



DESCRIPTION

General

The Avery Weigh-Tronix FLSC Forklift Scale System is a, legal-for-trade weighing solution. The system includes a durable, front-mounted digital scale carriage with Weigh Bar® electronic weight sensors and “clear-view” open center area, as well as a choice of two in-cab instruments. The system allows operators to easily and quickly capture legal-for-trade weight data en route, without extra steps.

Seamless Compatibility

Simply attach the FLSC 5000 lb scale carriage to an existing Class II cleat-type forklift carriage and mount the FLI 225/425 instrument in a convenient driver location. This system allows seamless integration of weighing and data management into your operations without adding any extra steps or route changes.

Robust Design

The forklift scale carriage is comprised of two metal plates coupled together by four high capacity Weigh Bars.

- › Front loading safety factor of 29.5:1
- › Normal load safety factor of 7.5:1
- › Overload with no damage of 300%

The instrumentation is designed exclusively for the forklift vehicle. It incorporates design technologies to withstand the environmental and warehouse jolts common in forklift applications.

Highly Accurate

The Avery Weigh-Tronix FLSC system monitors the orientation of the scale and maintains accurate weight readings even if the forklift is on unlevel ground, the mast is tilted, or the pallet load is off-center. The forklift drivers are not required to jockey the mast or the position of the load on the scale.

The accurate weighing performance of the FLSC has been validated by NCWM (National Conference on Weights and Measures) to weigh legal-for-trade even when tilted:

- › 3 degrees side to side (5% grade)
- › 5 degrees back (8% grade)
- › 7 degrees forward (12% grade)

This electronic scale design has no mechanical flexures or springs to influence the weighing performance.

Data Management

The FLI 225 instrument provides a simple, no-nonsense solution through classic or enhanced operation for capturing weight and supplying it to a peripheral device.

The FLI 425 instrument simultaneously displays multiple fields of data, assisting the operator with a visual reference. Data can be stored on-board or instantly transmitted wirelessly to a local or global network.

FLSC-05 FORKLIFT SCALE *Technical Specification*

SCALE CARRIAGE

Front and Back Plates Yield Strength	43,500 psi
Weigh Bar® Fasteners Yield Strength	160,000 psi
Weigh Bar Tensioners Yield Strength	150,000 psi
Mounting Hooks Yield Strength	43,500 psi
Scale Spring Loaded Centering Pin Yield Strength	89,000 psi
Safety Factors	29.5:1 front loading, 7.5:1 normal loading, 300% no damage overloading
View Port	Continuous 6" x 20 3/4" nominal
Weight Sensors	Four Avery Weigh-Tronix 2500 LB Weigh Bars direct coupled, no flexures
Weight Summing	Digital assembly encapsulated
Cover Plates	Weigh Bar cabling protection
Wired Interface	Coiled cable extending to 20'
Wireless Cable Interface	Optional
Finish	High grade powder paint

WEIGH BAR

Type	LTT 2.5k weight sensors (4) NTEP CC# 95-093
Metal Properties	AISI 4340 steel yield strength 140,000 psi
Zero Balance	± 0.10 mv/v
Non-Linearity Maximum	0.3% of rated output
Hysteresis Maximum	0.03% of rated output
Temperature Effect on Output	± 0.0025% °C of rated output (-10 to +40° C)
Temperature Effect on Zero Balance	± 1.70 x 10 ⁻⁷ volts per volt 5°C (-10 to +40° C)
Safe Overload Rating	150% of capacity

DIGITAL WEIGHT SUMMING AND ANGLE DETECTION ASSEMBLY

Type	FLI 100 digital junction box NTEP CC# 06-096
Enclosure	Metal enclosure, circuitry encapsulated
Environment	legal 14° to 104° F (-10° to +40° C), industrial -40° to +65° C
Angle Sensors	0.1 degree accuracy from 0-10 degrees
Angle Sensor Temperature Coefficient	0.008°/° C
Option	FLW 100 wireless communications with scale carriage battery and instrument receiver, (battery life: continuously active 168 hours, active 8 hours/day 21 days before recharging, only eight hours for total recharge, external battery charger), legal 14° to 104° F (-10° to +40° C), industrial -20° to +65° C

SYSTEM

Lifting Capacity	Reduced 12-14%
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FLI 225 AND FLI 425 INSTRUMENTS

Type	FLI 225 instrument NTEP CC# 07-091, category 3 FLI 425 instrument NTEP CC# 07-025, category 3
Power Input	9 to 36 vdc, 3.5 Amp, Inactive stand by mode
Display	FLI 225 - High contrast backlit transfective LCD dot matrix. Custom designed font ¾" high digits. Classic and Expanded Operational Modes FLI 425 - 7" backlit multi colored touch screen TFT LCD display, 800 x 480 resolution. 1" high custom font weight values, adjustable contrast
Operational Keys	FLI 225 - On/Off, Zero, Print, Select, Tare, F1-F4 FLI 425 - Hard keys On/Off, F1, Store, Zero, many touch activated keys
Operational Images	FLI 225 - Weight, LB/KG, Motion, Center of Zero, Weigh mode, Wireless carriage communication status, Operator status messages and Battery status of FLW 100 FLI 425 - Weight, LB/KG, Weigh mode, Motion, Center of Zero, Date/Time, Number of stored records, Pro Number, Actual Pieces, Accumulated Pieces, Employee ID, Accumulated Weight, Abort, Complete, Alpha Numeric entry screen, WiFi data radio link status, WiFi wireless carriage status, wireless scale carriage battery status, and multiple user messages including diagnostic management with predictive alerts
Design Platform	FLI 425 - Windows CE.NET®
Angle Compensation	Detects and automatically compensates for out of level accurate weighing
Communication Ports	FLI 225 - Two RS 232 serial ports FLI 425 - RS 232 serial, USB, Ethernet, Compact flash memory, Compact flash WiFi
Operating Environment	Legal 14° to 104° F (-10° to +40° C), industrial -34° to +65° C
Audio	FLI 425 - Internal speaker
Enclosure	FLI 225 - Composite with tilt and swivel brackets, designed to IP65 FLI 425 - Cast aluminum with high grade powder paint. Soft surround wrap provides operator head protection. Tilt and swivel brackets, with vibration isolation
Dimension	FLI 225 - 8.14"W x 5.19"H x 4.03"D includes mounting bracket FLI 425 - 10.75"W x 7.44"H x 4.5"D includes mounting bracket
Weight	FLI 225 - 4 LB / 1.8 KG FLI 425 - 7 LB / 3.2 KG
Options	FLI 225 - FLP 100 power conditioner 24 to 72 vdc, FLW 100 wireless instrument to scale, barcode scanner, RM 100 Bluetooth® FLI 425 - FLP 100 power conditioner 24 to 72 vdc, FLW 100 wireless instrument to scale, barcode scanner, RM 100 Bluetooth®, Compact flash WiFi 802.11b/g, Compact memory

APPROVALS

NCWM Certificate of Conformance 07-028 Accuracy Class III, 5000 x 5 LB Compatible with ITA Class II, 16" high cleat type carriage	FCC part 15B Measurement Canada AM-5715 EC TAC UK 2862 CE
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PLATINUM DISTRIBUTOR



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