Customer Forks

Weigh Bar (4)

Summing/ Angle Box

Scale Carriage Exploded View

QTLTSC Class IV
forklift scale system

Technical Specification

FLI 425

FLI 225

DESCRIPTION

General

The Avery Weigh-Tronix QTLTSC Forklift Scale System is a patented, 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.

Patented Accuracy

The patented 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.

SPECIFICATIONS

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: 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

Avery Weigh-Tronix 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

Digital 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%

Patents: 4,421,186; 5,837,946; 6,002,090

Listings: 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 Instrument

Type: FLI 225 instrument NTEP CC# 07-091, category 3

Power input: 9 to36 vdc, 3.5 Amp, Inactive stand by mode

Display: High contrast backlit transflective LCD dot matrix
Custom designed font ¾" high digits
Classic and Expanded Operational Modes

Operational keys: On/Off, Zero, Print, Select, Tare, F1-F4

Operational images: Weight, LB/KG, Motion, Center of Zero, Weigh mode, Wireless carriage communication status, Operator status messages and Battery status of FLW 100

Angle compensation: Detects and automatically compensates for out of level accurate weighing

Communication ports: Two RS 232 serial ports

Operating environment: Legal 14° to 104° F (-10° to +40° C), industrial -34° to +65° C

Enclosure: Composite with tilt and swivel brackets, designed to IP65

Dimensions: 8.14"W x 5.19"H x 4.03" D includes mounting bracket

Weight: 4 LB / 1.8 KG

Options: FLP 100 power conditioner 24 to 72 vdc, FLR 100 remote display, barcode scanner, RM 200 WiFi data 802.11g, RM 100 Bluetooth,® Data management software

FLI 425 Instrument

Type: FLI 425 instrument NTEP CC# 07-025, category 3

Power input: 9 to36 vdc, 3.5 Amp, Inactive stand by mode

Display: 7" backlit multi colored touch screen TFT LCD display, 800 x 480 resolution
1" high custom font weight values, adjustable contrast

Operational keys: Hard keys On/Off, F1, Store, Zero, many touch activated keys

Operational: Weight, LB/KG, Weigh mode, Motion, Center of Zero, Date/Time, Number of stored records, Pro Number, Actual Pieces, 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: Windows CE.NET®

Angle compensation: Detects and automatically compensates for out of level accurate weighing

Communication ports: RS 232 serial, USB, Ethernet, Compact flash memory, Compact flash WiFi

Audio: Internal speaker

Operating environment: Legal 14° to 104° F (-10° to +40° C), industrial -34° to +65° C

Enclosure: Cast aluminum with high grade powder paint
Soft surround wrap provides operator head protection
Tilt and swivel brackets, with vibration isolation

Dimensions: 10.75"W x 7.44" H x 4.5" D includes mounting bracket

Weight: 7 LB / 3.2 KG

Options: FLP 100 power conditioner 24 to 72 vdc, FLR 100 remote display, barcode scanner, RM 200 WiFi data 802.11g , RM 100 Bluetooth, Compact flash WiFi 802.11g, Compact memory, Data management software

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