

# **APPLICATIONS**

- Gross, Tare & Net weighing
- Vehicle and Railroad weighing
- Multi-Container or Axle weighing
- Weigh system interface to Distributed Control System
- Batching and Process control systems
- Drum Filling, Tank, Hopper, Bench, Floor & Counting Scales
- Over/Under Check Weighing and Material Testing
- Chemical and Washdown Environments
- Hazardous Environments with Optional IS Barriers

# FEATURES

- Nema 4/4x stainless steel enclosure
- 1 inch high bright bold LED display (6 digit)
- 19-key audible with tactile feel membrane keyboard (sealed)
- 8 selectable modes of operation: Normal; Fill to Setpoint; Over/Under Checkweigh; Vehicle Weigh-In/Out with Totals; Multi-Container/Axle Auto Weighing with Total; Auto Weigh & Print; Auto Axle Weigh with Traffic Light Control (Short/Long Scales); ID Tare, Print & Total; Peak Hold
- Programmable in Scale Basic<sup>™</sup> macro language for application development (Event Driven)
- Simulates AND, CONDEC, WEIGHTRONIX, OHAUS communication protocols; User configurable protocol
- Selectable 5-point calibration for improved accuracy
- 20 bit A/D with 60 samples/second conversion rate
- Signal sensitivity to 0.1 uV/graduation
- Selectable digital filter to eliminate weight vibrations
- Powers up to 12 x 350 Ω or 24 x 700 Ω load cells
- Two serial ports (RS232, 20mA current loop and RS485)
- Digital port for relay control and remote operation
- Primary and secondary units with conversion factor
- 32K RAM provides 500 ID storage (part, truck, etc.)
- Selectable address for multi-drop RS485 network interface

# OPTIONS

- Time & Date clock Y2K and Leap Year compliant
- 4-20mA/0-10VDC isolated analog output, 16-bit resolution
- 6-channel relay board for setpoint control or remote operation
- Input/output solid-state Relay Modules (AC/DC)
- High speed (HS) 100 samples/second conversion rate
- EZ-LINK<sup>™</sup> PC software; Facilitates configuration and Scale Basic programming; Windows<sup>®</sup> 3.1/95/98/2000 compatible
- Intrinsic safety barriers for Hazardous locations CL I/II/III Div. 1&2 Groups A-G
- Panel Mount enclosure
- Z-Purge ready enclosure for use with purging system in Hazardous locations (CL I/II, Div 2, Groups C-G)
- 12-28 VDC operation



# WEIGHT INDICATOR







De√iceNet.



MADE IN U.S.A.

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# Model: 440

# **STANDARD FEATURES**

### SCALE SPECIFICATIONS

Display Status Indicators Keyboard Internal Resolution **Display Resolution** Display increments Decimal Point Conversation Rate Signal Sensitivity Signal Range Load Cell Excitation Load Cell Power Auto Zero Tracking Auto Zero Delay Motion Detect Motion Delav **Digital Filter** Calibration

Watchdog Timer **RFI** Protection RAM

### COMMUNICATIONS

Serial Port 1 Serial Port 2 **Digital Port** Print Formats Parallel Port

Bright red LED; 1-inch x 6-digit numeric Gross, Net, Motion, Zero, LB, Kg (LED) 19-key sealed tactile feel membrane 20-bit A/D Sigma-Delta; 1,048,000 d 120,000 dd industrial; 10,000 dd HB44 Selectable 1, 2, 5, 10, 20, 50 100 Selectable 0, 1, 2, 3, 4 decimal places 60 samples/second typical 0.1 uV/graduation (min) 0.5 mV/V to 6mV/V  $10 \pm 0.5$  VDC (-5 to +5) 12 x 350  $\Omega$  or 24 x 700  $\Omega$  load cells 0-60 dd in 1/4 dd increments 0-25 seconds In 0.1 second increments 0-60 dd in 1/4 dd increments 0-25 seconds In 0.1 second increments 0-18 selectable filter (DSP) levels Selectable multi-point (up to 5) digital calibration to linearize input signal Enable/disable fault tolerant operation Signal, excitation and sense lines

32K provides 500 ID storage (parts, etc)

Simplex RS232 or 20mA current loop Full duplex RS232, 20mA or RS485 6 inputs and 9 outputs; Low active (TTL) 4 user configurable print formats Centronics compatible ASCII port

# **GENERAL SPECIFICATIONS**

Power	110/220VAC ±10% @ 50/60Hz or 12-28
	VDC
Power Consumption	13W @ 115VAC; 8W @ 12VDC
Operating Temperature	-10 to +40 °C.
Weight	7.8 lbs (3.54 kg)
Warranty	One year limited

Analog Output Module	Fully isolated 0-10VDC or 4-20mA; 16-bit
	resolution; 650 $\Omega$ load resistance
Relay Board	6-channel internal relay board
Relay Modules	Input/output solid-state (AC/DC) relays
Clock Module	Time & Date clock Y2K and Leap Year compliant
High speed (HS)	100 samples/second conversion rate;
	High speed process control applications
EZ-LINK <sup>TM</sup>	PC software; Facilitates configuration
	and Scale Basic programming
IS Barriers	Hazard location intrinsic safety barriers
Panel Mount	Panel mount enclosure
Z-Purge Ready	Z-Purge ready enclosure for use with
	purging system in Hazardous locations
DC operation	12-28 VDC operation

# **APPROVALS**

NTEP COC# 95-073; CSA; UL & CUL

# SPECIFICATIONS

# **MODES OF OPERATION**

The LCC 440 is a versatile indicator for use in various industries and applications that can range from basic weighing, material testing to more complex formula batch weighing. The LCC 440 is housed in a rugged stainless steel enclosure and provides a universal mounting bracket for wall or desk mounting. The viewing angle can be adjusted for the best possible view of the weight. The bright red 1 inch high LED display makes it easy to read the weight from longer distances compared to other indicators. The keyboard features large keys which give you tactile and audible confirmation of data entry. The LCC 440 is programmable in a easy and flexible macro language called Scale Basic<sup>™</sup>. In addition to the built-in modes of operation, Scale Basic allows you to customize the operation of the LCC 440 to meet your application requirements. The Scale Basic language provides various commands and functions that include: math operations, I/O control, setpoints, timers, data entry, id storage, message display, and program sequence control among others. Programming the LCC 440 can be performed through the keyboard or a PC using the optional EZ-LINK<sup>™</sup> software that greatly facilitates setup and programming.

# MODE 0 - Normal

Basic gross, tare and net weighing

# MODE 1 – Fill to Setpoint

A = 9.75" (24.77 cm)

Single setpoint fill with relay output control and weight print MODE 2 - Over/Under Checkweigh

Provides 3 TTL outputs and 2 setpoints to indicate over, under and between weight conditions. Outputs can activate lights or alarms MODE 3 - Vehicle Weigh-In/Out with Totals

Weigh-In/Out program for up to 500 vehicles; Maintains running totals for each vehicle; Provides reporting functions

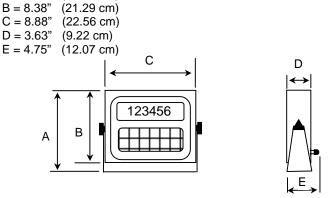
# MODE 4 - Multi-Container/Axle Auto Weighing

Auto weighs and prints each weight placed on the scale; Each weight is sequentially numbered and accumulated; The total can be printed manually or automatically; Provides traffic light control MODE 5 - Auto Axle Weigh (Long Scales)

Same as Mode 4 but previous axles are auto tared MODE 6 – ID Tare, Print and Total

Provides tare entry and recall by ID; Prints ID, sequence # and GTN weights; Keeps running totals by ID; Provides reporting functions MODE 7 - Peak Hold Mode

Display or print the peak gross or net weight detected



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