

# 1280 Enterprise™ Series

Programmable Digital Weight Indicator



## Specifications

### Power:

AC voltages: 100 to 240 VAC; 50/60 Hz  
DC voltages: 11 to 30 VDC

### Power Consumption:

60 W

### Excitation Voltage:

10 VDC ( $\pm 5$  VDC)  
16  $\times$  350 ohm or 32  $\times$  700 ohm load cells per A/D card

### Analog Signal Input Range:

-60 mV to 60 mV

### Analog Signal Sensitivity:

0.3  $\mu$ V/graduation minimum at 7.5 Hz to 120 Hz  
1.0  $\mu$ V/graduation recommended

### A/D Sample Rate:

7.5 to 960 Hz, software selectable

### Resolution:

Internal: 8,000,000 counts  
Display: 1,000,000

### System Linearity

$\pm 0.01\%$  full scale

### Digital I/O:

Eight I/O channels on CPU board  
Optional 24-channel I/O expansion boards

### Communication Ports:

Port 1 & 2: Full duplex RS-232 with CTS/RTS, RS-422/485  
Baud rate: 1200 to 115200  
Port 3: USB 2.0 Device (Micro)  
USB host: (2) Type A connectors max 500 mA  
Ethernet: Wired 10/100 Auto-MDX  
Ethernet: Wireless 802.11 b/g/n 2.4GHz

### Onboard:

Selectable filters: Three stage, Adaptive or Damping  
Embedded Linux® OS  
8 GB eMMC (system use)  
1 GB DDR3 RAM  
460 MB onboard database (SQLite) storage  
Up to 32 GB micro SD card (sold separately)

### Display:

Seven-inch, 800  $\times$  480 pixel, 500 or 1,000 NIT  
Twelve-inch, 1280  $\times$  800 pixel, 1,500 NIT

### Keys/Buttons:

22-key membrane panel, tactile buttons, on-screen keyboard for text and numeric entry, USB port for flash drive, keyboard and printer

### Temperature:

Certified: 14 °F to 104 °F (-10 °C to 40 °C)  
Operating: -4 °F to 131 °F (-20 °C to 55 °C)

### Rating/Material:

Universal: IP69K  
Wall Mount: IP66  
Panel Mount: IP69K, NEMA Type 4X and 12  
Stainless steel 304 enclosure

### Weight:

Universal enclosure: 11 lb (4.9 kg)  
Panel mount enclosure: 8 lb (3.6 kg)  
Wall mount enclosure: 23 lb (10.4 kg)  
Panel mount 7 in touch-only: 7 lb (3.1 kg)  
Panel mount 12 in touch-only: 10 lb (4.5 kg)

### Warranty:

Two-year limited

### EMC Immunity:

10 V/m

### Approvals:

NTEP 15-001/Class III/IIIL 10,000 d  
Measurement Canada AM-5980C,  
Class III/II HD 10,000 d  
OIML R76/2006-A-NL1-19.23 Class III/IIIL 10,000 d  
OIML R61-1/2017 TC8596  
cULus Listed (Universal, Wall Mount)  
cULus Recognized (Panel Mount)  
CE Marked

## Approvals



Measurement  
Canada  
Approved



## Standard Features

- Customizable color touchscreen with graphical user interface
- User-defined softkeys, icons and graphics
- Tactile keypad for scale operations, numeric entry and navigation
- On-screen keyboard available during entry mode (or external keyboard)
- Built-in web server for remote access, systems integration and data monitoring
- Multi-language operation and text entry
- Supports eight scales within five different kinds:
  - Analog load cell, multi-range/interval weighing
  - Total scale summing
  - Serial input scales
  - iQUBE<sup>2</sup>® and iQUBE<sup>3</sup> scales
  - Program scales
- Six smart card slots for additional scale channels, serial ports, digital inputs and outputs, analog outputs and protocol interfaces
- iRite™ Programming Software
  - Five built-in applications: Truck In/Out, recipe storage, filling/dosing, counting, checkweighing
  - Customizable user programs with event-based functions
  - 150 built-in functions for common processes and data tables
  - Customize and transfer data via email, FTP server and networked printers
  - Display data with line charts or bar graphs
  - iRite reporting of iQUBE<sup>2</sup> and iQUBE<sup>3</sup> alerts
- Email, USB, Ethernet TCP/IP, Wi-Fi Direct®, two serial ports RS-232 or RS-485
- Alibi memory captures serial port transmissions
- Four configurable data-stream formats for PC, printers and remote displays
- 100 setpoints, 18 configurable setpoint types
- Eight digital I/O for control and pulse count
- Three different enclosure types: universal with tilt stand, panel mount and wall mount

# 1280 Enterprise™ Series

Programmable Digital Weight Indicator



7-inch model with keypad



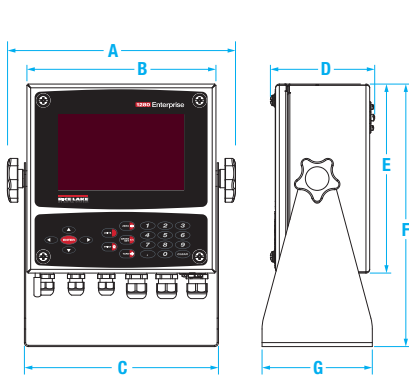
7-inch touch-only model



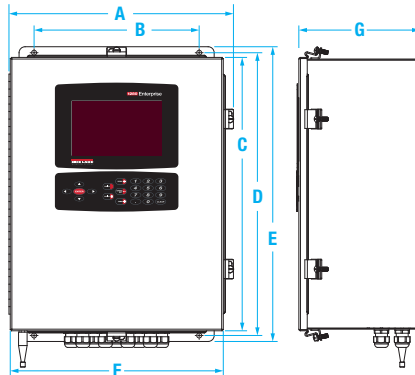
12-inch touch-only model

INDICATORS /  
CONTROLLERS

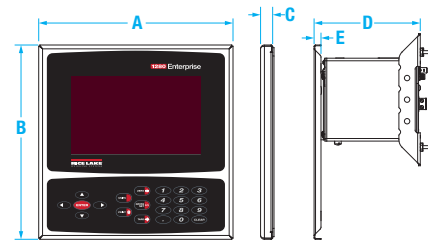
## Numeric Keypad Models:



1280-2



1280-3



1280-4

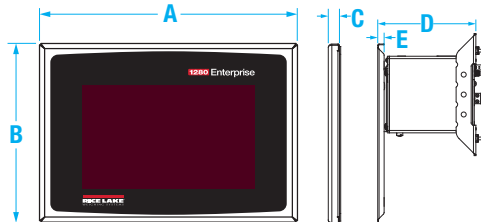
## Dimensions

Universal (1280-2)			
A	10.86 in (276 mm)	E	9.00 in (229 mm)
B	9.00 in (229 mm)	F	12.50 in (318 mm)
C	9.24 in (235 mm)	G	5.25 in (133 mm)
D	4.97 in (126 mm)		

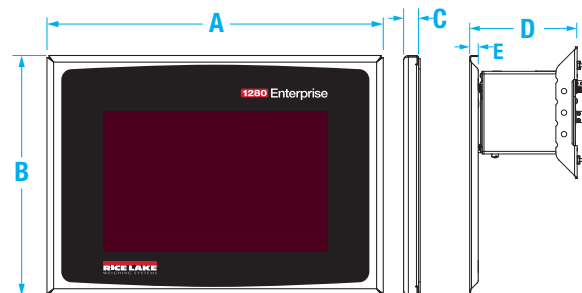
Wall Mount (1280-3)			
A	14.92 in (379 mm)	E	19.64 in (499 mm)
B	11.00 in (279 mm)	F	14.20 in (361 mm)
C	18.22 in (463 mm)	G	8.08 in (205 mm)
D	18.84 in (479 mm)		

Panel Mount (1280-4)			
A	9.00 in (229 mm)	D	5.34 in (136 mm)
B	9.00 in (229 mm)	E	0.32 in (8 mm)
C	0.58 in (15 mm)		

## Touch-only Models:



1280-5



1280-6

## Dimensions

7-inch Touch-only (1280-5)			
A	9.00 in (229 mm)	D	5.34 in (136 mm)
B	6.22 in (158 mm)	E	0.32 in (8 mm)
C	0.58 in (15 mm)		

12-inch Touch-only (1280-6)			
A	14.00 in (356 mm)	D	5.34 in (136 mm)
B	10.00 in (254 mm)	E	0.32 in (8 mm)
C	0.58 in (15 mm)		

# 1280 Enterprise™ Series

Programmable Digital Weight Indicator

## Part Number/Price

Part #	Description	Power	Display	Option Installed	Price
<b>Universal Enclosure with 500 NIT Display (1280-2)</b>					
<b>171427</b> †	1280 Universal	115 VAC	500 NIT	Single Scale Card	Consult
<b>171441</b> ††	1280 Universal	100 to 240 VAC	500 NIT	Single Scale Card	Consult
<b>171662</b> †	1280 Universal	115 VAC	500 NIT	Dual Scale Card	Consult
<b>172188</b> ††	1280 Universal	100 to 240 VAC	500 NIT	Dual Scale Card	Consult
<b>Panel Mount Enclosure with 500 NIT Display (1280-4)</b>					
<b>171663</b>	1280 Panel Mount	100 to 240 VAC	500 NIT	Single Scale Card	Consult
<b>172186</b>	1280 Panel Mount	100 to 240 VAC	500 NIT	Dual Scale Card	Consult
<b>Wall Mount Enclosure with 500 NIT Display (1280-3)</b>					
<b>173673</b> †	1280 Wall Mount	115 VAC	500 NIT	Single Scale Card	Consult
<b>174143</b> ††	1280 Wall Mount	100 to 240 VAC	500 NIT	Single Scale Card	Consult
<b>174144</b> †	1280 Wall Mount	115 VAC	500 NIT	Dual Scale Card	Consult
<b>174145</b> ††	1280 Wall Mount	100 to 240 VAC	500 NIT	Dual Scale Card	Consult
<b>Wall Mount Enclosure with 1000 NIT Display (1280-3)</b>					
<b>172184</b> †	1280 Wall Mount	115 VAC	1,000 NIT	Single Scale Card	Consult
<b>172185</b> ††	1280 Wall Mount	100 to 240 VAC	1,000 NIT	Single Scale Card	Consult
<b>206563</b> †	1280 Wall Mount	115 VAC	1,000 NIT	Dual Scale Card	Consult
<b>172187</b> ††	1280 Wall Mount	100 to 240 VAC	1,000 NIT	Dual Scale Card	Consult
<b>Touch-only 7 inch with 500 NIT Display (1280-5)</b>					
<b>186618</b>	1280 Touch-only 7 in	100 to 240 VAC	500 NIT	Single Scale Card	Consult
<b>Touch-only 12 inch with 1500 NIT Display (1280-6)</b>					
<b>186465</b>	1280 Touch-only 12 in	100 to 240 VAC	1,500 NIT	Single Scale Card	Consult



† US plug (NA) - Type B



†† Euro Plug - Type E



(Brazil) - Type N



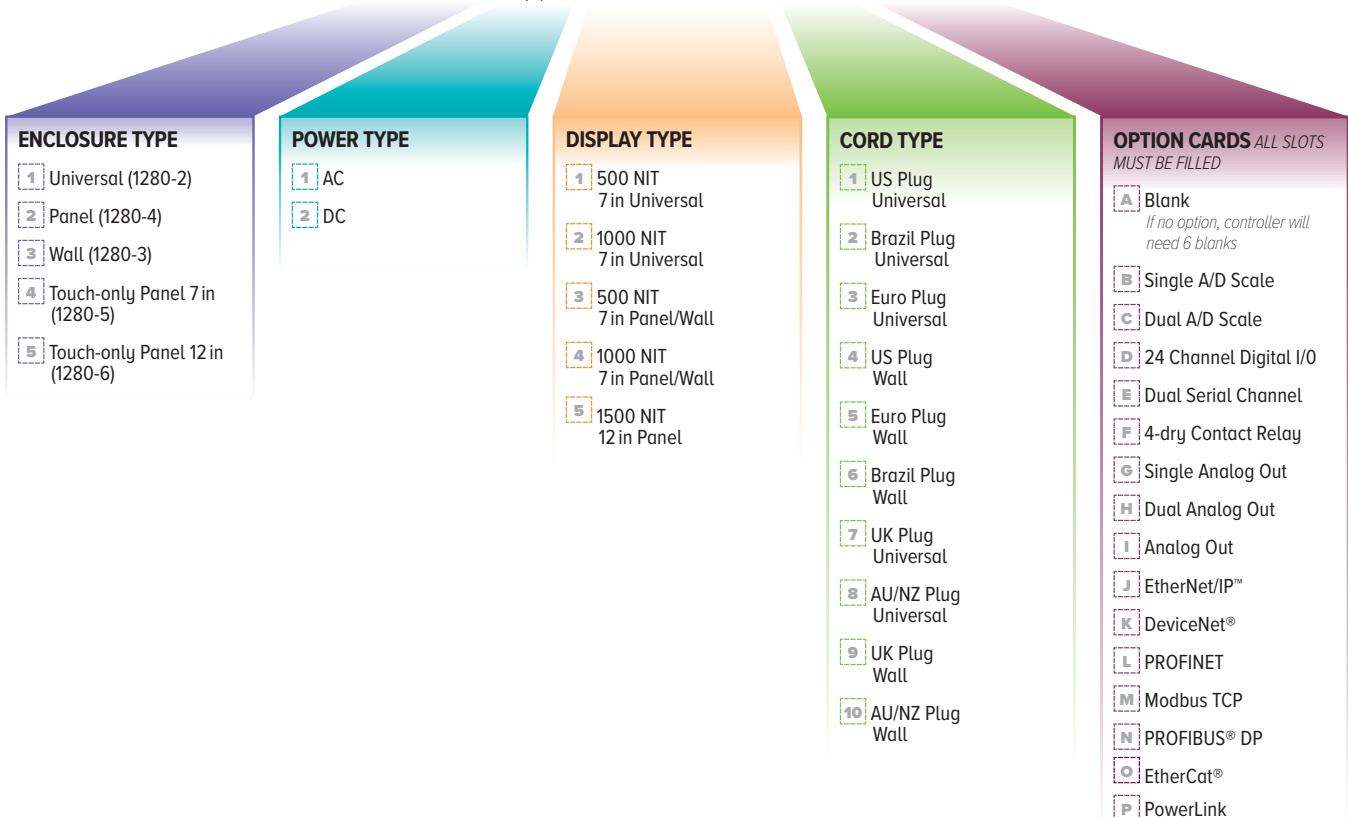
††† BS1363 (UK) - Type G



††† AS 3112 (Australian) - Type I

## Model Reference Chart

Choose any options to best fit your application and we customize



INDICATORS /  
CONTROLLERS

# 1280 Enterprise™ Series

Programmable Digital Weight Indicator

## Single A/D Scale



### Excitation Voltage:

10 VDC bipolar, 4 or 6 wire sensing  
16 × 350 ohms per channel

### Analog Input Signal:

-10 to +40 mV

Part #	Description	Price
220026	Single scale A/D	Consult
166957	A/D sealing kit	Consult

## Dual A/D Scale



### Excitation Voltage:

10 VDC bipolar, 4 or 6 wire sensing  
8 × 350 ohms per channel

### Analog Input Signal:

-10 to +40 mV

Part #	Description	Price
220027	Dual scale A/D	Consult
166957	A/D sealing kit	Consult

## Digital I/O



24 channels, configurable as inputs or outputs  
Inputs: 5 VDC max, active low; Outputs: 20 mA max per channel, active low; 5 VDC source available: 500 mA max

Part #	Description	Price
164684*	Digital I/O	Consult
170008	DIO adapter, includes 60 pin flat ribbon cable, 24 in	Consult
170009	DIO adapter, includes 60 pin round cable, 60 in	Consult
170736	DIO adapter, includes 60 pin cable and cord grip, 60 in	Consult

\* 24 I/O ribbon cable required.

## Dual Serial Channel



Two-channel, full duplex RS-232 with CTS/RTS, RS-485 or RS-422, 1200 to 115200 baud

Part #	Description	Price
164685	Dual serial channel	Consult

## Single Analog Out



16 bit, voltage output 0 to 10 VDC, current output 0 to 20 mA, 4 to 20 mA

Part #	Description	Price
165366	Single analog out	Consult

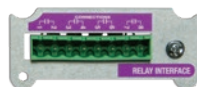
## Dual Analog Out



16 bit, voltage output 0 to 10 VDC, current output 0 to 20 mA, 4 to 20 mA

Part #	Description	Price
164686	Dual analog out	Consult

## Relay Card



Relay four-dry contact, max current  
3 A @ 30 VDC, 3 A @ 250 VAC

Part #	Description	Price
164689	Relay card	Consult

## Analog Input



### Analog Input Signal:

±10 VDC, ±100 mV, 0 to 20 mA

Part #	Description	Price
164687	Dual analog input	Consult

## Data Exchange with PLC/DCS Systems

### EtherNet/IP™



Part #	Description	Price
165792	EtherNet/IP, single port	Consult
208129	EtherNet/IP, dual port	Consult

### DeviceNet®



Part #	Description	Price
165793	DeviceNet	Consult

### PROFINET



Part #	Description	Price
165794	PROFINET	Consult

### Modbus TCP



Part #	Description	Price
165796	Modbus TCP	Consult

### PROFIBUS® DP



Part #	Description	Price
165795	PROFIBUS DP	Consult

### EtherCAT®



Part #	Description	Price
179533	EtherCAT	Consult

# 1280 Enterprise™ Series

## Programmable Digital Weight Indicator

### Options/Accessories

To have your option factory installed, please specify when placing your order.

Part #	Description	Price
<b>Manuals and Software</b>		
167659	Technical Manual	Consult
72809	Interchange database software	Consult
164939	8 GB Micro SD card with SD and USB adapter	Consult
195607	USB flash drive, 1 GB	Consult
<b>Extended Display Cable Length for Touch Only Models</b>		
182600	Display cable for 7 in (500 NIT) touch-only, 5 ft length	Consult
182601	Display cable for 7 in (500 NIT) touch-only, 10 ft length	Consult
187489	Display cable for 7 in (1,000 NIT) touch-only, 10 ft length	Consult
180027	Display cable for 12 in touch-only, 5 ft length	Consult
180028	Display cable for 12 in touch-only, 10 ft length	Consult
<b>Extended Touch Cable Length for Touch Only Models</b>		
180744	Touch cable for touch-only, 5 ft length	Consult
180745	Touch cable for touch-only, 10 ft length	Consult

### Primary Component Parts

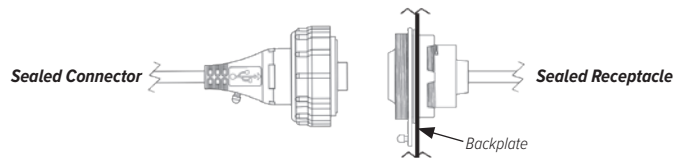
Part #	Description	Price
<b>Displays</b>		
163400	7 in 500 NIT display	Consult
163399	7 in 1,000 NIT display	Consult
182992	12 in 1,500 NIT display	Consult
<b>Boards</b>		
179992	1280 main CPU board with fan plate	Consult
199157	1280, CPU AC power, extruded aluminum enclosure (replacement)	Consult
<b>Power Supplies</b>		
202512	AC power supply board	Consult
202514	DC power supply board	Consult
<b>Overlays</b>		
164121	Keypad, for panel and wall mount	Consult
164120	Touchscreen, for panel and wall mount	Consult
161731	Keypad, for universal	Consult
161730	Touchscreen, for universal	Consult
178498	Touchscreen, for 7 in touch-only panel mount	Consult
176126	Touchscreen, for 12 in touch-only panel mount	Consult
178161	Clear protective overlay display for 7 in display (pack of 5)	Consult
178163	Clear protective overlay keypad for 7 in display (pack of 5)	Consult

### Cables and Receptacles

To have your option factory installed, please specify when placing your order.

Part #	Connector Type		Length	Price
USB Cables <i>(Connector is a male plug)</i>				
79074	A UNSEALED	B UNSEALED	2 m	Consult
124700	A SEALED	B SEALED	3 m	Consult
126477	A SEALED	A UNSEALED	3 m	Consult
124701	A SEALED	B UNSEALED	3 m	Consult
124702	B SEALED	A UNSEALED	3 m	Consult
152434	A UNSEALED	Micro A UNSEALED	2 m	Consult
USB Receptacles <i>(Receptacle is a socket)</i>				
176790 Panel Mount	A SEALED	A UNSEALED	0.75 m	Consult
126476 Wall Mount	A SEALED	A UNSEALED	0.5 m	Consult
172735 Universal	A SEALED	A UNSEALED	0.25 m	Consult
Ethernet Cables				
72697	RJ-45 UNSEALED	RJ-45 UNSEALED	2 m	Consult
124706	RJ-45 SEALED	RJ-45 SEALED	3 m	Consult
124707	RJ-45 SEALED	RJ-45 UNSEALED	2 m	Consult
Ethernet Receptacles <i>(Receptacle is a socket)</i>				
176789	RJ-45 SEALED		0.75 m	Consult
172734	RJ-45 SEALED		0.5 m	Consult
126353	RJ-45 SEALED		0.25 m	Consult
Cable and Receptacle Accessories				
124694	Cover for sealed receptacles			Consult
124689	Cover for flash driver mounts on sealed receptacle			Consult

#### Unsealed Connectors



INDICATORS /  
CONTROLLERS

# 1280 Enterprise™ Series

User Programs

INDICATORS /  
CONTROLLERS



## Axle Weighing Program

1280 with custom programming interfaced with a short- or long-axle scale can direct each axle across the scale using traffic lights (optional).

- Short- or long-axle
- Auto or manual weighing types
- Weigh-out ticket format
- Weigh ticket with individual axle weight and total
- Inbound and transaction storage

### Optional

- Remote print input
- Manual weighing short axle, long axle weigh-in and -out with axles

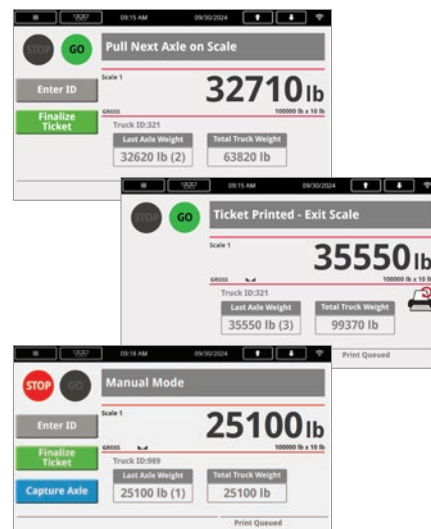
### Suggested Hardware:

- PN 171427 1280 single channel A/D
- PN 81076 Epson TM-U220
- PN 101923 FRP box with 4-channel rack OPT022 (relays not included)
- PN 23146 traffic light kit
- PN 15971 AC output relays for above (2 needed)
- PN 167093 LaserLight2™ stop and go remote display



## Standard Features

- Pre-programmed applications are built in or available as free downloads from [www.ricelake.com/1280](http://www.ricelake.com/1280)
- Applications are designed to carry out process-specific weighing tasks
- Utilize Rice Lake's iRite™ programming language to fully customize any application beyond existing functionality
- For use with all models of 1280 Enterprise Series (hardware requirements may apply)



## Truck In/Out Program

Truck In/Out programs offer advanced reporting through customer or truck reports including transaction database storage.

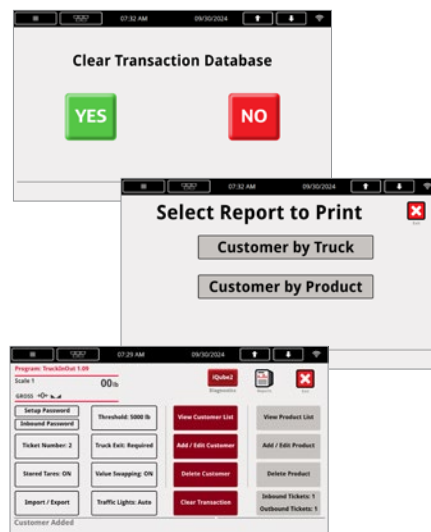
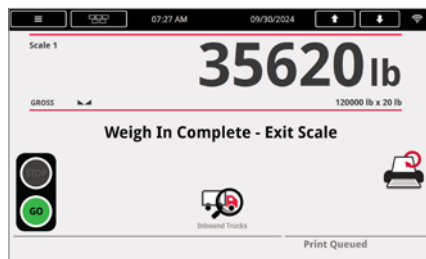
- Value swapping (on/off)
- Stored empty truck (tare) weights on/off
- Printed inbound/outbound tickets
- Customer reports by product or truck
- Tag, inbound, product, customer and transaction database storage

### Optional

- Manual toggle of lights

### Suggested Hardware:

- PN 171427 1280 single channel A/D
- PN 220027 1280 dual channel A/D for 3-scale
- PN 108425 iQUBE² 4-channel (additional 4-channel iQUBE² board PN 108433)
- PN 227157 iQUBE³ CPU Board, 4-channel, small poly (additional 4-channel iQUBE³ board PN 231373)
- PN 81076 Epson TM-U220 ticket printer
- PN 23113 Epson TM-U295 ticket printer
- PN 167093 LaserLight2 stop and go remote display





### Static Checkweigher Program

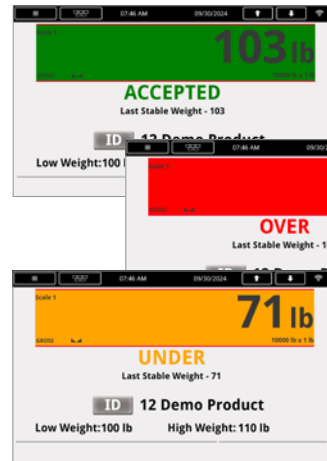
Application for static checkweigher with a stored low and high weight associated with an ID. A digital output will be activated based on configuration parameters: over, under or accept. Stores the ID, weight, status and time/date in a database.

- Stored IDs with high/low weight
- Transaction storage
- Digital I/O for Over/Under/Accept values
- Ticket formatting
- Compatible with WeighVault®

#### Suggested Hardware:

- PN 171427 single channel 1280 universal
- PN 81076 TM-U220D tape printer (sold separately, PN 15547 25-pin communication cable)
- PN 225024 scanner kit QD2590
- PN 125546 WeighVault for CW90-90X and 1280

Password Protected Access to Setup



Background Color Changes with Thresholds



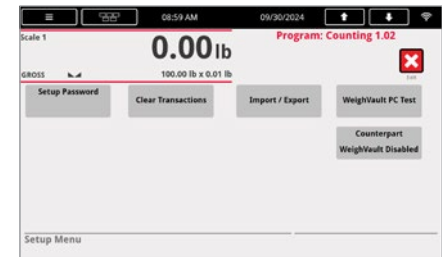
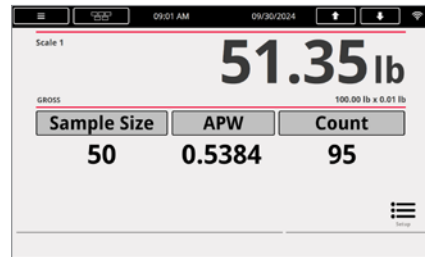
### Counting Program

Ideal for piece counting and packaging applications, configuration for two scales. System only supports PRIMARY units.

- Supports two (2) scales, sampling and counting
- Part database
- Transaction storage
- Ticket formatting
- Compatible with WeighVault

#### Suggested Hardware:

- PN 171662 1280 dual channel A/D card
- PN 81076 TM-U220D tape printer (sold separately, PN 15547 25-pin communication cable)
- PN 125546 WeighVault for Counterpart and 1280



Configuration Menu Includes View of Weight Value



### Filling/Dosing Program

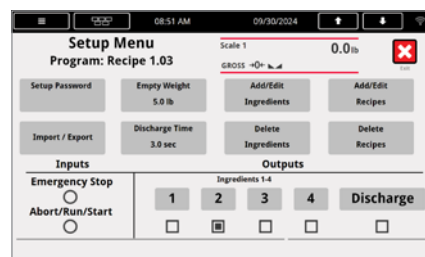
Application for gross or net container filling, including auto-fill and discharge settings for single-scale systems.

- Auto fill, auto discharge
- Single scale
- Transaction storage
- Start/E-stop digital I/O
- Container-in-place input
- Fast and slow fill, complete, zero, discharge
- Print output



#### Suggested Hardware (Recipe and Filling/Dosing):

- PN 171427 Single Channel 1280 Universal
- PN 81076 Epson TM-U220 ticket printer
- PN 23113 Epson TM-U295 ticket printer
- PN 101923 FRP Box with 4-channel rack OPT022 (relays not included)
- PN 19369 FRP Box with Start/E-Stop/Abort/Run



### Recipe Program

Formula Batcher is an automated program, with up to eight ingredient setpoints.

- Single scale and digital I/O option cards
- Auto tare, begin/end and store
- Formula, ingredient and transaction storage
- Transmit fill and accumulation through serial ports
- Built-in safety interlocks
- Batch ticket and total report
- Start/E-stop, fast and slow fill, complete and discharge outputs

