Avery Weigh-Tronix

QTLTSC
CLASSIV
FORKLIFT SCALE SYSTEM

Technical Specification

Customer Forks

Weigh Bar (4)

Summing/ Angle Box

Scale Carriage Exploded View

FLI 425

FLI 225

DESCRIPTION

General

The Avery Weigh-Tronix QTLTSC 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 viewing ports, 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 QTLTSC scale carriage to an existing Class IV 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 40:1
› Normal load safety factor of 10:1
› 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 QTLTSC 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 QTLTSC 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)
› 8 degrees forward to back

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.

QTLTSC IV FORKLIFT SCALE *Technical Specification*

SCALE CARRIAGE

Front and Back Plates Yield Strength	100,000 psi
Weigh Bar® Fasteners Yield Strength	160,000 psi
Weigh Bar Tensioners Yield Strength	130,000 psi
Mounting Hooks Yield Strength	59,000 psi
Scale Centering Pin Yield Strength	77,000 psi
Safety Factors	40:1 front loading, 10:1 normal loading, 10,000 LB, 300% no damage overloading
Weight Sensors	Four Avery Weigh-Tronix 8100 LB Weigh Bars direct coupled, no flexures
Weight Summing	Assembly encapsulated
Cover Plates	Weigh Bar cabling protection
Wired Interface	Coiled cable extending to 20'
Finish	High grade powder paint

WEIGH BAR

Type	LTT 8.1k 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℃ (-10 to +40° C)
Safe Overload Rating	150% of capacity

WEIGHT SUMMING AND ANGLE DETECTION ASSEMBLY

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

SYSTEM

Lifting Capacity	Reduced 12-14%

APPROVALS

	NCWM Certficate of Conformance 95-126 Accuracy Class III, 10,000 x 10 LB; 16,000 x 20 LB Compatible with ITA Class IV, 25" high cleat type carriage FCC part 15B

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 to36 vdc, 3.5 Amp, Inactive stand by mode
Display	FLI 225 - High contrast backlit transflective 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
Angle Compensation	Detects and automatically compensates for out of level accurate weighing
Design Platform	FLI 425 - Windows CE.NET®
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, FLR 100 remote display, barcode scanner, RM 200 WiFi data 802.11b/g, RM 100 Bluetooth®, Data management software FLI 425 - FLP 100 power conditioner 24 to 72 vdc, FLW 100 wireless instrument to scale, FLR 100 remote display, barcode scanner, RM 200 WiFi data 802.11b/g, RM 100 Bluetooth, Compact flash WiFi 802.11b/g, Compact memory, Data management software

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