



Scale Carriage

QTLTS

FORKLIFT SCALE SYSTEM

(non legal-for-trade)

Technical Specification



FLI 425



FLI 225

DESCRIPTION

General

The Avery Weigh-Tronix QTLTS Forklift Scale System turns a lift truck into a mobile scale. The system includes a durable, front-mounted digital scale carriage with Weigh Bar® electronic weight sensors and two viewing ports, as well as a choice of two in-cab instruments. The system allows operators to easily and quickly capture weight data en route, without extra steps.

Seamless Compatibility

Simply attach the QTLTS scale carriage to an existing Class II or Class III 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 200%

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

Performance

The QTLTS is the solution for monitoring loads handled by forklifts that do not require legal-for-trade accuracy. The QTLTS consistently provides 99% or better weight accuracy of the applied load regardless of the position of the forks or mast. The Quick Tach scale carriage attaches to an existing forklift carriage and withstands up to 200% of full capacity applied anywhere up to 24" from the frame and side loads up to 100% of full capacity.

- › ITA Class II Cleat Type - 5,000 x 1 lb

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.

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
View Port	Two viewing ports
Weight Sensors	Four Avery Weigh-Tronix 2500 LB Weigh Bars direct coupled, no flexures
Overload Protection	Withstands up to 200% of full capacity applied anywhere up to 24" from frame and side loads up to 100% of full capacity
Finish	High grade powder paint

WEIGH BAR

Type	2.5k weight sensors (4) 5,000 LB. 6k weight sensors (4) 10,000 LB
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

WEIGHT SUMMING

Enclosure	Metal enclosure, circuitry encapsulated
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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
 ECTAC UK 2862
 CE

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 transreflective 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®
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®, Data management software 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

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Avery Weigh-Tronix

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