

# Indicators / Controllers

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# 120/120 Plus

Digital Weight Indicator

INDICATORS /  
CONTROLLERS



## Approvals



## Standard Features

### 120

- LED display
- Configurable analog to digital measurement rate
- Primary/secondary units configuration: lb, kg, ounces, grams
- Five-button operation
- Two independent communication ports
- Programmable ticket format, up to two 180-character printout
- Full front-panel digital calibration and configuration
- Tilt stand
- Three-stage digital filtering
- Consecutive transaction numbering
- Time and date (volatile)

### 120 Plus

- LCD display
- Internal rechargeable lithium battery and wall adapter
- Power save feature for 700 hours of battery life
- Ten stored tare values
- Display hold (based on three second average)
- Time and date
- Configurable with Revolution® software

## Specifications

### Power:

#### 120/120 Plus

Line voltages: 115 or 230 VAC  
Frequency: 50 or 60 Hz

### Battery Life:

#### 120 Plus

60 hours with 1 x 350 ohm, 40 hours with 4 x 350 ohm load cells  
Eight hour charge time

### Excitation Voltage:

5 VDC, 4 x 350 ohm or 8 x 700 ohm load cells

### Analog Signal Input Range:

-0.6 mV/V to 3.0 mV/V

### Analog Signal Sensitivity:

0.3  $\mu$ V/graduation minimum,  
1.5  $\mu$ V/grad recommended

### A/D Sample Rate:

120: 3 to 30 Hz, software selectable  
120 Plus: 30 Hz

### Resolution:

Internal: 1,000,000 counts  
Display: 10,000

### System Linearity:

Within 0.01% of full scale

### (Optional) Digital I/O:

120 Plus: Requires option card

24 volt source

Three digital inputs

Two digital outputs

### Circuit Protection:

RFI, EMI, ESD protected

### Load Cell Connection:

Cord grip entry

Detachable plug (optional)

### Communication Port:

EDP port: Full duplex RS-232

Printer port: Output-only RS-232 or active 20 mA current loop

Both ports: 9600, 4800, 2400, 1200, 600, 300bps;  
Seven or eight data bits; even, odd or no parity

### Annunciators:

120/120 Plus: Center of zero, standstill, gross, net, lb, kg, oz, g

120 Plus: Battery, setpoint 1 and 2, Hold

### Display:

120: 0.8 in (20 mm), six-digit red light emitting diode

(LED) display, seven-segment digits

120 Plus: 0.8 in (20 mm) six-digit LCD with back-light, seven-segment digits

### Keys/Buttons:

120: Five-key flat membrane panel, tactile feel

120 Plus: Zero, tare, preset tare, hold, gross/net, units, numeric 0-9, clear, enter/print

### Temperature Range:

Certified: 14 °F to 104 °F (-10 °C to 40 °C)

Operating: 14 °F to 122 °F (-10 °C to 50 °C)

### Rating/Material:

Enclosure: Heavy gauge ABS

### Weight:

2.6 lb (1.2 kg)

### Warranty:

One-year limited

### Approvals:

NTEP CC 03-059, Class III/IIIL 10,000d

Measurement Canada AM-5517

EU Test Certificate TC7626

CE Marked

Part Number/Price

Part #	Description	Est. Weight	Price
120			
131923	Desktop 115 VAC/230 VAC	3 lb	\$425.00
120 Plus			
103632	Desktop 115/230 VAC	3 lb	\$575.00
107619	Desktop 115/230 VAC with digital I/O option	3 lb	\$645.00

NOTE: Both plugs included with power supply



US Plug



Euro Plug

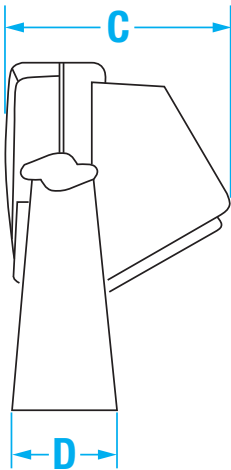
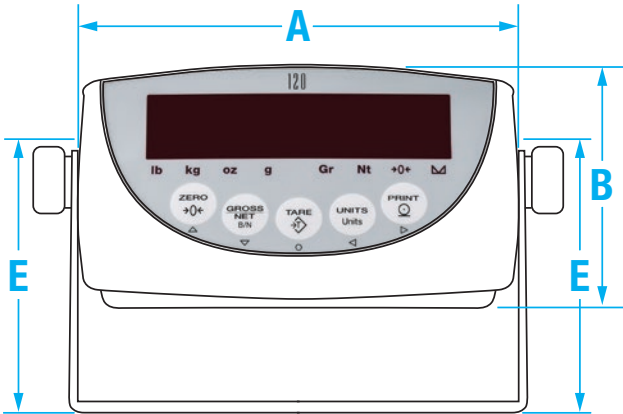
Options/Accessories

Part #	Description	Price
93205	Load cell connector with 6 m length pigtail (requires 103507)	\$55.00
82505	Six-pin socket external load cell connector (requires 103507)	\$15.00
103507	External load cell plug replaces cord grip (requires 82505 or cable 93205)	\$40.00
107620	Digital I/O card for 120 Plus	\$85.00
105670	15-Pin connector for 120 Plus	\$13.00
106705	15-Pin Interface cable for 120 Plus, 2 m length	\$37.00
76699	Additional operating manual for 120	\$37.00
105914	Additional operating manual for 120 Plus	\$37.00
Primary Component Parts for 120		
131924	Board assembly for use with internal load cell connector	\$285.00
78610	Overlay membrane switch	\$65.00
131925	Power supply, 115 VAC/230 VAC	\$45.00
64794	Cable, null modem DB9F to DB9M	\$69.00
Primary Component Parts for 120 Plus		
103634	CPU/Display board assembly	\$395.00
103635	Overlay membrane switch	\$65.00
103636	Power supply, 115 VAC/230 VAC	\$45.00
103637	Rechargeable battery	\$90.00

Revolution can be downloaded for free at [www.ricelake.com](http://www.ricelake.com)  
To have your option factory installed, please specify when placing your order.

Dimensions

120/120 Plus			
A	7.32 in (186 mm)	D	1.65 in (42 mm)
B	6.06 in (154 mm)	E	4.76 in (121 mm)
C	3.74 in (95 mm)		



INDICATORS /  
CONTROLLERS

# IQ Plus® 210

Digital Weight Indicator

INDICATORS /  
CONTROLLERS



## Approvals



## Standard Features

- LED display
- Piezo switch technology with stainless steel buttons (zero and units)
- NEMA Type 4X/IP66 stainless steel enclosure
- Displays units in decimals lb, kg, oz, lb/oz and grams
- 1 full duplex RS-232 port
- 2 digital inputs for remote zero, print and units
- PreVent™ breather vent
- Configurable with Revolution® software

## Part Number/Price

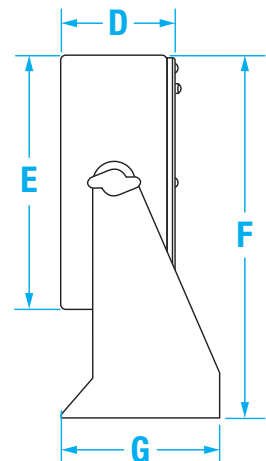
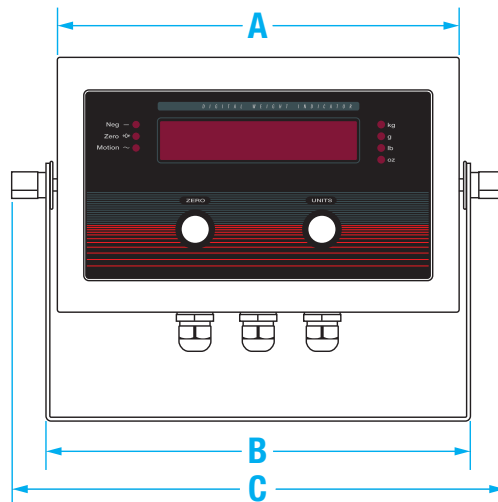
Part #	Description	Est. Weight	Price
65137	IQ Plus 210, 115 VAC	10 lb	\$695.00
65138	IQ Plus 210, 230 VAC	10 lb	\$695.00

## Options/Accessories

Part #	Description	Price
64640	Additional operating manual	\$31.00

## Dimensions

IQ Plus 210			
A	9.50 in (241 mm)	E	6.00 in (152 mm)
B	10.03 in (254 mm)	F	8.58 in (217 mm)
C	11.67 in (296 mm)	G	3.75 in (95 mm)
D	2.69 in (68 mm)		



## Specifications

### Power:

Line voltages: 115 VAC or 230 VAC  
Frequency: 50/60 Hz

### Excitation Voltage:

10 VDC 4 × 350 ohm load cells

### Analog Signal Input Range:

0.6 mV/V to 4.5 mV/V

### Analog Signal Sensitivity:

0.3  $\mu$ V/graduation minimum,  
1.5  $\mu$ V/grad recommended

### A/D Sample Rate:

15 Hz

### Resolution:

Display: 10,000 counts

### Digital I/O:

Two inputs, TTL or switch closure, active-low

### Communication Port:

Full duplex RS-232, 9600, 4800, 2400, 1200bps;  
Seven or eight data bits, even, off, or no parity

### Annunciators:

lb, kg, oz, g, negative, motion, center of zero

### Display:

Six-digit light emitting diode (LED) display  
Seven-segment, 0.8 in (20 mm) digits

### Dimensions:

Enclosure  
9.5 × 6.0 × 2.75 in (241 × 152 × 70 mm)

### Temperature Range:

Operating: 14 °F to 104 °F (-10 °C to 40 °C)  
Storage: 14 °F to 122 °F (-10 °C to 50 °C)

### Rating/Material:

NEMA Type 4X/IP66, stainless steel

### Weight:

10 lb (4.5 kg)

### Warranty:

Two-year limited

### Approvals:

NTEP CC 00-045, Class III/IIL 10,000d  
Measurement Canada AM-5374  
cULus Listed





## Approvals



## Dimensions

CW-90	
A	9.5 in (241 mm)
B	10.02 in (255 mm)
C	11.24 in (285 mm)
D	3.12 in (79 mm)
E	6.00 in (152 mm)
F	8.57 in (218 mm)
G	3.75 in (95 mm)
H	4.00 in (102 mm)

## Standard Features

- PreVent™ breather vent
- Storage for up to 50 IDs
- Unit of measure: kg, gm, lb, oz, lb/oz
- LED display
- Two full duplex serial ports
- Configurable print formats
- Audit trail tracking
- Optional communications: Ethernet, USB or fiber-optic
- Four configurable digital I/O
- Reflash memory to upgrade firmware
- Auto print capability
- Battery backed up time and date
- Accumulator
- Membrane keypad consisting of zero, units, print, tare, over, under, ID, target, 0 to 9, clear, decimal, enter, menu, power

## Specifications

### Power:

Line voltages: 115 to 230 VAC  
Frequency: 50 /60 Hz

### Power Consumption:

1.5 A at 115 VAC (8 W)  
0.75 A at 230 VAC (8 W)

### Excitation Voltage:

+5 VDC 8 × 350 ohm or 16 × 700 ohm load cells

### Analog Signal Input Range:

-0.5 mV/V to 4.5 mV/V

### Analog Signal Sensitivity:

0.3 uV/graduation minimum  
1.5 uV/graduation recommended

### A/D Sample Rate:

7.5 to 960 Hz software selectable

### Resolution:

Display: 100,000 counts

### System Linearity:

± 0.01% full scale

### Digital I/O:

Four channels on CPU board

### Circuit Protection:

RFI, EMI, ESD protection

### Annunciators:

Designators for percent, kg, gm, lb, oz, center of zero, G/B, N, T, PT, neg, motion

### Display:

Large 0.8 in 14-segment, six-digit high-intensity red LED display

### Keys/Buttons:

Membrane keypad, 23 keys with international symbols

### Temperature Range:

Certified: 14 °F to 104 °F (-10 °C to 40 °C)

### Rating/Material:

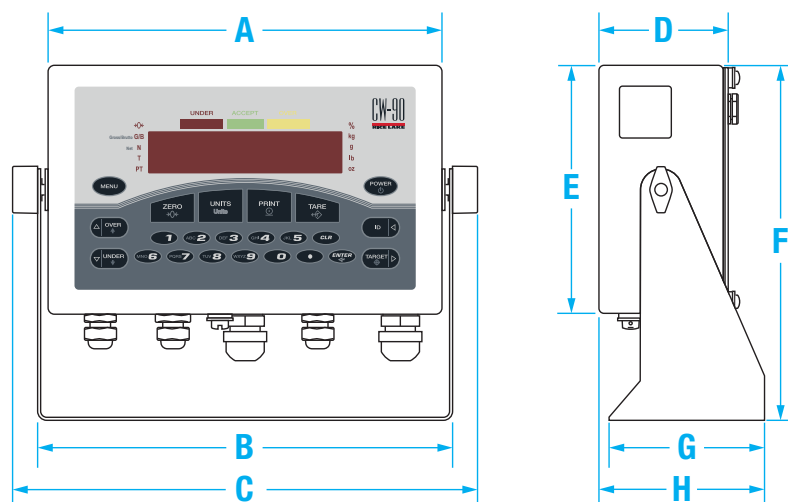
IP66, 304 stainless steel

### Warranty:

Two-year limited

### Approvals:

NTEP CC 08-092, Class III/IIIL 10,000d  
Measurement Canada AM-5710  
OIML R76/2006-GBI-10.02  
T C 11569  
cULus Listed  
CE marked



# CW-90

Checkweigh Indicator

## Part Number/Price

Part #	Description	Est. Weight	Price
105970 <sup>†</sup>	CW-90, 115 VAC	7 lb	\$895.00
105971 <sup>††</sup>	CW-90, 230 VAC, CE marked/OIML approved	7 lb	\$895.00
118888 <sup>†</sup>	CW-90, 230 VAC	7 lb	\$895.00
171247 <sup>†††</sup>	CW-90, 230 VAC	7 lb	\$895.00



<sup>†</sup> US plug (NA) - Type B



<sup>††</sup> Euro Plug - Type E



<sup>†††</sup> IEC Type I plug

## Options/Accessories

Part #	Description	Price
200578	Ethernet TCP/IP, 10 ft cable included	\$440.00
206272	RS-232/Wi-Fi interface 802.11 A/B	\$570.00
95357	USB cable, Type A to mini-B, 1 m	\$11.00
171968	Firmware download cable	\$39.00
96736	Fiber optic board	\$250.00
78026	Fiber optic, duplex cable 100 ft	\$175.00
80892	Fiber optic cutter	\$12.00
117358	WeighVault <sup>®</sup> (requires part number 77142 or 206272)	\$265.00

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



## Specifications

### Power:

Line voltages: 115 to 230 VAC  
Frequency: 50/60 Hz

### Power Consumption:

1.5 A at 115 VAC (8 W)  
0.75 A at 230 VAC (8 W)

### Excitation Voltage:

+5 VDC 8 × 350 ohm or 16 × 700 ohm load cells

### Analog Signal Input Range:

-0.5 mV/V to 4.5 mV/V

### Analog Signal Sensitivity:

0.3 uV/graduation minimum  
1.5 uV/graduation recommended

### A/D Sample Rate:

7.5 to 960 Hz software selectable

### Resolution:

Display: 100,000 counts

### System Linearity:

± 0.01% full scale

### Digital I/O:

Four channels on CPU board

### Circuit Protection:

RFI, EMI, ESD protection

### Annunciators:

Designators for percent, kg, gm, lb, oz, center of zero, G/B, N, T, PT, neg, motion

### Display:

Large 0.8 in 14-segment, six-digit high-intensity red LED display

### Keys/Buttons:

Piezo keypad, 11 keys with international symbols

### Temperature Range:

Certified: 14 °F to 104 °F (-10 °C to 40 °C)

### Rating/Material:

IP69K, 304 stainless steel

### Warranty:

Three-year limited

### Approvals:

NTEP CC 08-092, Class III/IIIL 10,000d  
Measurement Canada AM-5710  
OIML R76/2006-GBI-10.02  
T C 11569  
cULus Listed  
CE Marked

## Approvals

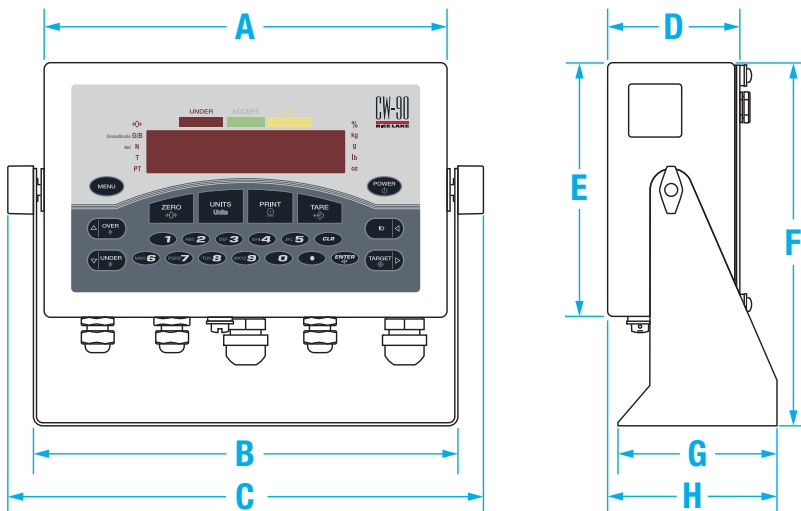


## Dimensions

CW-90X	
A	9.5 in (241 mm)
B	10.02 in (255 mm)
C	11.24 in (285 mm)
D	3.12 in (79 mm)
E	6.00 in (152 mm)
F	8.57 in (218 mm)
G	3.75 in (95 mm)
H	4.00 in (102 mm)

## Standard Features

- PreVent™ breather vent
- Storage for up to 50 IDs
- Unit of measure: kg, gm, lb, oz, lb/oz
- LED display
- Two full duplex serial ports
- Configurable print formats
- Audit trail tracking
- Optional communications: Ethernet, USB or fiber optic
- Four configurable digital I/O
- Reflash memory to upgrade firmware
- Auto print capability
- Battery backed up time and date
- Accumulator
- Piezo keypad consisting of zero, units, print, tare, over, under, ID, target, enter, menu, power



# CW-90X

Checkweigh Indicator

## Part Number/Price

Part #	Description	Est. Weight	Price
105972†	CW-90X, 115 VAC	7 lb	\$945.00
105973††	CW-90X, 230 VAC, CE marked/OIML approved	7 lb	\$945.00
118889†	CW-90X, 230 VAC	7 lb	\$945.00
171248†††	CW-90X, 230 VAC	7 lb	\$945.00



† US plug (NA) - Type B



†† Euro Plug - Type E



††† IEC Type I plug

## Options/Accessories

Part #	Description	Price
200578	Ethernet TCP/IP, 10 ft cable included	\$440.00
206272	RS-232/Wi-Fi interface 802.11 A/B	\$570.00
95357	USB cable, Type A to mini-B, 1 m	\$11.00
171968	Firmware download cable	\$39.00
96736	Fiber optic board	\$250.00
78026	Fiber optic, duplex cable 100 ft	\$175.00
80892	Fiber optic cutter	\$12.00
117358	WeighVault™ (requires part number 77142 or 206272)	\$265.00

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

# 380 Synergy Series

Digital Weight Indicator



## Approvals



## Part Number/Price

Part #	Description	Est. Weight	Price
202711	380 Universal battery powered	6.25 lb (3 kg)	\$635.00

## Options/Accessories

Part #	Description	Price
206433†	External AC adapter	\$52.00
204258	Real time clock module	\$112.00

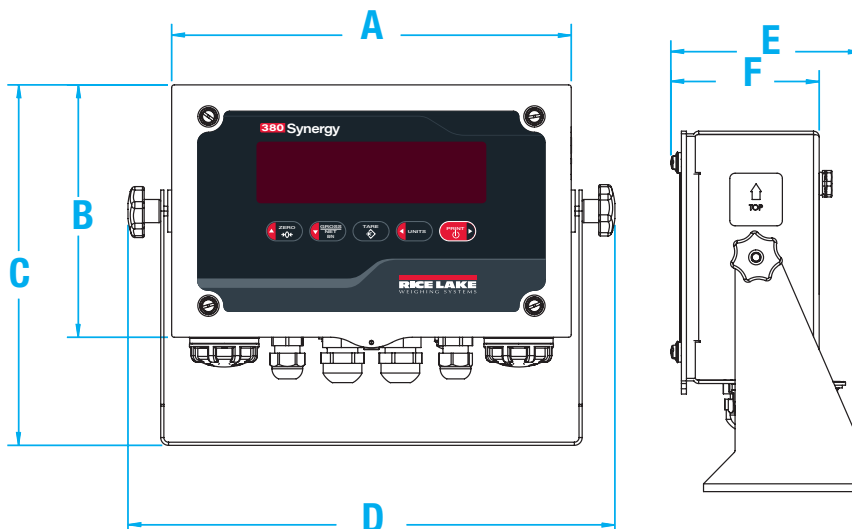
To have your option factory installed, please specify when placing your order.



† US plug (NA) - Type A

## Dimensions

380 Synergy Series	
A	9.50 in (241 mm)
B	6.00 in (152 mm)
C	8.57 in (218 mm)
D	11.58 in (294 mm)
E	4.53 in (115 mm)
F	3.53 in (90 mm)



## Standard Features

- LCD display
- Alkaline battery powered
- Push-button and keyed tare
- Two communication ports
- Five tactile buttons
- Configurable print formats

## Options

- Time/date
- External power supply

## Specifications

### Power:

Batteries: 4 alkaline C-cell (not included)  
Optional: 115/230 VAC to 12 VDC adapter

### Power Consumption:

6 W max with optional external power adapter

### Battery Life:

100 hours with 1 x 350 ohm load cell, no backlight  
45 hours with 4 x 350 ohm load cells, low backlight  
20 hours with 8 x 350 ohm load cells, low backlight

### Excitation Voltage:

5 VDC, 8 x 350 ohm or 16 x 700 ohm load cells

### Analog Signal Input Range:

-0.3 mV to +30 mV  
Common mode voltage 0.7V to 3.3V

### Analog Signal Sensitivity:

1 µV/graduation recommended

### A/D Sample Rate:

5, 6, 10, 12, 20, 25, 40, 50, 80, 100Hz,  
software selectable

### Resolution:

Internal: 8,000,000 counts  
Display: 100,000

### System Linearity:

Within 0.01% full scale

### Communication Ports:

One RS-232 (three-wire)  
One USB 2.0

### Annunciators:

g, lb, t, tn, kg, oz, battery level, PT, LT, gross, zero,  
unstable, net

### Display:

Six 1 in (25 mm) tall, LCD digits

### Keys/Buttons:

5 tactile buttons

### Dimensions:

(L x W x H)  
11.58 x 4.53 x 8.57 in  
(294 x 115 x 218 mm)

### Temperature Range:

Certified: 14 °F to 104 °F (-10 °C to 40 °C)  
Industrial: 14 °F to 122 °F (-10 °C to 50 °C)

### Rating/Material:

IP66, 304  
Stainless steel

### Weight:

6.25 lb (3 kg)

### Warranty:

Two-year limited

### EMC Immunity:

10 V/m

### Approvals:

NTEP CC 21-051, Class III/IIIL, 10,000 d  
Measurement Canada AM-6184  
cULus Listed  
CE Marked

INDICATORS /  
CONTROLLERS

# 380X Synergy Series

Washdown Digital Weight Indicator

COMING  
SOON



## Approvals



pending



pending



pending



pending

## Part Number/Price

Part #	Description	Est. Weight	Price
214337	380X Universal battery powered	6.25 lb (3 kg)	Consult

## Options/Accessories

Part #	Description	Price
204258	Real time clock module	\$112.00

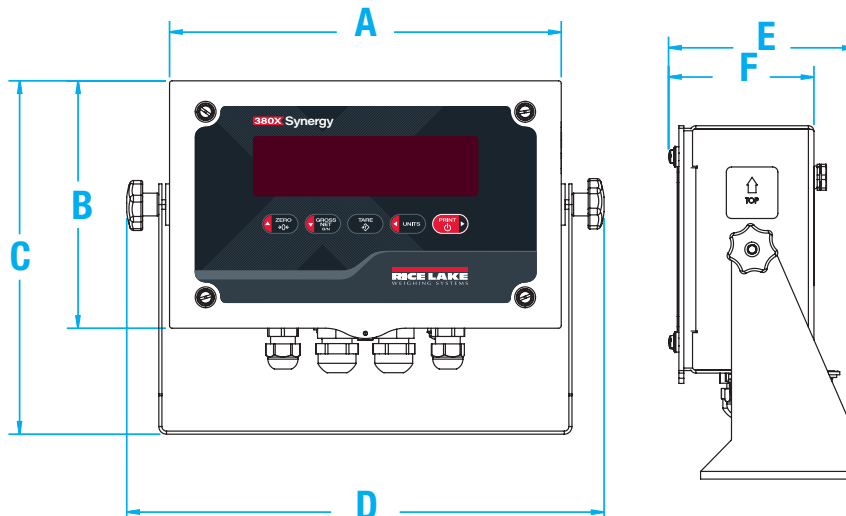
To have your option factory installed, please specify when placing your order.

## Dimensions

380X Synergy Series	
A	9.50 in (241 mm)
B	6.00 in (152 mm)
C	8.57 in (218 mm)
D	11.58 in (294 mm)
E	4.53 in (115 mm)
F	3.53 in (90 mm)



† US plug (NA) - Type B



## Standard Features

- LCD display
- Battery powered, internal charger
- Push button and keyed tare
- Two communication ports
- Five-tactile buttons
- Configurable print formats
- 304 stainless steel, IP69K rated enclosure

## Optional

- Time/date

## Specifications

### Power:

Battery: Lithium ion  
Charger: 120VAC Internal

### Power Consumption:

15 W max with internal power

### Excitation Voltage:

5 VDC, 8 x 350 ohm or 16 x 700 ohm load cells

### Analog Signal Input Range:

-0.3 mV to +30 mV  
Common Mode Voltage 0.7V to 3.3V

### Analog Signal Sensitivity:

1  $\mu$ V/graduation recommended

### A/D Sample Rate:

5, 6, 10, 12, 20, 25, 40, 50, 80, 100Hz,  
software selectable

### Resolution:

Internal: 8,000,000 counts  
Display: 100,000

### System Linearity:

Within 0.01% full scale

### Communication Ports:

One RS-232 (three-wire)  
One USB 2.0

### Annunciators:

g, lb, t, tn, kg, oz, battery level, PT, LT, gross, zero,  
unstable, net

### Display:

Six 1 in (25 mm) tall, LCD digits

### Keys/Buttons:

Five-tactile buttons

### Dimensions:

(L x W x H)  
11.58 x 4.53 x 8.57 in  
(294 x 115 x 218 mm)

### Temperature Range:

Certified: 14 °F to 104 °F (-10 °C to 40 °C)  
Industrial: 14 °F to 122 °F (-10 °C to 50 °C)

### Rating/Material:

IP69K, 304 Stainless steel

### Weight:

6.25 lb (3 kg)

### Warranty:

Two-year limited

### EMC Immunity:

10 V/m

### Approvals:

NTEP (pending)  
Measurement Canada (pending)  
CE Marked (pending)  
cULus Listed (pending)



# 381 Synergy Series

## Battery Powered Digital Weight Indicator



### Approvals



### Part Number/Price

Part #	Description	Price
215695	381 Universal, AA battery powered	\$325.00
215696	381 Universal nickel metal hydride battery powered	\$475.00

### Options/Accessories

Part #	Description	Price
215273	RS-232 DB9 cable, 1.5 m DB9 female RJ11 connector, compatible with 381 AA model	\$155.00
204258	Real time clock module	\$112.00
216647	3 mm t-handle hex key	\$6.00

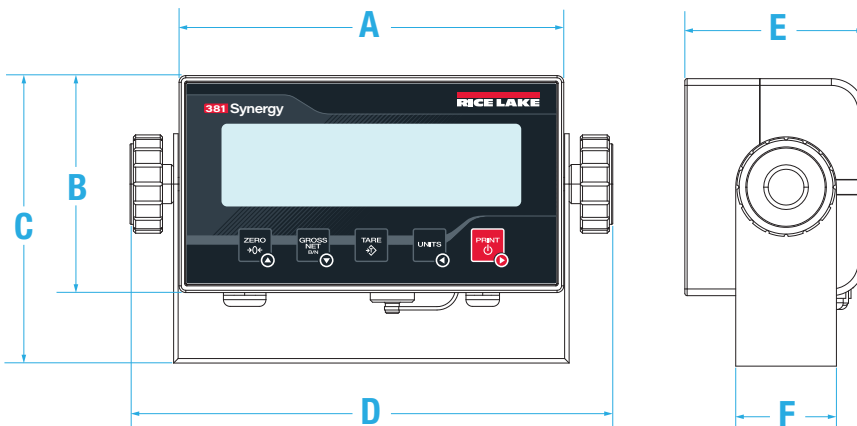
To have your option factory installed, please specify when placing your order.



† US plug (NA) - Type B

### Dimensions

381 Synergy Series	
A	6.77 in (172 mm)
B	3.82 in (97 mm)
C	5.06 in (129 mm)
D	8.50 in (216 mm)
E	3.17 in (81 mm)
F	1.77 in (45 mm)



### Standard Features

- LCD display
- Battery powered
- Push-button and keyed tare
- Two communication ports
- Five tactile buttons
- Configurable print formats
- ABS enclosure

### Options

- Time/date

### Specifications

#### Power:

Battery: AA or Nickel Metal Hydride (NiMH)  
381-2D-AA Adapter: 115/230 VAC to 12 VDC  
381-2D-NiMH Charger: 115/230 VAC

#### Power Consumption:

AA: input 0.8 A  
(6 W while using optional external adapter)  
NiMH: input of 0.35 A

#### Battery Life:

AA: 40 hours with 1 × 350 ohm load cell  
NiMH: 80 hours with 1 × 350 ohm load cell

#### Excitation Voltage:

5 VDC, 8 × 350 ohm or 16 × 700 ohm load cells

#### Analog Signal Input Range:

-0.3 mV to +30 mV  
common mode voltage 0.7V to 3.3V

#### Analog Signal Sensitivity:

1 µV/graduation recommended

#### A/D Sample Rate:

5, 6, 10, 12, 20, 25, 40, 50, 80, 100Hz, software selectable

#### Resolution:

Internal: 8,000,000 counts  
Display: 100,000

#### System Linearity:

Within 0.01% full scale

#### Communication Ports:

One RS-232 (three-wire)  
One USB 2.0

#### Annunciators:

g, lb, t, tn, kg, oz, battery level, PT, LT, gross, zero, unstable, net

#### Display:

Six 1 in (25 mm) tall, LCD digits

#### Keys/Buttons:

5 tactile buttons

#### Dimensions:

(L × W × H)  
8.50 × 3.17 × 5.06 in  
(215.8 × 80.5 × 128.5 mm)

#### Temperature Range:

Certified: 14 °F to 104 °F (-10 °C to 40 °C)  
Operating: 14 °F to 122 °F (-10 °C to 50 °C)

#### Rating/Material:

AA Battery: IP54, ABS  
NiMH Battery: IP66, ABS

#### Warranty:

Two-year limited

#### EMC Immunity:

10 V/m

#### Approvals:

NTEP CC 21-051 Class III/IIIL, 10,000 d  
Measurement Canada AM-6184

# 480/482 Legend® Series

Digital Weight Indicator



INDICATORS /  
CONTROLLERS

## Approvals

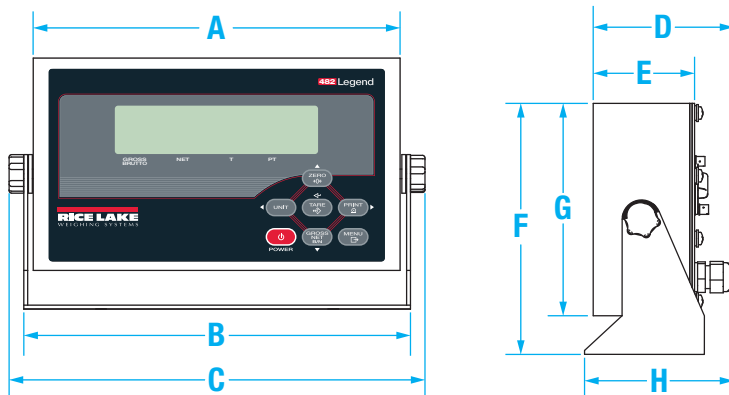


## Standard Features

- LED display (480)
- LCD backlit display (482)
- Time and date, battery backed
- Local/remote operation
- Numeric keypad (480 Plus/482 Plus)
- Keyed entries for setpoint values (480 Plus/482 Plus)
- Two independent serial ports
- NEMA Type 4X/IP66 stainless steel washdown enclosure
- Programmable ticket formats for gross, net, accumulator and setpoints
- Five continuous stream formats
- Adapter filter or rolling average filter
- Operator functions through menu for audit trail, preset tare, unit ID, accumulator, time and date, setpoints, communications and print formats
- Eight setpoints, sequenced batch engine
- Configurable with Revolution® software

## Dimensions

480/482 Legend Series					
A	9.50 in (241 mm)	D	3.65 in (92 mm)	G	6.00 in (152 mm)
B	10.00 in (254 mm)	E	2.75 in (70 mm)	H	3.75 in (95 mm)
C	11.00 in (279 mm)	F	7.00 in (178 mm)		



## Specifications

### Power:

Line voltages: 100 to 240 VAC  
Frequency: 50/60 Hz  
DC voltages: n/a

### Power consumption:

8 W

### Excitation Voltage:

5 VDC, 8 × 350 ohm or 16 × 700 ohm load cells

### Analog Signal Input Range:

±7mV/V

### Analog Signal Sensitivity:

0.1 µV/graduation minimum,  
0.5 µV/graduation recommended

### A/D Sample Rate:

5, 10, 20, 40 Hz, software selectable

### Resolution:

Internal: 523,000 counts  
Display: 100,000

### System Linearity:

Within 0.01% of full scale

### Digital I/O:

Optional 2 or 4 inputs  
4 or 8 dry-contact relays

### Communication Ports:

Com 1: RS-232 full duplex  
Com 2: RS-232 full duplex or 20 mA simplex, continuous  
Both ports 1200, 2400, 4800, 9600, 19200, 38400 baud seven or eight data bits, even, odd or no parity

### (Optional) Analog Output:

16-bit resolution, voltage output 0-10 VDC, current output 0-20 mA / 4-20 mA

### (Optional) Relay Board:

Two opto-isolated, 5 to 24 VDC, active high inputs  
Primary keys, pseudo functions, batching functions  
(4) 30 VDC, 2 amp dry-contact relays

### Annunciators:

Gross, net, center of zero, standstill, lb, kg, tare, preset tare

### Display:

**480/480 Plus:** LED display  
0.8 in (20 mm), six-digit, seven-segment  
**482/482 Plus:** LCD backlit display, transmissive/transflective  
0.8 in (20 mm), six-digit, seven-segment

### Keys/Buttons:

Flat membrane panel, embossed keys, tactile feel

### Temperature Range:

Certified: 14 °F to 104 °F (-10 °C to 40 °C)  
Operating: 14 °F to 122 °F (-10 °C to 50 °C)

### Rating/Material:

NEMA Type 4X/IP66  
Stainless steel

### Weight:

6.4 lb (2.9 kg)

### Warranty:

Two-year limited

### EMC Immunity:

EN 50082 Part 2 IEC EN  
61000-4-2, 3, 4, 5, 6, 8, and 11

### Approvals:

NTEP CC 12-123, Class III/IIIL, 10,000d  
Measurement Canada AM-5892C  
OIML R76/2006-NL1-15.24  
EU Test Certificate TC8322  
CE Marked  
cULus  
UKCA

# 480/482 Legend® Series

Digital Weight Indicator

INDICATORS /  
CONTROLLERS

## Part Number/Price

Part #	Description	Est. Weight	Price
<b>480 Indicator 115 VAC †</b>			
<b>126564 †</b>	480 LED	8 lb	\$875.00
<b>130338 †</b>	480 LED with analog output	8 lb	\$1,295.00
<b>480 Indicator 90 to 264 VAC ††</b>			
<b>126565 ††</b>	480 LED	8 lb	\$875.00
<b>130339 ††</b>	480 LED with analog output	8 lb	\$1,245.00
<b>480 Plus Indicator 115 VAC †</b>			
<b>164588 †</b>	480 Plus LED	8 lb	\$875.00
<b>164589 †</b>	480 Plus LED with analog output	8 lb	\$1,295.00
<b>164590 †</b>	480 Plus LED with relay output	8 lb	\$1,095.00
<b>480 Plus Indicator 90 to 264 VAC ††</b>			
<b>164591 ††</b>	480 Plus LED	8 lb	\$875.00
<b>164592 ††</b>	480 Plus LED with analog output	8 lb	\$1,295.00
<b>164593 ††</b>	480 Plus LED with relay output	8 lb	\$1,045.00
<b>482 Indicator 115 VAC †</b>			
<b>164581 †</b>	482 LCD	8 lb	\$1,015.00
<b>482 Indicator 90 to 264 VAC ††</b>			
<b>164672 ††</b>	482 LCD	8 lb	\$975.00
<b>482 Plus Indicator 115 VAC †</b>			
<b>164584 †</b>	482 Plus LCD	8 lb	\$1,015.00
<b>482 Plus Indicator 90 to 264 VAC ††</b>			
<b>164673 ††</b>	482 Plus LCD	8 lb	\$975.00

## Options/Accessories

Part #	Description	Price
<b>131340</b>	Mounting bracket for option boards	\$29.00
<b>131341</b>	Analog output, 0-10 VDC, 4-20mA (requires 131340)	\$385.00
<b>131342</b>	Relay board, two digital inputs, four dry contact outputs (requires 131340)	\$225.00
<b>165379</b>	Flash update cable	\$75.00
<b>151100</b>	A/D sealing kit, used with audit trail tracking	\$38.00
<b>151099</b>	Panel mount bezel (not NEMA Type rated)	\$185.00
<b>83564</b>	Clear protective overlay (package of five)	\$75.00
<b>119201</b>	Installation manual (480 indicator)	\$29.00
<b>165124</b>	Installation manual (482 indicator)	\$29.00
<b>Primary Replacement Components</b>		
<b>131345</b>	Overlay, 480 six-key, red window	\$71.00
<b>159612</b>	Overlay, 480 Plus with numeric keys, red window	\$71.00
<b>131346</b>	Display board, LED	\$159.00
<b>161048</b>	Overlay, 482 six-key, green window	\$71.00
<b>161049</b>	Overlay, 482 Plus with numeric keys, green window	\$71.00
<b>153776</b>	Display board, LCD	\$155.00
<b>131316</b>	Power supply, 85-265 VAC	\$63.00
<b>131318</b>	CPU board	\$280.00
<b>131319</b>	A/D board	\$215.00

\* Revolution can be downloaded for free at [www.ricelake.com](http://www.ricelake.com)

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



† US plug (NA) - Type B



†† Euro Plug - Type E

# 680 Synergy Series

Digital Weight Indicator

INDICATORS /  
CONTROLLERS



## Approvals



## Standard Features

- LED display
- Battery backed time and date
- Full numeric keypad
- Multiple communication ports
- Eight setpoint, 22 configurable types
- Numeric keyed entry for tare and setpoint entry
- Formattable tickets
- Four onboard configurable digital I/O points, TTL logic
- Local/remote

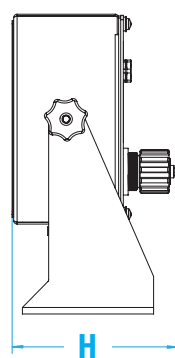
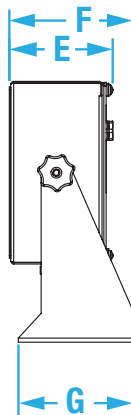
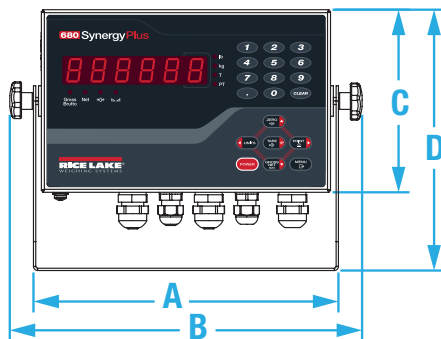
## Options

- Analog output: 16-bit resolution, 0-10 VDC, 0-20 mA, 4-20 mA
- RJ45 Ethernet connector

*Note: IP Rating is IP66 with RJ45 option. Rating is valid only when the cover is in place, not in use.*

## Dimensions

680 Synergy Series			
A	10.02 in (255 mm)	E	3.40 in (86 mm)
B	11.58 in (294 mm)	F	4.05 in (103 mm)
C	6.00 in (152 mm)	G	3.80 in (97 mm)
D	8.57 in (218 mm)	H	4.74 in (120 mm)



With External RJ45 Connector

## Specifications

### Power:

Line voltages: 100 to 240 VAC  
Frequency: 50 to 60 Hz

### Power Consumption:

2W (AC) 1 × 350 ohm load cell, 15W max

### Excitation Voltage:

10 VDC (± 5 VDC), 8 × 350 ohm or  
16 × 700 ohm load cells

### Analog Signal Input Range:

-5 mV to +70 mV

### Analog Signal Sensitivity:

1 µV/graduation recommended

### A/D Sample Rate:

6.25 to 120 Hz, software selectable

### Resolution:

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

### System Linearity:

Within 0.01% full scale

### Digital I/O:

Four configurable I/O - 5V logic

### Communication Ports:

Two RS-232 (three-wire)  
RS-485/422 (five-wire)  
Micro USB (device)  
Ethernet TCP/IP (10/100)

### Annunciators:

Eight LED annunciators

### Display:

Seven 0.8 in tall, seven-segment digits

### Keys/Buttons:

Flat membrane panel, tactile feel  
(18 buttons plus ON/OFF)

### Dimensions:

(L × W × H)  
11.58 × 4.05 × 8.57 in  
(294 × 103 × 218 mm)

### Temperature Range:

Certified: 14 °F to 104 °F (-10 °C to 40 °C)  
Industrial: 14 °F to 122 °F (-10 °C to 50 °C)

### Rating/Material:

IP69K (IP66 with RJ45)  
AISI 304 stainless Steel

### Weight:

6.25 lb (3 kg)

### Warranty:

Two-year limited

### EMC Immunity:

10 V/m

### Approvals:

NTEP CC 19-021, Class III/IIIL, 10,000d  
Measurement Canada AM-6121C  
OIML R76/2006-A-NL1-19.56  
EU Test Certificate TC11562  
UKCA  
cULus Listed  
CE Marked

# 680 Synergy Series

Digital Weight Indicator

## Part Number/Price

Part #	Description	Est. Weight	Price
<b>115 to 230 VAC</b>			
<b>193152†</b>	680 Plus indicator, LED display, US power cord	7 lb	\$945.00
<b>193153††</b>	680 Plus indicator, LED display, EU power cord	7 lb	\$945.00
<b>196326†††</b>	680 Plus indicator, LED display, UK power cord	7 lb	\$945.00
<b>196327††††</b>	680 Plus indicator, LED display, AUS power cord	7 lb	\$945.00
<b>9 to 36 VDC</b>			
<b>193154*</b>	680 Plus indicator, LED display	7 lb	\$1,055.00
<b>With Analog Output Card</b>			
<b>195176†</b>	680 Plus indicator, LED display, 115-230 VAC with analog output card, US power cord	7 lb	\$1,265.00
<b>195177††</b>	680 Plus indicator, LED display, 115-230 VAC with analog output card, EU power cord	7 lb	\$1,265.00
<b>196539†††</b>	680 Plus indicator, LED display, 115-230 VAC with analog output card, UK power cord	7 lb	\$1,265.00
<b>196538††††</b>	680 Plus indicator, LED display, 115-230 VAC with analog output card, AUS power cord	7 lb	\$1,265.00
<b>With External RJ45 Connector**</b>			
<b>200183†</b>	680 Plus Indicator, LED display, 115-230VAC with RJ45, US power cord	7 lb	\$1,095.00
<b>200184††</b>	680 Plus Indicator, LED display, 115-230 VAC with RJ45, EU power cord	7 lb	\$1,095.00
<b>200185†††</b>	680 Plus Indicator, LED display, 115-230 VAC with RJ45, UK power cord	7 lb	\$1,095.00
<b>200186††††</b>	680 Plus Indicator, LED display, 115-230 VAC with RJ45, AUS power cord	7 lb	\$1,095.00

\*Not UL approved

\*\*IP rating is IP66 with RJ45 option

## Options/Accessories

Part #	Description	Price
<b>195084</b>	Analog output option card	\$345.00
<b>151099</b>	Panel mount option, gasketed non-NEMA seal	\$185.00
<b>195684</b>	CPU board	\$470.00
<b>194477</b>	Parts kit	\$31.50

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



† US plug (NA) - Type B



†† Euro Plug - Type E



††† BS1363 (UK) - Type G



†††† AS 3112 (Australian) - Type I

INDICATORS /  
CONTROLLERS

# 682 Synergy Series

Digital Weight Indicator

NEW



INDICATORS /  
CONTROLLERS

## Approvals



## Standard Features

- Graphical, LCD color display with configurable softkeys
- Numeric, tactile keypad for scale operations, numeric entry and navigation
- Multi-language operation and text entry
- Formattable tickets
- Battery backed time and date
- Multiple communication ports
- Eight setpoints, 22 configurable types
- Fieldbus communication using Rice Lake's SCT-2200 modules and RS-485 port
- Built-in web server for remote access, systems integration and data monitoring
- Built-in Truck In/Out application
- Four onboard configurable digital I/O points, TTL logic
- Local/remote
- Multi-range/interval

## Options

- Analog output: 16-bit resolution, 0-10 VDC, 0-20 mA, 4-20 mA
- Relay card
- Dual serial card
- RJ45 Ethernet connector

*Note: IP Rating is IP66 with RJ45 option. Rating is valid only when the cover is in place, not in use.*

## Specifications

### Power:

Line voltage: 100 to 240 VAC, 50/60Hz  
Optional: 9 to 23 VDC

### Power Consumption:

3.2W (AC) 1 × 350 ohm load cell, 15W max;  
4W 4 × 350 ohm load cells or  
8 × 700 ohm load cells

### Excitation Voltage:

10 VDC (± 5 VDC), 8 × 350 ohm or  
16 × 700 ohm load cells

### Analog Signal Input Range:

-5 mV to +70 mV

### Analog Signal Sensitivity:

0.3  $\mu$ V/graduation minimum  
1  $\mu$ V/graduation recommended

### A/D Sample Rate:

6.25 to 120 Hz, software selectable

### Resolution:

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

### System Linearity:

Within 0.01% full scale

### Digital I/O:

Four configurable I/O, 5V logic

### Communication Ports:

Two RS-232 (three-wire)  
RS-485/422 (two-wire or four-wire)  
Micro USB (device)  
Ethernet TCP/IP (10/100)  
Wi-Fi  
Bluetooth®

### Annunciators:

Zero, Gross/Net, Tare, Wi-Fi, Bluetooth®

### Display:

Five-inch LCD, 800 × 480 pixel, 500 NIT

### Keys/Buttons:

Flat membrane panel, tactile feel  
18 buttons plus 5 softkeys and power

### Dimensions:

(L x W x H)  
10.0 x 4.0 x 8.6 in  
(254 x 102 x 218 mm)

### Temperature Range:

Certified: 14 °F to 104 °F (-10 °C to 40 °C)  
Industrial: 14 °F to 122 °F (-10 °C to 50 °C)

### Rating/Material:

IP69K (IP66 with RJ45 option)  
AISI 304 Stainless Steel

### Weight:

6.25 lb (2.84 kg)

### Warranty:

Two-year limited

### Approvals:

NTEP CC 19-021, Class III/IIIL, 10,000d  
Measurement Canada AM-6121C  
OIML R76 2006 A NL1 19.56R3  
EU Test Certificate TC11562  
cULus  
CE Marked  
UKCA



# 682 Synergy Series

Digital Weight Indicator

## Part Number/Price

Part #	Description	Est. Weight	Price
<b>115-230 VAC</b>			
<b>193155†</b>	682 Plus indicator, LCD display, US power cord	7 lb	\$1,095.00
<b>193156††</b>	682 Plus indicator, LCD display, EU power cord	7 lb	\$1,095.00
<b>207348†††</b>	682 Plus indicator, LCD display, UK power cord	7 lb	\$1,095.00
<b>207349††††</b>	682 Plus indicator, LCD display, AU power cord	7 lb	\$1,095.00
<b>9-36 VDC</b>			
<b>193157</b>	682 Plus indicator, LCD display	7 lb	\$1,205.00
<b>With External RJ45 Connector*</b>			
<b>207354†</b>	682 Plus indicator, LCD display, 115-230 VAC with RJ45, US power cord	7 lb	\$1,245.00
<b>207355††</b>	682 Plus indicator, LCD display, 115-230 VAC with RJ45, EU power cord	7 lb	\$1,245.00
<b>207356†††</b>	682 Plus indicator, LCD display, 115-230 VAC with RJ45, UK power cord	7 lb	\$1,245.00
<b>207357††††</b>	682 Plus indicator, LCD display, 115-230 VAC with RJ45, AU power cord	7 lb	\$1,245.00

\*IP rating is IP66 with RJ45 option



† US plug (NA) - Type B



†† Euro Plug - Type E



††† BS1363 (UK) - Type G



†††† AS 3112 (Australian) - Type I

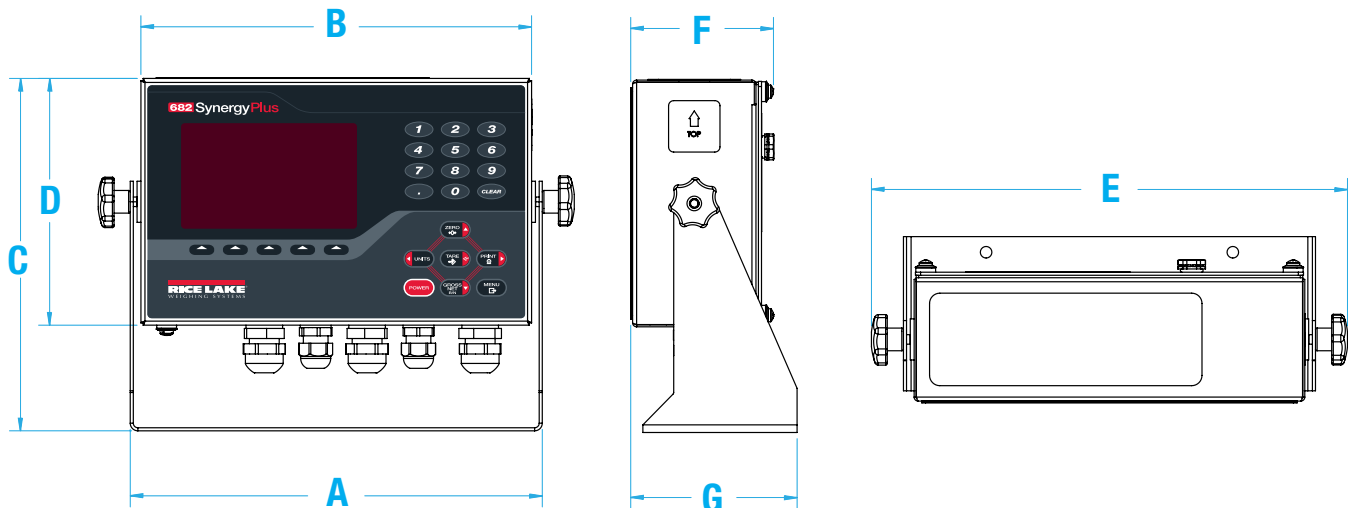
## Options/Accessories

Part #	Description	Price
<b>195084</b>	Analog output	\$345.00
<b>211709</b>	Relay board	\$345.00
<b>211710</b>	Serial output	\$345.00
<b>151099</b>	Panel Mount	\$185.00
<b>211701</b>	Replacement CPU	\$445.00
<b>194477</b>	Parts kit	\$31.50

Note: Reference SCT-2200 (page 540) for Fieldbus part numbers

## Dimensions

682 Synergy Series			
A	10.0 in (254 mm)	E	11.6 in (295 mm)
B	9.5 in (241 mm)	F	3.5 in (89 mm)
C	8.6 in (218 mm)	G	4.0 in (102 mm)
D	6.0 in (152 mm)		



INDICATORS /  
CONTROLLERS

# 680HE Synergy Series

Hostile Environment Digital Weight Indicator

INDICATORS /  
CONTROLLERS



## Approvals



## Part Number/Price

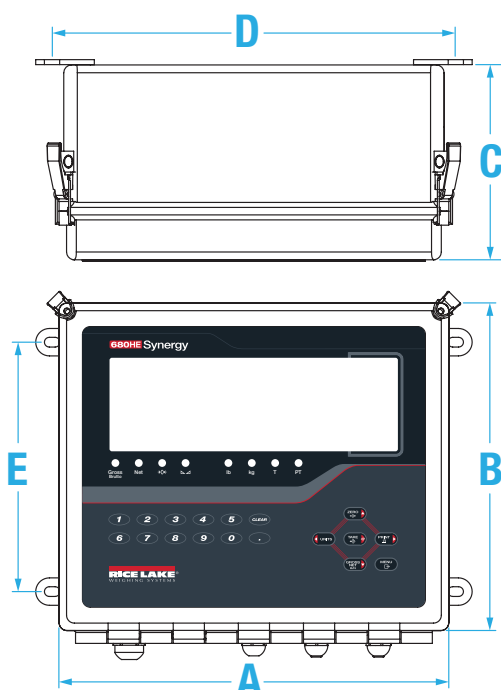
Part #	Description	Est. Weight	Price
197177	680HE Plus indicator, 115 to 230 VAC	6.25 lb (3 kg)	\$1,955.00
199574	680HE Plus indicator, 115 to 230 VAC with external RJ45	6.25 lb (3 kg)	\$2,075.00

## Options/Accessories

Part #	Description	Price
195084	Analog output option card	\$345.00

## Dimensions

680HE Synergy Series			
A	12.50 in (317.5 mm)	D	13.00 in (330.2 mm)
B	10.50 in (266.7 mm)	E	8.00 in (203.2 mm)
C	6.30 in (160.0 mm)		



## Standard Features

- LED display
- Battery backed time and date
- Full numeric keypad
- Multiple communication ports
- Eight setpoints, 22 configurable types
- Numeric keyed entry for tare and setpoint entry
- Formattable tickets
- Four onboard configurable digital I/O points, TTL logic
- Local/remote

## Options

- Ethernet bulkhead connector
- Analog output: 16-bit resolutions, 0-10 VDC, 0-20 mA, 4-20 mA

## Specifications

### Power:

Line voltages: 100 to 240 VAC  
Frequency: 50/ 60 Hz

### Power Consumption:

12W (AC) with one 350 ohm load cell, 30W max

### Excitation Voltage:

10 VDC (± 5 VDC)

### Analog Signal Input Range:

-0.5 mV/V to +7 mV/V

### Analog Signal Sensitivity:

1 µV/graduation recommended

### A/D Sample Rate:

6.25 to 120 Hz, software selectable

### Resolution:

Internal: 8,000,000 counts  
Display: 100,000

### System Linearity:

Within 0.01% full scale

### Digital I/O:

Four configurable I/O-5V logic

### Communication Ports:

Two RS-232 (three-wire)  
RS-485/422 (five-wire)  
Micro USB (device)  
Ethernet TCP/IP (10/100)

### Annunciators:

Eight LED annunciators

### Display:

Six 2.5 in tall, seven-segment digits

### Keys/Buttons:

Flat membrane panel, tactile feel  
(18 buttons)

### Dimensions:

(L × W × H)  
12.50 × 6.30 × 10.50 in  
(318 × 160 × 267 mm)

### Temperature Range:

Certified: 14 °F to 104 °F (-10 °C to 40 °C)  
Operating: 14 °F to 122 °F (-10 °C to 50 °C)

### Rating/Material:

IP66, FRP

### Weight:

7.9 lb (3.5 kg)

### Warranty:

Two-year limited

### EMC Immunity:

10 V/m

### Approvals:

NTEP CC 19-021, Class III/IIIL, 10,000d  
Measurement Canada AM-6121C  
cULus Listed  
CE Marked



## Approvals



## Standard Features

- LCD display
- Four softkeys
- Truck in/out, 1,000-ID memory (PCE software version)
- 32 setpoints, 26 configurable types (Batch software version)
- Process control engine ProAction PCE define conditions and actions
- Data storage onboard, ProAction DBE user-defined
- Eight digital I/O (expandable)
- One option slot for pluggable options
- 20 auxiliary print formats
- Time & date
- Audit trail tracking and alibi storage
- Peak hold
- Rate of change
- Accumulator
- Multi-range/interval
- Local/remote
- Two full duplex serial ports
- Header for fiber -optic, Ethernet or USB



Panel Mount



CPU Enclosure

## Specifications

### Power:

Line voltages: 100 to 240 VAC  
Frequency: 50 to 60 Hz  
DC voltages: 12 to 24 VDC

### Power Consumption:

25 W

### Excitation Voltage:

10 VDC (+/-5 VDC), 16 × 350 ohm or 32 × 700 ohm load cells

### Analog Signal Input Range:

-10 mV to +45 mV

### Analog Signal Sensitivity:

0.3 µV/graduation minimum at 7.5 Hz  
1.0 µV/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:

±0.01% full scale

### Digital I/O:

Eight channels on CPU board;  
optional 24-channel I/O

### Communication Ports:

Two ports on CPU board support up to 115,200 bps  
Port 2: Full duplex RS-232 with handshaking  
Port 4: Full duplex RS-232, simplex 20mA  
Optional dual-channel serial expansion boards  
Channel A: RS-232, RS-485, 20 mA  
Channel B: RS-232, 20 mA

### Display:

240 × 64 pixel, transreflective LCD  
Panel mount: 3.8 × 1.2 in (96 × 30 mm)  
Universal: 5.3 × 1.5 in (133 × 39 mm)

### Keys/Buttons:

Ten-key (panel mount) membrane panel  
22-key (universal) membrane panel tactile feel

### Temperature Range:

Certified: 14 °F to 104 °F (-10 °C to 40 °C)  
Operating: 14 °F to 122 °F (-10 °C to 50 °C)

### Rating/Material:

NEMA Type 4X/IP66  
Stainless steel

### Weight:

Universal enclosure: 9.5 lb (4.3 kg)  
Panel Mount enclosure: 8.5 lb (3.9 kg)

### Warranty:

Two-year limited

### EMC Immunity:

3 V/m

### Approvals:

NTEP CC 08-022, Class III/IIL 10,000d  
Measurement Canada AM-5677C  
Class III/IIHD 10,000d  
CE Marked  
UL/cUL Listed (universal)  
UL/cUL Recognized (panel mount)

# 720i™ Series

Programmable Weight Indicator/Controller

## Part Number/Price

Part #	Description	Est. Weight	Price
<b>PCE Software</b>			
<b>101230</b> †	720i Universal, 115 VAC	12 lb	\$1,700.00
<b>103459</b> ††	720i Universal, 115 to 230 VAC, CE	12 lb	\$1,700.00
<b>107708</b> *	720i Universal, 12 to 24 VDC	12 lb	\$1,800.00
<b>101229</b> **	720i Panel Mount, 115 to 230 VAC	12 lb	\$1,700.00
<b>119116</b> **	720i Panel Mount, 115 to 230 VAC, CE	12 lb	\$1,700.00
<b>107710</b> *	720i Panel Mount, 12 to 24 VDC	12 lb	\$1,800.00
<b>Batch Software</b>			
<b>115447</b> †	720i Universal, 115 VAC	12 lb	\$1,700.00
<b>115448</b> ††	720i Universal, 115 to 230 VAC, CE	12 lb	\$1,700.00
<b>115449</b> **	720i Panel Mount, 115 to 230 VAC	12 lb	\$1,700.00

\*DC/DC converter installed option, not UL approved

\*\*Power cord sold separately



† US plug (NEMA) - Type B



†† Euro Plug - Type E

## Options/Accessories

Part #	Description	Price
<b>Option Cards</b>		
<b>67601</b>	Digital I/O, 24-channel	\$300.00
<b>67602</b>	Analog output: selectable 0-10 V, 0-20 mA	\$325.00
<b>67604</b>	Serial, dual channel	\$350.00
<b>Network Cards</b>		
<b>77142</b>	Ethernet TCP/IP Port (replaces serial port 2)	\$420.00
<b>71986</b>	Ethernet TCP/IP module (installed in option slot)	\$420.00
<b>206272</b>	Wi-Fi 802.11 A/B (replaces serial port 2)	\$570.00
<b>87803</b>	EtherNet/IP® interface	\$840.00
<b>68539</b>	Remote I/O interface	\$700.00
<b>68540</b>	Profibus® DP interface	\$700.00
<b>68541</b>	DeviceNet™ interface	\$700.00
<b>Hardware</b>		
<b>15436</b>	Power cord for Panel Mount NEMA Type 5-15 plug	\$18.00
<b>105382</b>	Power cord for Panel Mount CEE 7/7 plug	\$18.00
<b>19369</b>	Start/stop switch box	\$415.00
<b>83569</b>	Clear protective overlay (package of five)	\$79.00
<b>118975</b>	Mount kit to convert Universal to Panel - non-NEMA rated	\$195.00
<b>101923</b>	Remote relay box, does not include relay	\$355.00
<b>Manuals &amp; Software</b>		
<b>103121</b>	Installation manual	\$25.00
<b>Primary Component Parts</b>		
<b>106788</b>	CPU board assembly with PCE firmware	\$875.00
<b>195388</b>	CPU board assembly with batching firmware	\$875.00
<b>101244</b>	LCD display (Panel Mount) transfective	\$160.00
<b>102888</b>	LCD display (Universal) transfective	\$160.00
<b>101239</b>	Display board (includes display for Panel Mount)	\$420.00
<b>102887</b>	Display board (w/o display for Universal)	\$315.00
<b>67613</b>	AC power supply 100 to 240 nominal, 25 watt	\$195.00
<b>132791</b>	DC/DC power supply 12 to 24 VDC nominal, 25 watt	\$235.00
<b>101256</b>	Switch membrane for Panel Mount	\$69.00
<b>101257</b>	Switch membrane for Universal	\$69.00

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

# 720i™ Series

Programmable Weight Indicator/Controller

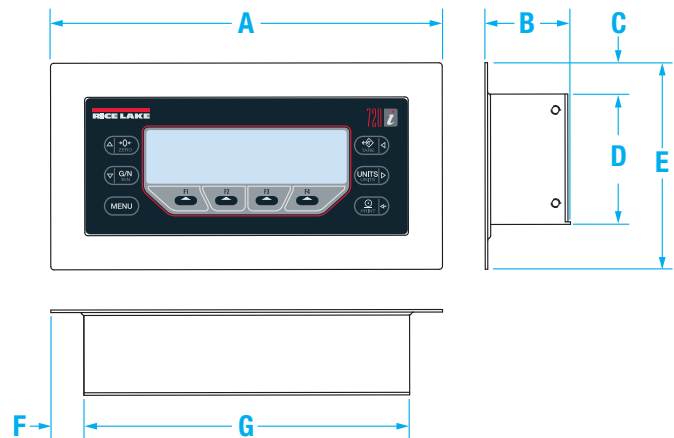
## Dimensions

### 720i Panel Mount Display

A	7.36 in (187 mm)	D	2.45 in (62 mm)	G	6.12 in (155 mm)
B	1.60 in (41 mm)	E	3.88 in (99 mm)		
C	0.59 in (15 mm)	F	0.62 in (16 mm)		

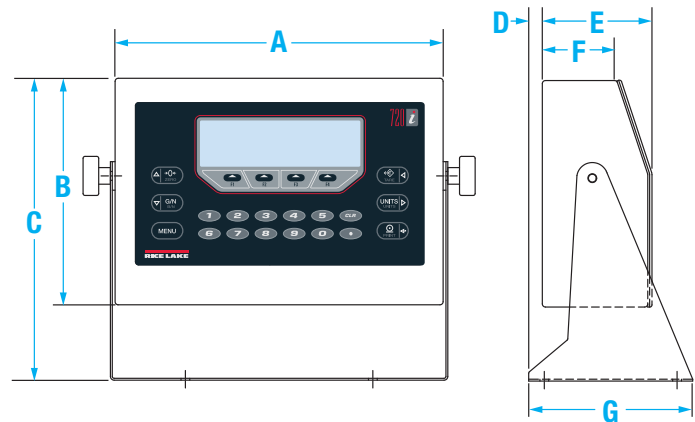
### 720i Panel Mount CPU Enclosure

(L × W × H): 12.75 × 6.05 × 2.14 in (324 × 154 × 5 mm)



### 720i Universal

A	10.50 in (267 mm)	D	0.44 in (11 mm)	G	5.25 in (133 mm)
B	7.25 in (184 mm)	E	3.51 in (89 mm)		
C	9.66 in (245 mm)	F	2.31 in (59 mm)		



INDICATORS /  
CONTROLLERS

# 880/880 Plus Performance™ Series

Programmable Weight Indicator/Controller



880 Plus Universal



880 Panel Mount

INDICATORS /  
CONTROLLERS

## Approvals



## Standard Features

- LED display
- USB device port connects directly to a PC
- Ethernet TCP/IP polled or continuous polled or continuous, server/client
- Built-in DIN-rail clips on controller box (panel mount)
- Display and controller can be separated up to 250 ft (panel mount)
- Hardware slot for one option card
- Operator functions through menu key for audit trail, preset tare, accumulator, time & date and setpoints
- Audit trail tracking for configuration and calibration changes. Password protection for user and configuration changes.
- 20 setpoints with latched batch engine or unlatched outputs
- Four onboard digital I/O channels
- Programmable ticket formats up to 1,000 characters for header text, gross, net, accumulator and setpoints
- Five-point linearization calibration
- Local/remote operation
- Multi-range or multi-interval weighing
- Filter settings for light, medium and heavy noise

## Options

- Analog output
- Relay board
- Fieldbus connectivity
- Dual serial output (v4.00 and newer)
- 24-channel digital I/O (v4.00 and newer)
- Truck in/out program for 100 vehicle IDs
- Adapter plate for converting 310 and 520 panel mounts
- Panel mount kit for universal enclosure

## Specifications

### Power:

Line voltages: 100 to 240 VAC  
Frequency: 50 to 60 Hz  
DC voltages: 12 to 24 VDC

### Power consumption:

AC: 15 W, DC: 20 W

### Excitation Voltage:

10 VDC (+/- 5 VDC), 16 × 350 ohm or 32 × 700 ohm load cells

### Analog Signal Input Range:

-45 mV to 45 mV

### Analog Signal Sensitivity:

0.3 µV/graduation minimum at 7.5 Hz;  
1.0 µV/graduation recommended

### A/D Sample Rate:

7.5 to 960 Hz, software selectable

### Resolution:

Internal: 8,000,000 counts  
Display: 999,999

### System Linearity:

± 0.01% full scale

### Digital I/O:

Four I/O onboard, primary keys, pseudo functions, batching functions

### Communication Ports:

RS-232 full duplex or RS-485 half duplex;  
USB micro A/B connector 2.0;  
Ethernet TCP/IP

### Annunciators:

Gross, net, center of zero, standstill, lb, kg, tare, preset tare, multi-range/interval 1/2/3

### Display:

LED, 0.56 in (14 mm), six-digit, 14-segment with decimal or comma

### Keys/Buttons:

Membrane panel, tactile feel

### Dimensions:

(L × W × H)  
Panel: 6.00 × 4.95 × 4.00 in (152 × 126 × 102 mm)  
Universal: 9.87 × 4.00 × 9.38 in  
(248 × 102 × 235 mm)

### Temperature Range:

Certified: 14 °F to 104 °F (-10 °C to 40 °C)  
Operating: 14 °F to 122 °F (-10 °C to 50 °C)

### Rating/Material:

Panel display: stainless steel, NEMA Type 4X, Type 12 and IP69K  
Panel mount controller: Aluminum  
Universal: stainless steel, IP69K

### Weight:

Panel: 2.5 lb (1.2 kg);  
Universal: 6.5 lb (2.9 kg)

### Warranty:

Two-year limited

### EMC Immunity:

10 V/m

### Approvals:

NTEP CC 13-080 Class III/IIIL, 10,000d  
Measurement Canada AM-5931C  
OIML R76/2006-A-NL1-18.23 Class III, 10,000d  
EU Test Certificate TC8463  
UL/cUL Listed (universal)  
UL/cUL Recognized (panel mount)  
CE Marked  
NAWI Certified



# 880/880 Plus Performance™ Series

Digital Weight Indicator/Controller

## Part Number/Price

Part #	Description	Est. Weight	Price
<b>880 Panel Mount AC Powered*</b>			
<b>177976</b>	115 to 230 VAC, indicator	4 lb	\$1,350.00
<b>177979</b>	115 to 230 VAC, with analog output	4 lb	\$1,725.00
<b>177980</b>	115 to 230 VAC, with relay board	4 lb	\$1,725.00
<b>177982</b>	115 to 230 VAC, with EtherNet/IP, single port	4 lb	\$2,000.00
<b>177983</b>	115 to 230 VAC, with ProfiNet, single port	4 lb	\$2,000.00
<b>177984</b>	115 to 230 VAC, with Modbus/TCP, single port	4 lb	\$2,000.00
<b>177985</b>	115 to 230 VAC, with Profibus DP	4 lb	\$2,000.00
<b>177986</b>	115 to 230 VAC, with DeviceNet	4 lb	\$2,000.00
<b>179155</b>	115 to 230 VAC, with EtherCAT	4 lb	\$2,000.00
<b>880 Panel Mount DC Powered*</b>			
<b>177987</b>	12 to 24 VDC, indicator	4 lb	\$1,450.00
<b>880 Plus Universal AC Powered</b>			
<b>177989 †</b>	115 VAC, indicator	8 lb	\$1,600.00
<b>178496 †</b>	115 VAC, with analog output	8 lb	\$1,950.00
<b>178499 †</b>	115 VAC, with relay board	8 lb	\$1,950.00
<b>179147 †</b>	115 VAC, with EtherNet/IP, single port	8 lb	\$2,225.00
<b>179148 †</b>	115 VAC, with Profinet, single port	8 lb	\$2,225.00
<b>179149 †</b>	115 VAC, with Modbus TCP, single port	8 lb	\$2,225.00
<b>179150 †</b>	115 VAC, with Profibus	8 lb	\$2,225.00
<b>179152 †</b>	115 VAC, with DeviceNet	8 lb	\$2,225.00
<b>179154 †</b>	115 VAC, with EtherCAT	8 lb	\$2,225.00
<b>177990 ††</b>	115-230 VAC, indicator	8 lb	\$1,600.00
<b>178497 ††</b>	115-230 VAC, with analog output	8 lb	\$1,950.00
<b>178500 ††</b>	115-230 VAC, with relay board	8 lb	\$1,950.00
<b>880 Plus Universal DC Powered</b>			
<b>178495</b>	9 to 36 VDC, indicator	8 lb	\$1,700.00

\*Power cord not included

Indicator part numbers contain the single port network card



† US plug (NA) - Type B



†† Euro Plug - Type E

## Options/Accessories

Part #	Description	Price
<b>Option Cards (5.5 in CPU only)</b>		
<b>179156</b>	Analog output, 0-10 VDC, 0-20 mA, 4-20 mA	\$375.00
<b>179157</b>	Relay board, four dry contact outputs	\$350.00
<b>197343**</b>	Digital I/O, 24-channel TTL output	\$325.00
<b>197347**</b>	Serial ports, dual-channel RS-232/RS-485	\$375.00
<b>Network Cards</b>		
<b>179158</b>	EtherCAT interface	\$600.00
<b>179159</b>	EtherNet/IP® interface, single port	\$600.00
<b>179160</b>	Profinet® interface, single port	\$600.00
<b>179161</b>	Modbus TCP/IP interface, single port	\$600.00
<b>179162</b>	DeviceNet® interface	\$600.00
<b>179163</b>	Profibus DP interface	\$600.00
<b>205566</b>	EtherNet/IP interface, dual port	\$750.00
<b>205567</b>	Profinet interface, dual port	\$750.00
<b>205568</b>	Modbus TCP/IP interface, dual port	\$750.00
<b>Hardware</b>		
<b>153660</b>	Metrological sealing kit for panel mount	\$11.00
<b>158404</b>	Adapter plate for IQ310 and 520 replacement	\$73.00
<b>101923</b>	Relay box enclosure, does not include relay	\$355.00
<b>177850</b>	Mount kit, convert Universal to Panel, non-NEMA	\$215.00
<b>180835</b>	Universal backplate with RJ-45 receptacle	\$110.00
<b>197422</b>	Universal backplate with micro USB receptacle	\$125.00
<b>197724</b>	Clear protective overlay for Universal (pack of 5)	\$75.00
<b>15436</b>	Power cord for Panel Mount, US plug	\$18.00

## Options/Accessories

Part #	Description	Price
<b>105382</b>	Power cord for Panel Mount, Euro plug	\$18.00
<b>Cables</b>		
<b>152434</b>	Cable, USB A to micro A shielded, 2 meters	\$15.00
<b>156817</b>	Cable, Ethernet RJ45 connectors 1 meter	\$35.00
<b>156806</b>	Cable, USB A to A, 1 meter	\$35.00
<b>156809</b>	Cable, USB A to B, 1 meter	\$55.00
<b>Manuals and Software</b>		
<b>152240</b>	Operators manual	\$25.00
<b>158387</b>	Technical manual	\$25.00
<b>Primary Component Parts</b>		
<b>131740</b>	Overlay, Panel Mount, six-key	\$69.00
<b>163986</b>	Overlay, Universal with numeric keypad	\$69.00
<b>131598</b>	Display board	\$240.00
<b>175603*</b>	Power supply, 100 to 240 VAC	\$210.00
<b>175604*</b>	Power supply, 12 to 24 VDC	\$315.00
<b>175109*</b>	CPU board	\$575.00

\* Design change in 2017 to 5.5in wide controller, see replacement parts catalog for the 5.0inch wide boards.

\*\* Requires version 4.0 firmware

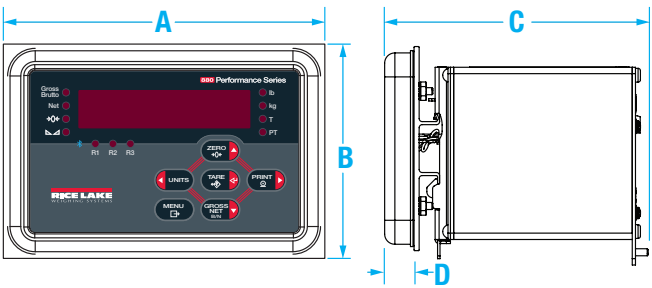
To have your option factory installed, please specify when placing your order.

# 880/880 Plus Performance™ Series

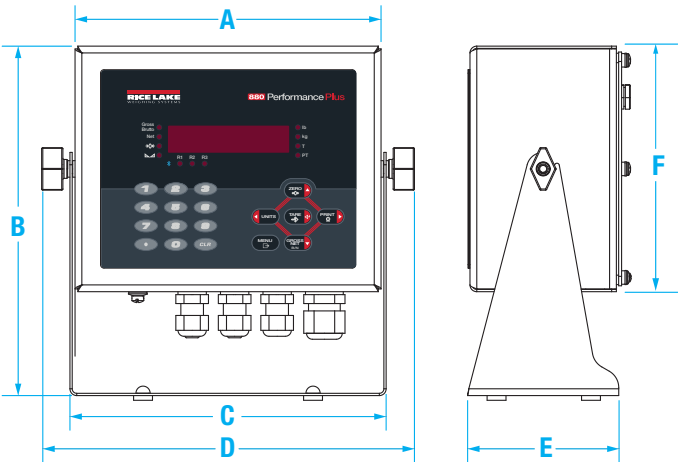
Digital Weight Indicator/Controller

## Dimensions

880 Panel Mount			
A	6.0 in (152 mm)	C	4.95 in (126 mm)
B	4.0 in (102 mm)	D	0.58 in (14 mm) BEZEL DEPTH



880 Universal			
A	8.10 in (206 mm)	D	9.87 in (248 mm)
B	9.38 in (235 mm)	E	4.0 in (102 mm)
C	8.37 in (213 mm)	F	6.5 in (165 mm)





### Approvals



### Standard Features

- Customizable backlit LCD graphical user interface
- 22 softkeys with 10 user-defined keys
- Tactile keypad for scale operations, numeric entry and navigation
- On-screen keyboard available during entry mode (or external keyboard)
- Supports 28 scales within five different scale types:
  - Analog load cell, multi-range/interval weighing
  - Total scale summing
  - Serial input scales
  - iQUBE<sup>2</sup> scales
  - Program scales
- Two to 14 option slots for additional scale channels, serial ports, digital inputs and outputs, analog outputs and protocol interfaces
- iRite™ Programming Software
  - Customizable user applications with event-based functions
  - 150 built-in functions for application processes & data tables
- Four serial ports supporting RS-232, RS-485, 20mA
- USB Type A and B replaces Serial on Port 2 (USB model)
- Alibi memory captures serial port transmissions
- Configurable data stream format
- 100 setpoints, 27 configurable setpoint types
- Six digital I/O for control
- Four different enclosure types: universal, deep universal, wall mount, panel mount

### Specifications

#### Power:

AC voltages: 100 to 240 VAC  
Frequency: 50 /60 Hz  
DC voltages: 12 to 24 VDC

#### Power Consumption:

AC: 25W (universal) or 65W (others)  
DC: 25W for all models

#### Excitation Voltage:

10 VDC (+/- 5 VDC)  
16 × 350 ohm or 32 × 700 ohm load cells  
per A/D card

#### Analog Signal Input Range:

-45 mV to +45 mV

#### Analog Signal Sensitivity:

0.3 µV/graduation minimum at 7.5 Hz  
1.0 µV/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:

± 0.01% full scale

#### Digital I/O:

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

#### Communication Ports:

Four ports on CPU board support up to 115,200bps  
Port 1: Full duplex RS-232  
Port 2: RS-232 with CTS/RTS; PS/2 keyboard interface or USB type A and B connectors  
Port 3: Full duplex RS-232, 20mA  
Port 4: Full duplex RS-232, 2-wire RS-485, 20mA  
Optional dual-channel serial expansion boards  
Channel A: RS-232, RS-485, 20 mA  
Channel B: RS-232, 20 mA

#### Display:

(W × H)  
4.6 × 3.4 in (116 × 86 mm),  
320 × 240 pixel  
LCD module with adjustable contrast  
Transmissive display  
Transflective display (optional)

#### Keys/Buttons:

27-key membrane panel, tactile feel,  
PS/2 or USB port for external keyboard connection

#### Temperature Range:

Certified: 14 °F to 104 °F (-10 °C to 40 °C)  
Operating: 14 °F to 122 °F (-10 °C to 50 °C)

#### Rating/Material:

NEMA Type 4X, Type 12, IP66  
Stainless steel

#### Weight:

Universal enclosure: 9.5 lb (4.3 kg)  
Wall mount enclosure: 23.0 lb (10.4 kg)  
Panel mount enclosure: 8.5 lb (3.9 kg)  
Deep universal: 11 lb (5.0 kg)

#### Warranty:

Two-year limited

#### EMC Immunity:

10 V/m

#### Approvals:

NTEP CC 01-088, Class III/IIII 10,000d  
Measurement Canada AM-5426,  
Class III/IIII HD 10,000d  
OIML R76/2006-A-GB1-19.08  
EU Test Certificate TC11584  
UL/cUL Listed (Universal, Deep Universal and Wall Mount)  
cULus Recognized (Panel Mount)  
cULus Listed 508A (Custom Wall Mount)  
CE Marked

# 920i® Series

Programmable Weight Indicator/Controller



INDICATORS /  
CONTROLLERS

## 920i Universal Part Number/Price

Part #	Description	USB	Est. Weight	Price
<b>Single-Channel</b>				
67527 †	115 VAC		10 lb	\$2,675.00
115003 †	115 VAC	USB	10 lb	\$2,775.00
67615 †	230 VAC		10 lb	\$2,675.00
120062 †	230 VAC	USB	10 lb	\$2,775.00
69522 ††	230 VAC		10 lb	\$2,675.00
120074 ††	230 VAC	USB	10 lb	\$2,775.00
107713*	12 to 24 VDC, 25 watt		10 lb	\$2,775.00
120080*	12 to 24 VDC, 25 watt	USB	10 lb	\$2,900.00
<b>Dual-Channel</b>				
69767 †	115 VAC		10 lb	\$2,775.00
120086 †	115 VAC	USB	10 lb	\$2,900.00
69772 †	230 VAC		10 lb	\$2,775.00
120090 †	230 VAC	USB	10 lb	\$2,900.00
69774 ††	230 VAC		10 lb	\$2,775.00
120096 ††	230 VAC	USB	10 lb	\$2,900.00
<b>No A/D Channel</b>				
77790 †	115 VAC		10 lb	\$2,500.00
120100 †	115 VAC	USB	10 lb	\$2,625.00
77791 ††	230 VAC		10 lb	\$2,500.00
120104 ††	230 VAC	USB	10 lb	\$2,625.00

\*DC/DC converter installed option, not UL approved



† US plug (NA) - Type B



†† Euro Plug - Type E

## 920i Deep Universal Part Number/Price

Part #	Description	USB	Est. Weight	Price
<b>Single-Channel</b>				
82455 †	115 VAC		12 lb	\$2,900.00
115004 †	115 VAC	USB	12 lb	\$3,000.00
82457 †	230 VAC		12 lb	\$2,900.00
120064 †	230 VAC	USB	12 lb	\$3,000.00
82459 ††	230 VAC		12 lb	\$2,900.00
120075 ††	230 VAC	USB	12 lb	\$3,000.00
107714*	12 to 24 VDC, 25 watt		12 lb	\$3,000.00
120081*	12 to 24 VDC, 25 watt	USB	12 lb	\$3,100.00
<b>Dual-Channel</b>				
82456 †	115 VAC		12 lb	\$3,000.00
120087 †	115 VAC	USB	12 lb	\$3,100.00
82458 †	230 VAC		12 lb	\$3,000.00
120092 †	230 VAC	USB	12 lb	\$3,100.00
82460 ††	230 VAC		12 lb	\$3,000.00
120097 ††	230 VAC	USB	12 lb	\$3,100.00
<b>No A/D Channel</b>				
93243 †	115 VAC		12 lb	\$2,725.00
120101 †	115 VAC	USB	12 lb	\$2,825.00
93244 ††	230 VAC		12 lb	\$2,725.00
120105 ††	230 VAC	USB	12 lb	\$2,825.00

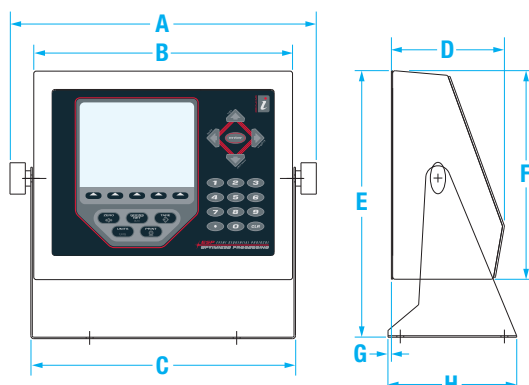
\*DC/DC converter installed option, not UL approved



† US plug (NA) - Type B

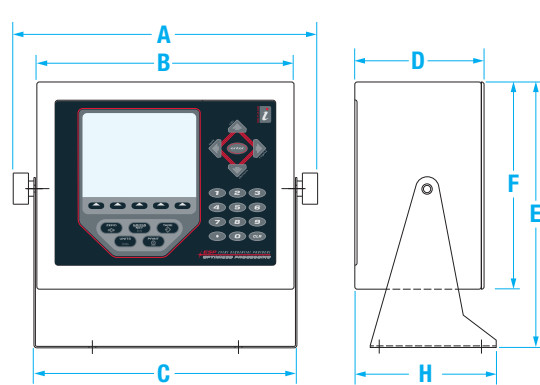


†† Euro Plug - Type E



## Dimensions

920i Universal					
A	12.50 in (318 mm)	D	4.61 in (117 mm)	G	0.14 in (3.5 mm)
B	10.56 in (268 mm)	E	10.87 in (276 mm)	H	5.25 in (206 mm)
C	10.90 in (277 mm)	F	8.50 in (216 mm)		



## Dimensions

920i Deep Universal					
A	12.50 in (318 mm)	D	5.36 in (136 mm)	F	8.50 in (216 mm)
B	10.76 in (273 mm)	E	10.87 in (276 mm)	H	5.88 in (149 mm)
C	10.90 in (277 mm)				

# 920i® Series

Programmable Weight Indicator/Controller



## 920i Wall Mount Part Number/Price

Part #	Description	USB	Est. Weight	Price
<b>Single-Channel</b>				
69763 †	115 VAC		23 lb	\$3,375.00
115005 †	115 VAC	USB	23 lb	\$3,475.00
69765 †	230 VAC		23 lb	\$3,375.00
120066 †	230 VAC	USB	23 lb	\$3,475.00
72133 ††	230 VAC		23 lb	\$3,375.00
120078 ††	230 VAC	USB	23 lb	\$3,475.00
107715*	12-24 VDC, 25 watt		23 lb	\$3,475.00
120082*	12-24 VDC, 25 watt	USB	23 lb	\$3,600.00
<b>Dual-Channel</b>				
69770 †	115 VAC		23 lb	\$3,475.00
120088 †	115 VAC	USB	23 lb	\$3,600.00
69776 †	230 VAC		23 lb	\$3,475.00
120093 †	230 VAC	USB	23 lb	\$3,600.00
72134 ††	230 VAC		23 lb	\$3,475.00
120098 ††	230 VAC	USB	23 lb	\$3,600.00
<b>No A/D Channel</b>				
77794 †	115 VAC		23 lb	\$3,225.00
120102 †	115 VAC	USB	23 lb	\$3,325.00
77795 ††	230 VAC		23 lb	\$3,225.00
120106 ††	230 VAC	USB	23 lb	\$3,325.00
153346	115 VAC with start/stop switches		23 lb	\$3,145.00

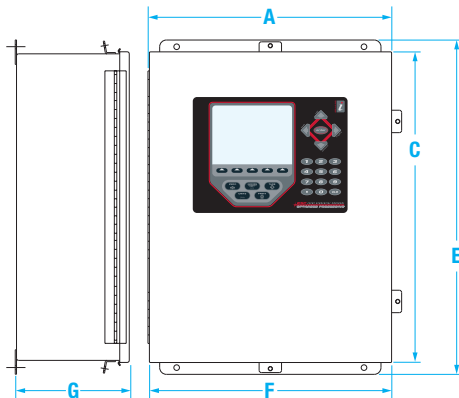
\*DC/DC converter installed option, not UL approved



† US plug (NA) - Type B



†† Euro Plug - Type E



## Dimensions

<b>920i Wall Mount</b>						
A	14.30 in (363 mm)	D	18.84 in (479 mm)	F	14.30 in (363 mm)	
B	11.00 in (279 mm)	E	19.63 in (499 mm)	G	6.75 in (171 mm)	
C	18.20 in (462 mm)					

## 920i Panel Mount Part Number/Price

Part #	Description	USB	Est. Weight	Price
<b>Single-Channel</b>				
69764 †	115 VAC		9 lb	\$2,675.00
115006 †	115 VAC	USB	9 lb	\$2,775.00
69766 †	230 VAC		9 lb	\$2,675.00
120069 †	230 VAC	USB	9 lb	\$2,775.00
72137 ††	230 VAC		9 lb	\$2,675.00
120079 ††	230 VAC	USB	9 lb	\$2,775.00
107716*	12-24 VDC, 25 watt		9 lb	\$2,775.00
120083*	12-24 VDC, 25 watt	USB	9 lb	\$2,900.00
<b>Dual-Channel</b>				
69771 †	115 VAC		9 lb	\$2,775.00
120089 †	115 VAC	USB	9 lb	\$2,900.00
69777 †	230 VAC		9 lb	\$2,775.00
120095 †	230 VAC	USB	9 lb	\$2,900.00
72138 ††	230 VAC		9 lb	\$2,775.00
120099 ††	230 VAC	USB	9 lb	\$2,900.00
<b>No A/D Channel</b>				
77792 †	115 VAC		9 lb	\$2,500.00
120103 †	115 VAC	USB	9 lb	\$2,625.00
77793 ††	230 VAC		9 lb	\$2,500.00
120107 ††	230 VAC	USB	9 lb	\$2,625.00

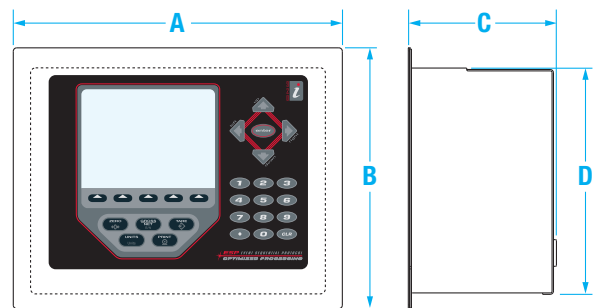
\*DC/DC converter installed option, not UL approved



† US plug (NA) - Type B



†† Euro Plug - Type E



## Dimensions

<b>920i Panel Mount</b>			
A	11.56 in (294 mm)	C	5.20 in (132 mm)
B	9.16 in (233 mm)	D	7.95 in (202 mm)

INDICATORS /  
CONTROLLERS



# 920i® Series

Programmable Weight Indicator/Controller

## Options/Accessories

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

Part #	Description	Price
<b>Option Cards</b>		
68532	A/D, single-channel	\$325.00
68533	A/D, dual-channel	\$475.00
67600	Memory, 1 MB NV RAM	\$300.00
67601	Digital I/O, 24-channel TTL output	\$300.00
67602	Analog output: selectable 0-10 V, 0-20 mA	\$325.00
103138	Analog output, dual-channel 0-10 V, 0-20 mA	\$550.00
67603	Pulse input, single-channel	\$300.00
67604	Serial port card, dual-channel, RS-232 and RS-485	\$350.00
87697	Analog input +/-10 VDC, 0-20 mA and thermocouple	\$625.00
<b>Network Cards</b>		
65383	Ethernet thin server (external)	\$385.00
71986	Ethernet TCP/IP 10/100 module (internal)	\$420.00
206271	Wireless LAN module 802.11 b/g	\$650.00
87803	EtherNet/IP® interface	\$840.00
68539	Remote I/O interface	\$700.00
68540	Profibus® DP interface	\$700.00
187816	Profinet® I/O interface	\$840.00
68541	DeviceNet™ interface	\$700.00
103136	ControlNet® interface	\$1,050.00
<b>Expansion Cards</b>		
69782	Two-slot expansion board (wall mount)	\$315.00
71743	Two-slot expansion board (panel mount and deep universal)	\$315.00
180047	Two-slot expansion board (panel mount, DC powered)	\$315.00
179488	Two-slot expansion board (wall mount DC powered)	\$315.00
69783	Six-slot expansion board (wall mount)	\$420.00
<b>Hardware</b>		
83569	Clear protective overlay (package of 5)	\$79.00
70056	Cable, DB9M to DB9F, Straight Cable	\$40.00
99149	Keyboard, QWERTY 109-key USB, flexible, washable	\$135.00
77788	Fiber optic board, installed in 920i	\$200.00
92777	Filter, PreVent™ vent kit PG 7 cord grip	\$32.00
19368	Start/stop controls without box, for use on wall mount	\$415.00
19369	Start/stop switch with FRP box	\$415.00
93359	Keyboard, QWERTY PS/2 connector	\$95.00
<b>Manuals and Software</b>		
69781	iRev™ scale software	\$100.00
72809	Interchange® database software	\$295.00
67887	Additional installation manual	\$35.00
67888	Additional programming reference	\$35.00

## Primary Component Parts

Part #	Description	Price
<b>Boards</b>		
186272***	CPU board assembly for LED backlight, (blue color)	\$1,295.00
186273***	Display board, LED back light, transmissive	\$325.00
186274***	Display board, LED back light, transreflective	\$325.00
206696***	Display kit (186273) and retrofit cable (207045)	\$335.00
<b>Power Supply</b>		
67613	AC power supply, 25 watt for universal	\$195.00
71333	AC power supply, 65 watt for deep, panel and wall mount	\$225.00
132791	Power supply 12 to 24 VDC, 25 watt	\$235.00
<b>Membrane</b>		
66502	Switch panel membrane	\$79.00

\*\*\*Design change in 2018 to LED backlight display.

CCFL backlight displays are no longer available.

The LED backlight display can be used with green CPU board Rev N or older by replacing the power supply cable, see Tech Bulletin PN 189640 for compatibility details. There is a generic retrofit PN 207045 for the existing power supply cable or a new power supply cable can be installed. Universal 186464 (AC) 186464 (DC); Deep universal 186278 (AC) 187603 (DC); Panel 186278 (AC) 187603 (DC); Wall 186760 (AC) 188345 (DC); Two-slot expansion for wall 188716 (AC) 189424 (DC); Two-slot expansion panel for deep universal 188717 (AC) 189425 (DC); Six-slot expansion for wall 188774 (AC).

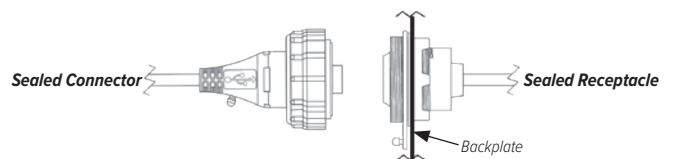
## Cables and Receptacles

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	\$35.00
124700	A SEALED	B SEALED	3 m	\$90.00
126477	A SEALED	A UNSEALED	3 m	\$90.00
124701	A SEALED	B UNSEALED	3 m	\$90.00
124702	B SEALED	A UNSEALED	3 m	\$90.00
USB Receptacles <i>(Receptacle is a socket)</i>				
126476*	A SEALED	A UNSEALED	0.5 m	\$90.00
124703*	A SEALED	B UNSEALED	0.5 m	\$90.00
124704*	B SEALED	B UNSEALED	0.5 m	\$90.00
125998*	A SEALED	FIVE-PIN Internal to 920i	0.28 m	\$90.00
125999*	B SEALED	FIVE-PIN Internal to 920i	0.28 m	\$90.00
Ethernet Cables				
124706	RJ-45 SEALED	RJ-45 SEALED	3 m	\$90.00
124707	RJ-45 SEALED	RJ-45 UNSEALED	2 m	\$90.00
Ethernet Receptacles <i>(Receptacle is a socket)</i>				
176789*	RJ-45 SEALED		0.75 m	\$105.00
172734*	RJ-45 SEALED		0.5 m	\$90.00
126353*	RJ-45 SEALED		0.28 m	\$90.00
Cable and Receptacle Accessories				
124695	Panel plug 1.125 in diameter			\$6.00
124694	Cover for sealed receptacles			\$13.00
124689	Cover for flash driver mounts on sealed receptacle			\$25.00
195607	USB Flash Drive 8GB			\$9.00

\*These options require a milled back plate

### Unsealed Connectors





# 1280 Enterprise™ Series

Programmable Color Touchscreen Weight Indicator/Controller



## Specifications

### Power:

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

### Power Consumption:

60W

### Excitation Voltage:

10 VDC (+/- 5 VDC)  
16 × 350 ohm or 32 × 700 ohm load cells per A/D card

### Analog Signal Input Range:

-60 mV to 60 mV

### Analog Signal Sensitivity:

0.3 µV/graduation minimum at 7.5 Hz to 120 Hz  
1.0 µV/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

± 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 × 480 pixel, 500 or 1,000 NIT  
Twelve-inch, 1280 × 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 Range:

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 CC 15-001/Class III/IIIL 10,000d  
Measurement Canada AM-5980C,  
Class III/II HD 10,000d  
OIML R76/2006-A-NL1-19.23  
Class III/IIIL 10,000d  
EU Test Certificate TC8596  
UL/cUL Listed (Universal, Wall Mount)  
UL/cUL Recognized (Panel Mount)  
CE Marked

## Approvals



## 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> 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 & data tables
  - Customize and transfer data via email, FTP server and networked printers
  - Display data with line charts or bar graphs
- Dual-port assignments for weight tickets, credit cards, smart pass, HID readers, etc.
- iRite reporting or iQUBE2 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 Color Touchscreen Weight Indicator/Controller



7-inch model with keypad



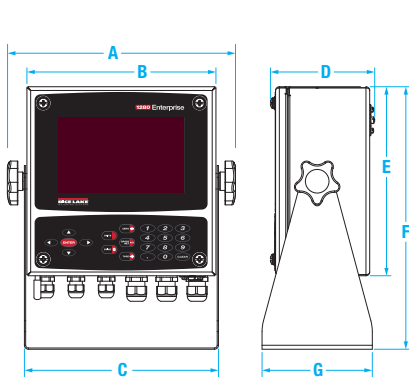
7-inch touch-only model



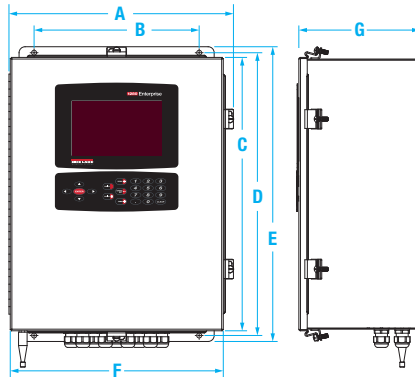
12-inch touch-only model

INDICATORS /  
CONTROLLERS

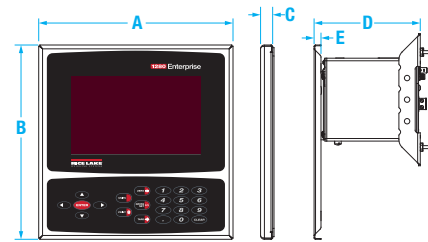
## Numeric Keypad Models:



1280-2



1280-3



1280-4

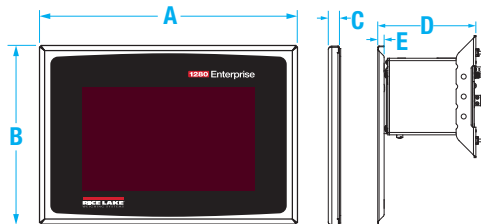
## Dimensions

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)		

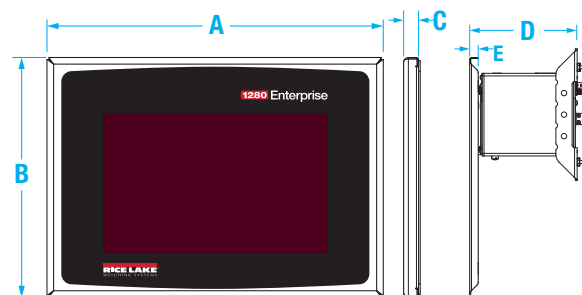
Wall Mount (1280-3)			
A	14.92 in (379 mm)	E	19.64 in (499 mm)
B	11.00 in (279 mm)	F	14.20 in (361 mm)
C	18.22 in (463 mm)	G	8.08 in (205 mm)
D	18.84 in (479 mm)		

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 Color Touchscreen Weight Indicator/Controller

## Generate a 1280 Enterprise Series Model Reference Code

This reference number can be used at time of ordering.

**ENCLOSURE TYPE**

- 1 Universal (1280-2)
- 2 Panel (1280-4)
- 3 Wall (1280-3)
- 4 Touch-only Panel 7 in (1280-5)
- 5 Touch-only Panel 12 in (1280-6)

**POWER TYPE**

- 1 AC
- 2 DC

**CORD TYPE**

- 1 US Plug Universal
- 2 Brazil Plug Universal
- 3 Euro Plug Universal
- 4 US Plug Wall
- 5 Euro Plug Wall
- 6 Brazil Plug Wall
- 7 UK Plug Universal
- 8 AU/NZ Plug Universal
- 9 UK Plug Wall
- A AU/NZ Plug Wall

**DISPLAY TYPE**

- 1 500NIT 7 in Universal
- 2 1000NIT 7 in Universal
- 3 500NIT 7 in Panel/Wall
- 4 1000NIT 7 in Panel/Wall
- 5 1500NIT 12 in Panel

**OPTION CARDS ALL SLOTS MUST BE FILLED**

- A Blank  
If no option, controller will need 6 blanks
- B Single A/D Scale
- C Dual A/D Scale
- D 24 Channel Digital I/O
- E Dual Serial Channel
- F 4-dry Contact Relay
- G Single Analog Out
- H Dual Analog Out

- I Analog Input
- J EtherNet/IP
- K DeviceNet
- L ProfiNet
- M Modbus TCP
- N Profibus DP
- O EtherCat
- P PowerLink

INDICATORS / CONTROLLERS

### Part Number

Part #	Reference #	Description	Power	Display	Option Installed	Price
<b>Universal Enclosure with 500 NIT Display (1280-2)</b>						
171427 †	1111BAAAAA	1280 Universal	115 VAC	500 NIT	Single Scale Card	\$3,550.00
171441 ††	1131BAAAAA	1280 Universal	100-240 VAC	500 NIT	Single Scale Card	\$3,550.00
171662 †	1111CAAAAA	1280 Universal	115 VAC	500 NIT	Dual Scale Card	\$3,850.00
172188 ††	1131CAAAAA	1280 Universal	100-240 VAC	500 NIT	Dual Scale Card	\$3,850.00
<b>Panel Mount Enclosure with 500 NIT Display (1280-4)</b>						
171663	21-3BAAAAA	1280 Panel Mount	100-240 VAC	500 NIT	Single Scale Card	\$3,350.00
172186	21-3CAAAAA	1280 Panel Mount	100-240 VAC	500 NIT	Dual Scale Card	\$3,650.00
<b>Wall Mount Enclosure with 500 NIT Display (1280-3)</b>						
173673 †	3143BAAAAA	1280 Wall Mount	115 VAC	500 NIT	Single Scale Card	\$3,950.00
174143 ††	3153BAAAAA	1280 Wall Mount	100-240 VAC	500 NIT	Single Scale Card	\$3,950.00
174144 †	3143CAAAAA	1280 Wall Mount	115 VAC	500 NIT	Dual Scale Card	\$4,250.00
174145 ††	3153CAAAAA	1280 Wall Mount	100-240 VAC	500 NIT	Dual Scale Card	\$4,250.00
<b>Wall Mount Enclosure with 1000 NIT Display (1280-3)</b>						
172184 †	3144BAAAAA	1280 Wall Mount	115 VAC	1,000 NIT	Single Scale Card	\$4,050.00
172185 ††	3154BAAAAA	1280 Wall Mount	100-240 VAC	1,000 NIT	Single Scale Card	\$4,050.00
206563 †	3144CAAAAA	1280 Wall Mount	115 VAC	1,000 NIT	Dual Scale Card	\$4,250.00
172187 ††	3154CAAAAA	1280 Wall Mount	100-240 VAC	1,000 NIT	Dual Scale Card	\$4,350.00
<b>Touch-only 7 inch with 500 NIT Display (1280-5)</b>						
186618	41-3BAAAAA	1280 Touch-only 7 in	100-240 VAC	500 NIT	Single Scale Card	\$3,450.00
<b>Touch-only 12 inch with 1500 NIT Display (1280-6)</b>						
186465	51-5BAAAAA	1280 Touch-only 12 in	100-240 VAC	1,500 NIT	Single Scale Card	\$4,075.00



† US plug (NA) - Type B



†† Euro Plug - Type E



(Brazil) - Type N



††† BS1363 (UK) - Type G



†††† AS 3112 (Australian) - Type I

# 1280 Enterprise™ Series

Programmable Color Touchscreen Weight Indicator/Controller

INDICATORS /  
CONTROLLERS

## Single A/D Scale



### Excitation Voltage:

10 VDC bi-polar, 4 or 6 wire sensing  
16 × 350 ohms per channel

### Analog Input Signal:

-10 to +40 mV

Part #	Description	Price
164085	Single scale A/D	\$475.00
166957	A/D sealing kit	\$13.00

## Dual A/D Scale



### Excitation Voltage:

10 VDC bi-polar, 4 or 6 wire sensing  
8 × 350 ohms per channel

### Analog Input Signal:

-10 to +40 mV

Part #	Description	Price
164683	Dual scale A/D	\$675.00
166957	A/D sealing kit	\$13.00

## 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	\$350.00
170008	DIO adapter, includes 60 pin flat ribbon cable, 24 in	\$130.00
170009	DIO adapter, includes 60 pin round cable, 60 in	\$155.00
170736	DIO adapter, includes 60 pin cable and cord grip, 60 in	\$155.00

\* 24 I/O ribbon cable required.

## Dual Serial Channel



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

Part #	Description	Price
164685	Dual serial channel	\$425.00

## Single Analog Out



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

Part #	Description	Price
165366	Single analog out	\$375.00

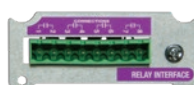
## Dual Analog Out



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

Part #	Description	Price
164686	Dual analog out	\$550.00

## Relay Card



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

Part #	Description	Price
164689	Relay card	\$425.00

## Analog Input



### Analog Input Signal:

±10VDC, ±100mV, 0-20 mA

Part #	Description	Price
164687	Dual analog input	\$650.00

## Data Exchange with PLC/DCS Systems

### EtherNet/IP



Part #	Description	Price
165792	EtherNet/IP, single port	\$600.00
208129	EtherNet/IP, dual port	\$750.00

### DeviceNet



Part #	Description	Price
165793	DeviceNet	\$600.00

### Profinet



Part #	Description	Price
165794	Profinet	\$600.00

### Modbus TCP



Part #	Description	Price
165796	Modbus TCP	\$600.00

### Profibus DP



Part #	Description	Price
165795	Profibus DP	\$600.00

### EtherCAT



Part #	Description	Price
179533	EtherCAT	\$600.00

### PowerLink



Part #	Description	Price
182319	PowerLink	\$850.00

# 1280 Enterprise™ Series

Programmable Color Touchscreen Weight Indicator/Controller

## Options/Accessories

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

Part #	Description	Price
<b>Manuals and Software</b>		
167659	Manual, Technical	\$35.00
72809	Interchange database software	\$295.00
164939	8 GB Micro SD card with SD and USB adapter	\$25.00
195607	USB flash drive, 1 GB	\$9.00
<b>Extended Display Cable Length for Touch Only Models</b>		
182600	Display cable for 7 in (500 NIT) touch-only, 5 ft length	\$130.00
182601	Display cable for 7 in (500 NIT) touch-only, 10 ft length	\$160.00
187489	Display cable for 7 in (1,000 NIT) touch-only, 10 ft length	\$160.00
180027	Display cable for 12 in touch-only, 5 ft length	\$160.00
180028	Display cable for 12 in touch-only, 10 ft length	\$160.00
<b>Extended Touch Cable Length for Touch Only Models</b>		
180744	Touch cable for touch-only, 5 ft length	\$105.00
180745	Touch cable for touch-only, 10 ft length	\$105.00

## Primary Component Parts

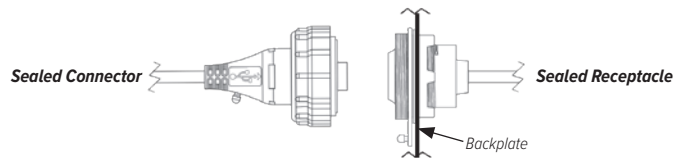
Part #	Description	Price
<b>Displays</b>		
163400	7 in 500 NIT display	\$350.00
163399	7 in 1,000 NIT display	\$450.00
182992	12 in 1,500 NIT display	\$995.00
<b>Boards</b>		
179992	CPU board assembly includes face plate and fan plate	\$1,100.00
199157	Controller box, CPU, power supply, backplane	\$1,500.00
<b>Power Supplies</b>		
202512	AC power supply board	\$180.00
202514	DC power supply board	\$180.00
<b>Overlays</b>		
164121	Keypad, for panel & wall mount	\$75.00
164120	Touchscreen, for panel & wall mount	\$130.00
161731	Keypad, for universal	\$75.00
161730	Touchscreen, for universal	\$130.00
178498	Touchscreen, for 7 in touch-only panel mount	\$210.00
176126	Touchscreen, for 12 in touch-only panel mount	\$400.00
178161	Clear protective overlay display (pack of 5)	\$63.00
178163	Clear protective overlay keypad (pack of 5)	\$63.00

## 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	\$35.00
124700	A SEALED	B SEALED	3 m	\$90.00
126477	A SEALED	A UNSEALED	3 m	\$90.00
124701	A SEALED	B UNSEALED	3 m	\$90.00
124702	B SEALED	A UNSEALED	3 m	\$90.00
152434	A UNSEALED	Micro A UNSEALED	2 m	\$15.00
USB Receptacles <i>(Receptacle is a socket)</i>				
176790 Panel Mount	A SEALED	A UNSEALED	0.75 m	\$105.00
126476 Wall Mount	A SEALED	A UNSEALED	0.5 m	\$90.00
172735 Universal	A SEALED	A UNSEALED	0.25 m	\$90.00
Ethernet Cables				
72697	RJ-45 UNSEALED	RJ-45 UNSEALED	2 m	\$40.00
124706	RJ-45 SEALED	RJ-45 SEALED	3 m	\$90.00
124707	RJ-45 SEALED	RJ-45 UNSEALED	2 m	\$90.00
Ethernet Receptacles <i>(Receptacle is a socket)</i>				
176789	RJ-45 SEALED		0.75 m	\$105.00
172734	RJ-45 SEALED		0.5 m	\$90.00
126353	RJ-45 SEALED		0.25 m	\$90.00
Cable and Receptacle Accessories				
124694	Cover for sealed receptacles			\$13.00
124689	Cover for flash driver mounts on sealed receptacle			\$25.00

### Unsealed Connectors

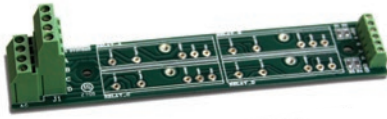


INDICATORS /  
CONTROLLERS



# Relays and Racks

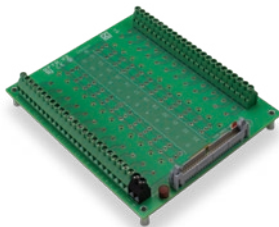
Input/Output Components



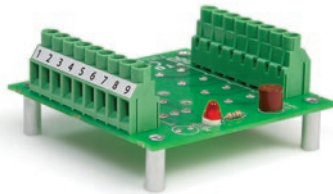
PN 45408  
(6.10 × 1.20in)



PN 33206  
(10.00 × 3.25 × 2.32in)



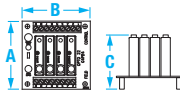
PN 33205  
(7.50 × 6.25 × 2.32in)



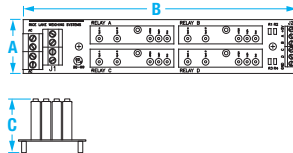
PN 15973  
(3.25 × 3.25 × 2.32in)

## Relay Racks

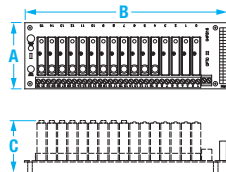
OPTO 22 4-Channel		
15973	Four-channel relay rack	\$125.00
Dimensions		
A	3.25 in (83 mm)	B 3.25 in (83 mm) C 2.32 in (59 mm)



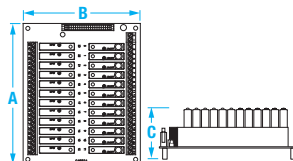
OPTO 22 4-Channel		
45408	Four-channel relay rack (non UL)	\$160.00
Dimensions		
A	1.20 in (30 mm)	B 6.11 in (155 mm) C 2.32 in (59 mm)



OPTO 22 16-Channel		
33206	16-channel relay rack, ribbon cable connection	\$395.00
Dimensions		
A	3.25 in (83 mm)	B 10.0 in (254mm) C 2.32 in (59 mm)



OPTO 22 24-Channel		
33205	24-channel relay rack, ribbon cable connection	\$372.00
Dimensions		
A	7.50 in (83 mm)	B 6.25 in (83 mm) C 2.32 in (59 mm)



## Part Number/Price

Part #	Description	Price
Input/Output Component		
43942	Allen-Bradley® multi-function relay with digital display	\$575.00
29616	Dayton multi-function relay	\$325.00
Other Relays		
15952	Eight-pin octal relay, AC/DC output, 10 A, 120 VAC coil	\$57.00
15960	Eight-pin octal relay, AC/DC output, 10 A, 6 VDC coil	\$30.00
15961	Eight-pin octal socket	\$21.00
70780	Cable, 50-pin flat ribbon for digital I/O, 24 in	\$50.00
70779	Cable, 50-pin round ribbon for digital I/O with cord grip, 60 in	\$155.00
72442	Cable, 50-pin round ribbon for digital I/O without cord grip, 60 in	\$150.00
93577	Cable, 50-Pin flat ribbon for digital I/O, 31 in	\$73.00
94384	Cable, 50-Pin flat ribbon for digital I/O, 50 in	\$83.00

## Relays

Part #	Voltage	Description	Price
OPTO 22 1-Channel Input Relay			
15972	90-140 VAC	G4IAC5-L (N/O), yellow	\$50.00
36631	180-280 VAC/VDC	G4IAC5A (N/O), yellow	\$52.00
15969	10-32 VDC	G4IDC5 (N/O), white	\$50.00
OPTO 22 1-Channel Output Relay			
15971	115 VAC	G4OAC5 (N/O), black	\$50.00
22847	115/230 VAC	G4OAC5A5 (N/C), black	\$67.00
36632	115/230 VAC	G4OAC5A (N/O), black	\$52.00
15970	100 VDC	G4ODC5R, (N/O) dry contact, red	\$50.00
121345	60 VDC	G4ODC5, (N/O), red	\$50.00
22848	100 VDC	G4ODC5R5, (N/C) dry contact, red	\$77.00
Relay Boards Fixed Dry Contact Relay			
30549	2-channel 120-240 VAC or 30 VDC/5 A		\$175.00
15959	4-channel 120-240 VAC or 30 VDC/5 A		\$275.00
29615	Board, relay mounting 1-channel (requires DIN rail for mounting (non UL)		\$105.00
33207	Board, relay mounting 8-channel		\$200.00

## Miscellaneous Parts

Part #	Description	Price
Cables for Digital I/O		
70780	50-Pin flat ribbon, 24 in	\$50.00
93577	50-Pin flat ribbon, 31 in	\$73.00
94384	50-Pin flat ribbon, 50 in	\$83.00
70779	50-Pin round ribbon with cord grip, 60 in	\$155.00
72442	50-Pin round ribbon without cord grip, 60 in	\$150.00
170008	60-pin flat ribbon with 50-pin adapter, 24 in	\$130.00
170009	60-pin round with 50-pin adapter, 60 in	\$155.00
170736	60-pin round with 50-pin adapter and cord grip, 60 in	\$155.00
Opto 22 Misc.		
26834	Fuse, 1A 250V (for PN 15970 and PN 22848)	\$7.50
21735	Fuse, 4A 250V (for PN 15971, PN 22847 and PN 36632)	\$14.00
16478	Quencharc arc suppressor	\$11.00
101923	FRP enclosure with Opto four-channel rack	\$355.00
99032	Adapter plate, for four-channel Opto rack 33490	\$5.25
155253	Board assembly, DWM IV, eight-channel, Opto 22 GU series compatible, (non UL)	\$215.00



**NEW**

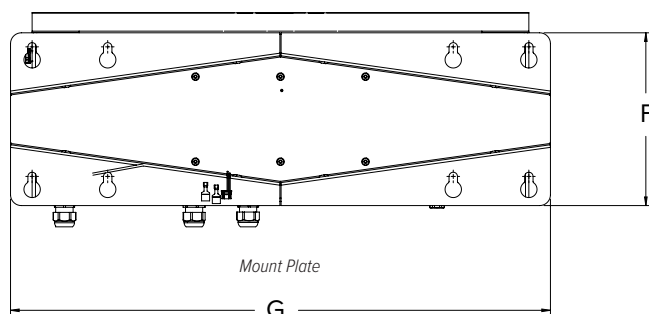
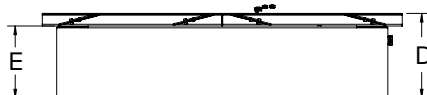
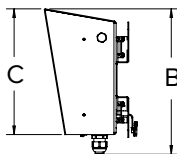
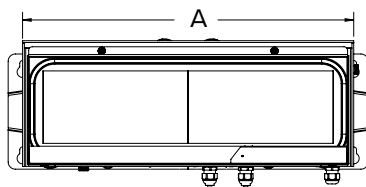


### Approvals



### Dimensions

LaserLight3			
A	23.00 in (584 mm)	E	5.00 in (127 mm)
B	10.10 in (256 mm)	F	8.00 in (203 mm)
C	8.73 in (222 mm)	G	25.02 in (636 mm)
D	5.87 in (149 mm)		



### Standard Features

- Available with 128 × 32-pixel color display
- Displays six high-intensity digits up to 5 in height
- Adjustable daylight/night intensity
- Mirror mode (reverse image) function
- Durable weather tight enclosure with flip-down door
- Flat-wall mounted or add VESA or offset mount

### Options

- Wireless LAN, Wi-Fi interface 802.11 a/b
- Wireless interface, pair of ConnexLink™ radios and mount
- Pole mount kit, VESA flat wall for 2 to 6 inch pole (W × H) 200 × 100 mm, 6 fasteners (M4 × 8 mm)
- Sunshade visor, 8-inch painted steel

### Specifications

#### Power:

AC voltages: 100 to 240VAC; 50/60Hz  
120 watt (120 VAC)

#### Output Interface:

Ethernet TCP/IP, independently configurable  
echo port

#### Input Data Format:

Baud rate: 1200, 2400, 4800, 9600, 19200, 38400,  
57600 and 115200 self-learning  
or configurable

#### Update:

Continuous or out-of-motion modes  
Message interrupt mode

#### Digital I/O:

Four I/O read or set  
5V logic

#### Communication Ports:

Ethernet TCP/IP, RS-232, RS-485, 20 mA  
Optional ConnexLink™ wireless radio, WLAN  
interface 802.11 a/b

#### Character Format:

7 or 8 data bits; even, odd, or no parity;  
1 or 2 stop bits

#### Maximum Viewing Distance:

4-inch character 100 ft (30 m)  
5-inch character: 150 ft (46 m)

#### Viewing Angle:

160°

#### Display:

Bright, outdoor color LED lamps  
128- × 32-pixel, 4 mm pitch  
Decimal or comma indication  
Weight display with units and mode  
Message display 1, 2 or 4 lines

#### Keys/Buttons:

Zero, Gross/Net, Tare, Units, Print, Menu

#### Time:

Software enable, 12 or 24 hour format

#### Date:

Software enable, US or ISO format

#### Dimensions:

(L × W × H)  
25 × 10 × 6 in

#### Temperature Range:

Operating: -40 °F to 120 °F (-40 °C to 49 °C)

#### Rating/Material:

IP66  
Mild steel, powder-coated

#### Weight:

20 lb  
(9 kg)

#### Warranty:

Two-year limited

#### Approvals:

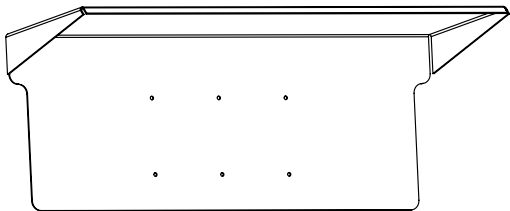
NTEP CC 22-096  
Measurement Canada AM-6210C

Part Number/Price

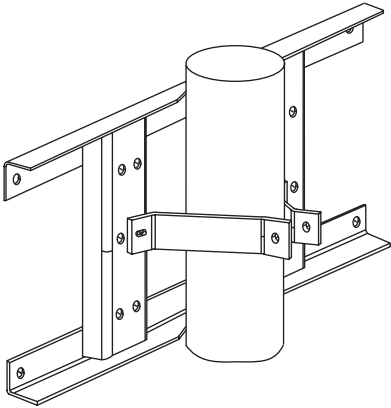
Part #	Description	Est. Weight	Price
205780	LaserLight3 large-display weight indicator	20 lb	\$2,345.00

Options/Accessories

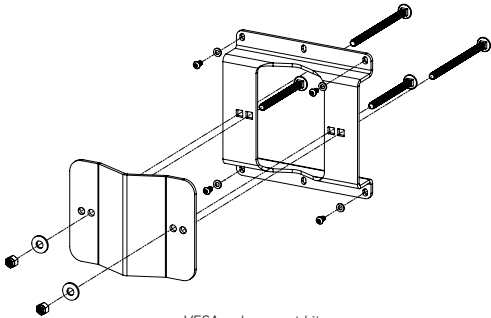
Part #	Description	Price
212745	Pole mount kit, VESA flat-wall, 200 mm W x 100 mm H, 6 fasteners (M4 x 8 mm) for 2-6 inch pole	\$90.00
75856	Pole mount kit, 4-inch flange style (24-inch wide frame use with 4-8 inch dia. pole)	\$250.00
208807	Sunshade, 8-inch	\$120.00
209118	Wireless LAN, RS-232/Wi-Fi interface 802.11 a/b XPico module	\$220.00
212753	Wireless interface, pair of ConnexLink radios transceiver kit and mount	\$835.00



Sunshade  
PN 208807



Flange pole mount kit  
PN 75856



VESA pole mount kit  
PN 212745

# LaserLT-60 and LaserLT-100

Large-Display Digital Weight Indicator



LaserLT-60



LaserLT-100

## Approvals



## Part Number/Price

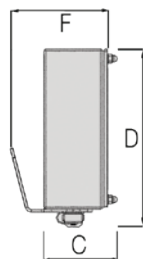
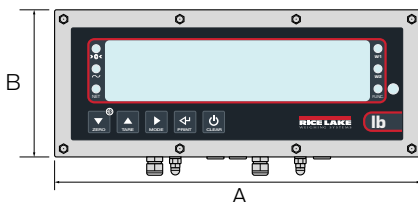
Part #	Description	Price
197453	LaserLT-60, indicator with weighing functionality 2.4 in (60 mm) LED	\$1,350.00
197454	LaserLT-100, indicator with weighing functionality 4.0 in (100 mm) LED	\$1,650.00

## Options/Accessories

Part #	Description	Price
185256	Mount bracket, 2 tilting side brackets for LaserLT-100	\$60.00
185258	Visor for LaserLT-100	\$150.00

## Dimensions

Large Display Digital Weight Indicator			
LaserLT-60			
A	16.14 in (410 mm)	D	7.28 in (185 mm)
B	6.50 in (165 mm)	E	2.64 in (67 mm)
C	3.03 in (77 mm)	F	4.84 in (123 mm)
LaserLT-100			
A	16.93 in (430 mm)	D	7.63 in (194 mm)
B	7.28 in (185 mm)	E	2.52 in (64 mm)
C	2.52 in (64 mm)	F	3.98 in (101 mm)



## Standard Features

- LED Display
- Integrated five-key waterproof keypad
- Includes removable back wall mount bracket
- Power from 12 to 24 VDC, included with 110 to 240 VAC internal power supply
- Up to four independent scales or four load cell inputs
- Quick menu for real and theoretical calibration
- Up to three calibration linearization points
- Semi-automatic and presettable tare
- Two digital outputs for 13 setpoint types with timers to enable on and delay period
- Two digital inputs for operating keys remotely

## Specifications

### Power:

AC voltages: 100 to 240 VAC  
DC voltages: 12 to 24 VDC

### Excitation Voltage:

5VDC, 120 mA, 16 x 350 ohm

### Analog Signal Input Range:

± 39 mV

### Analog Signal Sensitivity:

0.03 µV/graduation minimum  
0.3 µV/graduation recommended

### A/D Sample Rate:

Four channel A/D  
up to 200 Conv./sec. auto select

### Resolution:

Internal: 1,500,000 counts  
Display: 800,000

### Digital I/O:

Two inputs: 12/24 VDC  
Two outputs: 150 mA 48 VAC/ 150 mA 60 VDC

### Communication Ports:

(1) RS-232, (1) RS-485

### Display:

6-digit, 7-segment discrete red LED lamps, single width  
2.4 in (60 mm) or 4 in (100 mm) digit  
Decimal/comma indication in any position  
Annunciators for NT, Stability, COZ  
5 levels of intensity

### Maximum Viewing Distance:

LaserLT-60: 2.4 in digit 75 ft (25 m)  
LaserLT-100: 4 in digit 100 ft (30 m)

### Keys/Buttons:

Five key, Zero (Down), Tare (Up), Mode (Right), Print (Enter), C (On/Off)

### Temperature:

-40° F to 120° F (-40° C to 49° C)

### Rating/Material:

304 stainless steel, IP68

### Weight:

10 lb (4.5 kg)

### Warranty:

One-year limited

### Approvals:

NTEP CC 20-046 III/IIIL 10,000d  
Measurement Canada AM-6165C III/IIIL 10,000d  
CE Marked

# 920i® User Programs



## Standard Features

- Pre-programmed software to carry out specific weighing functions
- Utilize Rice Lake's iRite™ programming language
- For use with all Rice Lake 920i models (hardware requirements may apply)
- Available pre-installed with purchase of new equipment, or via iRev™ for installation on existing 920i models
- Fully customizable

## Dual Kiosk Truck In/Out Single Scale

PN 156959:

System consists of a bidirectional single platform truck scale, inbound truck kiosk and outbound truck kiosk. Inbound (if two outbound kiosks are used) and outbound tickets with transaction storage of each weighing.

### Suggested Hardware:

- (2) PN 119687 Inbound/Outbound kiosk
- PN 119689 A/D kiosk option

## Grain Program with Shrink Calculator

PN 156886:

This custom application for the 920i supports weighing trucks of grain. Up to 200 grain types, associated divisors and accumulator can be stored. Up to 500 accounts and 1,000 trucks can be stored.

### Suggested Hardware:

- PN 67527 920 single channel A/D
- PN 67600 1M memory card
- PN 23113 Epson TM-U295 ticket printer
- PN 93359 PS2 keyboard

## Truck In/Out with Products/Customers/Trucks and Reports PN 77297:

This program supports truck in/out weighing program for manual truck transactions using Rice Lake Weighing Systems' 920i digital weight indicator. Stored IDs allow you to keep a database of truck IDs, customer, product, project information and weigh-in weights in the indicator's memory. Parameters are accessed by simply scrolling through the Supervisor main menu using the down arrow on the 920i. The 920i can automatically store up to 100 truck IDs and tare weights, 950 customers, 1,000 products and 1,000 projects.

### Suggested Hardware:

- PN 67527 920 single channel A/D
- PN 67600 1MB memory card
- PN 23113 Epson TM-U295 ticket printer
- PN 93359 PS/2 keyboard

## Short Axle Weighing Program

PN 153146:

920i custom program will interface to a short axle scale and direct each axle across the scale using traffic lights.

### Suggested Hardware:

- PN 67527 920 single channel A/D
- PN 23113 Epson TM-U295 ticket printer
- PN 101923 FRP box with 4 channel relay rack, for traffic light control
- PN 23146 Traffic light kit
- PN 15971 AC output relays for above (2 needed)
- PN 103181 LaserLight remote display (optional)
- PN 167093 LaserLight 2 remote display (optional)

## Truck In/Out with Report

PN SZ99999:

920i program allows trucks to weigh in and out (saves inbound weight after weighing out and has value swapping) and stores the transaction after each weigh out with truck ID, gross, tare and net. Transactions may be printed or cleared at any time through the Setup menu. An HID scanner is available as a peripheral piece of hardware.

### Suggested Hardware:

- PN 119687 Outbound kiosk
- PN 119689 A/D kiosk option
- PN 119743 HID kiosk option

## Part Number/Price

Part #	Description	Price
153146	Short axle weighing program	\$595.00
SZ99999	Truck in/out with report	\$73.00
77297	Truck in/out with products/customers/trucks and reports	\$520.00
156886	Grain program with shrink calculation	\$395.00
156959	Dual kiosk truck in/out single scale	\$1,050.00



**Manufacturer-Approved**  
DIRECT REPLACEMENT FOR FLEXWEIGH'S DWM-IV

## Approvals



## Standard Features

- Wall mount stainless steel enclosure
- Front panel switches E-Stop, Reset/Resume, Start
- Soft keys for presets, CN#, ID#, formula#, totals
- Accumulating subtotal & total registers
- Transmitted audit trail
- Digital I/O board
- Relay rack and SSR relay outputs

Standard Switches	101	102	103	104	201	202
E-Stop mushroom	X	X	X	X	X	X
Reset/Resume	X	X	X	X	X	X
Start	X	X	X	X	X	X
Discharge	-	X	-	-	-	X

Standard Outputs	101	102	103	104	201	202
Fast fill**	X	X	X	X	X	X
Slow fill***	X	X	X	X	X	X
Fill complete*	OPT	OPT	X	X	OPT	OPT
Zero tolerance	OPT	OPT	-	-	OPT	OPT
Discharge	-	X	-	-	-	X
Refill	-	-	X	-	-	-
Refill complete	-	-	OPT	-	-	-
Slow cycle	-	-	OPT	X	-	-

\* Dispense for 103 and 104

\*\* Fast Fill Ingredient 1 201/202

\*\*\* Fast Fill Ingredient 2 201/202

920i Flexweigh systems are designed for 120VAC line voltage. If the application requires 220VAC or DC control voltage, please consult with sales before placing an order.

## 101 Basic Filler

Place an empty container on the scale. Automatically fill the container to a preset weight. Remove the container from the scale. Replace it on the scale with an empty container and repeat the process.

## 102 Automatic Fill, Automatic Discharge

Place an empty container under the scale. Automatically fill the scale to a preset weight. Discharge the scale into the container. Remove the container from under the scale. Replace it under the scale with another empty container and repeat the process.

## 103 Loss-In-Weight Filler

Dispense preset net weight quantities from the scale until either low level or less-than-preset gross weight is achieved. Then refill to high level.

## 104 Loss-In-Weight Filler

Product supply containers are placed on the scale. Net weight quantities are dispensed from the containers until empty. When containers empty in the middle of a dispense cycle, the cycle is paused and allowed to resume where it left off when the empty containers are replaced on the scale with filled ones.

## 201 Four Ingredient Dual Speed or Eight Ingredient Single Speed Batcher

Place empty container on scale, automatically fill multiple ingredients in a sequential order to preset formula weights. Remove the container, replace with empty and repeat.

## 202 Four Ingredient Dual Speed or Eight Ingredient Single Speed With Discharge

Fill tank or hopper with multiple ingredients in a sequential order then empty into a vessel below.



# 920i® FlexWeigh Systems

Fillers/Batchers

## Part Number/Price

Part #	Description	Est. Weight	Price
120320	920i FlexWeigh Systems 101	23 lb	\$4,075.00
199060	920i FlexWeigh Systems 101, includes manual/auto and jog switches	23 lb	\$4,375.00
120321	920i FlexWeigh Systems 102	23 lb	\$4,275.00
199061	920i FlexWeigh Systems 102, includes manual/auto and jog switches	23 lb	\$4,575.00
120322	920i FlexWeigh Systems 103	23 lb	\$4,225.00
120323	920i FlexWeigh Systems 104	23 lb	\$4,075.00
207904	920i FlexWeigh Systems 201	23 lb	\$4,275.00
207905	920i FlexWeigh Systems 202	23 lb	\$4,475.00

## Options/Accessories

Part #	Description	Price
120491	920i FlexWeigh Systems 101 manual	\$25.00
120493	920i FlexWeigh Systems 102 manual	\$25.00
124473	920i FlexWeigh Systems 103 manual	\$25.00
120496	920i FlexWeigh Systems 104 manual	\$25.00
152146	920i FlexWeigh Systems 201/202 manual	\$25.00

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

## Optional Switches (Installed Price: \$150.00)

	Switch Part #	Legend Part #	101	102	103, 104	201	202
Selector 3 position	94296						
Manual/ Off/ Auto		121035	X	X	X	X	X
Manual Ingredient Select						X	X
Push-button	94276						
Fill		121036	X	X		X	X
Discharge		121037		X			X
Dispense		121038			X		
Refill		121039			X		
Maintained/Off/Spring Return	94299						
Fill On/-/Jog		121040	X	X		X	X
Fill Fast/-/Slow		121041	X	X		X	X
Discharge On/-/Jog		121043		X			X
Discharge Fast/-/Slow		121044		X			X
Dispense On/-/Jog		121046			X		
Dispense Fast/-/Slow		121048			X		
Refill On/-/Jog		121049			X		
Manual Feed		—				X	X

## Optional Front Panel Lights (Installed Price: \$150.00)

	Lamp	Legend	101, 102	103	104	201	202
Ready	94289 Green	121051	X			X	X
Fill Complete	94290 Red	121052	X			X	X
Filling	98760 Amber	121053	X				
Filling Fast	98760 Amber	121054	X				
Filling Slow	98760 Amber	121055	X				
Discharging	94292 Blue	121056	X			X	X
Discharging Fast	94292 Blue	121057	X				
Discharging Slow	94292 Blue	121058	X				
Dispensing	98760 Amber	121059		X	X		
Dispensing Fast	98760 Amber	121060		X	X		
Dispensing Slow	98760 Amber	121061		X	X		
Dispensing Complete	94290 Red	121062		X	X		
Refilling	94292 Blue	121063		X			
Refill Complete	94290 Red	121064		X			
Low Supply	94290 Red	121065		X			
Fill Time Alarm	94290 Red	121066		X	X		
Feeding (1-4)	98760 Amber	—				X	X
Slow Cycle	94290 Red	—	X	X	X		



# 920i® FlexWeigh Systems

Bulkweighers and Flip Flop Fillers



## Approvals



Available with  
models 107,  
108 and 109

**Manufacturer-Approved**  
DIRECT REPLACEMENT FOR FLEXWEIGH'S DWM-IV

## Standard Features

- Wall mount stainless steel enclosure
- Application program 107, 108, 109
- Front panel switches E-Stop, Start/Resume, End Cycle, Ship/Recv (only 109)
- Softkeys for presets, ID1 and ID2
- Accumulating weight streaming
- Fill and discharge sequence controls
- Fill and discharge gate monitoring
- Printer online checking
- Weigh and surge hopper overflow monitoring
- Transmitted audit trail
- Digital I/O board
- Relay rack and SSR relay outputs

## Options

- Pilot lights for error indication
- Manual override switches

Standard Switches	107	108	109
E-Stop mushroom	X	X	X
Start/Resume	X	X	X
End cycle	X	X	X
Ship/Recv	-	-	X

Standard Inputs	107	108	109
Fill gate closed	X	X	X
Discharge gate closed	X	X	X
Surge hopper not full	X	X	X
Weigh hopper not full	X	X	X
Printer online	X	X	X

Standard Outputs	107	108	109
Slow cycle alarm	OPT	OPT	OPT
Gate alarm	OPT	OPT	OPT
Scale over fill alarm	OPT	OPT	OPT
Lower surge alarm	OPT	OPT	OPT
Printer alarm	OPT	OPT	OPT
Open fill gate	X	X	X
Open discharge gate	X	X	X

## Part Number/Price

Part #	Description	Est. Weight	Price
<b>207906</b>	920i FlexWeigh Systems 107	23 lb	\$5,575.00
<b>207907</b>	920i FlexWeigh Systems 108	23 lb	\$5,575.00
<b>207908</b>	920i FlexWeigh Systems 109	23 lb	\$5,875.00
<b>207909</b>	920i FlexWeigh Systems 111	23 lb	\$5,275.00
<b>207910</b>	920i FlexWeigh Systems 112	23 lb	\$5,625.00

## 107 Shipping Bulkweigher

The 920i FlexWeigh 107 is designed for basic shipping-mode bulkweighing applications. In shipping mode, a scale is loaded and discharged repetitively until the accumulated weight meets the overall target value.

## 108 Receiving Bulkweigher

The 920i FlexWeigh 108 is designed for basic receiving mode bulkweighing applications. In receiving mode, a scale is loaded and discharged until there is no more product to receive. To end the cycle, the End Cycle button is pressed.

## 109 Ship/Receive Bulkweigher

The 920i FlexWeigh 109 allows the user to select which mode of operation to use. This is done with a three-position locking key switch.

## 111 Flip Flop Filler

The 920i FlexWeigh 111 is designed for filling two scales to a target weight in sequential "flip-flop" fashion. As one scale is filled, operators can prep the second scale, e.g., moving a container into place.

## 112 Flip Flop Filler with Discharge

The 920i FlexWeigh 112 is designed for filling two scales to a target weight in sequential "flip-flop" fashion. As one scale is filled, the second scale is discharged via independent or manual methods.

## Options/Accessories

Part #	Description	Price
<b>151848</b>	920i FlexWeigh Systems 107/108/109 manual	\$25.00

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

## Optional Switches

Installed Price: \$150.00

Type	107	108	109
Manual/Off/Auto	X	X	X
Man Fill On/-Jog		X	X
Man Disch On/-Jog		X	X

INDICATORS /  
CONTROLLERS

# 920i® FlexWeigh Systems

Flow Rate Controllers



## Standard Features

- Wall mount stainless steel enclosure
- Application program 105, 106
- Front panel switches E-Stop, Reset/Resume, Start
- Softkeys for presets, CN#, ID#, formula#, totals
- Accumulating subtotal & total registers
- Transmitted audit trail
- Digital I/O board
- Relay rack and SSR relay outputs

## 105 Basic Flow-Rate Controller

Dispense preset net weight quantities at preset flow rate values.

## 106 Loss-In-Weight with Flow-Rate Control and Automatic Refill

Dispense preset net weigh quantities at preset flow rate values with automatic refill when gross weight drops below threshold.

## Standard Switches/Outputs

Standard Switches	105	106
E-Stop mushroom	X	X
Reset/Resume	X	X
Start	X	X

Outputs	105	106
Fast fill	X	-
Slow fill	X	-
Fill complete*	X	-
Zero tolerance	Opt	-
Discharge	X	X
Refill	-	X
Refill complete	-	Opt
Slow cycle	Opt	Opt

\* Dispense for 105 and 106

Approvals



**Manufacturer-Approved**

DIRECT REPLACEMENT FOR FLEXWEIGH'S DWM-IV

## Part Number/Price

Part #	Description	Est. Weight	Price
Consult	920i FlexWeigh Systems 105	23 lb	\$4,350.00
Consult	920i FlexWeigh Systems 106	23 lb	\$4,350.00

## Accessories

Part #	Description	Price
Consult	920i FlexWeigh Systems 105 manual	\$73.00
Consult	920i FlexWeigh Systems 106 manual	\$73.00

# 920i® FlexWeigh Systems

Hand Batching



## Standard Features

- Stainless deep universal mount enclosure
- Application program 211
- Softkeys for presets ID#; formulas; accumulating, subtotal and total registers
- Switch for manual confirmation
- 20 ingredient database
- 100 formula database
- Audit trail data output
- Ingredient usage totals

## 211 Manual Batching System

Prompts the user through manual weight additions based on a pre-entered formula

Approvals



**Manufacturer-Approved**

DIRECT REPLACEMENT FOR FLEXWEIGH'S DWM-IV

## Part Number/Price

Part #	Description	Est. Weight	Price
207927	920i Flexweigh Systems 211	13 lb	\$3,100.00



Approvals



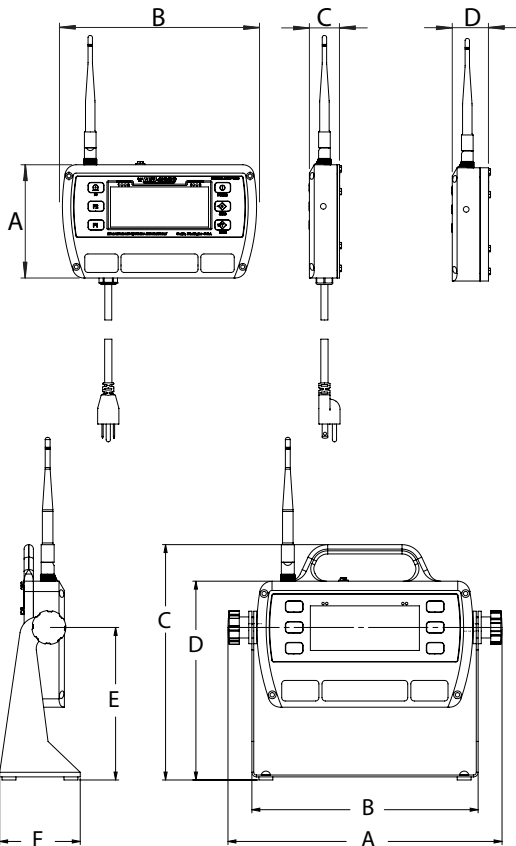
Standard Features

- Compatible with all ScaleCore™-based products including: MSI-7300 Dyna-Link 2, MSI-3460 Challenger 3, MSI-4260 Port-A-Weigh, MSI-7000 and MSI-7001 TranSend™, MSI-9600HT and MSI-6360
- LCD display
- IP68 milled aluminum enclosure
- Time and date
- Membrane keypad for remote-control functionality
- User-definable function keys for added versatility
- Swivel tilt stand

Dimensions

MSI-8000HD	
A	5.09 in (129 mm)
B	8.98 in (228 mm)
C	1.35 in (34 mm)
D	1.63 in (41 mm)

With Tilt Stand	
A	11.06 in (281 mm)
B	9.13 in (232 mm)
C	9.50 in (241 mm)
D	8.02 in (204 mm)
E	6.16 in (156 mm)
F	3.25 in (83 mm)



Options

(Contact MSI for application consultation)

- Up to 8 configurable relay outputs
- Wi-Fi communications
- 802.15.4 Serial RF
- FHSS
- Wired Ethernet

Specifications

Power:

90-267 VAC, 9-36 VDC, 18-72 VDC, 120-300 VDC  
Optional battery power module available

Excitation Voltage:

4.8V current limited and over-vol tage protected

RF Remote Channels:

Up to four remote sensors, monitored individually, in pairs or sum all (non-A/D version only)

Service Counters:

A/D version only

A/D Inputs:

Two independent or summing load cell inputs

Filtering:

Off, Low, Hi-1, Hi-2

RF Radio Link:

2.4 GHz 802.15.4  
Compatible with all ScaleCore™ based products including:  
MSI-7300 Dyna-Link 2, MSI-3460 Challenger 3, MSI-4260 Port-A-Weigh, MSI-7000 and MSI-7001

RF Effective Range:

Typically 100 to 300 ft, line of sight;  
for longer range consult factory

Communication Ports:

Dual RS-232 communication ports

Optional Communications:

Wi-Fi  
Serial RF (Single Sequence or FHSS)

Annunciators:

Stable, COZ, peak, kg, kN, lb, M, ton, setpoint, function LEDs  
Channels: 1, 2, 3, 4, TTL

Display:

Six-digit 1.0 in (26.4 mm) LCD

Units Displayed:

Pounds, kilograms, tons, metric tons, kilonewtons

Keys/Buttons:

On/Off, Zero (100%), Tare, Print, and Two user-defined keys for the following functions: peak hold, high resolution, total, view total, net/gross, units switching

Rating/Material:

Enclosure: NEMA Type 4, IP68 milled anodized aluminum with O-ring gaskets

Temperature Range:

Operating: -4 °F to 140 °F (-20 °C to 60 °C)  
Certified: 14 °F to 104 °F (-10 °C to 40 °C)

Warranty:

One-year limited

Approvals:

NTEP CC 15-110 (-10 °C to 40 °C)

# MSI-8000HD

Digital Weight Indicator

## Part Number/Price

Part #	Description	Est. Weight	Price
153591	MSI-8000HD ScaleCore RF/Remote Display/85-265 VAC	5 lb (2.5 kg)	\$1,440.00
154853	MSI-8000HD ScaleCore RF/Remote Display/Internal Battery	5 lb (2.5 kg)	\$1,560.00
160476	MSI-8000HD ScaleCore RF/Remote Display/7-36 VDC	5 lb (2.5 kg)	\$1,390.00
159377	MSI-8000HD ScaleCore RF/Remote Display/18-72 VDC	5 lb (2.5 kg)	\$1,420.00
159376	MSI-8000HD ScaleCore RF/Remote Display/9-36 VDC	5 lb (2.5 kg)	\$1,420.00
158427	MSI-8000HD Meter/2 A/D Inputs/85-265 VAC (non RF)	5 lb (2.5 kg)	\$1,750.00
158428	MSI-8000HD Meter/2 A/D Inputs/Internal Battery (non RF)	5 lb (2.5 kg)	\$1,860.00
160478	MSI-8000HD Meter/2 A/D Inputs/7-36 VDC (non RF)	5 lb (2.5 kg)	\$1,560.00
159381	MSI-8000HD Meter/2 A/D Inputs/18-72 VDC (non RF)	5 lb (2.5 kg)	\$1,600.00
159380	MSI-8000HD Meter/2 A/D Inputs/9-36 VDC (non RF)	5 lb (2.5 kg)	\$1,600.00
158425	MSI-8000HD RF Meter/2 A/D Inputs/85-265 VAC	5 lb (2.5 kg)	\$1,770.00
158426	MSI-8000HD RF Meter/2 A/D Inputs/Internal Battery	5 lb (2.5 kg)	\$1,930.00
160477	MSI-8000HD RF Meter/2 A/D Inputs/7-36 VDC	5 lb (2.5 kg)	\$1,770.00
159379	MSI-8000HD RF Meter/2 A/D Inputs/18-72 VDC	5 lb (2.5 kg)	\$1,780.00
159378	MSI-8000HD RF Meter/2 A/D Inputs/9-36 VDC	5 lb (2.5 kg)	\$1,780.00
176958	MSI-8000HD Wi-Fi Meter/85/265 VAC	5 lb (2.5 kg)	\$1,470.00
176960	MSI-8000HD Wi-Fi Meter/Internal Battery	5 lb (2.5 kg)	\$1,600.00
176964	MSI-8000HD Wi-Fi Meter/7-36 VDC	5 lb (2.5 kg)	\$1,420.00
176966	MSI-8000HD Wi-Fi Meter/9-36 VDC	5 lb (2.5 kg)	\$1,460.00
176968	MSI-8000HD Wi-Fi Meter/18-72 VDC	5 lb (2.5 kg)	\$1,460.00

## Options/Accessories

Part #	Description	Price
155173	MSI-8000HD spare tilt stand option kit	\$83.00
155193	MSI-8000HD Ethernet TCP/IP option kit wired	\$410.00
162178	Antenna extension kit, 6 ft	\$465.00
148624	MSI-8000HD serial RS-232 cable	\$135.00
158779	MSI-8000HD two each coil relay option kit, 250 VAC/30 VDC 5A or 100 VDC 0.4A	\$355.00
158780	MSI-8000HD two each solid state relay option kit, 60 Vpk 2.7A	\$355.00
158781	MSI-8000HD two each solid state relay option kit, 200 Vpk 0.9A	\$355.00
149549	Universal 115/230 VAC 50/60 Hz (NA plug standard) battery charger for MSI-8000HD battery powered device	\$155.00
149550	Universal 115/230 VAC 50/60 Hz (international plugs) battery charger for MSI-8000HD battery powered device	\$150.00
171203	Audible alarm kit	\$355.00
176963	Serial print cable	\$155.00
<b>Relays</b>		
172490	Expanded relay kit, Four-Channel, 12A 5V, Latching relays	Consult
172492	Expanded relay kit, Four-Channel, 12A 5V, Momentary relays	Consult
Consult	Expanded relay kit, Four-Channel, 0.9A 200Vpk, AC/DC Solid State relays	Consult
172495	Expanded relay kit, Eight-Channel, 12A 5V, Momentary relays	Consult
172500	Expanded relay option kit, Four-Channel, 3A, 60Vpk Solid State Form C relays	Consult
172501	Expanded relay option kit, Eight-Channel, 3A 60Vpk, Solid State Form C relays	Consult
172502	Expanded relay option kit, Eight-Channel, 0.9A 200Vpk, Solid State Form C relays	Consult
171676	Expanded relay option kit, Eight-Channel, 12A 5V, Latching relays	Consult

INDICATORS /  
CONTROLLERS

# MSI-8004HD

Indicator/RF LED Remote Display



## Approvals

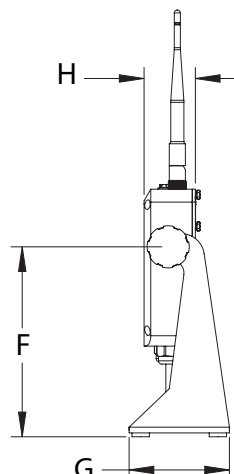
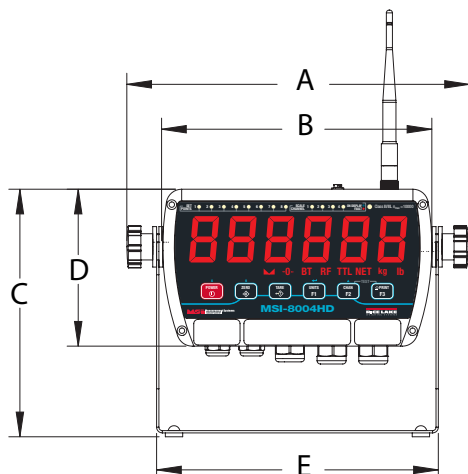


## Part Number/Price

Part #	Description	Price
<b>Indicator</b>		
196904	4CH AC, Red/Green Instant Power-On, 85~264VAC, 47~440 Hz, 120~370 VDC	\$2,240.00
178265	4CH AC, Red/Green 85~264 VAC, 47~440 Hz, 120~370 VDC	\$2,030.00
178269	4CH DC 8-32 V, Red/Green Best for external 12 V SLA Batteries	\$2,060.00
178271	4CH DC 9-36 V Iso, Red/Green Do not use on 12 V Vehicle Systems	\$2,160.00
183481	4CH 5 V Red/Green with external rechargeable battery	\$2,040.00
<b>Remote Display</b>		
178281	AC, Red/Green 85~264 VAC, 47~440 Hz, 120~370 VDC	\$1,980.00
178283	DC, 8-32 V, Red/Green Best for external 12 V SLA Battery	\$1,940.00
178285	DC, 9-36 V Iso, Red/Green Do not use on 12 V Vehicle Systems	\$2,020.00
183479	4CH 5 V Red/Green with external rechargeable battery	\$1,750.00

## Dimensions

MSI-8004HD			
With Tilt Stand			
A	11.10 in (282 mm)	E	9.13 in (232 mm)
B	8.76 in (223 mm)	F	6.16 in (156 mm)
C	8.02 in (204 mm)	G	3.25 in (83 mm)
D	5.09 in (129 mm)	H	1.66 in (42 mm)



## Standard Features

- LED display
- IP65 rugged milled aluminum enclosure
- Backlit membrane keypad for user functioning and controls
- Tilt bracket included
- Color changing display (via setpoints)

## Options

(Contact MSI for application consultation)

- Expanded relay outputs
- Battery pack for mobile operation
- Second radio module for additional network connectivity

## Specifications

### Power:

90 to 267 VAC, 9 to 36 VDC, 18 to 72 VDC, 120 to 300 VDC

### Excitation Voltage:

4.8 V current limited and over-voltage protected

### Functions:

Peak hold, high resolution, total, view total net/gross, units switching

### Units:

Pounds and kilograms

### Channels:

1, 2, 3, 4, TTL

### RF Remote Channels:

Up to 4 remote sensors monitored individually, in pairs or sum all (non-A/D version only) (when used with TranSend)

### Service Counters:

A/D version only

### A/D Inputs:

Four independent or summing load cell inputs

### Relays:

Two 5 V coil, 250 VAC, 5 A relays

### Filtering:

Off, Low, Hi-1, Hi-2

### RF Radio Link:

2.4 GHz 802.15.4, optional second channel for Serial RF, 802.11 Wi-Fi

### RF Effective Range:

Typically 100 to 300 ft, line of sight; for longer range consult factory

### Communication Ports

Two RS-232 hard wired communication ports

### Annunciators:

Stable, COZ, peak, kg, kN, lb, M, ton, setpoint, function LEDs

### Display:

Six-digit, 1.5 in (38 mm) LED display with red/green/orange coloring

### Keys/Buttons:

On/Off, Zero, Tare, Print and two user-defined keys

### Operating Temperature :

-4 °F to 140 °F (-20 °C to 60 °C)

### Rating/Material:

NEMA Type 4, IP65 milled anodized aluminum

### Warranty:

One-year limited

### Approvals:

NTEP 17-036 (-5 °C to 40 °C)  
Measurement Canada AM-6068



# MSI-8004HD

Indicator/RF LED Remote Display

## Options/Accessories

Part #	Description	Price
139309	Antenna kit, long range omni-directional, 9 dBi with 3 m coax intended for omni-directional mast mounting (up to 2" Ø). Beam-width. Must be mounted vertically.	\$485.00
139310	Antenna kit, corner reflector, 9 dBi with 3 m coax intended for directional wall or mast mounting (up to 2" Ø). Beam-width: 75° elevation, 65° azimuth.	\$480.00
139311	Antenna kit, corner reflector, 12 dBi with 3 m coax intended for directional wall or mast mounting (up to 2" Ø). Beam-width: 50° elevation, 36° azimuth.	\$510.00
139312	Antenna kit, YAGI, 15 dBi with 3 m coax highly directional wall or mast mounting (up to 2" Ø). Beam-width: 30° elevation, 34° azimuth.	\$395.00
139313	Antenna kit, vehicle mount, 5 dBi with 5 m coax omni-directional. Mounts in 3/4" Hole.	\$150.00
162178	Antenna extension kit, 6 ft	\$465.00
197013	Antenna extension kit, 20 ft	\$495.00
155173	Spare kit, tilt stand	\$83.00
199105	Audible alarm not compatible with battery versions	\$300.00
22436	Cable, Comm DB9F 9-pPin Fem One end stripped and tinned on other end 6' Pin 2 (Brown) Pin 3 (Red) Pin 5 (Yellow) For use with MSI-8004HD serial ports to connect to: Scoreboard displays, printers, computers & other equipment that supports RS-232.	\$67.00
183437	Battery, 5V Li-ion battery with USB power ports. Output 5 V/3.0A per port (6.0 A max)Rate, 2A per port (4A if both ports are used).	\$225.00
184131	8004 option kit, WiFi with SMA antenna	\$190.00
187424	8004 option kit, 2nd Xbee with TNC antenna	\$200.00
182224	Power adapter, 12 VDC 5VDC dual USB car charger plus 3 ft USB cable	\$56.00
<b>Relays</b>		
172500	Expanded relays option kit, four-channel, 3A, 60VPK SSR Form C	Consult
172501	Expanded relays option kit, eight-channel, 3A 60VPK, SSR Form C	Consult
Consult	Expanded relays option kit, four-channel, 0.9A 200VPK, AC/DC SSR Form C	Consult
172502	Expanded relays option kit, eight-channel, 0.9A 200VPK, SSR Form C	Consult
172492	Expanded relays option kit, four-channel, 12A 5 V, momentary	Consult
172495	Expanded relays option kit, eight-channel, 12A 5 V, momentary	Consult
172490	Expanded relays option kit, four-channel, 12A 5 V, latching relays	Consult
171676	Expanded relays option kit, eight-channel, 12A 5 V, latching relays	Consult

INDICATORS /  
CONTROLLERS





SCT1100-AN with Analog Output



SCT-1100-AN in Plastic Enclosure

### Specifications

#### Power:

12/24 VDC

#### Power Consumption:

70 mA min to 100 mA max

#### Excitation Voltage:

5VDC, 120 mA, 8 × 350 ohm load cells

#### Analog Signal Input Range:

± 39 mV

#### Analog Signal Sensitivity:

0.3  $\mu$ V/graduation minimum

#### A/D Sample Rate:

Four channel A/D 24-bit sigma-delta conversion, up to 200 conv./sec. auto select

#### Resolution:

Internal: 1,500,000 counts

Display: 800,000

#### Digital I/O:

Two inputs: 12/24 VDC

Two outputs: 150 mA 48 VAC/ 150 mA 60 VDC

#### Serial Ports:

Modbus RTU or ASCII selectable/bidirectional (both ports)

(1) RS-485 for connection to a PC or weight repeater

(1) RS-232 for connection to a PC or printer

#### Analog Output (if equipped):

Opto isolated, 16-bit

0 to 20mA, 4 to 20mA (Maximum 350 ohm)

0 to 5VDC, 0 to 10VDC (Minimum 10,000 ohm)

#### Annunciators:

Net, center of zero, stability

#### Display:

Six-digit (10 mm), red LED

#### Keys/Buttons:

Five key, membrane panel, tactile feel Zero (Down), Tare (Up), Mode (Right), Print (Enter), C (On/Off)

#### Dimensions:

(L × W × H)

4.17 × 3.54 × 2.28 in

(106 × 90 × 58 mm)

#### Temperature :

5 °F to 104 °F (-15 °C to 40 °C)

#### Humidity:

85% non-condensing

#### Rating/Material:

Enclosure: NEMA Type 4, plastic

Clear cover: six PG9 cord grips

#### Warranty:

One-year limited

#### Approvals:

NTEP CC 20-046

Measurement Canada AM-6165C

OIML R76/2006-A-GB1-19.17

EU Legal for Trade

cULus Listed

NAWI Certified

UKCA Marked

### Approvals



### Standard Features

- Up to four independent scales or four load cell inputs
- Quick menu for real and theoretical calibration
- Red LED display
- DIN rail mountable
- Configurable calibration and setup parameters from keyboard
- Calibration using linearization points
- Reading of the net, gross and tare weights, clearing, semi-automatic and pre-settable tare, scale switch, setting of outputs application thresholds
- Diagnostic information via serial port, message display, printing, setting of APW in counting mode, simulation of key pressure
- Modbus RU or ASCII protocol

### Part Number/Price

Part #	Description	Est. Weight	Price
202101	Indicator, SCT-1100-AN four load cell input with Analog Output	1 lb	\$475.00
197011	Indicator, SCT-1100-AN four load cell input with Analog Output in plastic enclosure	1 lb	\$625.00

NOTE: PN 182588 is superseded by 202101

### Options/Accessories

Part #	Description	Est. Weight	Price
188483	SCT-1000 converter RS-232/485 to Ethernet TCP/IP and Modbus TCP. Does not have an A/D	1 lb	\$400.00
88792	12VDC 1.2A DIN rail mount power supply	1 lb	\$140.00
119244	24VDC 1.3A DIN rail mount power supply	1 lb	\$160.00



SCT-1000  
Serial to Ethernet converter

# SCT-2200

Signal Conditioning Transmitter



SCT2200 Pictured with optional EtherNet/IP Module

## Approvals



## Standard Features

- HUB mode connects up to 16 transmitters to one fieldbus
- Quick menu for real and theoretical calibration
- Remote access through web browser for weight monitoring and calibration over EtherNet/IP, Profinet and Modbus TCP network
- Red LED display
- DIN rail mountable
- Configurable calibration and setup parameters from keyboard
- Calibration using linearization points
- Reading of the net, gross and tare weights, clearing, semi-automatic and presettable tare setting of outputs application thresholds
- Diagnostic information via serial port, message display, printing, simulation of key pressure, Modbus RTU or ASCII protocol
- Two RS-485 port for "daisy-chain" network connection
- Printer management on second serial port available
- Multi-range function allows for subdividing the scale capacity in two, each up to 3,000 division s

## Part Number/Price

Part #	Description	Est. Weight	Price
<b>Transmitters</b>			
202103 *	Indicator, SCT-2200 for scale input to be used with fieldbus module	1 lb	\$340.00
202104 *	Indicator, SCT-2200-AN with analog output	1 lb	\$450.00
<b>Fieldbus</b>			
182592	Fieldbus, SCT-2200, Profinet module	1 lb	\$575.00
194343	Fieldbus, SCT-2200, Ethernet TCP/IP and Wi-Fi	1 lb	\$575.00
182593	Fieldbus, SCT-2200, Profibus module	1 lb	\$350.00
182591	Fieldbus, SCT-2200, EtherNet/IP module	1 lb	\$575.00
182596	Fieldbus, SCT-2200, DeviceNet module	1 lb	\$575.00
182598	Fieldbus, SCT-2200, EtherCAT module	1 lb	\$550.00
182597	Fieldbus, SCT-2200, CANopen module	1 lb	\$550.00
196694	Fieldbus, SCT-2200, Modbus TCP module	1 lb	\$575.00
182599	Cable with RJ45 plugs, 6 in length	1 lb	\$11.00
212772 **	Fieldbus, SCT-2200, Profibus module	1 lb	\$350.00

NOTE: PN 182587 is superseded by 202103 and PN 182589 is superseded by 202104.

**\*How to Order the SCT-2200 for use with fieldbus module**

Order 1 RJ45 cable for every Scale module connected to a Fieldbus module.

\*\* Compatible with 682 indicator

## Options/Accessories

Part #	Description	Est. Weight	Price
88792	12VDC 1.2A DIN rail mount power supply	1 lb	\$140.00
119244	24VDC 1.3A DIN rail mount power supply	1 lb	\$160.00

## Specifications

### Power:

12/24 VDC

### Power Consumption:

70 mA min to 100 mA max

### Excitation Voltage:

5 VDC, 120 mA, 8 × 350 ohm load cells

### Analog Signal Input Range:

± 39 mV

### Analog Signal Sensitivity:

0.3  $\mu$ V/graduation minimum

### A/D Sample Rate:

One channel A/D 24-bit sigma-delta conversion, up to 200 conv. /sec. auto select

### Resolution:

Internal: 1,500,000 counts

Display: 800,000

### Digital I/O:

Two inputs: 12/24 VDC

Two outputs: 150 mA 48 VAC/ 150 mA 60 VDC

### Communication Ports:

(1) RS-485, (1) RS-232

Analog output (if equipped):

Opt isolated, 16-bit

0-20mA, 4-20mA (Maximum 350 ohm)

0-5VDC, 0-10VDC (Minimum 10,000 ohm)

### Annunciators:

Net, center of zero, stability

### Display:

Six-digit 0.31 in (8 mm), red LED

### Keys/Buttons:

Five key, tactile feel

Zero (Down), Tare (Up), Mode (Right), Print (Enter),

C (On/Off)

### Dimensions:

(L × H × D)

4.72 × 4.52 × 0.98 in

(120 × 115 × 25 mm)

### Temperature & Humidity:

Certified: 14 °F to 104 °F (-10 °C to 40 °C)

Operating: 14 °F to 122 °F (-10 °C to 50 °C)

Humidity: 85% non-condensing

### Rating/Material:

NEMA Type 1 plastic pluggable connectors

### Weight:

1 lb (0.5 kg)

### Warranty:

One-year limited

### Approvals:

NTEP CC 20-046

Measurement Canada AM-6165C

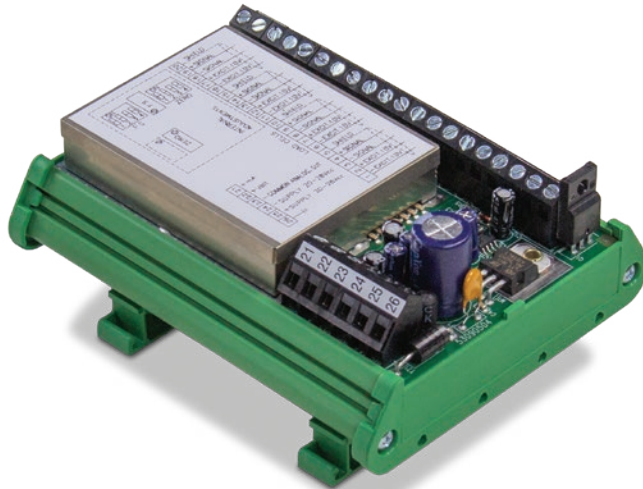
OIML R76/2006-A-GB1-19.17

EU Legal for Trade

cULus Listed

NAWI Certified

UKCA Marked



### Approvals



### Part Number/Price

Part #	Description	Est. Weight	Price
<b>Transmitters</b>			
<b>188725</b>	Indicator, SCT-3300 four load cell input with Analog Output	1 lb	\$365.00

### Options/Accessories

Part #	Description	Est. Weight	Price
<b>88792</b>	12VDC 1.2A DIN rail mount power supply	1 lb	\$140.00
<b>119244</b>	24VDC 1.3A DIN rail mount power supply	1 lb	\$160.00

### Standard Features

- Powers up to six (350 ohm) load cells in parallel
- Analog amplifier and transmitter
- Analog output: 0-20 mA, 4-20 mA, 0-10 V
- Mounting on Omega/DIN rail for back panel or junction box

### Specifications

#### Power:

Input: 20 to 28 VDC

#### Power Consumption:

8 W

#### Excitation Voltage:

10 VDC, 170 mA, 6 × 350 ohm load cells

#### Analog Signal Input Range:

3.5 to 24 mV

#### Analog Signal Sensitivity:

0.3  $\mu$ V/graduation minimum  
1.0  $\mu$ V/graduation recommended

#### A/D Sample Rate:

300 Hz

#### System linearity:

± 0.01% full scale

#### Analog Output (if equipped):

Opto isolated  
0-20 mA, 4-20 mA (max 300 ohm)  
0-10 VDC (min 10,000 ohm)

#### Dimensions:

(L × W × H)  
4.56 × 3.72 × 2.4 in  
(114 × 93 × 60 mm)

#### Temperature & Humidity:

Operating: 14 °F to 122 °F (-10 °C to 50 °C)  
Humidity: 85% non-condensing

#### Rating/Material:

DIN rail mount: NEMA Type 1

#### Weight:

0.5 lb (0.2 kg)

#### Warranty:

One-year limited

#### Approvals:

UKCA Marked

# SCT-1SX

High-Speed Transmitter with Integrated Fieldbus and Webserver

COMING  
SOON



INDICATORS /  
CONTROLLERS

## Standard Features

- Load cell status diagnostics
- USB port for quick programming
- Integrated fieldbus and web server for configuration, diagnostics and data backup
- Process up to 4800 weight readings per second. The high speed allows an extremely accurate weight filtering even with weighing being performed in milliseconds.
- Up to 120 updates per second on Fieldbus.
- New power supply circuit of the load cells (up to 16) for a better weighing stability.
- Power supply circuit with protections against overloads, polarity reversal and short circuits, specific for industrial environments.
- Micro-USB communication port for configuration, diagnostics and data backup available on all versions.
- Modbus RTU protocol integrated on all versions, up to 110 updates per second.
- Real time warning of any faults or disconnections of the load cell.
- The integrated web server allows full diagnostics, calibration and remote configuration of the weight transmitter from an Ethernet network.
- Calibration via theoretical (m/V), with sample weights, Web server or XSpeed software tool

## OPTIONAL XSPEED SOFTWARE

- Customization of the weighing filter, to maximize the speed and accuracy in static and dynamic applications
- Graphical weighing analysis for the identification of mechanical disturbances and vibrations. Oscilloscope function for system diagnostics and filter optimization

## Part Number/Price

Part #	Description	Est. Weight	Price
Consult	SCT-1SX-AN weight transmitter and analog output for DIN rail mount with DIO 2 IN and 4 OUT, integrated web server		Consult
Consult	SCT-1SX-ETHIP weight transmitter and EtherNet/IP port for DIN rail mount with DIO 2 IN and 4 OUT, integrated web server		Consult
Consult	SCT-1SX-PRONET weight transmitter and PROFINET port for DIN rail mount with DIO 2 IN and 4 OUT, integrated web server		Consult
Consult	SCT-1SX-MODTCP weight transmitter and Modbus/TCP port for DIN rail mount with DIO 2 IN and 4 OUT, integrated web server		Consult

## Options/Accessories

Part #	Description	Est. Weight	Price
88792	12VDC 1.2A DIN rail mount power supply	1 lb	\$140.00
119244	24VDC 1.3A DIN rail mount power supply	1 lb	\$160.00
Consult	PC software, XSpeed with graphical weighing analysis and oscilloscope function for system diagnostics and filter optimization		Consult
Consult	Alibi Memory for type-approved communication to PC/PLC (fiscal memory, max 120,000 weights) built-in real time clock to print the date/time with PCB, screw terminal, plastic box		Consult
Consult	Real time clock for printing/displaying of date and time		Consult

## Specifications

### Power:

12 to 24 VDC, 5 W

### Power Consumption:

70 mA min to 100 mA max

### Excitation Voltage:

5V, 120 mA, 16 × 350 ohm load cells

### Analog Signal Input Range:

± 39 mV

### Analog Signal Sensitivity:

High resolution 0.01  $\mu$ V/d

Legal for trade 0.3  $\mu$ V/e

### A/D Sample Rate:

Up to 4800 Hz

### Resolution:

Internal: 1,500,000 counts

Display: 800,000

Legal-for-trade divisions

Up to 10,000e or multi-field 2 × 3,000e

### Digital I/O:

Two inputs, configurable: 12/24 VDC

Four outputs, configurable: 150 mA 48 VAC/

150 mA 60 VDC

### Communication Ports:

(1) RS-485, (1) RS-232

1 micro-USB port (device)

Serial port update rate: up to 1600 Hz

Fieldbus update rate: up to 120 Hz

### Analog Output (if equipped):

Opto. isolated, 16-bit

0 to 20mA, 4 to 20mA (Maximum 350 ohm)

0 to 5VDC, 0 to 10VDC (Minimum 10,000 ohm)

### Annunciators:

Net, center of zero, stability

### Display:

Six-digit (8 mm), red LED

### Keys/Buttons:

Five key, membrane panel

Zero (Down), Tare (Up), Mode (Right), Print (Enter),

C (On/Off)

### Dimensions:

(L × W × H)

4.72 × 0.90 × 4.00 in

(120 × 23 × 112 mm)

### Temperature & Humidity:

For internal use -20°C to 60°C

Approved -10°C to 40°C

Humidity: 85% non-condensing

### Rating/Material:

Enclosure: ABS plastic

### Warranty:

One-year limited

### Approvals:

CE-M EN 45501



COMING  
SOON

## Standard Features

- Manage up to 4-load cells (1 scale) or 4 scales with load cell feed circuit for greater weighing stability
- Process to 2600 weight readings per second for single-channel
- 14.2 mm display with new configuration menu to simplify calibration and configuration
- All data and adjustments of each scale are available through integrated fieldbus with up to 120 updates per second
- Integrated web server allows complete diagnostics, calibration and remote configuration
- Frontal micro-USB communication port for configuration, diagnostics and data backup.
- Removable terminal blocks to simplify wiring in the electrical panel
- RS-485 communication port always available on all versions
- Power supply circuit with protections, specific for industrial environment

## OPTIONAL XSPEED SOFTWARE

- Customization of the weighing filter, to maximize the speed and accuracy in static and dynamic applications
- Graphical weighing analysis for the identification of mechanical disturbances and vibrations.
- Oscilloscope function for system diagnostics and filter optimization

## Part Number/Price

Part #	Description	Est. Weight	Price
Consult	SCT-4XAN high speed weight transmitter and analog output for DIN rail mount with 2 IN, 2 OUT, 5-key keypad, LED display		Consult
Consult	SCT-4X-ETHIP high speed 4 channel weight transmitter and EtherNet/IP port for DIN rail mount with DIO 2 IN, 2 OUT, 5-key keypad, LED display		Consult
Consult	SCT-4X-MODTCP high speed 4 channel weight transmitter and Modbus/TCP port for DIN rail mount with DIO 2 IN, 2 OUT, 5-key keypad, LED display		Consult
Consult	SCT-4X-PRONET high speed 4 channel weight transmitter and PRO-FINET port for DIN rail mount with DIO 2 IN, 2 OUT, 5-key keypad, LED display		Consult

## Options/Accessories

Part #	Description	Est. Weight	Price
88792	12VDC 1.2A DIN rail mount power supply	1 lb	\$140.00
119244	24VDC 1.3A DIN rail mount power supply	1 lb	\$160.00
Consult	PC software, XSpeed with graphical weighing analysis and oscilloscope function for system diagnostics and filter optimization		Consult
Consult	Alibi Memory for type-approved communication to PC/PLC (fiscal memory, max 120,000 weighs) built-in real time clock to print the date/time with PCB, screw terminal, plastic box		Consult
Consult	Real time clock for printing/displaying of date and time		Consult

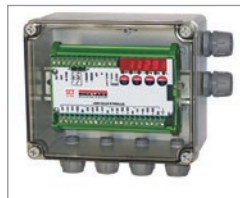
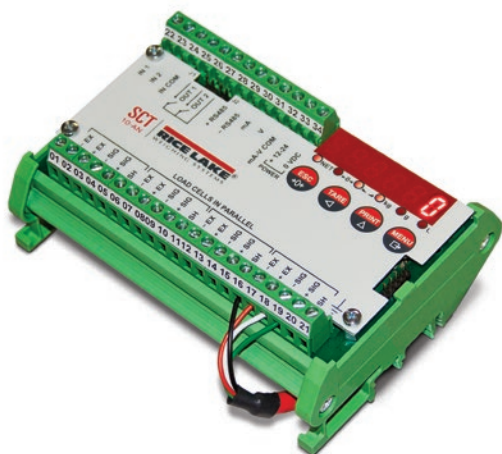
## Specifications

- Power:**  
12 to 24 VDC
- Power Consumption:**  
5W
- Excitation Voltage:**  
5 VDC, 120 mA  
up to 16 x 350 ohm cells
- Analog Signal Input Range:**  
± 39 mV
- Analog Signal Sensitivity:**  
0.3 µV/graduation minimum
- A/D Sample Rate:**  
24-bit A/D  
Single-channel up to 2600 conv/sec  
4 channels up to 100 conv/sec
- Resolution:**  
Internal: 3,000,000 counts  
Display: up to 800,000  
Up to 8 linearization points
- Digital I/O:**  
Two inputs: 12/24 VDC  
Two outputs: 150 mA 48 VAC/ 150 mA 60 VDC
- Communication Ports:**  
1 Micro-USB port (device) for PC configuration  
(1) RS-485, (1) RS-232
- Analog Output (if equipped):**  
Opt. isolated, 16-bit  
0-20mA, 4-20mA (Maximum 350 ohm)  
0-5VDC, 0-10VDC (Minimum 10,000 ohm)
- Annunciators:**  
Nine LEDs
- Display:**  
Six-digit 0.31 in (8 mm), red LED
- Keys/Buttons:**  
Five tactile keys  
Zeroing, Tare, Function mode, Manual data printing/sending, ON/Stand-by
- Dimensions:**  
(L x W x H)  
4.17 x 2.20 x 4.64 inches  
(106 x 56 x 118 mm)
- Temperature & Humidity:**  
Certified: 14 °F to 104 °F (-10 °C to 40 °C)  
Operating: -4 °F to 140 °F (-20 °C to 60 °C)
- Humidity:**  
80% RH, non-condensing
- Rating/Material:**  
NEMA Type 1 plastic pluggable connectors  
ABS
- Weight:**  
1 lb (0.5 kg)
- Warranty:**  
One-year limited
- Approvals:**  
CE-M EN 45501

# SCT-10

Signal Conditioning Transmitter

INDICATORS /  
CONTROLLERS



SCT-10 in Plastic Enclosure

Approvals



## Standard Features

- Converts digital weight to analog output
- Sums four input channels in parallel
- Theoretical calibration, real-weigh calibration, linearity calibration
- Push-button or preset tare
- Full-scale analog output with zero setting and PLC correction of analog signal
- Displays weight, configuration, calibration and error conditions
- DIN-rail mounting, suitable for back panel
- Two digital inputs, two digital outputs
- Supports ASCII or MODBUS-RTU protocols

## Part Number/Price

Part #	Description	Est. Weight	Price
129393	SCT-10 converter with Analog Output	1 lb	\$495.00
129394	SCT-10 converter with Analog Output in enclosure	1 lb	\$655.00

## Options/Accessories

Part #	Description	Est. Weight	Price
88792	12VDC 1.2A DIN rail mount power supply	1 lb	\$140.00
119244	24VDC 1.3A DIN rail mount power supply	1 lb	\$160.00
131129	Installation manual	1 lb	\$25.00
199687	DIN rail clip right & left end clamp		\$10.00

## Specifications

### Power:

Input: 12 to 24 VDC

### Power Consumption:

5 W

### Excitation Voltage:

5VDC, 120mA, 8 × 350 ohm load cells

### Analog Signal Input Range:

+/-19.5 mV

### Analog Signal Sensitivity:

0.3  $\mu$ V/graduation minimum  
1.0  $\mu$ V/graduation recommended

### A/D Sample Rate:

80 Hz

### Resolution:

Internal : 16,000,000 counts  
Display : 999,999

### System Linearity:

± 0.01% full scale

### Digital I/O:

2 inputs 5-24VDC, 2 outputs  
24 VDC/60 mA  
N.O. or N.C. (solid state)

### Communication Ports

RS-485 or RS-232 simplex supports  
up to 115,200 bps

### Analog Output:

Optoisolated, 16 bit  
0-20 mA, 4-20 mA (max 300 ohm)  
0-10 VDC, 0-5 VDC, -10 to 10 VDC,  
5 to 5 VDC, (min 10 k ohm)

### Annunciators:

Net, center of zero, stability,  
KG, G, LB

### Display:

0.3 in (8 mm), six-digit, 7 segment LED

### Keys/Buttons:

4-key membrane panel, tactile feel  
Zero, Tare, Print, Menu, Escape,  
Left and Up Navigation, Enter

### Dimensions:

(L × W × H)  
DIN Rail Mount: 4.84 × 3.62 × 1.96 in  
(123 × 92 × 50 mm)  
Enclosure: 6.69 × 5.51 × 3.74 in  
(170 × 140 × 95 mm)

### Temperature & Humidity:

Operating Temperature: -4 °F to 140 °F  
(-20 °C to 60 °C)  
Humidity: 85% non-condensing

### Rating/Material:

DIN rail mount: NEMA Type 1  
Enclosure: NEMA Type 4/IP67, plastic  
Clear cover: six PG9 cord grips

### Weight:

1 lb (0.5 kg)

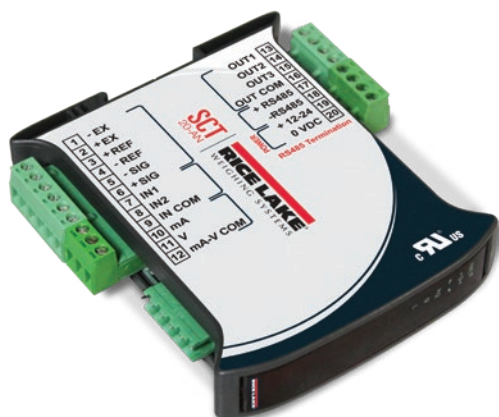
### Warranty:

One-year limited

### Approvals:

cULus Recognized





## Approvals



## Standard Features

- Space saving, vertical shape with DIN-rail mounting
- Displays weight, configuration, calibration and error conditions
- Theoretical calibration, real-weigh calibration, linearity calibration
- Push- button or preset tare
- Converts digital weight to analog output or optional DeviceNet™ or Profibus™ or EtherNet/IP™ protocol
- Supports ASCII or MODBUS-RTU protocols
- Full-scale analog output with zero setting and PLC correction of analog signal
- Bit swapping selection for little endian and big endian format
- Two digital inputs, three digital outputs
- One serial port, RS-232 transmit only, or RS-485 half duplex connection

## Part Number/Price

Part #	Description	Est. Weight	Price
129396	SCT-20 converter with Analog Output	1 lb	\$495.00
129397	SCT-20 converter with DeviceNet™	1 lb	\$655.00
129558	SCT-20 converter with Profibus™ DP	1 lb	\$715.00
129398	SCT-20 converter with EtherNet/IP™	1 lb	\$895.00
132534	SCT-20 converter with Ethernet TCP/IP™	1 lb	\$895.00
156903	SCT-20 converter with Modbus/TCP	1 lb	\$895.00
131128	Installation manual	1 lb	\$25.00
162887	SCT-20 converter with Ethernet TCP/IP	1 lb	\$965.00

*EtherNet/IP and Modbus output changed to Dual Port in 2019.*

## Options/Accessories

Part #	Description	Est. Weight	Price
88792	12VDC 1.2A DIN rail mount power supply	1 lb	\$140.00
119244	24VDC 1.3A DIN rail mount power supply.	1 lb	\$160.00

## Specifications

## Power:

Input: 12 to 24 VDC

## Power Consumption:

5 W

## Excitation Voltage:

5 VDC, 120 mA, 8 × 350 ohm load cells

## Analog Signal Input Range:

+/-39 mV

## Analog Signal Sensitivity:

0.3 µV/graduation minimum

1.0 µV/graduation recommended

## A/D Sample Rate:

300 Hz

## Resolution:

Internal: 16,000,000 counts

Display: 999,999

## System linearity:

± 0.01% full scale

## Digital I/O:

2 inputs 5 to 24 VDC, 3 outputs 115 VAC/150 mA

N.O. or N.C. (dry contact)

## Communication Ports:

RS-232 transmit only, or RS-485 half duplex

Supports up to 115,200 bps

## Analog Output:

Optoisolated, 16 bit

0-20 mA, 4-20 mA (max 300 ohm)

0-10 VDC, 0-5 VDC (min 10k ohm)

## Display:

0.3 in (8 mm), six-digit, seven-segment LED

Annunciators: Net, center of zero, stability,

KG, G, LB

## Keys/Buttons:

4-key membrane panel, tactile feel

Zero, Tare, Print, Menu, Escape, Left & Up

Navigation, Enter

## Dimensions

(W × H × D)

4.72 × 4.52 × 0.98 in

(120 × 115 × 25 mm)

## Temperature &amp; Humidity:

Operating: -4 °F to 140 °F (-20 °C to 60 °C)

Humidity: 85% non-condensing

## Rating/Material:

Enclosure: NEMA Type 1 plastic

pluggable connectors

## Weight:

1 lb (0.5 kg)

## Warranty:

One-year limited

## Approvals:

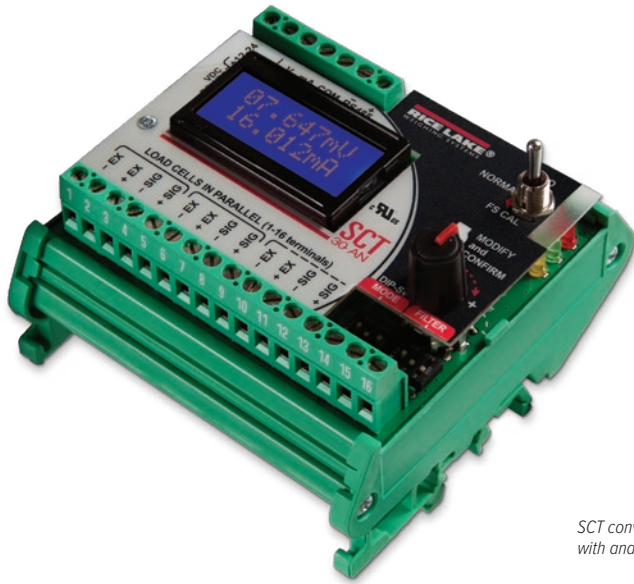
NTEP CC 14-083

cULus Recognized

# SCT-30

Signal Conditioning Transmitter

INDICATORS /  
CONTROLLERS



Approvals



SCT converter  
with analog output

## Part Number/Price

Part #	Description	Est. Weight	Price
156794	SCT-30 converter with Analog Output	1 lb	\$395.00
156834	SCT-30 converter with Analog Output in enclosure	1 lb	\$575.00

## Options/Accessories

Part #	Description	Est. Weight	Price
88792	12VDC 1.2A DIN rail mount power supply	1 lb	\$140.00
119244	24VDC 1.3A DIN rail mount power supply.	1 lb	\$160.00
131129	Installation manual	1 lb	\$25.00
199707	DIN rail clip right & left end clamp		\$10.00

## Standard Features

- LCD display
- Powers up to eight (350 ohm) load cells in parallel (with a 24-bit A/D converter)
- A/D converter 24-bit 4.8 kHz
- 16-bit analog output: 0-20 mA, 4-20 mA, 0-5 V, 0-10 V,  $\pm 5$  V, and  $\pm 10$  V
- Mounting on Omega/DIN rail for back panel or junction box
- Diagnostic message for load cell disconnect and over-capacity errors

## Specifications

### Power:

Input: 12 to 24 VDC

### Power Consumption:

3 W

### Excitation Voltage:

5 VDC, 120 mA, 8  $\times$  350 ohm load cells

### Analog Signal Input Range:

$\pm$ /-39 mV

### Analog Signal Sensitivity:

0.3  $\mu$ V/graduation minimum

1.0  $\mu$ V/graduation recommended

### A/D Sample Rate:

300 Hz

### Resolution:

Internal: 16,000,000 counts

### System Linearity:

$\pm$  0.01% full scale

### Communication Ports:

RS-485

### Analog Output:

Opto isolated, 16 bit  
0-20 mA, 4-20 mA (max 300 ohm)  
0-10 VDC, 0-5 VDC (min 10k ohm)

### Display:

Eight-digit alphanumeric tow line LCD, 5 mm high

### Keys/Buttons:

Control knob and DIP switches

### Dimensions:

(L  $\times$  W  $\times$  H)  
3.74  $\times$  3.54  $\times$  2.36 in  
(95  $\times$  90  $\times$  60 mm)

### Temperature & Humidity:

Operating: -4  $^{\circ}$ F to 140  $^{\circ}$ F (-20  $^{\circ}$ C to 60  $^{\circ}$ C)  
Humidity: 85% non-condensing

### Rating/Material:

DIN rail mount: NEMA Type 1

### Weight:

1 lb (0.5 kg)

### Warranty:

One-year limited

### Approval:

cULus Recognized



## Approvals



## Standard Features

- LCD display
- Supports up to eight independent reading channels for load cells
- Displays weight, configuration, calibration and error conditions
- DIN rail mounting
- Theoretical calibration, real-weight calibration and error conditions
- Push-button or preset tare
- Converts digital weight to analog output or optional DeviceNet™, Profibus™, EtherNet/IP™, PROFINET and Modbus TCP protocols
- Supports ASCII or MODBUS RTU protocols
- Full scale analog cut put with zero setting and PLC correction of analog signal
- Bit swapping selection for little endian and endian format
- Three digital inputs, five digital outputs
- One serial port, RS-485 half duplex or RS-232 transmit-only connection

## Part Number/Price

Part #	Description	Est. Weight	Price
170470	SCT-40 with Analog Output	1 lb	\$715.00
170471	SCT-40 with DeviceNet	1 lb	\$950.00
170472	SCT-40 with Profibus	1 lb	\$950.00
170473	SCT-40 with EtherNet/IP	1 lb	\$995.00
170474	SCT-40 with Ethernet TCP/IP	1 lb	\$945.00
170475	SCT-40 with Modbus TCP	1 lb	\$995.00
170476	SCT-40 with Profinet I/O	1 lb	\$995.00
131128	Installation manual	1 lb	\$25.00

*EtherNet/IP and Modbus output changed to Dual Port in 2019*

## Options/Accessories

Part #	Description	Est. Weight	Price
88792	12VDC 1.2A DIN rail mount power supply	1 lb	\$140.00
119244	24VDC 1.3A DIN rail mount power supply.	1 lb	\$160.00

## Specifications

## Power:

Input: 12 to 24 VDC

## Power Consumption:

5W

## Excitation Voltage:

5 VDC, 240 mA, 16 x 350 ohm load cells

## Analog Signal Input Range:

+/-39 mV

## Analog Signal Sensitivity:

0.3 µV/graduation minimum

1.0 µV/graduation recommended

## A/D Sample Rate:

600 Hz

## Resolution:

Internal: 16,000,000 counts

Display: 999,999

## System linearity:

± 0.01% full scale

## Digital I/O:

3 inputs 5 to 24 VDC, 5 outputs, 115 VAC/150 mA

## Communication Ports

RS-232 transmit only, or RS-485 half duplex

Supports up to 115,200 bps

## Analog Output:

Opto isolated, 16 bit

0-20 mA, 4-20 mA (max 300 ohm)

0-10 VDC, 0-5 VDC (min 10,000 ohm)

## Display:

Backlit graphic LCD, transmissive

128 x 64 pixel resolution, 60 x 32 mm visible area

## Keys/Buttons:

Five-key tactile keypad

Test, Zero, Tare, Print Menu, Escape, Left and Up,

Navigator, Enter

## Dimensions:

(L x W x H)

5.82 x 3.62 x 2.36 in

(148 x 92 x 60 mm)

## Temperature &amp; Humidity:

Operating: -4 °F to 140 °F (-20 °C to 60 °C)

Humidity: 85% non-condensing

## Rating/Material:

DIN rail mount: NEMA Type 1

## Weight:

1 lb (0.5 kg)

## Warranty:

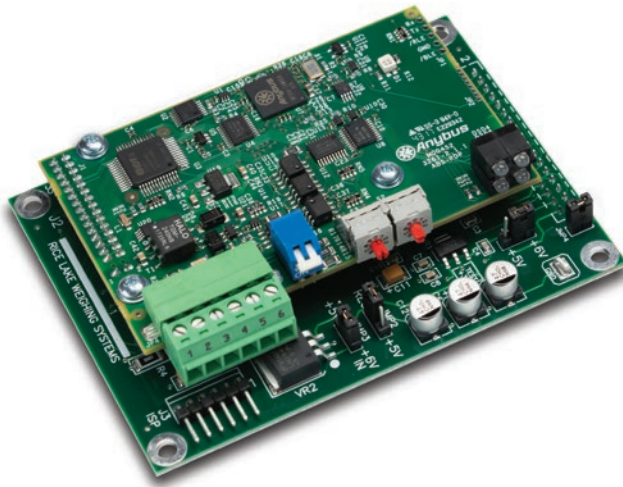
One-year limited

## Approvals:

cULus Recognized

# Profibus® DP Interface

720i™/920i®



PN 68540

## Standard Features

- DP intelligent device
- Standard GSD file download from product page
- 128 selectable addresses
- Auto baud rate up to 56K
- Registered with Profibus Trade Organization
- Onboard diagnostic LEDs

## Specifications

### Power:

5 VDC, 350 mA

### Fieldbus Interface:

Pluggable screw connector

### Diagnostic LEDs:

Link status and module status

### Dimensions:

2.00 × 1.90 × 0.75 in  
(51.8 × 48 × 19 mm)

### Temperature Range:

14 °F to 158 °F (-10 °C to 70 °C)

## Part Number/Price

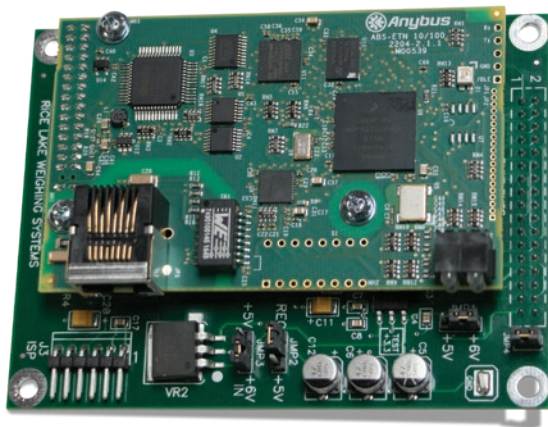
Part #	Description	Est. Weight	Price
68540	Profibus DP interface kit (internal), for 720i/920i indicators	3 lb	\$700.00

## Options/Accessories

Part #	Description	Price
69948	Additional operating manual)	\$42.00

# Profinet® I/O Interface

920i®



PN 187816

## Standard Features

- CE marked and UL conformance
- Onboard diagnostic LEDs
- Control protocols

## Specifications

### Power:

5 VDC, 350 mA (jumper for 6 VDC)

### Fieldbus Interface:

RJ-45

### Diagnostic LEDs:

Link status, module status, network status, activity

### Dimensions:

2.13 × 3.38 × 0.59 in  
(86 × 54 × 15 mm)

### Temperature Range:

14 °F to 158 °F (-10 °C to 70 °C)

## Part Number/Price

Part #	Description	Price
187816	Profinet IO interface kit for 920i indicator	\$840.00

## Options/Accessories

Part #	Description	Price
187907	Additional operating manual	\$35.00



# Remote I/O Interface

720i™/920i®



PN 68539

## Part Number/Price (Limited Supply)

Part #	Description	Est. Weight	Price
68539	Allen-Bradley remote I/O (internal), for 720i/920i indicators	3 lb	\$700.00

## Options/Accessories

Part #	Description	Price
69950	Additional operating manual	\$42.00

## Standard Features

- 115 or 230 VAC operation
- Discrete data transfer
- Block data transfer
- Onboard diagnostic LED

## Specifications

### Power:

5 VDC, 140 mA

### Communication Ports:

Twin axial cable attachment to network at 57.6, 115.2 or 230.4 Kbps  
Update rate is dependent on the configured baud rate and the number of network modes

### Fieldbus Interface:

Pluggable screw connector

### Diagnostic LED:

Network status

### Dimensions:

2.13 × 3.38 × 0.59 in  
(86 × 54 × 15 mm)

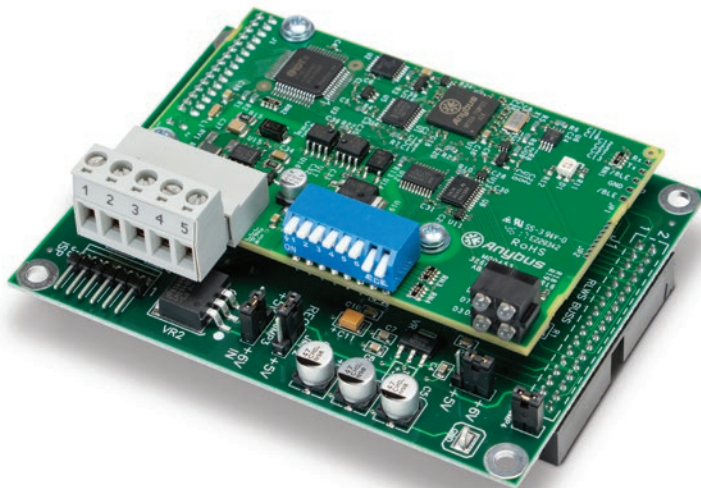
### Temperature Range:

14 °F to 158 °F (-10 °C to 70 °C)

INDICATORS /  
CONTROLLERS

# DeviceNet™ Interface

720i™/920i®



PN 68541

## Part Number/Price

Part #	Description	Est. Weight	Price
68541	DeviceNet interface kit for 720i/920i indicators	3 lb	\$700.00

## Options/Accessories

Part #	Description	Price
69949	Additional operating manual	\$42.00

## Standard Features

- DeviceNet communication adapter
- Compact size for internal installation in 720 and 920i indicators
- Polled I/O connection
- 125 Kbps, 250 Kbps, and 500 Kbps baud rate
- Onboard LED diagnostics
- Floating-point commands support decimal points

## Specifications

### Power:

5 VDC, 270 mA

Fieldbus connector requires 24 VDC, ±10%

### Communication Ports:

Twisted-pair cabling at 125, 250, or 500 Kbps  
Update rate is dependent on the configured baud rate and the number of network modes

### Fieldbus Interface:

Pluggable screw connector

### Diagnostic LEDs:

Network status, module status

### Dimensions:

2.13 × 3.38 × 0.59 in  
(86 × 54 × 15 mm)

### Temperature Range:

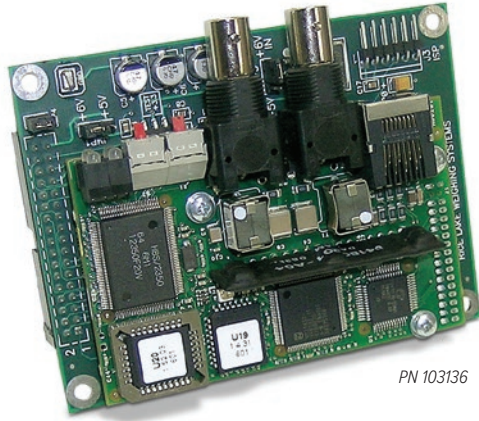
14 °F to 158 °F (-10 °C to 70 °C)

### Galvanic Isolation:

Bus power is separated from other electronics via DC/DC converter. The send and receive signals are isolated via opto couplers.

# ControlNet™ Interface

920i®



PN 103136

## Standard Features

- Option for 920i
- Polled I/O connection
- Onboard LED diagnostics
- Floating-point commands support decimal points

## Specifications

### Power:

5 VDC, 350 mA (jumper for 6 VDC)

### Fieldbus Interface:

BNC connector

### Diagnostic LEDs:

TX/RX data, Good link, Status, Diagnostics

### Dimensions:

2.13 × 3.38 × 0.59 in  
(86 × 54 × 15 mm)

### Temperature Range:

14 °F to 158 °F (-10 °C to 70 °C)

## Part Number/Price

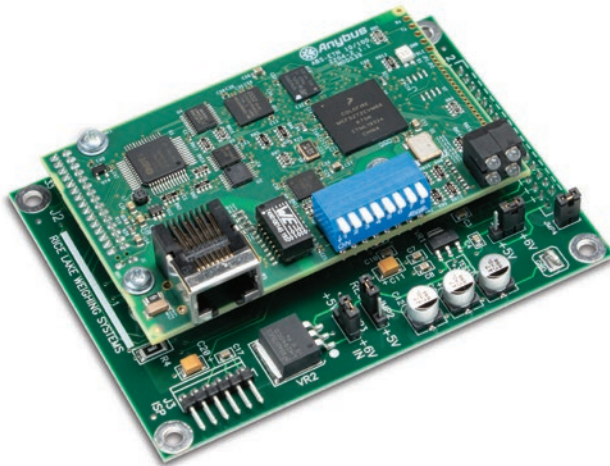
Part #	Description	Price
103136	ControlNet interface for 920i indicator	\$1,050.00
<b>Cables</b>		
Consult factory for coaxial cable with cord grips		

## Options/Accessories

Part #	Description	Price
103122	Additional operating manual	\$40.00

# EtherNet/IP® Interface

720i™/920i®



PN 87803

## Standard Features

- Industrial protocol for Allen-Bradley PLC and other EtherNet/IP compliant devices
- IP address settings configurable with onboard DIP switched, web page, or ARP or DHCP
- Supports Rockwell Automation® EtherNet/IP level
- CE marked and UL conformance
- Onboard diagnostic LED
- Supports the Modbus/TCP protocol and conforms to Modbus/TCP specification 1.0

## Specifications

### Power:

5 VDC, 350 mA

### Fieldbus Interface:

RJ-45

### Diagnostic LEDs:

Link status, module status, network status, activity

### Dimensions:

2.13 × 3.38 × 0.59 in  
(86 × 54 × 15 mm)

### Temperature:

14 °F to 158 °F (-10 °C to 70 °C)

## Part Number/Price

Part #	Description	Price
87803	EtherNet/IP protocol card for 720i/920i indicators	\$840.00

## Options/Accessories

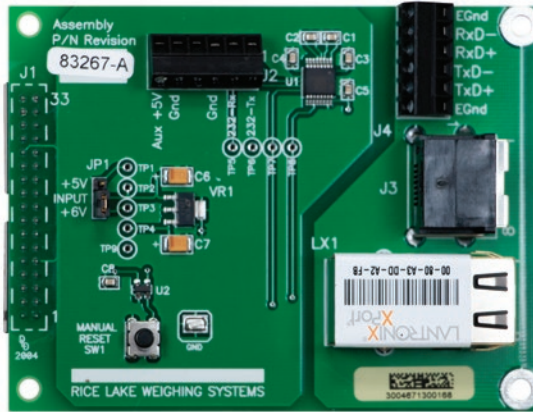
Part #	Description	Price
88537	Additional operating manual	\$40.00



# ETHERNET TCP/IP INTERFACE

720i™/920i®

FIELD BUS CARDS



PN 71986

## Part Number/Price

Part #	Description	Est. Weight	Price
71986	Ethernet TCP/IP interface for 720i/920i indicators	3 lb	\$420.00
206271	Wireless Ethernet TCP/IP interface for 720i/920i indicators	3 lb	\$650.00
206272	Wireless Ethernet TCP/IP interface for 720i, CW-90 indicators and iQUBE <sup>2</sup>	3 lb	\$570.00

## Options/Accessories

Part #	Description	Price
72117	Additional operating manual	\$13.00
<b>Cables</b>		
72697	RJ-45 to RJ-45, straight, 7 ft length	\$40.00
78860	RJ-45 to RJ-45, cross over, 7 ft length	\$40.00

## Standard Features

- Supports any serial devices with 7 or 8 data bits requiring Ethernet access
- Compact size for internal installation in 720i and 920i indicators
- Can be used in other applications requiring five-volt power supplied
- 10/100 megabyte through RJ45 connector or wireless option
- HTTP, serial, telnet and SNMP management

## Specifications

### Power:

5 VDC, 250 mA

### Supported Protocols:

ARP, UDP, TCP, Telnet, SNMP, ICMP, HTTP, BOOTP, DHCP and TFTP

### Network Interface:

Ethernet: RJ-45 (10/100 Base-T) or AUI

### Serial Line Formats:

Characters: 7 or 8 data bits  
Stop bits: 1 or 2  
Parity: odd, even, none

### Data Rates:

Single port, 300 bps to 115.2 Kbps

### Dimensions:

2.00 × 1.90 × 0.75 in  
(52 × 49 × 19 mm)

### Temperature Range:

41 °F to 122 °F (5 °C to 50 °C)

INDICATORS /  
CONTROLLERS



PN 206272



PN 206271

# Profibus® DP Interface

880®/882D/882IS/1280



## Standard Features

- DP intelligent device
- Standard GSD file download from product page
- Selectable addresses
- Up to 12 Mbps baud rate
- Onboard diagnostic LEDs

## Specifications

### Power:

3.3 VDC, 250 mA

### Connector Type:

DB9, pluggable

### Dimensions:

2.00 × 1.90 × 0.75 in  
(52 × 49 × 19 mm)

### Temperature Range:

-40 °F to 158 °F (-40 °C to 70 °C)

### Diagnostic LEDs:

Operational mode and network status

## Part Number/Price

Part #	Description	Est. Weight	Price
179163	Profibus DP interface kit, for 880 indicator	1 lb	\$600.00
165795	Profibus DP interface kit for 1280 indicator	1 lb	\$600.00
190534	Profibus DP interface kit for 882D and 882IS indicators	1 lb	\$600.00

NOTE: Kit includes module and carrier board

## Options/Accessories

Part #	Description	Price
156784	Additional operating manual	\$40.00

# PROFINET® Interface

880®/882D/882IS/1280



## Standard Features

- PROFINET communication adapter
- Onboard diagnostic LEDs
- 100 Mbps baud rate
- Works as an I/O device on the PROFINET network
- PROfinenergy compliant

## Specifications

### Power:

3.3 VDC, 250 mA

### Configuration:

GSDML file

### Connector Type:

RJ-45 (Consult for dual-port version)

### Diagnostic LEDs:

Network status, module status

### IP Address Range:

Full IP address range DHCP

### Dimensions:

2.00 × 1.90 × 0.75 in  
(52 × 49 × 19 mm)

### Temperature Range:

-40 °F to 158 °F (-40 °C to 70 °C)

## Part Number/Price

Part #	Description	Est. Weight	Price
179160	PROFINET interface kit for 880 indicator (single port)	1 lb	\$600.00
205567	PROFINET interface kit for 880 indicator (dual port)	1 lb	\$750.00
165794	PROFINET interface kit for 1280 indicator (single port)	1 lb	\$600.00
190532	PROFINET interface kit for 882D and 882IS indicators	1 lb	\$600.00

NOTE: Kit includes module and carrier board

## Options/Accessories

Part #	Description	Price
156781	Additional operating manual	\$40.00

FIELD BUS CARDS

# DeviceNet™ Interface

880®/882D/882IS/1280



## Standard Features

- DeviceNet communication adapter
- 125 Kbps, 150 Kbps and 500 Kbps baud rate
- Onboard diagnostic LEDs

## Specifications

### Power:

3.3 VDC, 250 mA

### Connector Type:

Pluggable screw terminal

### IP Address Range:

MAC ID 0 to 63

### Diagnostic LEDs:

Network status, module status

### Dimensions:

2.00 × 1.90 × 0.75 in  
(52 × 49 × 19 mm)

### Temperature Range:

-40 °F to 158 °F (-40 °C to 70 °C)

## Part Number/Price

Part #	Description	Est. Weight	Price
179162	DeviceNet interface kit for 880 indicator	1 lb	\$600.00
165793	DeviceNet interface kit for 1280 indicator	1 lb	\$600.00
190531	DeviceNet interface kit for 882D and 882IS indicators	1 lb	\$600.00

NOTE: Kit includes module and carrier board

## Options/Accessories

Part #	Description	Price
156783	Additional operating manual	\$40.00

INDICATORS /  
CONTROLLERS

# MODBUS-TCP® Interface

880®/882D/882IS/1280



## Standard Features

- Active module with serial and parallel application interface
- Complete Modbus-TCP server
- Up to 8 bytes of I/O data
- Transformer isolated interface 100 Mbps full duplex Ethernet
- Onboard diagnostic LEDs
- CE and UL compliant

## Specifications

### Power Requirements:

3.3 VDC, 250 mA

### Connector Type:

RJ-45 (Consult for dual-port version)

### Diagnostic LEDs:

Link status, network status, module status

### Dimensions:

2.00 × 1.90 × 0.75 in  
(51 × 48 × 19 mm)

### Temperature Range:

-40 °F to 176 °F (-40 °C to 85 °C)

## Part Number/Price

Part #	Description	Est. Weight	Price
179161	Modbus-TCP Interface kit for 880 indicator (single port)	1 lb	\$600.00
205568	Modbus-TCP Interface kit for 880 indicator (dual port)	1 lb	\$750.00
165796	Modbus-TCP Interface kit for 1280 indicator (single port)	1 lb	\$600.00
190533	Modbus-TCP Interface kit for 882D and 882IS indicators	1 lb	\$600.00

NOTE: Kit includes module and carrier board

## Options/Accessories

Part #	Description	Price
156782	Additional operating manual	\$40.00

# EtherNet/IP® Interface

880®/882D/882IS/1280



## Standard Features

- Industrial protocol for Allen-Bradley PLC and other EtherNet/IP compliant devices
- IP address settings configurable with web page, ARP or DHCP
- Supports Allen-Bradley EtherNet/IP
- Onboard diagnostic LEDs
- CE marked and UL conformance
- AOP (880 only) or standard EDS file download

## Specifications

### IP Address Range:

Full IP address range

### Power Requirements:

3.3 VDC, 250 mA

### Connector Type:

RJ-45

### Diagnostic LEDs:

Link status, network status, module status

### Dimensions:

2.00 × 1.90 × 0.75 in  
(52 × 49 × 19 mm)

### Temperature Range:

-40 °F to 158 °F (-40 °C to 70 °C)

## Part Number/Price

Part #	Description	Est. Weight	Price
179159	EtherNet/IP interface kit for 880 indicator (single port)	1 lb	\$600.00
205566	EtherNet/IP Interface kit for 880 indicator (dual Port)	1 lb	\$750.00
165792	EtherNet/IP interface kit for 1280 indicator (single port)	1 lb	\$600.00
208129	EtherNet/IP Interface kit for 1280 indicator (dual Port)	1 lb	\$750.00
190530	EtherNet/IP Interface kit for 882D and 882IS indicators	1 lb	\$600.00

NOTE: Kit includes module and carrier board

## Options/Accessories

Part #	Description	Price
156861	Additional operating manual	\$40.00

# EtherCAT Interface

880®/882D/882IS/1280



## Standard Features

- Two RJ-45 EtherCAT 100 Mbit/s ports available simultaneously
- Can be wired in several topologies including star, line or tree
- Has built-in redundancy that compensates for potential breaks in wiring
- No network switches necessary, can be wired directly from device to device
- Includes self-terminating network
- Onboard diagnostic LEDs
- CE, cULus and RoHS compliant

## Specifications

### Power:

3.3 VDC, 500 mA

### Connector Type:

RJ-45 (dual port)

### Diagnostic LEDs:

Run status, error status

### Dimensions:

2.04 × 1.97 × 0.86 in  
(52 × 50 × 22 mm)

### Temperature Range:

-40 °F to 158 °F (-40 °C to 70 °C)

## Part Number/Price

Part #	Description	Est. Weight	Price
179158	EtherCAT interface kit for 880 indicator	1 lb	\$600.00
179533	EtherCAT interface kit for 1280 indicator	1 lb	\$600.00
190535	EtherCAT interface kit for 882D and 882IS indicators	1 lb	\$600.00

NOTE: Kit includes module and carrier board

## Options/Accessories

Part #	Description	Price
164394	Additional operating manual	\$40.00



## Standard Features

- Works with any basic digital weight indicator
- Excitation to load cell(s) provided by the transmitter, not the indicator
- Each transmitter/receiver set is individually paired
- Serial communication cable included with all transmitters
- IP68 milled aluminum enclosure

(Contact MSI for application consultation)

## Specifications

### Power:

MSI-7000: 5-6 VDC, 7-36 VDC, 85-265 VAC  
MSI-7001: 5-6 VDC, 7-36 VDC, 85-265 VAC  
MSI-7000HD: 7-36 VDC, 9-36 VDC, 85-265 VAC  
MSI-7001HD: 5-6 VDC, 7-36 VDC, 9-36 VDC, 85-265 VAC

### Excitation Voltage:

Transmitter: +4.8 VDC, 16 x 350 ohm or 32 x 700 ohm load cells

### Standard Antenna:

1/2 wave 2dBi, articulated

### Frequency:

Direct sequence spread spectrum at 2.4 GHz, 802.15.4

### Effective Range:

Typically 100 to 300 ft, line of sight; for longer range consult factory

### Communication Ports:

Full duplex RS-232

### Circuit Protection:

RFI, EMI, ESD protection

### Operating Temperature :

-40 °F to 185 °F (-40 °C to 85 °C)

### Rating/Material:

MSI-7000HD/MSI-7001HD:  
IP68 (Milled Anodized Aluminum)

### Additional RF Options:

Wi-Fi  
802.15.4  
FHSS

### Warranty:

One-year limited

## Part Number/Price

Part #	Description	Est. Weight	Price
<b>Transmitters</b>			
<b>5-6 VDC Power Input</b>			
159207	Four-channel transmitter, no relays, RF 802.15.4, 2.4 GHz	2 lb	\$985.00
161949	Four-channel transmitter, includes three coil relays, RF 802.15.4, 2.4 GHz	2 lb	\$1,130.00
176648	Four-channel transmitter, no relays, Wi-Fi	2 lb	\$1,040.00
176652	Four-channel transmitter, includes three coil relays, Wi-Fi	2 lb	\$1,180.00
<b>7-36 VDC Power Input</b>			
159470	Four-channel transmitter, no relays, RF 802.15.4, 2.4 GHz	2 lb	\$1,020.00
161951	Four-channel transmitter, includes three coil relays, RF 802.15.4, 2.4 GHz	2 lb	\$1,180.00
176650	Four-channel transmitter, no relays, Wi-Fi	2 lb	\$1,070.00
176653	Four-channel transmitter, includes three coil relays, Wi-Fi	2 lb	\$1,240.00
<b>85-265 VAC Power Input</b>			
159469	Four-channel transmitter, no relays, RF 802.15.4, 2.4 GHz	2 lb	\$1,040.00
161950	Four-channel transmitter, includes three coil relays, RF 802.15.4, 2.4 GHz	2 lb	\$1,210.00
176647	Four-channel transmitter, no relays, Wi-Fi	2 lb	\$1,100.00
176651	Four-channel transmitter, includes three coil relays, Wi-Fi	2 lb	\$1,280.00
<b>Receivers</b>			
<b>5-6 VDC Power Input</b>			
160016	Four-channel receiver to provide an analog output signal: 4-20 mA, 0-20 mA, 0-5 VDC, 0-10 VDC, $\pm 5$ VDC, $\pm 10$ VDC, includes three coil relays, RF 802.15.4, 2.4 GHz	2 lb	\$1,180.00
160017	MSI-7000 four-channel receiver to provide RS232 serial output	2 lb	\$1,200.00
<b>7-36 VDC Power Input</b>			
159478	MSI-7000 four-channel receiver to provide RS232 serial output	2 lb	\$1,250.00
159476	Four-channel receiver to provide an analog output signal: 4-20 mA, 0-20 mA, 0-5 VDC, 0-10 VDC, $\pm 5$ VDC, $\pm 10$ VDC, includes three coil relays, RF 802.15.4, 2.4 GHz	2 lb	\$1,330.00
<b>85-265 VAC Power Input</b>			
159477	Four-channel receiver to provide RS232 serial output	2 lb	\$1,110.00
159475	Four-channel receiver to provide an analog output signal: 4-20 mA, 0-20 mA, 0-5 VDC, 0-10 VDC, $\pm 5$ VDC, $\pm 10$ VDC, includes three coil relays, RF 802.15.4, 2.4 GHz	2 lb	\$1,430.00



Options/Accessories

Part #	Description	Price
162172	Charger, TranSend™ for 6 V SLA battery	\$67.00
162173	Battery, TranSend 6 V SLA	\$130.00
162175	Enclosure, TranSend for 6 V SLA battery	\$340.00
160109	AC adapter, TranSend 6 V	\$56.00
143531	Power cord, 6 V SLA battery charger EU	\$29.00
143533	Power cord, 6 V SLA battery charger, Australia	\$51.00
143534	Power cord, 6 V SLA battery charger, UK	\$45.00
160110	265 VAC to 6 VDC wall adapter US/UK/EU/AUS/China	\$56.00
162178	Antenna extension kit, 6 ft coax cable	\$465.00
139309	Antenna kit, long range Omni with 3 m coax cable	\$485.00
139310	Antenna kit, corner reflector 9 dbi with 3 m coax cable	\$480.00
197013	Antenna extension kit, 20 ft	\$495.00
139311	Antenna kit, corner reflector 12 dbi with 3 m coax cable	\$510.00
139312	Antenna kit, Yagi 15 dbi with 3 m coax cable	\$395.00
144345	30 m coaxial cable, for use with non-vehicle mount antenna kits	\$455.00
139313	Antenna kit, vehicle mount. 5 dbi with 5 m coaxial cable	\$150.00
150964	RS-232 13 ft (4 m) serial cable with nine-pin (female) connector	\$190.00
150965	RS-232 13 ft (4 m) serial cable with nine-pin (male) connector	\$170.00
145085	RS-232 serial cable, nine-pin unterminated	\$130.00

INDICATORS /  
CONTROLLERS





## Part Number/Price

Part #	Description	Est. Weight	Price
<b>Transmitters</b>			
<b>5-6 VDC Power Input</b>			
<b>160330</b>	Single-channel transmitter, no relays, RF 802.15.4, 2.4 GHz	2 lb	\$930.00
<b>176655</b>	Single-channel transmitter, no relays, Wi-Fi	2 lb	\$980.00
<b>7-36 VDC Power Input</b>			
<b>160329</b>	Single-channel transmitter, no relays, RF 802.15.4, 2.4 GHz	2 lb	\$985.00
<b>176656</b>	Single-channel transmitter, no relays, Wi-Fi	2 lb	\$1,040.00
<b>85-265 VAC Power Input</b>			
<b>160328</b>	Single-channel transmitter, no relays, RF 802.15.4, 2.4 GHz	2 lb	\$1,020.00
<b>176654</b>	Single-channel transmitter, no relays, Wi-Fi	2 lb	\$1,070.00
<b>Receivers</b>			
<b>5-6 VDC Power Input</b>			
<b>160337</b>	Single-channel receiver to provide a mV signal to a digital weight indicator, RF 802.15.4, 2.4 GHz	2 lb	\$985.00
<b>160334</b>	Single-channel receiver to provide an analog output signal: 4-20 mA, 0-20 mA, 0-5 VDC, 0-10 VDC, $\pm 5$ VDC, $\pm 10$ VDC, RF 802.15.4, 2.4 GHz	2 lb	\$1,040.00
<b>161941</b>	Single-channel receiver to provide RS232 serial output	2 lb	\$770.00
<b>7-36 VDC Power Input</b>			
<b>160336</b>	Single-channel receiver to provide a mV signal to a digital weight indicator, RF 802.15.4, 2.4 GHz	2 lb	\$1,080.00
<b>161939</b>	Single-channel receiver to provide RS232 serial output	2 lb	\$880.00
<b>160333</b>	Single-channel receiver to provide an analog output signal: 4-20 mA, 0-20 mA, 0-5 VDC, 0-10 VDC, $\pm 5$ VDC, $\pm 10$ VDC, RF 802.15.4, 2.4 GHz	2 lb	\$1,180.00
<b>85-265 VAC Power Input</b>			
<b>160335</b>	Single-channel receiver to provide a mV signal to a digital weight indicator, RF 802.15.4, 2.4 GHz	2 lb	\$1,130.00
<b>161938</b>	Receiver to provide RS232 serial output	2 lb	\$940.00

## Standard Features

- Works with any basic digital weight indicator
- Excitation to load cell(s) provided by the transmitter, not the indicator
- Each transmitter/receiver set is individually paired
- Serial communication cable included with all transmitters
- IP68 milled aluminum enclosure

(Contact MSI for application consultation)

## Specifications

### Power:

MSI-7000: 5-6 VDC, 7-36 VDC, 85-265 VAC  
 MSI-7001: 5-6 VDC, 7-36 VDC, 85-265 VAC  
 MSI-7000HD: 7-36 VDC, 9-36 VDC, 85-265 VAC  
 MSI-7001HD: 5-6 VDC, 7-36 VDC, 9-36 VDC, 85-265 VAC

### Excitation Voltage:

Transmitter: +4.8 VDC, 16 x 350 ohm or 32 x 700 ohm load cells

### Standard Antenna:

1/2 wave 2dBi, articulated

### Frequency:

Direct sequence spread spectrum at 2.4 GHz, 802.15.4

### Effective Range:

Typically 100 to 300 ft, line of sight; for longer range consult factory

### Communication Ports:

Full duplex RS-232

### Circuit Protection:

RFI, EMI, ESD protection

### Operating Temperature :

-40 °F to 185 °F (-40 °C to 85 °C)

### Rating/Material:

MSI-7000HD/MSI-7001HD:  
 IP68 (Milled Anodized Aluminum)

### Additional RF Options:

Wi-Fi  
 802.15.4  
 FHSS

### Warranty:

One-year limited

**Options/Accessories**

Part #	Description	Price
<b>162177</b>	Cordset, TranSend, pre-wired for use with single channel transmitters or non-relay based receivers	\$130.00
<b>164865</b>	Cable, 4 m, one-channel, mV/V output, LC input	\$135.00
<b>165648</b>	Cable, 5 m, one-channel, mV/V output, LC input	\$155.00
<b>165651</b>	Cable, 10 m, one-channel, mV/V output, LC input	\$220.00
<b>162184</b>	Load cell connector, TranSend, field wireable, 4-6 mm straight. For use with single channel transmitters and all receivers.	\$59.00
<b>162185</b>	Load cell connector, TranSend, field wireable, 6-8 mm straight. For use with single channel transmitters and all receivers.	\$59.00
<b>162186</b>	Load cell connector, TranSend, field wireable, 4-6 mm right angle. For use with single channel transmitters and all receivers.	\$59.00
<b>162187</b>	Load cell connector, TranSend, field wireable, 6-8 mm right angle. For use with single channel transmitters and all receivers.	\$59.00
<b>145084</b>	Cable, 2 m, one-channel, analog output	\$61.00
<b>144400</b>	Cable, 5 m, one-channel, analog output	\$95.00
<b>168903</b>	Cable, 10 m, one-channel, analog output	\$145.00
<b>Consult</b>	Straight connector, analog output, field wire able, 4-6 mm OD	Consult
<b>Consult</b>	Straight connector, analog output, field wire able, 6-8 mm OD	Consult
<b>Consult</b>	Right angle connector, analog output, field wire able, 4-6 mm OD	Consult
<b>Consult</b>	Right angle connector, analog output, field wire able, 6-8 mm OD	Consult
<b>162172</b>	Charger, TranSend™ for 6 V SLA battery	\$67.00
<b>162173</b>	Battery, TranSend 6 V SLA	\$130.00
<b>162175</b>	Enclosure, TranSend for 6 V SLA battery	\$340.00
<b>160109</b>	AC adapter, TranSend 6 V	\$56.00
<b>143531</b>	Power cord, 6 V SLA battery charger EU	\$29.00
<b>143533</b>	Power cord, 6 V SLA battery charger, Australia	\$51.00
<b>143534</b>	Power cord, 6 V SLA battery charger, UK	\$45.00
<b>160110</b>	265 VAC to 6 VDC wall adapter US/UK/EU/AUS/China	\$56.00
<b>162178</b>	Antenna extension kit, 6 ft coax cable	\$465.00
<b>139309</b>	Antenna kit, long range Omni with 3 m coax cable	\$485.00
<b>139310</b>	Antenna kit, corner reflector 9 dbi with 3 m coax cable	\$480.00
<b>197013</b>	Antenna extension kit, 20 ft	\$495.00
<b>139311</b>	Antenna kit, corner reflector 12 dbi with 3 m coax cable	\$510.00
<b>139312</b>	Antenna kit, Yagi 15 dbi with 3 m coax cable	\$395.00
<b>144345</b>	30 m coaxial cable, for use with non-vehicle mount antenna kits	\$455.00
<b>139313</b>	Antenna kit, vehicle mount. 5 dbi with 5 m coaxial cable	\$150.00
<b>150964</b>	RS-232 13 ft (4 m) serial cable with nine-pin (female) connector	\$190.00
<b>150965</b>	RS-232 13 ft (4 m) serial cable with nine-pin (male) connector	\$170.00
<b>145085</b>	RS-232 serial cable, nine-pin unterminated	\$130.00



## Part Number/Price

Part #	Description	Est. Weight	Price
<b>Transmitters</b>			
<b>7-36 VDC Power Input</b>			
177944	Four-channel 7-36VDC, three coil relays, 802.15.4		\$2,080.00
177997	Four-channel 7-36VDC, three coil relays, Wi-Fi		\$2,090.00
<b>9-36 VDC Power Input</b>			
177945	Four-channel 9-36VDC isolated, three coil relays, 802.15.4		\$2,170.00
177998	Four-channel 9-36VDC isolated, three coil relays, Wi-Fi		\$2,190.00
<b>85-265 VAC Power Input</b>			
177942	Four-channel 85-265VAC, three coil relays, 802.15.4		\$2,130.00
177995	Four-channel 85-265VAC, three coil relays, Wi-Fi		\$2,150.00

## Options/Accessories

Part #	Description	Price
187424	Dual XBee option kit for 7000HD with TNC connector	\$200.00
162178	Antenna extension kit, 6 ft coax cable	\$465.00
139309	Antenna kit, long range Omni with 3 m coax cable	\$485.00
139310	Antenna kit, corner reflector 9 dbi with 3 m coax cable	\$480.00
197013	Antenna extension kit, 20 ft	\$495.00
139311	Antenna kit, corner reflector 12 dbi with 3 m coax cable	\$510.00
139312	Antenna kit, Yagi 15 dbi with 3 m coax cable	\$395.00
144345	30 m coaxial cable, for use with non-vehicle mount antenna kits	\$455.00
139313	Antenna kit, vehicle mount. 5 dbi with 5 m coaxial cable	\$150.00
148624	RS-232/RS-485 serial cable	\$135.00
143348	Cordset IP68 5-pin male	\$130.00
141263	12V Battery Half Plate, requires separate power cable	\$1,190.00

## Standard Features

- Works with any basic digital weight indicator
- Excitation to load cell(s) provided by the transmitter, not the indicator
- Each transmitter/receiver set is individually paired
- Serial communication cable included with all transmitters
- IP68 milled aluminum enclosure

(Contact MSI for application consultation)

## Specifications

### Power:

MSI-7000: 5-6 VDC, 7-36 VDC, 85-265 VAC  
 MSI-7001: 5-6 VDC, 7-36 VDC, 85-265 VAC  
 MSI-7000HD: 7-36 VDC, 9-36 VDC, 85-265 VAC  
 MSI-7001HD: 5-6 VDC, 7-36 VDC, 9-36 VDC, 85-265 VAC

### Excitation Voltage:

Transmitter: +4.8 VDC, 16 x 350 ohm or 32 x 700 ohm load cells

### Standard Antenna:

1/2 wave 2dBi, articulated

### Frequency:

Direct sequence spread spectrum at 2.4 GHz, 802.15.4

### Effective Range:

Typically 100 to 300 ft, line of sight; for longer range consult factory

### Communication Ports:

Full duplex RS-232

### Circuit Protection:

RFI, EMI, ESD protection

### Operating Temperature :

-40 °F to 185 °F (-40 °C to 85 °C)

### Rating/Material:

MSI-7000HD/MSI-7001HD:  
 IP68 (Milled Anodized Aluminum)

### Additional RF Options:

Wi-Fi  
 802.15.4  
 FHSS

### Warranty:

One-year limited

**TranSend™ MSI-7001HD**

Wireless Load Cell Interface System

INDICATORS /  
CONTROLLERS**Standard Features**

- Works with any basic digital weight indicator
- Excitation to load cell(s) provided by the transmitter, not the indicator
- Each transmitter/receiver set is individually paired
- Serial communication cable included with all transmitters
- IP68 milled aluminum enclosure

(Contact MSI for application consultation)

**Specifications****Power:**

MSI-7000: 5-6 VDC, 7-36 VDC, 85-265 VAC  
 MSI-7001: 5-6 VDC, 7-36 VDC, 85-265 VAC  
 MSI-7000HD: 7-36 VDC, 9-36 VDC, 85-265 VAC  
 MSI-7001HD: 5-6 VDC, 7-36 VDC, 9-36 VDC, 85-265 VAC

**Excitation Voltage:**

Transmitter: +4.8 VDC, 16 x 350 ohm or  
 32 x 700 ohm load cells

**Standard Antenna:**

1/2 wave 2dBi, articulated

**Frequency:**

Direct sequence spread spectrum  
 at 2.4 GHz, 802.15.4

**Effective Range:**

Typically 100 to 300 ft, line of sight;  
 for longer range consult factory

**Communication Ports:**

Full duplex RS-232

**Circuit Protection:**

RFI, EMI, ESD protection

**Operating Temperature :**

-40 °F to 185 °F (-40 °C to 85 °C)

**Rating/Material:**

MSI-7000HD/MSI-7001HD:  
 IP68 (Milled Anodized Aluminum)

**Additional RF Options:**

Wi-Fi  
 802.15.4  
 FHSS

**Warranty:**

One-year limited

**Part Number/Price**

Part #	Description	Est. Weight	Price
<b>Transmitters</b>			
<b>5-6 VDC</b>			
<b>178010</b>	Two-channel 5-6VDC, 802.15.4		\$1,160.00
<b>178018</b>	Two-channel 5-6VDC, Wi-Fi		\$1,250.00
<b>7-36 VDC</b>			
<b>178011</b>	Two-channel 7-36VDC, 802.15.4		\$1,240.00
<b>178019</b>	Two-channel 7-36VDC, Wi-Fi		\$1,260.00
<b>9-36 VAC Isolated</b>			
<b>178012</b>	Two-channel 9-36VDC isolated, 802.15.4		\$1,250.00
<b>178020</b>	Two-channel 9-36VDC isolated, Wi-Fi		\$1,330.00
<b>85-265 VAC</b>			
<b>178021</b>	Two-channel 85-265VAC, 802.15.4		\$1,280.00
<b>178017</b>	Two-channel 85-265VAC, Wi-Fi		\$1,310.00

**Options/Accessories**

Part #	Description	Price
<b>162172</b>	Charger, TranSend™ for 6 V SLA battery	\$67.00
<b>162173</b>	Battery, TranSend 6 V SLA	\$130.00
<b>162175</b>	Enclosure, TranSend for 6 V SLA battery	\$340.00
<b>160109</b>	AC adapter, TranSend 6 V	\$56.00
<b>143531</b>	Power cord, 6 V SLA battery charger EU	\$29.00
<b>143533</b>	Power cord, 6 V SLA battery charger, Australia	\$51.00
<b>143534</b>	Power cord, 6 V SLA battery charger, UK	\$45.00
<b>160110</b>	265 VAC to 6 VDC wall adapter US/UK/EU/AUS/China	\$56.00
<b>162178</b>	Antenna extension kit, 6 ft coax cable	\$465.00
<b>139309</b>	Antenna kit, long range Omni with 3 m coax cable	\$485.00
<b>139310</b>	Antenna kit, corner reflector 9 dBi with 3 m coax cable	\$480.00
<b>197013</b>	Antenna extension kit, 20 ft	\$495.00
<b>139311</b>	Antenna kit, corner reflector 12 dBi with 3 m coax cable	\$510.00
<b>139312</b>	Antenna kit, Yagi 15 dBi with 3 m coax cable	\$395.00
<b>144345</b>	30 m coaxial cable, for use with non-vehicle mount antenna kits	\$455.00
<b>139313</b>	Antenna kit, vehicle mount. 5 dBi with 5 m coaxial cable	\$150.00
<b>148624</b>	RS-232/RS-485 serial cable	\$135.00
<b>143348</b>	Cordset IP68, 5-pin	\$130.00



## Standard Features

- Works with any basic digital weight indicator
- Excitation to load cell(s) provided by the transmitter, not the indicator
- Each transmitter/receiver set is individually paired and will not interfere with another set
- RS-232 cable included with transmitter and paired set

## Specifications

### Power:

5 to 6 VDC

### Excitation Voltage:

Transmitter: +4.8 VDC, 16 × 350 ohm or 32 × 700 ohm load cells

### Standard Antenna:

1/2 wave 2dBi, articulated

### Frequency:

Direct sequence spread spectrum at 2.4 GHz, 802.15.4 license free

### Effective Range:

Typically 100 ft - 300 ft  
For longer range, consult factory

### Circuit Protection:

RFI, EMI, ESD protection

### Communication Ports

Full duplex RS-232

### Temperature Range:

-40 °F to 185 °F (-40 °C to 85 °C)

### Enclosure:

NEMA Type4 (IP66), aluminum black powder coated (excludes wall cube model)

### Warranty:

Two-year limited

## Part Number/Price

Part #	Description	Est. Weight	Price
<b>Transmitters</b>			
<b>5 to 6 VDC Power Input</b>			
<b>160331</b>	Single-channel transmitter, 5 to 6 VDC no relays. RF 802.15.4, 2.4 GHz 5-6 VDC	2 lb	\$905.00
<b>Receivers</b>			
<b>5 to 6 VDC Power Input</b>			
<b>160338</b>	Receiver to provide a mV signal to a digital weight indicator. RF 802.15.4, 2.4 GHz 5-6 VDC power pmt	2 lb	\$930.00
<b>Paired Set</b>			
<b>5 to 6 VDC Power Input</b>			
<b>165312</b>	Includes one single-channel transmitter and one receiver, paired. Includes an RS-232 cable, a 2 m load cell cable and 2 m indicator cable/power source sold separately	5 lb	\$1,920.00

## Options/Accessories

Part #	Description	Price
<b>162172</b>	Charger, SendIt 6 V SLA battery	\$67.00
<b>162173</b>	Battery, SendIt 6 V SLA	\$130.00
<b>162175</b>	Enclosure, SendIt for 6 V SLA battery	\$340.00
<b>145548</b>	Cord set, 13 ft (4 m)	Consult
<b>150964</b>	RS-232 13 ft (4 m) serial cable with nine-pin (female) connector	\$190.00
<b>150965</b>	RS-232 13 ft (4 m) serial cable with nine-pin (male) connector	\$170.00
<b>160109</b>	AC adapter, SendIt 6V	\$56.00
<b>162177</b>	Cordset. Pre-wired for use with single channel transmitters or non-relay based receivers	\$130.00
<b>162184</b>	Load cell connector. Field wireable, 4-6mm straight. For use with single channel transmitters	\$59.00
<b>162185</b>	Load cell connector. Field wireable, 6-8mm straight. For use with single channel transmitters	\$59.00
<b>162186</b>	Load cell connector. Field wireable, 4-6mm right angle. For use with single channel transmitters	\$59.00
<b>162187</b>	Load cell connector. Field wireable, 6-8mm right angle. For use with single channel transmitters	\$59.00
<b>162178</b>	Antenna kit, remote standard antenna, 5 ft	\$465.00
<b>139309</b>	Antenna kit, long range Omni with 3 m coax	\$485.00
<b>139310</b>	Antenna kit, corner reflector 9 dBi with 3 m coax	\$480.00
<b>139311</b>	Antenna kit, corner reflector 12 dBi with 3 m coax	\$510.00
<b>139312</b>	Antenna kit, Yagi 15 dBi with 3 m coax	\$395.00



Wireless Network

Part Number/Price

Part #	Description	Price
86134	ConnexLink RF device 900 MHz RF device server/client (requires minimum of 2)	\$365.00
105776	ConnexLink Pro 900 MHz 1W, wireless transceiver with large buffer	\$450.00
129662	Paired ConnexLink	\$735.00

Options/Accessories

Part #	Description	Price
78827	Power supply, 115 VAC input/6 VDC output	\$65.00
103979	Antenna 1/2 Wave, 2 dBi, 7 in for 900 MHz radios	\$55.00
119448	Yagi antenna	\$165.00
119449	Cable, Yagi antenna 20 ft*	\$95.00
110538	ConnexLink FRP enclosure with heater	\$1,565.00
110539	ConnexLink Pro enclosure with heater	\$1,565.00
22436	RS-232 nine-pin female to blunt end	\$67.00
98084	DC power cable option	\$15.75

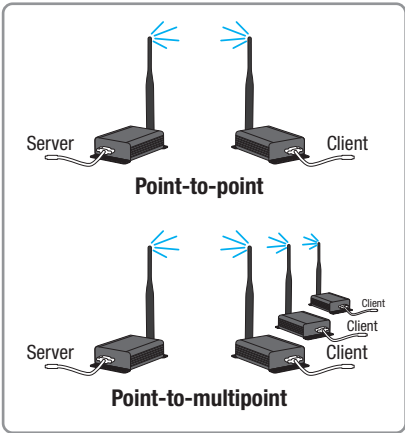
\* max length per manufacturer specs

Standard Features

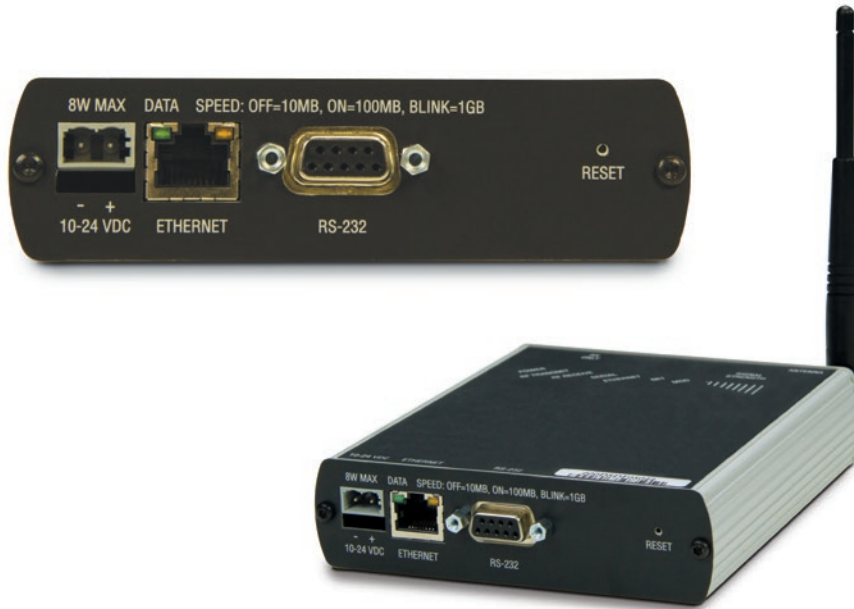
- Durable industrial-grade enclosure with mounting flanges
- Reliable communications up to 115 to 200 kbps
- Supports point-to-point and point-to-multipoint applications

Specifications

- Power:**  
Input: 7 to 18 VDC  
Output: 5 to 1,000 mW variable
- Frequency Band:**  
902 to 928 MHz
- Modulation:**  
FHSS FSK
- Interface:**  
Standard: RS-232 (DB9 male)  
ConnexLink PRO: RS-485 (6-pin terminal block)
- Serial Interface Data Rate:**  
Up to 115 to 200 kbps
- Current Draw (at 12 VDC):**  
400 mA TXD, 40 mA RXD
- Power Supply:**  
AC transformer via 6 ft cable (183 cm)
- Electrical Requirements:**  
Line voltage 100 to 120 V; frequency 50 /60 Hz (240 V outside the US)
- Channels:**  
32 selectable channels
- Security:**  
1-byte system ID, DES
- Sensitivity:**  
-99dB at full RF data rate
- Range (line-of-sight):**  
Up to 20 miles (32 km)
- Dimensions:**  
4.75 × 2.75 × 1.17 in (121 × 70 × 30 mm)
- Temperature Range:**  
-40 °F to 176 °F (-40 °C to 80 °C)  
Humidity (non-condensing): 10% to 90%
- Weight:**  
<6 oz (<170 g)
- Antenna Connector:**  
Reverse polarity SMA jack (female)







### Standard Features

- Serial and Ethernet connectivity
- Configures as 802.11 a/b/g access point, wireless bridge, wireless repeater and client
- Secure WPA2/128 bit encryption
- Dual band 2.4 GHz or 5 GHz bands
- Robust design for extreme temperatures (-40 °C to 75 °C) high vibration/shock and hazardous locations (UL Class 1, Division 2, Atex Zone 2)

### Specifications

#### Frequency Band (varies by country):

2.412 GHz to 2.462 GHz (FCC)  
 2.412 GHz to 2.472 GHz (ETSI)  
 5.150 GHz to 5.250 GHz (FCC/ETSI)  
 5.725 GHz to 5.850 GHz (FCC)

#### Wireless Standards:

802.11a, 802.11b, 802.11g and 802.11i

#### Programmable (varies by country):

2.4 GHz: up to 100 mW (20 dBm)  
 5 GHz: up to 64 mW (18 dBm)

#### Channel Data Rates (modulation):

802.11b, 11, 5.5, 2, 1 Mbps (DSSS, BPSK, QPSK, CCK)  
 802.11g: 54, 48, 36, 24, 18, 12, 9, 6 Mbps (OFDM)  
 802.11a: 54, 48, 36, 24, 18, 9, 6 Mbps (OFDM)

#### Receiver Sensitivity (Typical):

-90 dBm at 1 Mbps  
 -85 dBm at 11 Mbps  
 -82 dBm at 24 Mbps  
 -75 dBm at 54 Mbps

#### Channels Selection (varies by country):

1 to 13 (802.11a)

#### Security:

WPA2 - 802.11i with 128 bit AES-CCM legacy WPA  
 TKIP, WEP support MAC ID filter, admin password

### Part Number/Price

Part #	Description	Price
<b>166630</b>	Industrial hot spot, 802.11abg*	\$2,155.00
<b>161954</b>	Industrial hot spot in FRP enclosure*	\$3,195.00
<b>161955</b>	Paired radios for serial data tunneling*	\$4,325.00

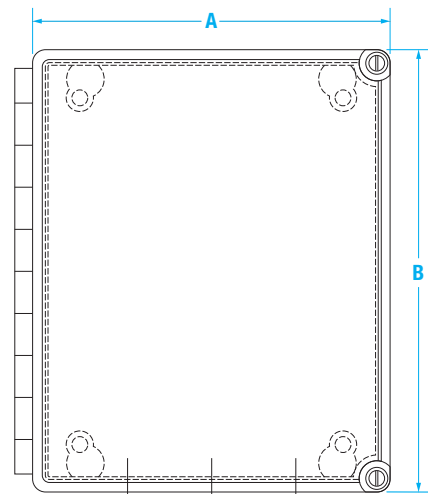
\*Special ordered power supplies and antennas required

### Dimensions

FRP Enclosure			
A	8.5 in (216 mm)	B	10.5 in (267 mm)



161954 Industrial Hot Spot



## Aluminum Keypads



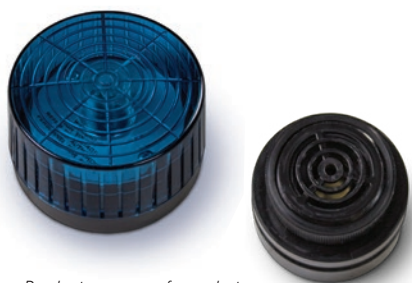
### For Use With:

- Kiosk systems
- 920i® with custom software

### Part Number/Price

Part #	Description	Price
<b>36914</b>	Vandal-proof cast aluminum keypad	\$175.00
<b>38472</b>	Keypad encoder	\$430.00

## Visible Lights and Audible Alarms

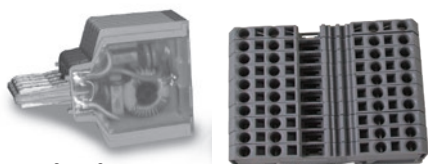


Product may vary from photo  
(reference photo only)

### Part Number/Price

Part #	Description	Price
<b>Visible Lights and Audible Alarms</b>		
<b>22838</b>	Buzzer, 80 dB, steady	\$145.00
<b>22839</b>	Buzzer, 80 dB, pulse	\$145.00
<b>156106</b>	Buzzer box, 115 VAC, FRP enclosure	\$795.00
<b>43931</b>	Strobe lights, red	\$225.00
<b>43930</b>	Strobe lights, amber	\$225.00
<b>62965</b>	Strobe lights, blue	\$155.00

## Din Rail Transient Protector & Fuse



Surge Suppressor

Terminal Block

### Part Number/Price

Part #	Description	Price
<b>Din Rail Transient Protector and Fuse</b>		
<b>62965</b>	Terminal block	\$32.00
<b>53895</b>	Surge suppressor	\$225.00

## Manual Pushbuttons/Pushbutton Switches



- Key switches
- Lighted pushbuttons
- Pilot lights
- Two- and three-position switches
- Colored pushbuttons
- Emergency stop mushroom switches
- Custom legend plates

### Part Number/Price

Part #	Description	Price
<b>Manual Pushbuttons/Pushbutton Switches</b>		
<b>N/A</b>	Operator and contact block combinations	Consult

INDUSTRIAL CONTROL PRODUCTS

# Tripp-Lite USB to Serial Converters

Serial Adapters



## Standard Features

- Portable design—no AC power required
- Simple plug-and-play setup
- Supports data transfer rates of more than 500 kbps
- Hot swappable

## Specifications

### Data Transfer Rate:

More than 500 kbps

### LED:

Data transfer/handshaking (orange)

### Power Consumption:

450 Mw USB

### Specifications:

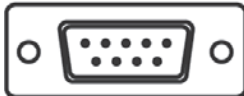
V1.1 compliant

## Part Number/Price

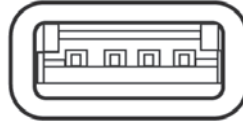
Part #	Description	Est. Weight	Price
153603	USB to serial converter	1 lb	\$105.00
22436	Cable DB9F to blunt end, 6 ft	1 lb	\$67.00

## DB-9 PIN Assignments:

PIN	Assignment	PIN	Assignment
1	CD	6	DSR
2	RXD	7	RTS
3	TXD	8	CTS
4	DTR	9	RI
5	GND		



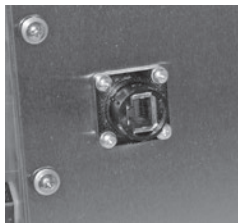
DB9 (Male) Connector



Type A USB Connector

# Amphenol® RJF 544

Harsh Environment Ethernet Connection System



INDICATORS /  
CONTROLLERS

## Part Number/Price

Part #	Description	Price
87326	RJF 544 kit	\$200.00
87285	Square flange female connector	\$45.00
87286	Dust cap for harsh environment receptacles	\$55.00
87287	Gasket for harsh environment receptacles	\$5.25
87288	Ethernet plug	\$45.00
87289	Dust cap for harsh environment plugs	\$65.00

## Standard Features

- Allows an Ethernet Class D/Category 5e connection for 10Base-T, 100Base-TX, or 1000Base-T networks in harsh environments
- Sealed against fluids and dusts (IP67)
- Shock, vibration and traction resistant
- No cabling operation in the field
- No tools required
- Improved EMI protection
- Uses a standard RJ-45 cordset in protective composite plug to protect from shocks, dust and fluids
- In-field cabling and grounding not necessary

## Specifications

### Data Transmission:

10Base-T, 100Base-TX and 1000Base-T networks  
Category 5e per TIA/EIA 568B and ClassD per ISO/IEC 11801

### Mechanical:

Quick push/pull coupling  
RJ-45 cordset retention in the plug: 100N in the axis  
Mating cycles: 500 min

### Environmental Protection:

Sealing: IP67  
Salt Spray: > 1000h  
Fire retardant/low smoke: UL94 V0 and NFF 16 16102, DIN 5510-2  
Vibrations: 10 to 500 Hz, 10g, 3 axes:  
no discontinuity > 10 nanos  
Thermal Shock: 5 cycles at -40 °C / +100 °C

### Operating Temperature:

-40 °F to 185 °F (-40 °C to 85 °C)

### Applications:

Telecom equipment, video control, robotics, industrial process control, CNC machines, motion control, tele-maintenance



### Standard Features

- Converts serial data such as bar code reader or scale into keyboard input to software program
- Works with PC and MAC® computers
- Requires no driver installation (identifies itself as additional HID keyboard)
- Cable draws power from USB port (no external power supply needed)
- Test cable to be connected with adapter scale cable or connector
- Bluetooth® version allows Bluetooth® connection to devices like iPad®, Android® tablets and smart cell phones

### Specifications

**Power:**

USB power, no external power supply

**Baud Rate:**

9600

**Color:**

Black

**Cable Length:**

74 in (1,880 mm)

**Bluetooth Cable Length:**

16 in (406 mm)

**Host:**

PC and MAC compliant

**Connection:**

DB9 male connector, Pin 2 RX, Pin 3 TX and Pin 5 Ground USBA connector

### Part Number/Price

Part #	Description	Est. Weight	Price
<b>119919</b>	RS-232/USB serial cable	1 lb	\$190.00
<b>132452</b>	RS-232/USB serial cable plus Bluetooth®	1 lb	\$275.00

### Options/Accessories

Part #	Description	Price
<b>119064</b>	Slimline null modem, gender changer DB9 female to female	\$12.50
<b>22436</b>	Blunt-end to DB9 female, straight cable	\$67.00
<b>50749</b>	DB9 female to DB9 female	\$60.00
<b>130789</b>	Null model DB9 adapter female to male	\$14.50





Standard Features

- LED onboard for testing data transmission
- Captures data and stores it on a USB flash drive (up to 8 GB not included)
- Transfer data to your PC using the USB flash drive
- Text file examples (actual text will be dependent on transmitted file)
- 02:50PM  
11/13/2012  
GROSS 58 lb
- 02:50PM  
11/13/2012  
GROSS 68 lb

Specifications

**Power:**  
Requires 5 VDC

**Baud Rate:**  
9600

**Data Bits:**  
8

**Parity:**  
None

**Customer Supplied:**  
Power and USB flash drive

**Industrial Enclosure Option:**  
7.5 × 7.5 × 4.5 in  
(19 × 19 × 12 cm)  
Latch for lock

**Warranty:**  
One-year limited

Part Number/Price

Part #	Description	Price
153265	go-between board	\$435.00
153266	go-between industrial enclosure	\$630.00
153267	go-between desk enclosure	\$525.00
158778	go-between desk enclosure, EU power supply	\$525.00

Options and Accessories

Part #	Description	Price
154797	Adapter, power 5 VDC 2A 90-264 VAC, U.S. plug, UL/cUL	\$37.00
170935	Overlay, desk	\$79.00