temperature Effects - Rated Output:

±0.08% of reading/°F (°C)

Temperature Effects - Zero Shift:

±0.15% of reading/100°F (55.6°C)

Physical

SL3-050 through SL3-001K and SLM3-020 through SLM3-500: Anodized aluminum

SL3-002K through SL3-005K and SLM3-001K through SLM3-002K: Electroless nickel-plated steel

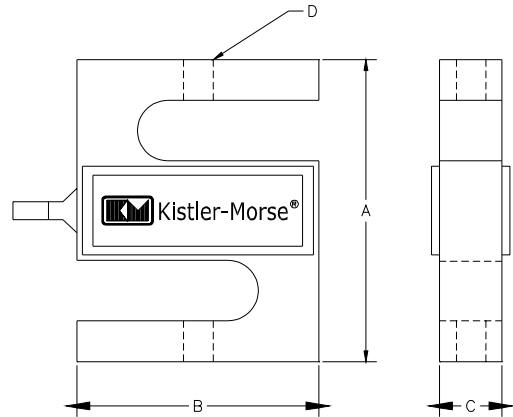
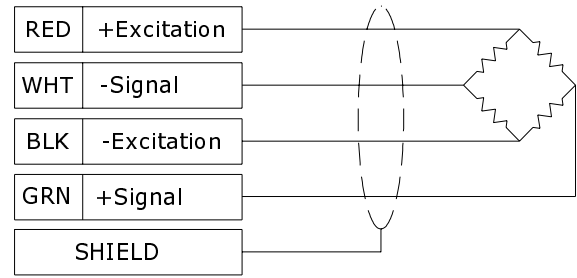
Insulation Resistance

Bridge to Case: >5000 megohms

Electrical

SL3-050 through SL3-250K and SLM3-020 through SLM3-100: *Standard:* 4-conductor shielded cable (AWG28); 10 ft (3m) long; *Option:* length up to 100ft (30m)

SL3-500 through SL3-005K and SLM3-200 through SLM3-002K: *Standard:* 4-conductor shielded rugged cable (PVC Jacket AWG22); 10 ft (3m) long; *Option:* length up to 100ft (30m)



Capacity/Dimensions

Model	Rated Capacity	A	B	C	D
SL3-050	50 lbs (22kg)	2 1/2 in. (64mm)	2 in. (51mm)	7/8 in. (22mm)	1/4-28 UNF-2B 1/4 deep, top and bottom
SL3-100	100 lbs (45kg)	2 1/2 in. (64mm)	2 in. (51mm)	3/4 in. (19mm)	1/4-28 UNF-2B 1/4 deep, top and bottom
SL3-250	250 lbs (113kg)	2 1/2 in. (64mm)	2 in. (51mm)	3/4 in. (19mm)	1/4-28 UNF-2B 1/4 deep, top and bottom
SL3-500	500 lbs (227kg)	3 in. (76mm)	2 in. (51mm)	1 1/4 in. (32mm)	1/2-20 UNF-2B 1/2 deep, top and bottom
SL3-750	750 lbs (340kg)	3 in. (76mm)	2 in. (51mm)	1 1/4 in. (32mm)	1/2-20 UNF-2B 1/2 deep, top and bottom
SL3-001K	1000 lbs (454kg)	3 in. (76mm)	2 in. (51mm)	1 1/4 in. (32mm)	1/2-20 UNF-2B 1/2 deep, top and bottom
SL3-002K	2000 lbs (907kg)	3 in. (76mm)	2 in. (51mm)	1 1/4 in. (32mm)	1/2-20 UNF-2B 1/2 deep, top and bottom
SL3-003K	3000 lbs (1381kg)	3 in. (76mm)	2 in. (51mm)	1 1/4 in. (32mm)	1/2-20 UNF-2B 1/2 deep, top and bottom
SL3-005K	5000 lbs (2268kg)	3 1/2 in. (89mm)	2 1/2 in. (64mm)	1 3/4 in. (44mm)	5/8-18 UNF-2B 5/8 deep, top and bottom
Metric Units					
SLM3-020	20kg	(64mm)	(51mm)	(22mm)	M6x1 6H, top and bottom
SLM3-050	50kg	(64mm)	(51mm)	(19mm)	M6x1 6H, top and bottom
SLM3-100	100kg	(64mm)	(51mm)	(19mm)	M6x1 6H, top and bottom
SLM3-200	200kg	(64mm)	(51mm)	(19mm)	M6x1 6H, top and bottom
SLM3-500	500kg	(64mm)	(51mm)	(32mm)	M12x1.75 6H, top and bottom
SLM3-001K	1000kg	(64mm)	(51mm)	(32mm)	M12x1.75 6H, top and bottom
SLM3-002K	2000kg	(89mm)	(64mm)	(44mm)	M12x2 6H, top and bottom

P/N 97-7055

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