Indicators / Controllers

120/120 Plus
Digital Weight Indicator

120

120 Plus

Standard Features

120

- LED display, 0.8 in (20.3 mm) six-digit, seven-segment
- Configurable analog to digital measurement rate
- Power for four 350 ohm load cells
- Primary/secondary units configuration: lb, kg, ounces, grams
- Five-button operation
- Two independent communication ports: (1) full duplex, (1) unidirectional or active 20 mA current loop
- Standardized EDP command sets
- 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, 0.8 in (20.3 mm) six-digit, seven-segment
- 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

Approvals

Specifications

Power:
120/120 Plus:
Line voltages: 115 or 230 VAC
Frequency: 50 or 60 Hz
120 Plus: (estimated battery life)
60 hours with 1 x 350 ohm, 40 hours with 4 x 350 ohm
Charge time eight hours

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

Analog Signal Input Range:
-0.6 mV/V - 3.0 mV/V

Analog Signal Sensitivity:
0.3 µV/graduation minimum,
1.5 µV/grad recommended

A/D Sample Rate:
120: 3 to 30 Hz, software selectable
120 Plus: 30 Hz

Resolution:
Internal: 1 million internal graduations
Display: 10,000 displayed graduations

System Linearity:
Within 0.01% of full scale

Circuit Protection:
RFI, EMI, ESD protected

Load Cell Connection:
Cord grip entry
Detachable plug (optional)

Serial Output:
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

Status Annunciators:
120/120 Plus: Center of zero, stand still, 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

(Optional) Digital I/O:
120 Plus: Requires option card
24 volt source
Three digital inputs
Two digital outputs

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

Material:
Heavy gauge ABS

Weight:
2.6 lb (1.2 kg)

Warranty:
One-year limited warranty

Approvals:
NTEP CC 03-059, Class III/IIIL 10,000d
Measurement Canada AM-5517, Class III/IIIHD 10,000d
EU Test Certificate TC7028 (120) Class III, 10,000d
EU Test Certificate TC7626 (120 Plus) Class III, 10,000d
CE marked

Part Number/Price

Part #	Description	Est. Weight	Price
120			
131923**	Desktop 115 VAC/230 VAC	3 lb	$395.00
120 Plus			
103632**	Desktop 115/230 VAC	3 lb	$545.00
107619**	Desktop 115/230 VAC with digital I/O option	3 lb	$615.00

**Both plugs included with power adapter

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

Dimensions			
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
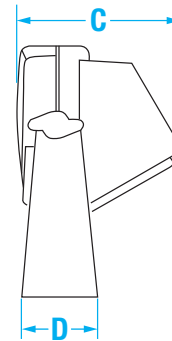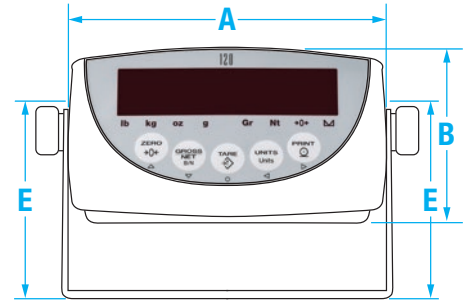
IQ Plus® 210
Digital Weight Indicator

Standard Features

- Piezo switch technology with stainless steel buttons (zero and units)
- LED display, 0.8 in (20 mm), six-digit, seven-segment
- NEMA Type 4X/IP66 stainless steel enclosure
- Status annunciators: lb, kg, oz, g, negative, motion, center of zero
- 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

Approvals

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

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

Dimensions			
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 x 350 ohm load cells

Analog Signal Input Range:
0.6 mV/V – 4.5 mV/V

Analog Signal Sensitivity:
0.3 μV/graduation minimum,
1.5 μV/grad recommended

A/D Sample Rate:
15 Hz

Resolution:
Display: 10,000d maximum

Digital Inputs:
Two inputs, TTL or switch closure, active-low

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

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

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

Enclosure Dimensions:
9.5 in x 6.0 in x 2.75 in (241 mm x 152 mm x 70 mm)

Rating/Material:
NEMA Type 4X/IP66, stainless steel

Weight:
10 lb (4.5 kg)

Warranty:
Two-year limited warranty

Approvals:
NTEP CC 00-045, Class III/IIL 10,000d
Measurement Canada AM-5374
UL/cUL Listed

RICE LAKE

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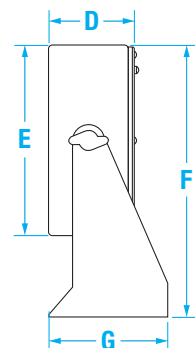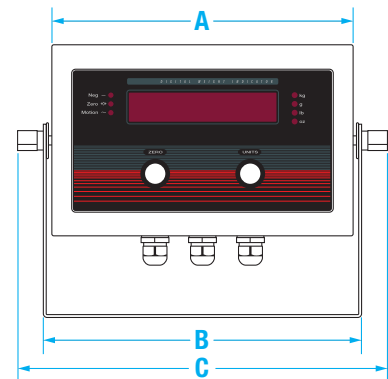
CW-90 and CW-90X

Checkweigh Indicator

Specifications

Power:
Line voltages: 115-230 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 x 350 ohm or 16 x 700 ohm load cells

Analog Signal Input Range:
-0.5 mV/V 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 graduations maximum

System Linearity:
± 0.01% full scale

Digital I/O:
Four channels on CPU board

Circuit Protection:
RFI, EMI, ESD protection

Status 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:
CW-90: Membrane keypad, 23 keys with international symbols
CW-90X: Piezo keypad, 11 keys with international symbols

Temperature Range
Certified: 14ºF to 104ºF (-10ºC to 40ºC)

Rating/Material:
CW-90: IP66, stainless steel
CW-90X: IP69K, stainless steel

Warranty:
CW-90: Two-year limited warranty
CW-90X: Three-year limited warranty

Approvals:
CW-90: NTEP CC 08-092,
CW-90X: NTEP CC 08-092, Class III/IIIL 10,000d
Measurement Canada AM-5710
OIML R76/2006-GBI-10.02
EU Test Certificate GB-1385
UL/cUL Listed
CE marked

CW-90

CW-90X

CW-90
Standard Features

- PreVent™ breather vent
- Storage for up to 50 IDs
- Unit of measure: kg, gm, lb, oz, lb/oz
- LED display, 0.8 in, six-digit, 14-segment
- 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
- Membrane keypad consisting of zero, units, print, tare, over, under, ID, target, 0-9, clear, decimal, enter, menu, power
- 304 stainless steel, IP66 rated
- Battery backed time and date
- Accumulator

Approvals

CW-90X
Standard Features

- PreVent™ breather vent
- Storage for up to 50 IDs
- Unit of measure: kg, gm, lb, oz, lb/oz
- LED display, 0.8 in, six-digit, 14-segment
- 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
- Piezo keypad consisting of zero, units, print, tare, over, under, ID, target, enter, menu, power
- 304 stainless steel, IP69 K rated
- Battery backed time and date
- Accumulator

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CW-90 and CW-90X

Checkweigh Indicator

CW-90 Part Number/Price

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

CW-90X 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

CW-90 and CW90X 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)	$250.00

To have your option factory installed, please specify when placing your order.
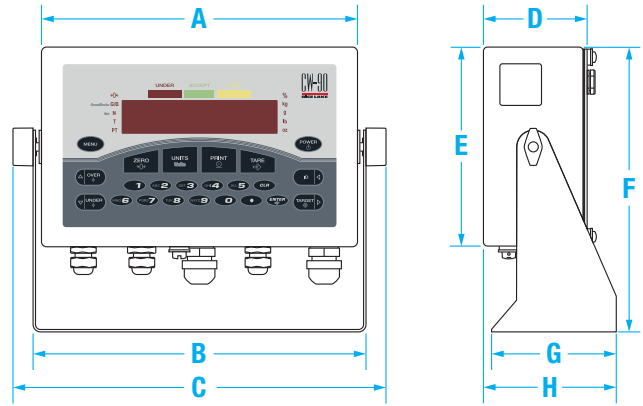
Dimensions					
A	9.5 in (241 mm)	D	3.12 in (79 mm)	G	3.75 in (95 mm)
B	10.02 in (255 mm)	E	6.00 in (152 mm)	H	4.00 in (102 mm)
C	11.24 in (285 mm)	F	8.57 in (218 mm)		

NEW
380 Synergy Series
Digital Weight Indicator

Standard Features

- LCD display, six-digits 1 in (25 mm) tall
- Alkaline battery powered; requires 4 C-cell batteries (not included)
- Push button and keyed tare
- Two communication ports: RS-232 (three-wire) and USB 2.0
- Five-tactile buttons
- Configurable print formats
- 304 stainless steel, IP66 rated enclosure

Optional

- Time/date
- External power supply

Approvals

Specifications

Power:
Batteries: Four alkaline C-cell
Optional: 115/230 VAC to 12VDC adapter

Power Consumption:
6 W max with optional external power adapter

Battery Life:
100 hours on Alkaline batteries with one 350 ohm load cell, no backlight; 45 hours on Alkaline batteries with four 350 ohm load cells, low backlight; 20 hours on Alkaline batteries with eight 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

Status 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

Temperature Range:
Legal: 14°F to 104°F (-10°C to 40°C)
Industrial: 14°F to 122°F (-10°C to 50°C)

Dimensions (W X H X D):
11.58 in x 8.57 in x 4.05 in
(30 cm x 22 cm x 10 cm)

Weight:
6.25 lb (3 kg)

Rating/Material:
IP66, 304 Stainless steel

Warranty:
Two-year limited warranty

EMC Immunity:
10 V/m

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

Part Number/Price

Part #	Description	Est. Weight	Price
115-230 VAC			
202711	Indicator, 380 Universal Segmented LCD Display, 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*
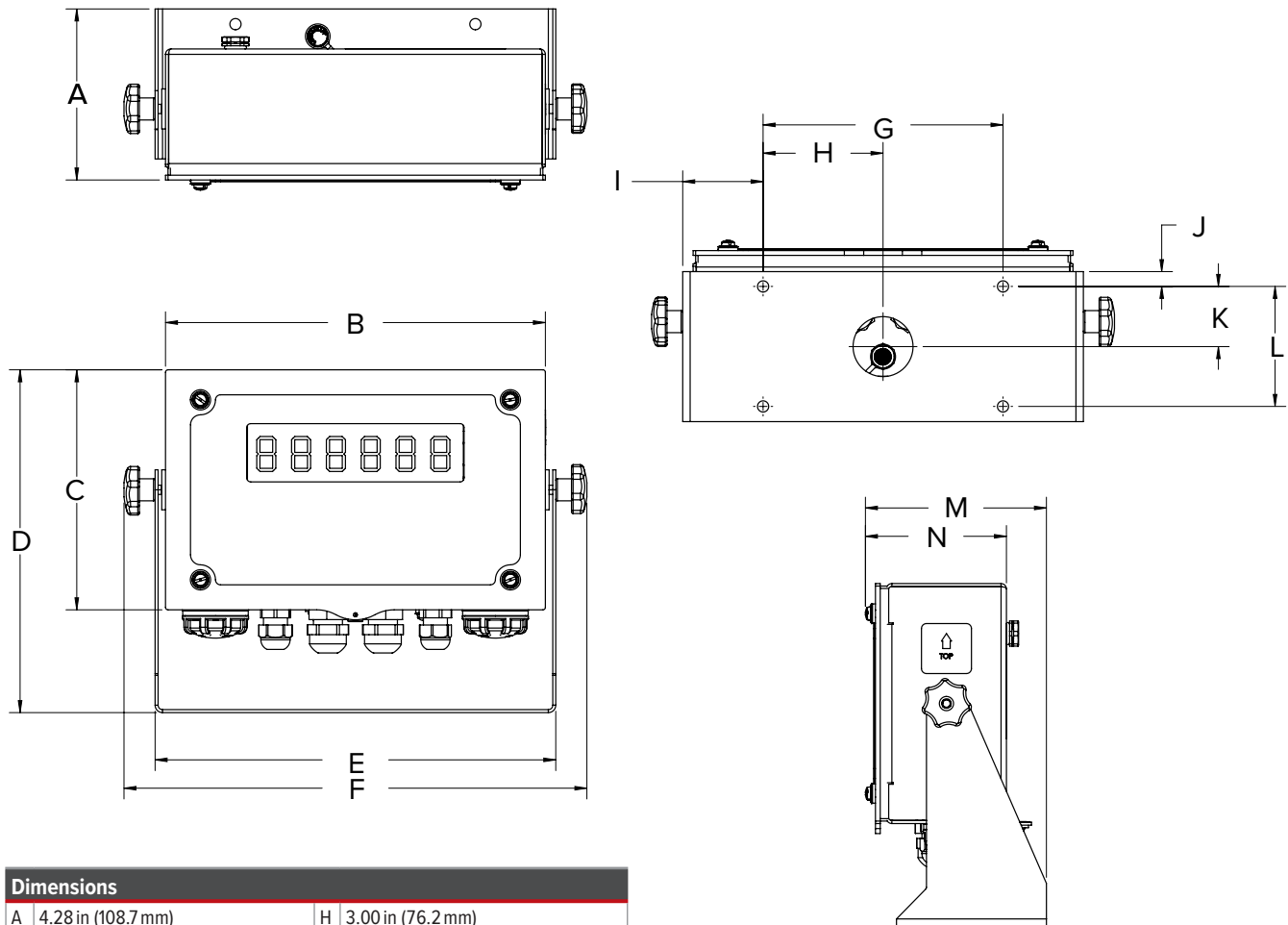
Dimensions			
A	4.28 in (108.7 mm)	H	3.00 in (76.2 mm)
B	9.50 in (241.3 mm)	I	2.01 in (51.1 mm)
C	6.00 in (152.4 mm)	J	0.37 in (9.4 mm)
D	8.57 in (217.6 mm)	K	1.51 in (38.4 mm)
E	10.02 in (254.5 mm)	L	3.00 in (76.2 mm)
F	11.58 in (294.1 mm)	M	4.53 in (115.1 mm)
G	6.00 in (152.4 mm)	N	3.53 in (90.0 mm)

INDICATORS / CONTROLLERS

www.ricelake.com | Phone: 800-472-6703

RICE LAKE

457

480/482 Legend® Series

Digital Weight Indicator

480 Plus

482

Standard Features

- LED display, 0.8 in (20 mm), six-digit, seven-segment (480)
- LCD backlit display, 0.8 in (20 mm), six-digit, seven segment (482)
- Time and date, battery backed
- Local/remote operation
- Numeric keypad (480/482 Plus)
- Keyed entries for setpoint values (480/482 Plus)
- Two independent serial ports, RS-232 and 20 mA
- 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

Approvals

Specifications

Power:
Line voltages: 100-240 VAC
Frequency: 50-60 Hz
DC voltages: n/a
Power consumption: 8 W

Excitation Voltage:
5 VDC, 8 x 350 ohm or 16 x 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 graduations

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.
Two inputs (requires relay output option). Primary
keys, pseudo functions, batching functions.
(4) 30 VDC, 2 amp dry-contract relays

(Optional) Ethernet and USB Board:
USB five-pin header for PC, printer or flash drive.
Ethernet TCP/IP, RJ45 jack, server and client ports.

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

Status Annunciators:
Gross, net, center of zero, standstill, lb, kg, tare,
preset tare

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)

Weight:
6.4 lb (2.9 kg)

Rating/Material:
Enclosure: NEMA Type 4X/IP66,
heavy-gauge stainless steel

Warranty:
Two-year limited warranty

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-5892, Class III/IIIHD,
10,000d
OIML R76/2006-NL1-12.48
EU Test Certificate TC8322
CE Marked
UL/cUL Listed

Part Number/Price: 480

Part #	Description	Est. Weight	Price
480 115 VAC †			
126564 †	480 LED	8 lb	$745.00
130338 †	480 LED with analog output	8 lb	$1,145.00
164594 †	480 LED with USB/Ethernet	8 lb	$1,145.00
480 90-264 VAC ††			
126565 ††	480 LED	8 lb	$745.00
130339 ††	480 LED with analog output	8 lb	$1,145.00
164595 ††	480 LED with USB/Ethernet	8 lb	$1,145.00

Part Number/Price: 480 Plus

Part #	Description	Est. Weight	Price
480 Plus 115 VAC †			
164588 †	480 Plus LED	8 lb	$745.00
164589 †	480 Plus LED with analog output	8 lb	$1,145.00
164590 †	480 Plus LED with relay output	8 lb	$945.00
164596 †	480 Plus LED with USB/Ethernet	8 lB	$1,145.00
480 Plus 90-264 VAC ††			
164591 ††	480 Plus LED	8 lb	$745.00
164592 ††	480 Plus LED with analog output	8 lb	$1,145.00
164593 ††	480 Plus LED with relay output	8 lb	$945.00
164597 ††	480 Plus LED with USB/Ethernet	8 lb	$1,145.00

Part Number/Price: 482

Part #	Description	Est. Weight	Price
482 115 VAC †			
164581 †	482 LCD	8 lb	$875.00
164582 †	482 LCD with internal battery	8 lb	$1,125.00
482 90-264 VAC ††			
164672 ††	482 LCD	8 lb	$875.00
164583 ††	482 LCD with internal battery	8 lb	$1,125.00

Part Number/Price: 482 Plus

Part #	Description	Est. Weight	Price
482 Plus 115 VAC †			
164584 †	482 Plus LCD	8 lb	$875.00
164585 †	482 Plus LCD with internal battery	8 lb	$1,125.00
482 Plus 90-264 VAC ††			
164673 ††	482 Plus LCD	8 lb	$875.00
164586 ††	482 Plus LCD with internal battery	8 lb	$1,125.00

† US plug (NA) - Type B   †† Euro Plug - Type E

Options/Accessories

Part #	Description	Price
131340	Mounting bracket for option boards	$29.00
131341	Analog output, 0-10 VDC, 4-20mA (requires 131340)	$385.00
131342	Relay board, two digital inputs, four dry contact outputs (requires 131340)	$225.00
164600	USB and Ethernet TCP/IP (requires 131340)	$585.00
164604	Ethernet cable with cord grip, 6 ft	$60.00
164602	Drive USB cable with cord grip, type A female, 6 in	$60.00
167707	Host PC USB cable with cord grip, type A male, 6 ft	$60.00
167708	Printer USB cable with cord grip, type B male, 6 ft	$60.00
165379	Flash update cable	$75.00
164650	Battery kit, rechargeable lithium ion	$245.00
151100	A/D sealing kit, used with audit trail tracking	$38.00
151099	Panel mount bezel (not NEMA Type rated)	$185.00
83564	Clear protective overlay (package of five)	$75.00
119201	Installation manual (480 indicator)	$29.00
165124	Installation manual (482 indicator)	$29.00
Primary Replacement Components		
131345	Overlay, 480 six-key, red window	$71.00
159612	Overlay, 480 Plus with numeric keys, red window	$71.00
131346	Display board, LED	$159.00
161048	Overlay, 482 six-key, green window	$71.00
161049	Overlay, 482 Plus with numeric keys, green window	$71.00
153776	Display board, LCD	$155.00
131316	Power supply, 85-265 VAC	$63.00
131318	CPU board	$280.00
131319	A/D board	$215.00

* Revolution can be downloaded for free at www.ricelake.com
To have your option factory installed, please specify when placing your order.

Dimensions					
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)		

INDICATORS / CONTROLLERS

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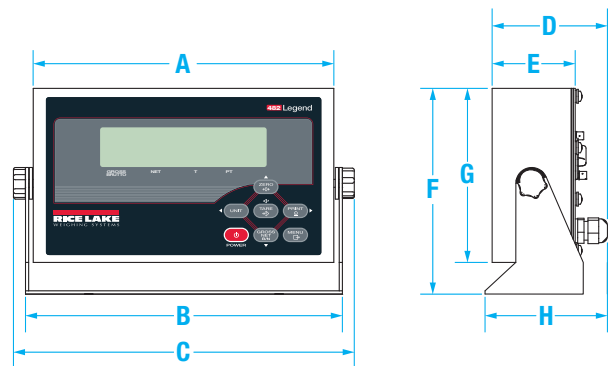
680 Synergy Series
Digital Weight Indicator

Standard Features

- Bright seven-digit, seven-segment LED display
- Battery backed time and date
- Full numeric keypad
- Three serial ports: two RS-232, one full duplex or half duplex RS-485
- Numeric keyed entry allowed for tare and setpoint entry
- Formattable tickets
- Ethernet TCP/IP
- USB device
- Stainless steel IP69K enclosure
- 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.

Approvals

Specifications

Power:
Line voltages: 100-240 VAC
Frequency: 50-60 Hz

Power Consumption:
~2W (AC) with one 350 ohm load cell, 15W max

Excitation Voltage:
10 VDC (± 5 VDC), 8 x 350 ohm or 16 x 700 ohm load cells

Analog Signal Input Range:
-5 mV to +70 mV

Analog Signal Sensitivity:
1 µV/graduation recommended

A/D Sample Rate:
6.25-120 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)

Status 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)

Temperature Range:
Legal: 14°F to 104°F (-10°C to 40°C)
Industrial: 14°F to 122°F (-10°C to 50°C)

Dimensions (W X H X D):
11.58 in x 8.57 in x 4.05 in
(30 cm x 22 cm x 10 cm)

Weight:
6.25 lb (3 kg)

Rating/Material:
Rating: IP69K
IP66 with RJ45
Material: AISI 304 Stainless Steel

Warranty:
Two-year limited warranty

EMC Immunity:
10 V/m

Approvals:
NTEP CC 19-021, Class III/IIIL, 10,000d
Measurement Canada AM-6121, Class III/IIIHD, 10,000d
OIML
EU Test Certificate TC11562
UL/cUL Listed
CE Marked

680 Synergy Series
Digital Weight Indicator

Part Number/Price

Part #	Description	Est. Weight	Price
115-230 VAC			
193152 †	680 Plus indicator, LED display, US power cord	7 lb	$945.00
193153 ††	680 Plus indicator, LED display, EU power cord	7 lb	$945.00
196326 †††	680 Plus indicator, LED display, UK power cord	7 lb	$945.00
196327 ††††	680 Plus indicator, LED display, AUS power cord	7 lb	$945.00
9-36 VDC			
193154*	680 Plus indicator, LED display	7 lb	$1,055.00
With Analog Output Card			
195176 †	680 Plus indicator, LED display, 115-230 VAC with analog output card, US power cord	7 lb	$1,265.00
195177 ††	680 Plus indicator, LED display, 115-230 VAC with analog output card, EU power cord	7 lb	$1,265.00
196539 †††	680 Plus indicator, LED display, 115-230 VAC with analog output card, UK power cord	7 lb	$1,265.00
196538 ††††	680 Plus indicator, LED display, 115-230 VAC with analog output card, AUS power cord	7 lb	$1,265.00
With External RJ45 Connector**			
200183 †	680 Plus Indicator, LED display, 115-230VAC with RJ45, US power cord	7 lb	$1,095.00
200184 ††	680 Plus Indicator, LED display, 115-230 VAC with RJ45, EU power cord	7 lb	$1,095.00
200185 †††	680 Plus Indicator, LED display, 115-230 VAC with RJ45, UK power cord	7 lb	$1,095.00
200186 ††††	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 RJ-45 opton

† *US plug (NA) - Type B*   †† *Euro Plug - Type E*

††† *BS1363 (UK) - Type G*   †††† *AS 3112 (Australian) - Type I*

Options/Accessories

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

To have your option factory installed, please specify when placing your order.
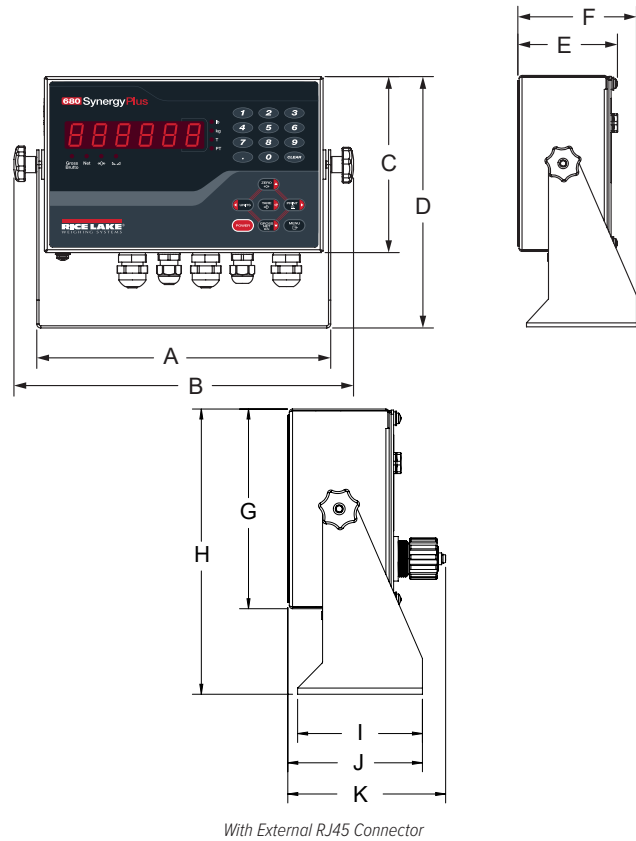
With External RJ45 Connector

Dimensions			
A	10.02 in (254.5 mm)	G	6.00 in (152.4 mm)
B	11.58 in (294.1 mm)	H	8.57 in (217.6 mm)
C	6.00 in (152.4 mm)	I	3.80 in (96.5 mm)
D	8.57 in (217.6 mm)	J	4.05 in (102.87 mm)
E	3.40 in (86.3 mm)	K	4.74 in (120.4 mm)
F	4.05 in (102.87 mm)		

INDICATORS / CONTROLLERS

www.ricelake.com | Phone: 800-472-6703

461

682 Synergy Series
Weight Indicator

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 options
- 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
- Stainless steel IP69 enclosure
- 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
- Relay card
- Dual serial card
- RJ45 Ethernet connector

Approvals

NTEP

OIML
pending

EU
NAWI
CERTIFIED
pending

c UL us
LISTED

CE

UKCA

Specifications

Power:
Line Voltage: 100-240 VAC, 50-60Hz
Optional: 9-23 VDC

Power Consumption:
~3.2W (AC) with one 350 ohm load cell, 15W max;
4W with 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 µV/graduation minimum
1 µV/graduation recommended

A/D Sample Rate:
6.25-120 Hz, software selectable

Resolution:
Internal: 8,000,000
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®

Status 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

Temperature Range:
Legal: 14°F to 104°F (-10°C to 40°C)
Industrial: 14°F to 122°F (-10°C to 50°C)

Dimensions (W × H × D):
11.6 × 8.6 × 4.0 in (29.47 × 21.85 × 10.16 cm)
With RJ45 option: 11.6 × 8.6 × 4.5 in
(29.47 × 21.85 × 11.43 cm)

Weight:
6.25 lb (2.84 kg)

Rating/Material:
IP69 (IP66 with RJ45 option)
AISI 304 Stainless Steel

Warranty:
Two-year limited warranty

Approvals:
NTEP CC 19-021, Class III/IIIL, 10,000d
Measurement Canada AM-6121, Class III/IIIHD,
10,000d
OIML *pending*
EU-NAWI *pending*
cULus
CE
UKCA

RICE LAKE

682 Synergy Series
Weight Indicator

Part Number/Price

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

*IP rating is IP66 with RJ-45 option

[†] US plug (NA) - Type B   [††] Euro Plug - Type E

[†††] BS1363 (UK) - Type G   [††††] AS 3112 (Australian) - Type I

Options/Accessories

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

Note: Reference SCT-2200 (page 500) for Fieldbus part numbers
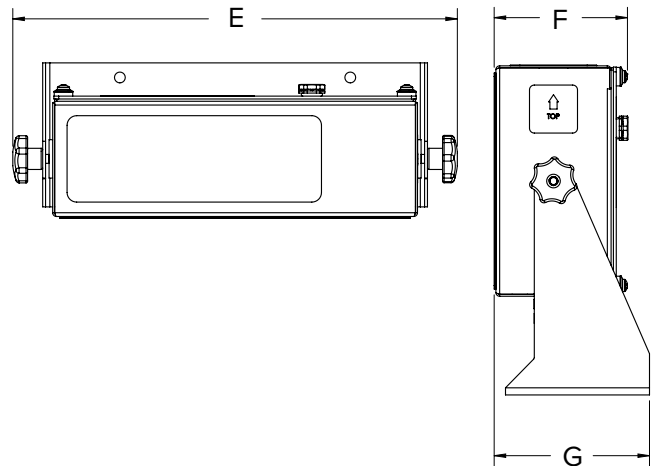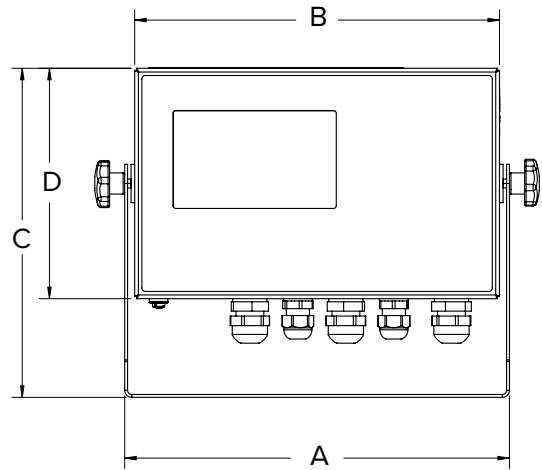
Dimensions			
A	10 in (254 mm)	E	11.6 in (295 mm)
B	9.5 in (241 mm)	F	3.5 in (89 mm)
C	8.6 in (218 mm)	G	4.0 in (102 mm)
D	6.0 in (152 mm)		

680HE Synergy Series

Hostile Environment Digital Weight Indicator

Standard Features

- Bright six digit 2.5 in tall, seven-segment, two color LED display
- Battery backed time and date
- Full numeric keypad
- Three serial ports: two RS-232, one full duplex RS-485
- Numeric keyed entry allowed for tare and setpoint entry
- Formattable tickets
- Ethernet TCP/IP
- USB device
- IP66 FRP enclosure
- Four onboard configurable digital I/O points, TTL logic
- Local/Remote

Options

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

Approvals

Specifications

Power:
Line voltages: 100-240 VAC, 9-36V DC
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:
6.25-120 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)

Status Annunciators:
Eight LED annunciators

Display:
Six 2.5 in tall, seven-segment digits

Keys/Buttons:
Flat membrane panel, tactile feel
(18 buttons)

Temperature Range:
Legal: 14°F to 104°F (-10°C to 40°C)
Industrial: 14°F to 122°F (-10°C to 50°C)

EMC Immunity:
10 V/m

Weight:
7.9 lb (3.5 kg)

Rating/Material:
Rating: IP66
Material: FRP

Warranty:
Two-year limited warranty

Approvals:
NTEP CC 19-021, Class III/IIIL, 10,000d
Measurement Canada AM6121 Class III/IIIHD
10,000 d
UL/cUL Listed
CE Marked

680HE Synergy Series

Hostile Environment Digital Weight Indicator

Part Number/Price

Part #	Description	Est. Weight	Price
197177	Indicator, Wall 680HE Plus Full Numeric Keypad, 115-230 VAC FRP Enclosure	6.25 lb (3 kg)	$1,955.00
199574	Indicator, Wall 680HE Plus Full Numeric Keypad, 115-230 VAC, FRP Enclosure with external RJ-45	6.25 lb (3 kg)	$2,075.00

Options/Accessories

Part #	Description	Price
195084	Analog output option card	$345.00
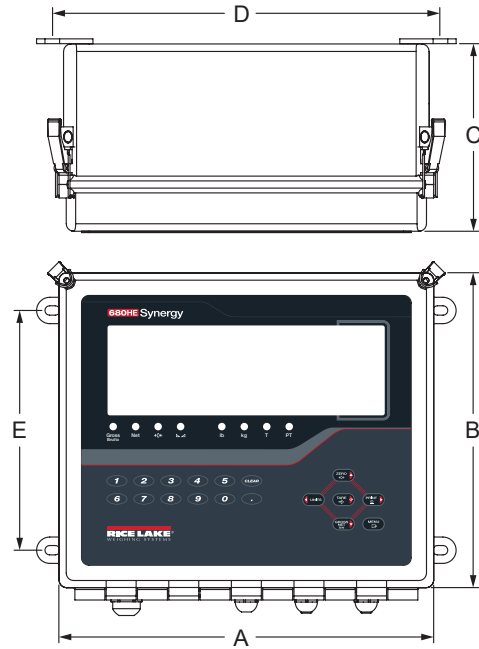
Dimensions			
A	12.50 in (317.5 mm)	D	13.00 in (330.2 mm)
B	10.50 in (266.7 mm)	E	8.00 in (203.2 mm)
C	6.30 in (160.0 mm)		

INDICATORS / CONTROLLERS

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465

720i™ Series
Programmable Weight Indicator/Controller

Universal

Standard Features

- LCD display size: panel mount (3.8 in x 1.2 in), universal (5.3 in x 1.5 in)
- 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
- One PS/2 keyboard port
- Header for fiber optic, Ethernet or USB
- Configurable with Revolution® software

Approvals

Specifications

Power:
Line voltages: 100–240 VAC
Frequency: 50-60 Hz
DC voltages: 12–24 VDC
Power consumption: 25 W

Excitation Voltage:
10 VDC, 16 x 350 ohm or 32 x 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 million counts/8,000,000 23 bit
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:
Panel Mount: 3.8 in x 1.2 in (96 mm x 30 mm)
Universal: 5.3 in x 1.5 in (133 mm x 39 mm)
240 x 64 pixel, Transflective LCD with
adjustable contrast

Keys/Buttons:
Ten-key (panel mount) membrane panel
22- key (universal) membrane panel tactile feel
Optional keyboard connection supported

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

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

Rating/Material:
NEMA Type 4X/IP66, stainless steel

Warranty:
Two-year limited warranty

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

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

Panel Mount

CPU Enclosure

720i™ Series
Programmable Weight Indicator/Controller

Part Number/Price

Part #	Description	Est. Weight	Price
PCE Software			
101230 [†]	720i Universal, 115 VAC	12 lb	$1,575.00
103459 [††]	720i Universal, 115-230 VAC, CE	12 lb	$1,575.00
107708*	720i Universal, 12-24 VDC	12 lb	$1,675.00
101229**	720i Panel Mount, 115-230 VAC	12 lb	$1,575.00
119116**	720i Panel Mount, 115-230 VAC, CE	12 lb	$1,575.00
107710*	720i Panel Mount, 12-24 VDC	12 lb	$1,675.00
Batch Software			
115447 [†]	720i Universal, 115 VAC	12 lb	$1,575.00
115448 [††]	720i Universal, 115-230 VAC, CE	12 lb	$1,575.00
115449**	720i Panel Mount, 115-230 VAC	12 lb	$1,575.00

*DC/DC converter installed option, not UL approved

**Power cord sold separately

[†] *US plug (NA) - Type B*   [††] *Euro Plug - Type E*

Options/Accessories

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

To have your option factory installed, please specify when placing your order.
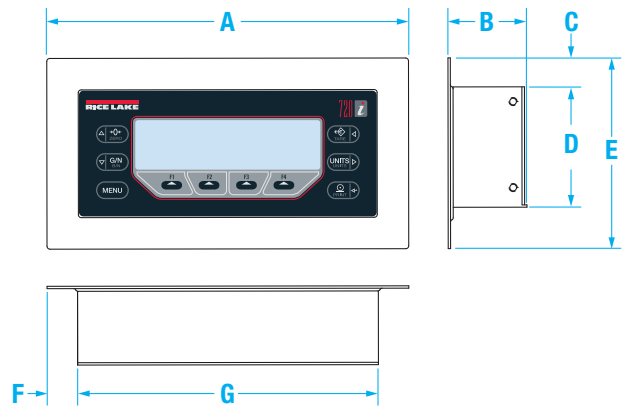
720i Panel Mount Display Dimensions					
A	7.36 in (187 mm)	D	2.45 in (62 mm)	G	6.12 in (155 mm)
B	1.60 in (41 mm)	E	3.88 in (99 mm)		
C	0.59 in (15 mm)	F	0.62 in (16 mm)		
720i Panel Mount CPU Enclosure					
(L x W x H): 12.75 x 6.05 x 2.14 in (324 x 154 x 5 mm)					
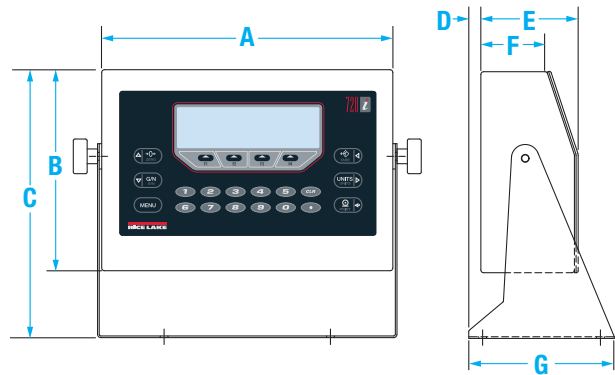
720i Universal Dimensions					
A	10.50 in (267 mm)	D	0.44 in (11 mm)	G	5.25 in (133 mm)
B	7.25 in (184 mm)	E	3.51 in (89 mm)		
C	9.66 in (245 mm)	F	2.31 in (59 mm)		

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820i™ Series
Programmable Weight Indicator/Controller

LIMITED STOCK AVAILABLE

Standard Features

- LCD backlit display (W x H) 4.6 in x 2.2 in
- One small option slot and one large option slot for pluggable options
- Weight display from 0.5 in to 0.75 in
- Display up to two scales (scale 1, scale 2 and total)
- Five user-defined softkeys
- Weight or millivolt calibration with linearization and geographical compensation
- NEMA Type 4X/IP66 stainless steel enclosure
- Selectable A/D measurement rate up to 960/second
- Power for 16- 350 ohm load cells
- 100 setpoints, latched or free-running
- Multi-range/interval
- Peak hold, rate of change
- Audit trail tracking and Alibi™ software
- 1,000-ID truck register for in/out weighing
- User programmable 256K flash memory
- Onboard data storage 190K
- Downloadable programs
- Visual programming for easily creating custom programs
- Eight digital I/O (expandable)
- Configurable with Revolution® software

Approvals

Specifications

Power:
Line voltages: 100–240 VAC
Frequency: 50-60 Hz
DC voltages: 12–24 VDC
Power consumption: 25 W

Excitation Voltage:
10 VDC, 16 x 350 ohm or 32 x 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 million counts/8,000,000 23 bit
Display: 1,000,000

System Linearity:
± 0.01% full scale

Digital I/O:
Eight channels on CPU board; optional 24-channel I/O expansion boards

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

Display:
Viewable area (W x H): 4.6 in x 2.2 in (116 mm x 55 mm), 320 x 156 pixel LCD with adjustable contrast
Transmissive display
Transflective display (optional)

Keys/Buttons:
28-key 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)

Weight:
9.5 lb (4.3 kg)

Rating/Material:
NEMA Type 4X/IP66, stainless steel

Warranty:
Two-year limited warranty

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

Approvals:
NTEP CC 01-088, Class III/IIL 10,000d
Measurement Canada AM-5426
Class III/IIIHD 10,000d
EU Test Certificate GB-1140
UL/cUL Listed
ROHS compliant
CE Marked

820i™ Series
Programmable Weight Indicator/Controller

Part Number/Price

Part #	Description	Est. Weight	Price
Single Channel			
91995 †	820i Universal, 115 VAC	10 lb	$1,950.00
91996 †	820i Universal, 115–230 VAC	10 lb	$1,950.00
91997 ††	820i Universal, 115–230 VAC CE/OIML	10 lb	$1,950.00
107711*	820i Universal, 12–24 VDC nominal	10 lb	$2,050.00
Dual Channel			
93011 †	820i Universal, 115 VAC	10 lb	$2,050.00
93012 †	820i Universal, 115–230 VAC	10 lb	$2,050.00
93013 ††	820i Universal, 115–230 VAC CE/OIML	10 lb	$2,050.00

DC/DC converter installed option, not UL approved

† US plug (NA) - Type B   †† Euro Plug - Type E

Options/Accessories

Part #	Description	Price
Option Cards		
67601	Digital I/O, 24-channel	$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
67604	Serial, dual channel	$350.00
87697	Analog input +/-10 VDC, 0-20 mA & thermocouple	$625.00
93245	USB Port (PC connection only-replaces serial port)	$185.00
Network Cards		
77142	Ethernet TCP/IP Port (serial port 2 header)	$420.00
65383	Ethernet thin server (external)	$385.00
71986	Ethernet TCP/IP module (installed in option slot)	$420.00
206271	Wireless LAN card 802.11 B/G (installed in option slot)	$650.00
206272	Wireless LAN card 802.11 A/B (serial port 2 header)	$570.00
68539	Remote I/O interface	$700.00
68540	Profibus® DP interface	$700.00
68541	DeviceNet™ interface	$700.00
87803	EtherNet/IP® interface	$840.00
103136	ControlNet® interface	$1,050.00
Hardware		
83569	Clear protective overlay (package of 5)	$79.00
19369	Start/stop switch box	$415.00
101923	Relay box enclosure, does not include relay	$355.00
93359	Keyboard, QWERTY PS/2 connector	$95.00
Manuals and Software		
93018	Installation manual	$25.00
93019	IRITE IDE software (version 1.0 included with indicator)	$95.00
Primary Component Parts		
102331	CPU board assembly-single channel includes display	$1,100.00
102333	CPU board assembly-dual channel includes display	$1,200.00
93246	Display, transmissive blue	$275.00
67613	AC power supply 100-240 nominal, 25 watt	$160.00
132791	DC/DC power supply, 12-24 VDC, nominal, 25 watt	$195.00
93247	Switch panel membrane	$70.00

Relay products can be found on page 502
To have your option factory installed, please specify when placing your order.
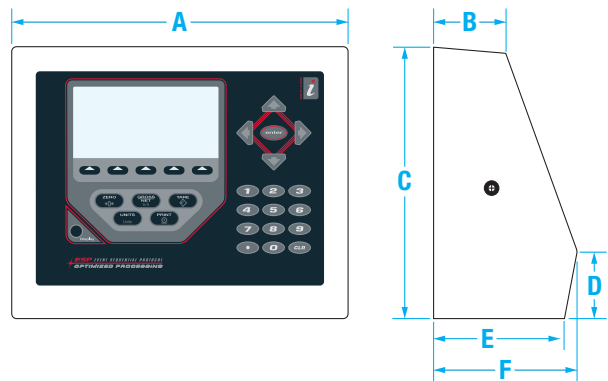
820i Universal Dimensions

A	10.56 in (268 mm)	C	8.5 in (216 mm)	E	4.12 in (105 mm)
B	2.28 in (58 mm)	D	2.16 in (55 mm)	F	4.5 in (127 mm)

INDICATORS / CONTROLLERS

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469

880/880 Plus Performance™ Series

Programmable Weight Indicator/Controller

880 Plus Universal

880 Panel Mount

Board Information:
Previous green CPU board is 5.0" wide
Current blue CPU board is 5.5" wide

Standard Features

- LED display, 0.56 in (14 mm), six-digit, 14-segment
- RS-232 or RS-485 serial port
- USB device port connects directly to a PC
- USB host port for connecting keyboard or flash drive (v4.00 or newer)
- Ethernet TCP/IP polled or continuous
- AC or DC models
- 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 and fieldbus connectivity
- AOP (Add On Profile) for EtherNet/IP and more extended configuration files PROFINET, PROFIBUS, DeviceNet and EtherCAT (v4.01 and newer)
- Dual serial output, 24-channel digital input/output (v4.00 and newer)
- Truck in/out program for 100 vehicle IDs
- Adapter plate for converting 310 A and 520 panel mounts
- Panel mount kit for universal enclosure

Approvals

(NTEP)

(Measurement Canada – Approval de mesures Canada)

OIML

EU
NAWI
CERTIFIED

CE

c(UL)us
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Specifications

Power:
Line voltages: 100-240 VAC
Frequency: 50-60 Hz
DC voltages: 12-24 VDC
Power consumption: AC: 15 W, DC: 20 W

Excitation Voltage:
10 VDC, 16 x 350 ohm or 32 x 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 million counts/8,000,000 23 bit
Display: 999,999

System Linearity:
± 0.01% full scale

Digital I/O:
Four I/O onboard (max), primary keys, pseudo functions, batching functions

Communication Ports:
RS-232 full duplex or RS-485 half duplex;
USB type A connector, USB micro A/B connector 2.0; Ethernet TCP/IP

Status 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

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

Dimensions (W x H x D):
Panel: 6 in x 4 in x 4.95 in
(152 mm x 102 mm x 126 mm)
Universal: 9.87 in x 9.38 in x 4.33 in
(251 mm x 238 mm x 110 mm)

Weight:
Panel: 2.5 lb (1.2 kg);
Universal: 12 lb (5.4 kg)

Rating/Material:
Panel Mount Display, Stainless Steel
NEMA Type 4X, 12 and IP69
Panel Mount Controller: Aluminum
Universal: stainless steel, IP69

Warranty:
Two-year limited warranty

EMC Immunity:
EN 50082 Part 2 IEC
EN 61000-4-2, 3, 4, 5, 6, 8, 11, 10 V/m

Approvals:
NTEP CC 13-080 Class III/IIIL, 10,000d
Measurement Canada AM-5931C
Class III/IIIHD, 10,000d
OIML R76/1992-GB1-04.02 Class III, 10,000d
EU Test Certificate TC8463
UL/cUL Listed (universal)
UL/cUL Recognized (panel mount)
CE Marked

880/880 Plus Performance™ Series

Digital Weight Indicator/Controller

Part Number/Price

Part #	Description	Est. Weight	Price
880 Panel Mount AC Powered*			
151674	Display only	2 lb	$375.00
177977	115-230 VAC, controller only	4 lb	$950.00
177976	115-230 VAC, indicator	4 lb	$1,275.00
177979	115-230 VAC, with analog output	4 lb	$1,625.00
177980	115-230 VAC, with relay board	4 lb	$1,625.00
177982	115-230 VAC, with EtherNet/IP, single port	4 lb	$1,875.00
177983	115-230 VAC, with ProfiNet, single port	4 lb	$1,875.00
177984	115-230 VAC, with Modbus/TCP, single port	4 lb	$1,875.00
177985	115-230 VAC, with Profibus DP	4 lb	$1,875.00
177986	115-230 VAC, with DeviceNet	4 lb	$1,875.00
179155	115-230 VAC, with EtherCAT	4 lb	$1,875.00
880 Panel Mount DC Powered*			
177987	12-24 VDC, indicator	4 lb	$1,375.00
177988	12-24 VDC, controller only	4 lb	$1,050.00
880 Plus Universal AC Powered			
177989 †	115 VAC, indicator	8 lb	$1,500.00
178496 †	115 VAC, with analog output	8 lb	$1,850.00
178499 †	115 VAC, with relay board	8 lb	$1,850.00
179147 †	115 VAC, with EtherNet/IP, single port	8 lb	$2,100.00
179148 †	115 VAC, with Profinet, single port	8 lb	$2,100.00
179149 †	115 VAC, with Modbus/TCP, single port	8 lb	$2,100.00
179150 †	115 VAC, with Profibus	8 lb	$2,100.00
179152 †	115 VAC, with DeviceNet	8 lb	$2,100.00
179154 †	115 VAC, with EtherCAT	8 lb	$2,100.00
177990 ††	115-230 VAC, indicator	8 lb	$1,500.00
178497 ††	115-230 VAC, with analog output	8 lb	$1,850.00
178500 ††	115-230 VAC, with relay board	8 lb	$1,850.00
880 Plus Universal DC Powered			
178495	9-36 VDC, indicator	8 lb	$1,600.00

Power cord not included
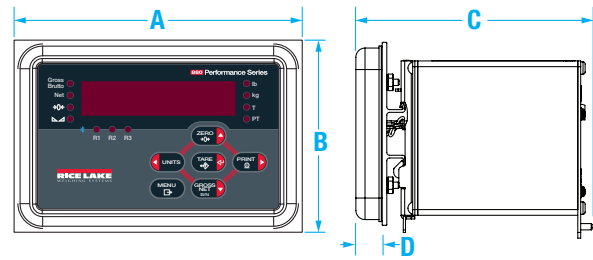*Indicator part numbers contain the single port network card*

† US plug (NA) - Type B   †† Euro Plug - Type E

880 Panel Mount Dimensions

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
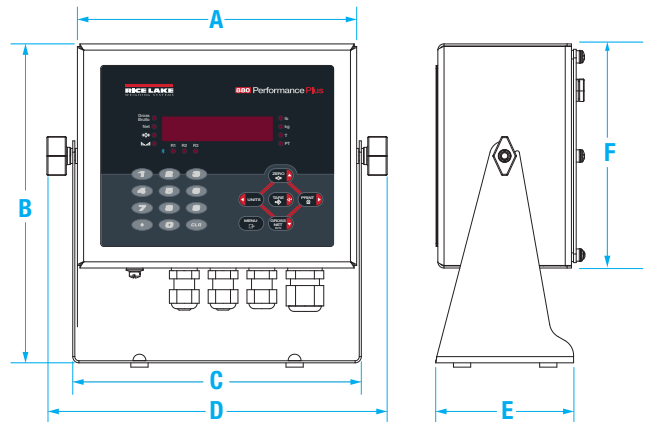
880 Universal Dimensions

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)

Options/Accessories

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

Options/Accessories

Part #	Description	Price
197724	Clear Protective Overlay for Universal (pack of 5)	$75.00
15436	Power cord for panel mount, US plug	$18.00
105382	Power cord for panel mount, Euro plug	$18.00
Cables		
152434	Cable, USB A to micro A shielded, 2 meters	$15.00
156817	Cable, Ethernet RJ45 connectors 1 meter	$35.00
156806	Cable, USB A to A, 1 meter	$35.00
156809	Cable, USB A to B, 1 meter	$55.00
Manuals and Software		
152240	Operators manual	$25.00
158387	Technical manual	$25.00
Primary Component Parts		
131740	Overlay, panel mount, six-key	$69.00
163986	Overlay, universal with numeric keypad	$69.00
131598	Display board	$240.00
175603*	Power supply, 100-240 VAC	$210.00
175604*	Power supply, 12-24 VDC	$315.00
175109*	CPU board	$575.00

* Design change in 2017 to 5.5 in wide controller, see replacement parts catalog for the 5.0 inch wide boards.
** Requires version 4.0 firmware
To have your option factory installed, please specify when placing your order.

920i® Series
Programmable Weight Indicator/Controller

Specifications

Power:
AC voltages: 100-240 VAC
Frequency: 50-60 Hz
DC voltages: 12-24 VDC
Consumption:
AC: 25W (universal) or 65W (others)
DC: 25W for all models

Excitation Voltage:
10 ± VDC
16 x 350 ohm or
32 x 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 million counts/8,000,000
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 x H) 4.6 in x 3.4 in (116 mm x 86 mm),
320 x 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)

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)

Rating/Material:
NEMA Type 4X, Type 12, IP66, stainless steel

Warranty:
Two-year limited warranty

EMC Immunity:
EN 50082 Part 2
IEC EN 61000-4-2, 3, 4, 5, 6, 8, 11

Approvals:
NTEP CC 01-088, Class III/IIIL 10,000d
Measurement Canada AM-5426,
Class III/III HD 10,000d
OIML approved 6,000/10,000
EU Test Certificate TC11584
UL/cUL Listed (universal, deep and wall mount)
UL/cUL Recognized (panel mount)
UL/cUL Listed 508A (custom wall mount)
CE Marked

Approvals

Board Information:
Previous CPU board is green in color
Current CPU board is blue in color

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 kinds:
    - o Analog load cell, multi-range/interval weighing
    - o Total scale summing
    - o Serial input scales
    - o iQUBE^2 scales
    - o 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
    - o Customizable user applications with event-based functions
    - o 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
- Three different enclosure types: universal with tilt stand, panel mount and wall mount

920i® Series
Programmable Weight Indicator/Controller

920i Universal Part Number/Price

Part #	Description	USB	Est. Weight	Price
Single-Channel				
67527 †	115 VAC		10 lb	$2,475.00
115003 †	115 VAC	USB	10 lb	$2,575.00
67615 †	230 VAC		10 lb	$2,475.00
120062 †	230 VAC	USB	10 lb	$2,575.00
69522 ††	230 VAC		10 lb	$2,475.00
120074 ††	230 VAC	USB	10 lb	$2,575.00
107713*	12-24 VDC, 25 watt		10 lb	$2,575.00
120080*	12-24 VDC, 25 watt	USB	10 lb	$2,675.00
Dual-Channel				
69767 †	115 VAC		10 lb	$2,575.00
120086 †	115 VAC	USB	10 lb	$2,675.00
69772 †	230 VAC		10 lb	$2,575.00
120090 †	230 VAC	USB	10 lb	$2,675.00
69774 ††	230 VAC		10 lb	$2,575.00
120096 ††	230 VAC	USB	10 lb	$2,675.00
No A/D Channel				
77790 †	115 VAC		10 lb	$2,325.00
120100 †	115 VAC	USB	10 lb	$2,425.00
77791 ††	230 VAC		10 lb	$2,325.00
120104 ††	230 VAC	USB	10 lb	$2,425.00

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
Single-Channel				
82455 †	115 VAC		12 lb	$2,675.00
115004 †	115 VAC	USB	12 lb	$2,775.00
82457 †	230 VAC		12 lb	$2,675.00
120064 †	230 VAC	USB	12 lb	$2,775.00
82459 ††	230 VAC		12 lb	$2,675.00
120075 ††	230 VAC	USB	12 lb	$2,775.00
107714*	12-24 VDC, 25 watt		12 lb	$2,775.00
120081*	12-24 VDC, 25 watt	USB	12 lb	$2,875.00
Dual-Channel				
82456 †	115 VAC		12 lb	$2,775.00
120087 †	115 VAC	USB	12 lb	$2,875.00
82458 †	230 VAC		12 lb	$2,775.00
120092 †	230 VAC	USB	12 lb	$2,875.00
82460 ††	230 VAC		12 lb	$2,775.00
120097 ††	230 VAC	USB	12 lb	$2,875.00
No A/D Channel				
93243 †	115 VAC		12 lb	$2,525.00
120101 †	115 VAC	USB	12 lb	$2,625.00
93244 ††	230 VAC		12 lb	$2,525.00
120105 ††	230 VAC	USB	12 lb	$2,625.00

DC/DC converter installed option, not UL approved

† US plug (NA) - Type B   †† Euro Plug - Type E
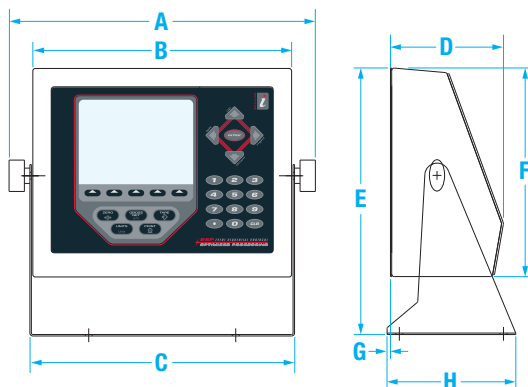
920i Universal Dimensions						
A	12.50 in (318 mm)	D	4.61 in (117 mm)	G	0.14 in (3.5 mm)
B	10.56 in (268 mm)	E	10.87 in (276 mm)	H	5.25 in (206 mm)
C	10.90 in (277 mm)	F	8.50 in (216 mm)		
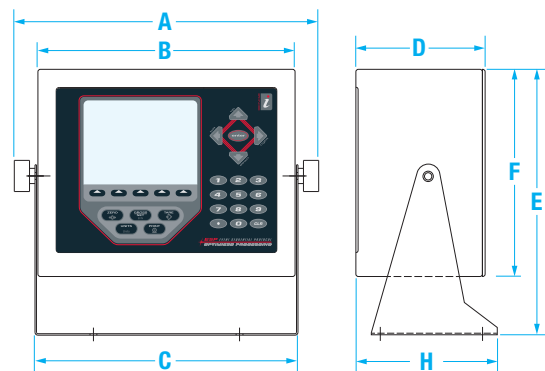
920i Deep Universal Dimensions						
A	12.50 in (318 mm)	D	5.36 in (136 mm)	F	8.50 in (216 mm)
B	10.76 in (273 mm)	E	10.87 in (276 mm)	H	5.88 in (149 mm)
C	10.90 in (277 mm)				

920i Wall Mount Part Number/Price

Part #	Description	USB	Est. Weight	Price
Single-Channel				
69763 [+]	115 VAC		23 lb	$3,125.00
115005 [+]	115 VAC	USB	23 lb	$3,225.00
69765 [+]	230 VAC		23 lb	$3,125.00
120066 [+]	230 VAC	USB	23 lb	$3,225.00
72133 [++]	230 VAC		23 lb	$3,125.00
120078 [++]	230 VAC	USB	23 lb	$3,225.00
107715 *	12-24 VDC, 25 watt		23 lb	$3,225.00
120082 *	12-24 VDC, 25 watt	USB	23 lb	$3,325.00
Dual-Channel				
69770 [+]	115 VAC		23 lb	$3,225.00
120088 [+]	115 VAC	USB	23 lb	$3,325.00
69776 [+]	230 VAC		23 lb	$3,225.00
120093 [+]	230 VAC	USB	23 lb	$3,325.00
72134 [++]	230 VAC		23 lb	$3,225.00
120098 [++]	230 VAC	USB	23 lb	$3,325.00
No A/D Channel				
77794 [+]	115 VAC		23 lb	$2,975.00
120102 [+]	115 VAC	USB	23 lb	$3,075.00
77795 [++]	230 VAC		23 lb	$2,975.00
120106 [++]	230 VAC	USB	23 lb	$3,075.00
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*

920i Panel Mount Part Number/Price

Part #	Description	USB	Est. Weight	Price
Single-Channel				
69764 [+]	115 VAC		9 lb	$2,475.00
115006 [+]	115 VAC	USB	9 lb	$2,575.00
69766 [+]	230 VAC		9 lb	$2,475.00
120069 [+]	230 VAC	USB	9 lb	$2,575.00
72137 [++]	230 VAC		9 lb	$2,475.00
120079 [++]	230 VAC	USB	9 lb	$2,575.00
107716 *	12-24 VDC, 25 watt		9 lb	$2,575.00
120083 *	12-24 VDC, 25 watt	USB	9 lb	$2,675.00
Dual-Channel				
69771 [+]	115 VAC		9 lb	$2,575.00
120089 [+]	115 VAC	USB	9 lb	$2,675.00
69777 [+]	230 VAC		9 lb	$2,575.00
120095 [+]	230 VAC	USB	9 lb	$2,675.00
72138 [++]	230 VAC		9 lb	$2,575.00
120099 [++]	230 VAC	USB	9 lb	$2,675.00
No A/D Channel				
77792 [+]	115 VAC		9 lb	$2,325.00
120103 [+]	115 VAC	USB	9 lb	$2,425.00
77793 [++]	230 VAC		9 lb	$2,325.00
120107 [++]	230 VAC	USB	9 lb	$2,425.00

DC/DC converter installed option, not UL approved

[+] *US plug (NA) - Type B*   [++] *Euro Plug - Type E*

920i Wall Mount Dimensions

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)				
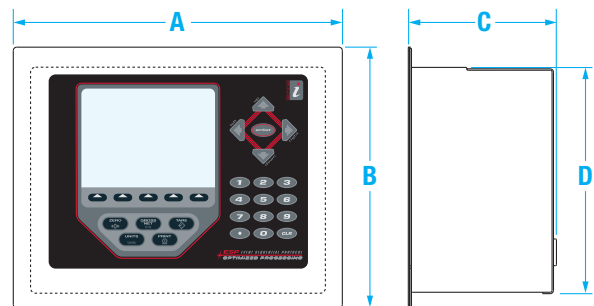
920i Panel Mount Dimensions

A	11.56 in (294 mm)	C	5.20 in (132 mm)
B	9.16 in (233 mm)	D	7.95 in (202 mm)

920i® Series
Programmable Weight Indicator/Controller

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

Part #	Description	Price
Option Cards		
68532	A/D, single-channel	$325.00
68533	A/D, dual-channel	$475.00
67600	Memory, 1MB 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
Network Cards		
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®	$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
Expansion Cards		
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
Hardware		
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
Manuals and Software		
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
Boards		
186272***	CPU board assembly for LED backlight, (blue color)	$1,000.00
186275***	Display board, LED back light, transmissive	$285.00
186276***	Display board, LED back light, transflective	$285.00
206696***	Display kit (186275) and retrofit cable (207045)	$315.00
Power Supply		
67613	AC power supply, 25 watt for universal	$160.00
71333	AC power supply, 65 watt for deep, panel and wall mount	$185.00
132791	Power supply 12-24 VDC, 25 watt	$195.00
Membrane		
66502	Switch panel membrane	$69.00

***Design change in 2018 to LED backlight display.
See replacement parts for CCFL backlight display and green CPU board Rev N or older.

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 *(Connector is a male plug)*				
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 *(Receptacle is a socket)*				
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 *(Receptacle is a socket)*				
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			$7.00

*These options require a milled back plate which has two cutouts. If ordering only one receptacle, a plug (PN 124695) is required for the second cutout. USB enclosure parts with cutout: PN 119891 (Universal) PN 115118 (Universal Deep) PN 126585 (Wall Mount)

Unsealed Connectors

Type B *Type A*

Sealed Connector **Sealed Receptacle**

Backplate

An ISO 9001 Registered Company ©2022 Rice Lake Weighing Systems 5/22 Prices and specifications subject to change without notice. Visit ricelake.com for current prices.

Relays

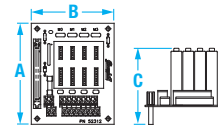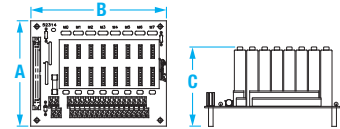| Part #	Voltage	Description	Price
Grayhill 2-Channel Input Relay			
52318	120 VAC	70L-IAC	$59.00
52319	240 VAC	70L-IACA	$61.00
52332	2.5-28 VDC	70L-IDCB	$65.00
52331	10-32 VDC	70L-IDC	$70.00
Grayhill 2-Channel Output Relay			
52316	120-140 VAC	70L-OAC	$72.00
52317	240-280 VAC	70L-OACA	$79.00
84698	120-140 VAC	70L-OAC-L	$85.00
84699	240-280 VAC	70L-OACA-L	$100.00
71377	0-200 VDC/VAC	70L-ODC5R, (N/O) dry contact	$105.00
71376	3-60 VDC	70L-ODC	$78.00
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
22848	100 VDC	G4ODC5R5, (N/C) dry contact, red	$77.00

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
Grayhill Misc.		
54215	Fuse, 3.15 amp, Grayhill	$5.00
46189	Jumper strap, 10 position for Grayhill	$5.25
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

Relay Racks

Part #	Description		Price
Grayhill 8-Channel *(4 slots)*			
52312	Panel and wall mount, requires 50-pin flat or round ribbon cable		$300.00
Dimensions			
A	4.27 in (108 mm)	B 3.5 in (89 mm)	C 3.22 in (82 mm)

Part #	Description		Price
Grayhill 16-Channel *(8 slots)*			
52314	Panel and wall mount, requires 50-pin flat or round ribbon cable		$415.00
Dimensions			
A	4.27 in (108 mm)	B 5.50 in (140 mm)	C 3.22 in (82 mm)

Part #	Description		Price
Grayhill 24-Channel *(12 slots)*			
52315	Panel and wall mount, requires 50-pin flat or round ribbon cable		$615.00
Dimensions			
A	4.27 in (108 mm)	B 7.50 in (191 mm)	C 3.22 in (82 mm)

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		$334.00
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)

1280 Enterprise™ Series
Programmable Color Touchscreen Weight Indicator/Controller

Panel Mount

7-inch Touch-only

12-inch Touch-only

Universal

Wall Mount

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^2 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

Approvals

Specifications

Power:
AC voltages: 100-240 VAC; 50-60 Hz
DC voltages: 11-30 VDC
Consumption: 60W

Excitation Voltage:
10 ± 0.5 VDC
16 x 350 ohm or 32 x 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–120 Hz
1.0 µV/graduation recommended

A/D Sample Rate:
7.5 to 960 Hz, software selectable

Resolution:
Internal: 8 million counts/8,000,000
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 x 480 pixel,
500 or 1,000 NIT
Twelve-inch, 1280 x 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)

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)

Rating/Material:
Stainless steel 304 enclosure
Universal: IP69K
Wall mount: IP66
Panel mount: IP69K, NEMA Type 4X and 12

Warranty:
Two-year limited warranty

EMC Immunity:
EN 50082 Part 2 IEC
EN 61000-4-2, 3, 4, 5, 6, 8, 11

Approvals:
NTEP CC 15-001/Class III/IIIL 10,000d
Measurement Canada AM-5980C,
Class III/III HD 10,000d
OIML R76/2006-NL1-16.04 Class III/IIII 10,000d
EU Test Certificate TC8596
UL/cUL Listed (universal, wall mount)
UL/cUL Recognized (panel mount)
CE Marked

1280 Enterprise™ Series
Programmable Color Touchscreen Weight Indicator/Controller

7-inch model with keypad

7-inch touch-only model

12-inch touch-only model

Numeric Keypad Models:
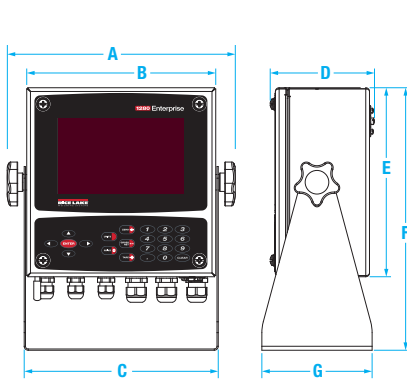
1280-2
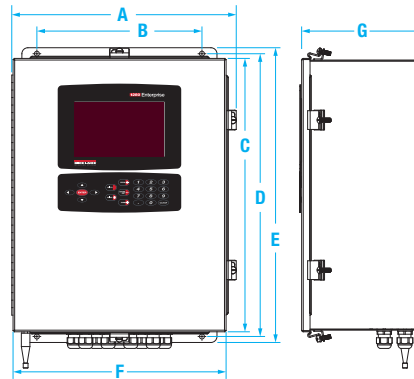
1280-3
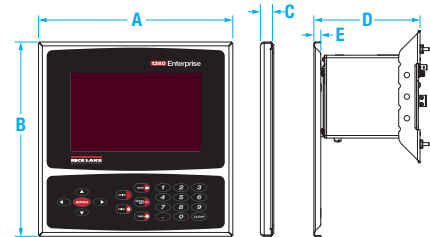
1280-4

Universal (1280-2) Dimensions			
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) Dimensions			
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) Dimensions			
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:
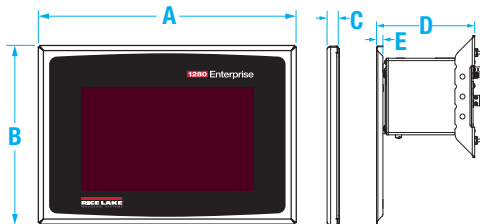
1280-5
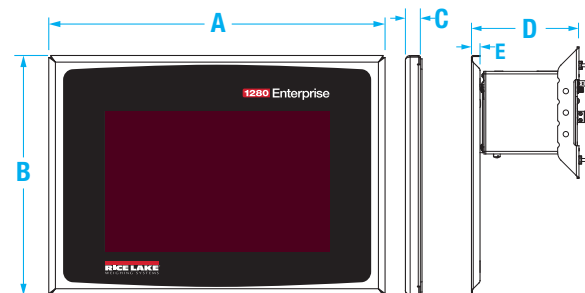
1280-6

7-inch Touch-only (1280-5) Dimensions			
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) Dimensions			
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)		

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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 Unviersal
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/0
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

Part Number

Part #	Reference #	Description	Power	Display	Option Installed	Price
Universal Enclosure with 500 NIT Display (1280-2)						
171427	1111BAAAAA	1280 Universal	115 VAC	500 NIT	Single Scale Card	$3,450.00
171441	1131BAAAAA	1280 Universal	100-240 VAC	500 NIT	Single Scale Card	$3,450.00
171662	1111CAAAAA	1280 Universal	115 VAC	500 NIT	Dual Scale Card	$3,625.00
172188	1131CAAAAA	1280 Universal	100-240 VAC	500 NIT	Dual Scale Card	$3,625.00
Panel Mount Enclosure with 500 NIT Display (1280-4)						
171663	21-3BAAAAA	1280 Panel Mount	100-240 VAC	500 NIT	Single Scale Card	$3,250.00
172186	21-3CAAAAA	1280 Panel Mount	100-240 VAC	500 NIT	Dual Scale Card	$3,425.00
Wall Mount Enclosure with 500 NIT Display (1280-3)						
173673	3143BAAAAA	1280 Wall Mount	115 VAC	500 NIT	Single Scale Card	$3,850.00
174143	3153BAAAAA	1280 Wall Mount	100-240 VAC	500 NIT	Single Scale Card	$3,850.00
174144	3143CAAAAA	1280 Wall Mount	115 VAC	500 NIT	Dual Scale Card	$3,625.00
174145	3153CAAAAA	1280 Wall Mount	100-240 VAC	500 NIT	Dual Scale Card	$4,025.00
Wall Mount Enclosure with 1000 NIT Display (1280-3)						
172184	3144BAAAAA	1280 Wall Mount	115 VAC	1,000 NIT	Single Scale Card	$3,950.00
172185	3154BAAAAA	1280 Wall Mount	100-240 VAC	1,000 NIT	Single Scale Card	$3,950.00
206563	3144CAAAAA	1280 Wall Mount	115 VAC	1,000 NIT	Dual Scale Card	$4,125.00
172187	3154CAAAAA	1280 Wall Mount	100-240 VAC	1,000 NIT	Dual Scale Card	$4,125.00
Touch-only 7 inch with 500 NIT Display (1280-5)						
186618	41-3BAAAAA	1280 Touch-only 7 in	100-240 VAC	500 NIT	Single Scale Card	$3,250.00
Touch-only 12 inch with 1500 NIT Display (1280-6)						
186465	51-5BAAAAA	1280 Touch-only 12 in	100-240 VAC	1,500 NIT	Single Scale Card	$3,975.00

⁺ 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

Single A/D Scale

Excitation Voltage:
10 VDC bi-polar, 4 or 6 wire sensing
16 x 350 ohms per channel
Analog Input Signal:
-10 to +40 mV

Part #	Description	Price
164085	Single scale A/D	$375.00
166957	A/D sealing kit	$13.00

Dual A/D Scale

Excitation Voltage:
10 VDC bi-polar, 4 or 6 wire sensing
8 x 350 ohms per channel
Analog Input Signal:
-10 to +40 mV

Part #	Description	Price
164683	Dual scale A/D	$550.00
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	$325.00
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	$375.00

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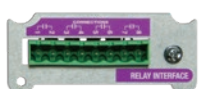
Relay four-dry contact, max current
3A @ 30 VDC, 3A @250VAC

Part #	Description	Price
164689	Relay card	$425.00

Analog Input

Analog Input Signal:
±10 VDC, ±100 mV, 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

INDICATORS / CONTROLLERS

www.ricelake.com | Phone: 800-472-6703

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1280 Enterprise™ Series
Programmable Color Touchscreen Weight Indicator/Controller

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

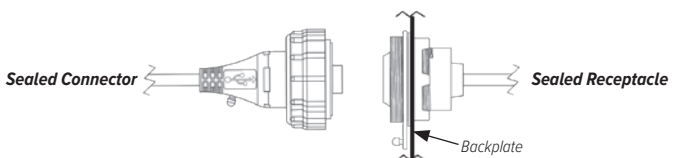| Part #	Description	Price
Manuals and Software		
166046	Manual, Operation	$25.00
167659	Manual, Technical	$35.00
72809	Interchange database software	$295.00
164939	8 GB Micro SD card with SD and USB adapter	$25.00
195607	USB flash drive, 1 GB	$7.00
Extended Display Cable Length for Touch Only Models		
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
Extended Touch Cable Length for Touch Only Models		
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
Displays		
163400	7 in 500 NIT display	$350.00
163399	7 in 1,000 NIT display	$450.00
182992	12 in 1,500 NIT display	$875.00
Boards		
179992	CPU board assembly includes face plate and fan plate	$1,100.00
160758	Back plane board	$210.00
199157	Controller box, CPU, power supply, backplane	$1,475.00
Power Supplies		
202512	AC power supply board	$180.00
202514	DC power supply board	$180.00
Overlays		
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 *(Connector is a male plug)*				
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 *(Receptacle is a socket)*				
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 *(Receptacle is a socket)*				
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

Type B   *Type A*

Sealed Connector   *Sealed Receptacle*

Backplate

Relays

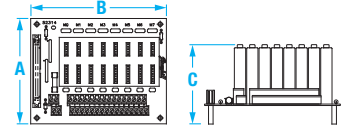| Part #	Voltage	Description	Price
Grayhill 2-Channel Input Relay			
52318	120 VAC	70L-IAC	$59.00
52319	240 VAC	70L-IACA	$61.00
52332	2.5-28 VDC	70L-IDCB	$65.00
52331	10-32 VDC	70L-IDC	$70.00
Grayhill 2-Channel Output Relay			
52316	120-140VAC	70L-OAC	$72.00
52317	240-280 VAC	70L-OACA	$79.00
84698	120-140 VAC	70L-OAC-L	$85.00
84699	240-280 VAC	70L-OACA-L	$100.00
71377	0-200 VDC/VAC	70L-ODC5R, (N/O) dry contact	$105.00
71376	3-60 VDC	70L-ODC	$78.00
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	10-32VDC	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	G40AC5A5 (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
22848	100 VDC	G4ODC5R5, (N/C) dry contact, red	$77.00

Miscellaneous Parts

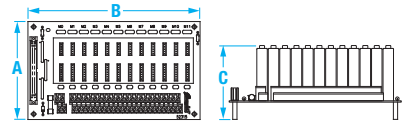| Part #	Description	Price
Cables for Digital I/O		
170008	60-pin flat ribbon with 50-pin adapter, 24 in	$130.00
170009	60-pin round with 50-pin adapter, 60 in	$155.00
170736	60-pin round with 50-pin adapter and cord grip, 60 in	$155.00
Grayhill Misc.		
54215	Fuse, 3.15 amp, Grayhill	$5.00
46189	Jumper strap, 10 position for Grayhill	$5.25
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

Relay Racks

Part #	Description	Price
Grayhill 8-Channel (4 slots)		
52312	Panel and wall mount, requires 50-pin flat or round ribbon cable	$300.00
Dimensions		

A	4.27 in (108 mm)	B	3.5 in (89 mm)	C	3.22 in (82 mm)

Part #	Description	Price
Grayhill 16-Channel (8 slots)		
52314	Panel and wall mount, requires 50-pin flat or round ribbon cable	$415.00
Dimensions		

A	4.27 in (108 mm)	B	5.50 in (140 mm)	C	3.22 in (82 mm)

Part #	Description	Price
Grayhill 24-Channel (12 slots)		
52315	Panel and wall mount, requires 50-pin flat or round ribbon cable	$615.00
Dimensions		

A	4.27 in (108 mm)	B	7.50 in (191 mm)	C	3.22 in (82 mm)

Part #	Description	Price
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)

Part #	Description	Price
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)

Part #	Description	Price
OPTO 22 16-Channel		
33206	16-channel relay rack, ribbon cable connection	$334.00
Dimensions		

A	3.25 in (83 mm)	B	10.0 in (254mm)	C	2.32 in (59 mm)
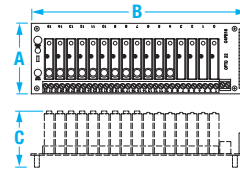
Part #	Description	Price
OPTO 22 24-Channel		
33205	24-channel relay rack, ribbon cable connection	$372.00
Dimensions		

A	7.50 in (83 mm)	B	6.25 in (83 mm)	C	2.32 in (59 mm)

483
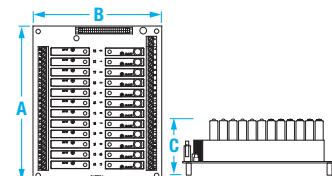
LaserLT-60 and LaserLT-100

Large Display Digital Weight Indicator

LaserLT-60

LaserLT-100

Standard Features

- Available as a 2.4 in (60 mm) or 4 in (100 mm) display
- Six-digit display with high-intensity LEDs
- Integrated five-key waterproof keypad
- Includes removable back wall mount bracket
- Power from 12 to 24VDC, comes with 110-240VAC 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 setpoints types with timers to enable on and delay period
- Two digital input for operating keys remotely

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

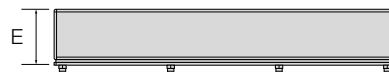| Dimensions			
LaserLT-60			
A	16.14 in (410 mm)	D	7.28 in (185 mm)
B	6.50 in (165 mm)	E	2.64 in (67 mm)
C	3.03 in (77 mm)	F	4.84 in (123 mm)
LaserLT-100			
A	16.93 in (430 mm)	D	7.63 in (194 mm)
B	7.28 in (185 mm)	E	2.52 in (64 mm)
C	2.52 in (64 mm)	F	3.98 in (101 mm)
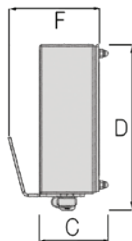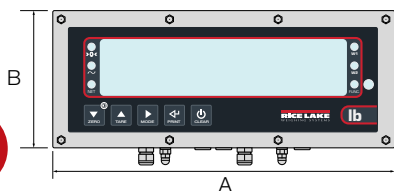
Specifications

Power:
AC voltages: 100-240 VAC
DC voltages: 12 -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 24-bit sigma-delta conversion, up to 200 conv./sec. auto select

Resolution:
Internal resolution: 1.5 million counts
Weight display resolution: 800,000

Display:
6-digit, 7-segment discrete oval 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 150 ft (50 m)

Serial Interface:
(1) RS-232, (1) RS-485

Input Data Format:
Baud Rate: 1,200 to 115.2 K software selectable.
Even parity 7 data bits, or no parity 8 data bits

Update:
Software selectable 1-20/sec

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

Rating/Material:
304 stainless steel, IP68

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

Weight:
10 lb (4.5 kg)

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

Warranty:
One-year limited warranty

Approvals:
NTEP CC 20-046
Measurement Canada AM-6165C
CE marked

920i® User Programs

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

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

Part Number/Price

Part #	Description	Price
153146	Short axle weighing program	$595.00
SZ99999	Truck in/out with report	$395.00
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

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 weighment.

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

www.ricelake.com | Phone: 800-472-6703

RICE LAKE

920i® FlexWeigh Systems

Fillers/Batchers

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

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

Approvals

UL LISTED

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

Part Number/Price

Part #	Description	Est. Weight	Price
120320	920i FlexWeigh Systems 101	23 lb	$3,875.00
199060	920i FlexWeigh Systems 101, includes manual/auto and jog switches	23 lb	$4,175.00
120321	920i FlexWeigh Systems 102	23 lb	$4,075.00
199061	920i FlexWeigh Systems 102, includes manual/auto and jog switches	23 lb	$4,375.00
120322	920i FlexWeigh Systems 103	23 lb	$4,025.00
120323	920i FlexWeigh Systems 104	23 lb	$3,875.00
207904	920i FlexWeigh Systems 201	23 lb	$4,075.00
207905	920i FlexWeigh Systems 202	23 lb	$4,275.00
Relays			
52312	Eight-channel relay rack (4 slots)		$300.00
52316	Two-channel output relay, 120 - 140 VAC at 2A		$72.00
52317	Two-channel output relay, 240-280 VAC at 2A		$79.00

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

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

Standard Features for Bulkweighers

- Wall mount stainless steel enclosure
- 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 overfill monitoring
- Transmitted audit trail
- Digital I/O board
- Relay rack and SSR relay outputs

Approvals

Available with models 107, 108 and 109

UL LISTED

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

Options

- Pilot lights for error indication
- Manual override switches

Part Number/Price

Part #	Description	Est. Weight	Price
207906	920i FlexWeigh Systems 107	23 lb	$5,375.00
207907	920i FlexWeigh Systems 108	23 lb	$5,375.00
207908	920i FlexWeigh Systems 109	23 lb	$5,675.00
207909	920i FlexWeigh Systems 111	23 lb	$5,075.00
207910	920i FlexWeigh Systems 112	23 lb	$5,425.00

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
151848	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	3 position key selector	X	X	X
Man Fill On/-/Jog	Maintained/Off/ Spring Return		X	X
Man Disch On/-/Jog			X	X

920i® FlexWeigh Systems

Flow Rate Controllers

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
Discharge	-	-

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
*** Fast Fill Ingredient 1 205*
**** Fast Fill Ingredient 2 205*

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

Standard Features

- Wall mount stainless steel enclosure
- Application program 105, 106, 205
- 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

Approvals

UL LISTED

Part Number/Price

Part #	Description	Est. Weight	Price
Consult	920i FlexWeigh Systems 105	23 lb	Consult
Consult	920i FlexWeigh Systems 106	23 lb	Consult
Relays			
52312	Eight-channel relay rack (4 slots)		$300.00
52316	Two-channel output relay, 120 - 140 VAC at 2A		$72.00
52317	Two-channel output relay, 240-280 VAC at 2A		$79.00

Options/Accessories

Part #	Description	Price
Consult	920i FlexWeigh Systems 105 manual	$25.00
Consult	920i FlexWeigh Systems 106 manual	$25.00

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

920i® FlexWeigh Systems

Hand Batching

211 Manual Batching System
Prompts the user through manual weight additions based on a pre-entered formula

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

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

Approvals

UL LISTED

Part Number/Price

Part #	Description	Est. Weight	Price
207927	920i Flexweigh Systems 211	13 lb	$2,900.00

MSI-8000HD

Digital Weight Indicator

Standard Features

- Indicator or RF remote display with six-digit 1.0 in (26.4 mm) LCD screen
- IP68 milled aluminum enclosure
- Membrane keypad for remote-control functionality
- User- definable function keys for added versatility
- 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™
- Swivel tilt stand
- NTEP certified configuration

Options

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

Approvals

Specifications

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

Keypad:
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

Display:
Six-digit 1.0 in (26.4 mm) LCD

Units Displayed:
Pounds, kilograms, tons, metric tons, kilonewtons

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

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

Operating Temperature:
-4°F to 140°F (-20°C to 60°C)
Legal for Trade: 14° to 104°F (-10°C to 40°C)

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

Excitation:
4.8V current limited and over-voltage protected

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 ft – 300 ft, line of sight, for longer range consult factory

Data I/O:
Dual RS-232 communication ports

Optional Communications:
Wi-Fi
Bluetooth®
Serial RF (Single Sequence or FHSS)

Warranty:
One-year limited

Approvals:
NTEP CC#15-110 (-10°C to 40°C)

Dimensions

A	12.82 in (326 mm)	B	11.05 in (281 mm)

Part Number/Price

Part #	Description	Est. Weight	Price
153591	MSI-8000HD ScaleCore RF/Remote Display/85-265 VAC	5 lb (2.5 kg)	$1,370.00
154853	MSI-8000HD ScaleCore RF/Remote Display/Internal Battery	5 lb (2.5 kg)	$1,480.00
160476	MSI-8000HD ScaleCore RF/Remote Display/7-36 VDC	5 lb (2.5 kg)	$1,320.00
159377	MSI-8000HD ScaleCore RF/Remote Display/18-72 VDC	5 lb (2.5 kg)	$1,350.00
159376	MSI-8000HD ScaleCore RF/Remote Display/9-36 VDC	5 lb (2.5 kg)	$1,350.00
158427	MSI-8000HD Meter/2 A/D Inputs/85-265 VAC (non RF)	5 lb (2.5 kg)	$1,660.00
158428	MSI-8000HD Meter/2 A/D Inputs/Internal Battery (non RF)	5 lb (2.5 kg)	$1,770.00
160478	MSI-8000HD Meter/2 A/D Inputs/7-36 VDC (non RF)	5 lb (2.5 kg)	$1,480.00
159381	MSI-8000HD Meter/2 A/D Inputs/18-72 VDC (non RF)	5 lb (2.5 kg)	$1,520.00
159380	MSI-8000HD Meter/2 A/D Inputs/9-36 VDC (non RF)	5 lb (2.5 kg)	$1,520.00
158425	MSI-8000HD RF Meter/2 A/D Inputs/85-265 VAC	5 lb (2.5 kg)	$1,680.00
158426	MSI-8000HD RF Meter/2 A/D Inputs/Internal Battery	5 lb (2.5 kg)	$1,830.00
160477	MSI-8000HD RF Meter/2 A/D Inputs/7-36 VDC	5 lb (2.5 kg)	$1,680.00
159379	MSI-8000HD RF Meter/2 A/D Inputs/18-72 VDC	5 lb (2.5 kg)	$1,690.00
159378	MSI-8000HD RF Meter/2 A/D Inputs/9-36 VDC	5 lb (2.5 kg)	$1,690.00
176957 *	MSI-8000HD Bluetooth® Meter/85-265 VAC	5 lb (2.5 kg)	Consult
176958	MSI-8000HD Wi-Fi Meter/85/265 VAC	5 lb (2.5 kg)	$1,400.00
176959 *	MSI-8000HD Bluetooth® Meter/Internal Battery	5 lb (2.5 kg)	Consult
176960	MSI-8000HD Wi-Fi Meter/Internal Battery	5 lb (2.5 kg)	$1,520.00
176962 *	MSI-8000HD Bluetooth® Meter/7-36 VDC	5 lb (2.5 kg)	Consult
176964	MSI-8000HD Wi-Fi Meter/7-36 VDC	5 lb (2.5 kg)	$1,350.00
176965 *	MSI-8000HD Bluetooth® Meter/9-36 VDC	5 lb (2.5 kg)	Consult
176966	MSI-8000HD Wi-Fi Meter/9-36 VDC	5 lb (2.5 kg)	$1,390.00
176967 *	MSI-8000HD Bluetooth® Meter/18-72 VDC	5 lb (2.5 kg)	Consult
176968	MSI-8000HD Wi-Fi Meter/18-72 VDC	5 lb (2.5 kg)	$1,390.00

Bluetooth® modems only work with certain Android devices. Please contact Rice Lake for potential applications.

Options/Accessories

| Part #	Description	Price
155173	MSI-8000HD spare tilt stand option kit	$79.00
155193	MSI-8000HD Ethernet TCP/IP option kit wired	$390.00
162178	Antenna extension kit, 6 ft	$440.00
148624	MSI-8000HD serial RS-232 cable	$125.00
158779	MSI-8000HD two each coil relay option kit, 250 VAC/30 VDC 5A or 100 VDC 0.4A	$335.00
158780	MSI-8000HD two each solid state relay option kit, 60 Vpk 2.7A	$335.00
158781	MSI-8000HD two each solid state relay option kit, 200 Vpk 0.9A	$335.00
149549	Universal 115/230 VAC 50/60 Hz (NA plug standard) battery charger for MSI-8000HD battery powered device	$145.00
149550	Universal 115/230 VAC 50/60 Hz (international plugs) battery charger for MSI-8000HD battery powered device	$140.00
171203	Audible alarm kit	$335.00
176963	Serial print cable	$145.00
Relays		
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

MSI-8004HD
Indicator/RF LED Remote Display

Standard Features

- IP65 rugged milled aluminum enclosure
- Backlit membrane keypad for user functioning and controls
- Tilt bracket included
- NTEP certified configuration

Options

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

Approvals
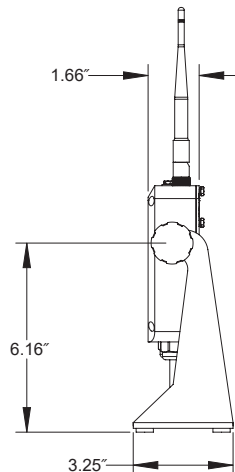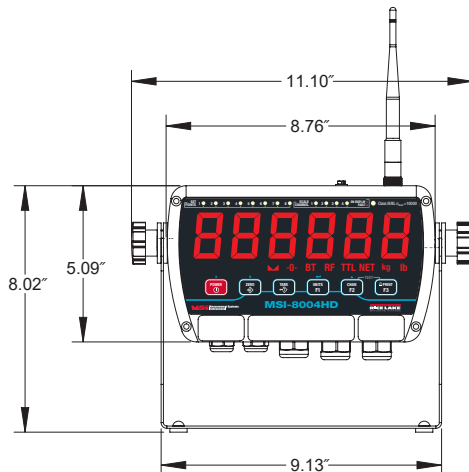
Specifications

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

Enclosure:
NEMA Type 4, IP65 milled anodized aluminum

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

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

Units:
Pounds and kilograms only

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

Channels:
1, 2, 3, 4, TTL

Power:
90-267 VAC, 9-36 VDC, 18-72 VDC, 120-300 VDC

Operating Temperature:
-4° F to 140° F (-20° C to 60° C)
Legal for Trade: 23° to 104°F (-5º C to 40° C)

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

Excitation:
4.8 V current limited and over-voltage protected

Relays:
Two 5 V coil, 250 VAC, 5A 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, cellular connectivity or Bluetooth®

RF Effective Range:
Typically 100 ft – 300 ft, line of sight, for longer range consult factory

Data I/O:
Two RS-232 hard wired communication ports

Warranty:
One-year limited warranty

Approvals:
NTEP CC #17-036 (-5° C to 40° C)
Measurement Canada

11.10″
8.76″
5.09″
8.02″
9.13″

1.66″
6.16″
3.25″

MSI-8004HD
Indicator/RF LED Remote Display

Part Number/Price

Part #	Description	Price
Indicator		
196904	MSI-8004HD Indicator, 4CH AC, Red/Green Instant Power-On, 85~264 VAC, 47~440 Hz, 120~370 VDC	$2,130.00
178265	MSI-8004HD Indicator, 4CH AC, Red/Green 85~264 VAC, 47~440 Hz, 120~370 VDC	$1,930.00
178269	MSI-8004HD Indicator, 4CH DC 8-32 V, Red/Green Best for external 12 V SLA Batteries	$1,960.00
178271	MSI-8004HD Indicator, 4CH DC 9-36 V Iso, Red/Green Do not use on 12 V Vehicle Systems	$2,050.00
183481	MSI-8004HD Indicator, 4CH 5 V Red/Green with external rechargeable battery	$1,940.00
Remote Display		
178281	MSI-8004HD Display, AC, Red/Green 85~264 VAC, 47~440 Hz, 120~370 VDC	$1,880.00
178283	MSI-8004HD Display, DC, 8-32 V, Red/Green Best for external 12 V SLA Batter	$1,840.00
178285	MSI-8004HD Display, DC, 9-36 V Iso, Red/Green Do not use on 12 V Vehicle Systems	$1,920.00
183479	MSI-8004HD Display, 4CH 5 V Red/Green with external rechargeable battery	$1,660.00

Options

Part #	Description	Price
148624	Serial Cable, RS-232 9000 Serial Cable, DCE	$125.00
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.	$460.00
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	$455.00
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	$485.00
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	$375.00
139313	Antenna kit, Vehicle Mount, 5 dBi with 5 m coax omni-directional. Mounts in 3/4" Hole.	$140.00
162178	Antenna extension kit, 6 ft	$440.00
197013	Antenna extension kit, 20 ft	$470.00
155173	Option kit, tilt stand	$79.00
171203	Audible alarm Not compatible with battery versions 22436	$335.00
22436	Cable, Comm DB9F 9-pin 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)	$210.00
184132 *	8004 option kit, Bluetooth®with SMA antenna	Consult
184131	8004 option kit, Wi-Fi with SMA antenna	$180.00
187424	8004 option kit, 2nd Xbee with TNC antenna	$190.00
182224	Power adapter, 12 VDC 5 VDC Dual USB Car Charger plus 3 ft USB Cable	$53.00
Relays		
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	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

* ScaleConnect app only works with certain Android devices. Please contact Rice Lake for potential applications.

VIRTUi2®
PC-Based HMI for iQUBE²®

Specifications

Minimum System Requirements:
Windows® 8.1 through 10
Serial port
USB to serial converter, or Ethernet TCP/IP for connection to iQUBE²
Additional serial ports are required for connections to printers/remote displays

Status Annunciators:
Units (lb, kg, short tons (tn), metric tons (t), NONE) gross/net, motion, center of zero

Approvals:
NTEP CC 04-058 Classes III and IIIL at 10,000d

VIRTUI² is a Windows®-based desktop application that works with iQUBE² to replicate simple indicator functionality ideal for system integrators and OEMs wanting to provide a PC-based solution. Load cells are individually monitored and calibrated, making setup easy.

Standard Features

- Virtual front panel consists of display and five-button keypad
- Web browser-based iQUBE²® cell status
- Provides local and remote reporting of diagnostics and error conditions
- Up to four scale systems and one total scale
- Primary/secondary units configuration (lb, kg, short tons, metric tons, none)
- RS-232 communications at up to 460 Kbps
- Electronic Data Processing (EDP) port over RS-232 and TCP/IP
- Printer port for output-only, simplex communications
- Two print formats
- Provides iQUBE² configuration screen and iQUBE² digital I/O configuration
- Supports iQUBE² diagnostics with configurable error viewing
- Peak weight history
- Recalibration notification
- Concentrated load capacity (CLC)
- Section capacity

Approvals

Part Number/Price

Part #	Description	Price
108435	VIRTUi2 virtual indicator DEMO CD	N/C
108436	Activation part number requires machine ID and customer's email address	$500.00

SCT-1100
Signal Conditioning Transmitter

Specifications

Power:
12/24 VDC

Power Consumption:
70 mA min – 100 mA max

Excitation Voltage:
5VDC, 120 mA, 8 x 350 ohm

Analog Signal Input Range:
± 39 mV

Analog Signal Sensitivity:
0.3 μV/graduation minimum

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

Resolution:
Internal resolution: 1.5 million counts
Weight display resolution: 800,000

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

Serial Port:
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)

Display:
Six-digit (10 mm), red LED

Annunciators:
Net, center of zero, stability

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

Temperature & Humidity:
Working temperature: 5° F to 104° F
(-15° C to 40° C)
Humidity: 85% non-condensing

Dimensions (W x H x D):
4.17 in x 3.54 in x 2.28 in
(106 mm x 90 mm x 58 mm)

Weight:
1 lb (0.5 kg)

Rating/Material:
NEMA Type 1 plastic pluggable connectors

Warranty:
One-year limited warranty

Approvals:
NTEP CC 20-046
Measurement Canada AM-6165C
OIML
cULus
EU Legal for Trade

*SCT-1000
Serial to Ethernet converter*

SCT-1100-AN in Plastic Enclosure

SCT1100-AN with Analog Output

Standard Features

- Up to four independent scales or four load cell inputs
- Quick menu for real and theoretical calibration
- Red LED display (13mm) and six LEDs show active functions
- 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, 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 RTU ASCII protocol

Approvals

Part Number/Price

Part #	Description	Est. Weight	Price
202101	Indicator, SCT-1100-AN four load cell input with Analog Output	1 lb	$450.00
197011	Indicator, SCT-1100-AN four load cell input with Analog Output in plastic enclosure	1 lb	$625.00

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

...nd specifications subject to change without notice. Visit ricelake.com for current prices.

SCT-2200
Signal Conditioning Transmitter

SCT2200 Pictured with optional EtherNet/IP Module

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 with six-digits (8 mm) and six LEDs show active functions
- 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, scale switch, setting of outputs application thresholds
- Diagnostic information via serial port, message display, printing, simulation of key pressure, Modbus RTU
- Two RS-485 ports for "daisy-chain" network connections
- Printer management on second serial port available
- Multi-range function allows for subdividing the scale capacity in two, each up to 3,000 divisions
- Modbus RTU ASCII protocol

Approvals

Specifications

Power:
12/24 VDC
Power Consumption:70 mA min – 100 mA max

Excitation Voltage:
5 VDC, 120 mA, 8 x 350 ohm

Analog Signal Input Range:
± 39 mV

Analog Signal Sensitivity:
0.3 µV/graduation minimum

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

Resolution:
Internal resolution: 1.5 million counts
Weight display resolution: 800,000

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

Serial Port:
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)

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

Annunciators:
Net, center of zero, stability

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

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

Dimensions (W x H x D):
0.98 in x 4.52 in x 4.72 in
(25 mm x 115 mm x 120 mm)

Weight:
1 lb (0.5 kg)

Rating/Material:
NEMA Type 1 plastic pluggable connectors

Warranty:
One-year limited warranty

Approvals:
NTEP CC 20-046
Measurement Canada AM-6165C
OIML
cULus
EU Legal for Trade

Part Number/Price

Part #	Description	Est. Weight	Price
Transmitters			
202103 *	Indicator, SCT-2200 for scale input to be used with fieldbus module	1 lb	$325.00
202104	Indicator, SCT-2200-AN with Analog Output	1 lb	$450.00
Fieldbus			
182592	Fieldbus, SCT-2200, Profinet module	1 lb	$550.00
182594	Fieldbus, SCT-2200, Wi-Fi module	1 lb	$460.00
194343	Fieldbus, SCT-2200, Ethernet TCP/IP and Wi-Fi	1 lb	$550.00
182593	Fieldbus, SCT-2200, Profibus module	1 lb	$350.00
182591	Fieldbus, SCT-2200, EtherNet/IP module	1 lb	$550.00
182596	Fieldbus, SCT-2200, DeviceNet module	1 lb	$550.00
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	$550.00
182599	Cable with RJ45 plugs, 6 in length	1 lb	$11.00

__How to Order the SCT-2200 for use with fieldbus module__
Order SCT-2200 transmitter scale-input module.
Order fieldbus module (HUB mode connects up to 16 transmitters to one fieldbus module).
Order 1-cable (PN 182599) for each scale-input module in the HUB.

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

SCT-3300
Signal Conditioning Transmitter

Specifications

Power:
Input: 20-28 VDC
Power consumption: 8 W

Excitation Voltage:
10 VDC, 170 mA, 6 x 350 ohm

Analog Signal Input Range:
3.5 to 24 mV

Analog Signal Sensitivity:
0.3 µV/graduation minimum
1.0 µV/graduation recommended

A/D Sample Rate:
300 Hz

Resolution:
System linearity: ± 0.01% full scale

Analog Output (if equipped):
Optoisolated
0-20 mA, 4-20 mA (max 300 ohm)
0-10 VDC (min 10,000 ohm)

Temperature & Humidity:
Working temperature: 14° F to 122° F
(-10° C to 50° C)
Humidity: 85% non-condensing

Dimensions (W x H x D):
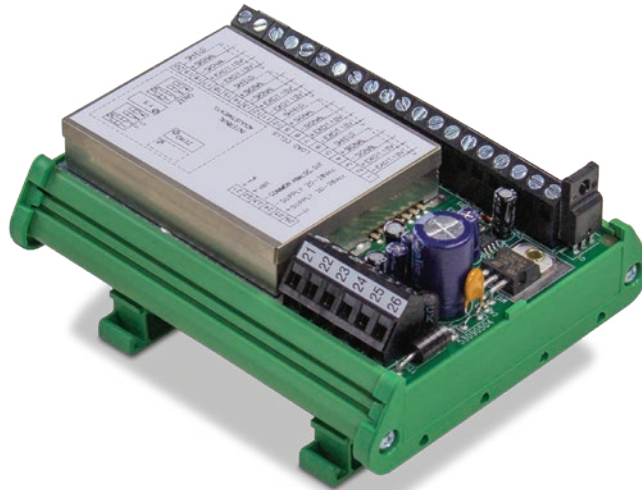4.56 in x 3.72 in x 2.4 in (114 mm x 93 mm x 60 mm)

Weight:
0.5 lb (0.2 kg)

Rating/Material:
DIN rail mount: NEMA Type 1

Warranty:
One-year limited warranty

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

Approvals

UK
CA

Part Number/Price

Part #	Description	Est. Weight	Price
Transmitters			
188725	Indicator, SCT-3300 four load cell input with Analog Output	1 lb	$350.00

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

www.ricelake.com | Phone: 800-472-6703

497

SCT-10
Signal Conditioning Transmitter
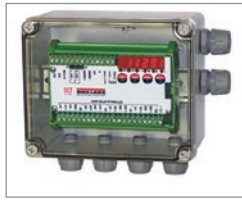
SCT-10 in Plastic Enclosure
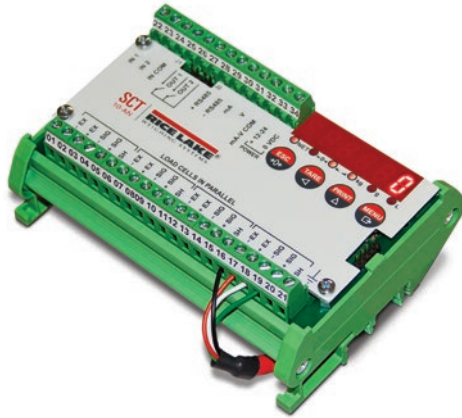
Standard Features

- 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
- One serial port, RS-232 simplex and RS-485 connection
- Supports ASCII or MODBUS-RTU protocols

Approvals

Part Number/Price

Part #	Description	Est. Weight	Price
129393	SCT-10 converter with Analog Output	1 lb	$475.00
129394	SCT-10 converter with Analog Output in enclosure	1 lb	$625.00
131129	Installation manual	1 lb	$25.00
199687	DIN rail clip right & left end clamp		$10.00

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

Specifications

Power:
Input: 12 -24 VDC
Power consumption: 5 W

Excitation Voltage:
5VDC, 120mA, 8 x 350 ohm

Analog Signal Input Range:
+/-19.5mV

Analog Signal Sensitivity:
0.3 µV/graduation minimum
1.0 µV/graduation recommended

A/D Sample Rate:
80 Hz

Resolution:
Internal resolution: 16 million counts
Weight display resolution: 999,999
System Linearity: ± 0.01% full scale

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

Serial Port:
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 10k ohm)

Display:
0.3 in (8 mm), six digit, 7 segment LED
Annunciators: Net, center of zero, stability, KG, G, LB
Annunciators test status of inputs/outputs

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

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

Dimensions (WxHXD):
DIN Rail Mount: 4.84 x 3.62 x 1.96 in
(123 x 92 x 50 mm)
IP67 Enclosure: 6.69 x 5.51 x 3.74 in
(170 x 140 x 95 mm)

Weight:
1 lb (0.5 kg)

Warranty:
One-year limited warranty

Specifications

Power:
Input: 12 -24 VDC
Power consumption: 5 W

Excitation Voltage:
5 VDC, 120 mA, 8 x 350 ohm

Analog Signal Input Range:
+/- 39mV

Analog Signal Sensitivity:
0.3 µV/graduation minimum
1.0 µV/graduation recommended

A/D Sample Rate:
300 Hz

Resolution:
Internal resolution: 16 million counts
Weight display resolution: 999,999
System linearity: ± 0.01% full scale

Digital Inputs/Outputs:
2 inputs 5-24 VDC, 3 outputs 115 VAC/150 mA
N.O. or N.C. (dry contact)

Serial Port:
RS-485 half duplex or RS-232 transmit only
supports up to 115,200 bps

Analog Output:
Optoisolated, 16 bit
0-20mA, 4-20 mA (max 300 ohm)
0-10VDC, 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

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

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

Dimensions (W x H x D):
SCT converter: 0.98 x 4.52 x 4.72 in
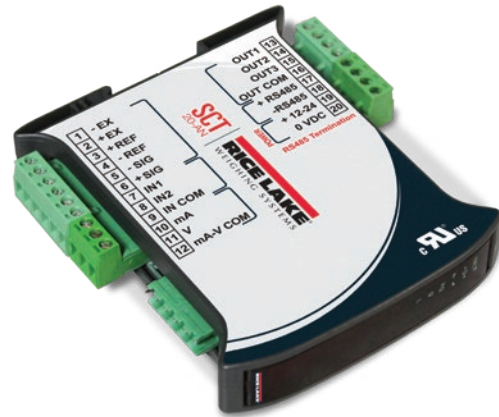(25 x 115 x 120 mm)

Weight:
1 lb (0.5 kg)

Rating/Material:
SCT enclosure: NEMA Type 1 plastic pluggable
connectors

Warranty:
One-year limited warranty

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-485 half duplex or RS-232 transmit only connection

Approvals

Part Number/Price

Part #	Description	Est. Weight	Price
129396	SCT-20 converter with Analog Output	1 lb	$475.00
129397	SCT-20 converter with DeviceNet™	1 lb	$625.00
129558	SCT-20 converter with Profibus™ DP	1 lb	$675.00
129398	SCT-20 converter with EtherNet/IP™	1 lb	$850.00
132534	SCT-20 converter with Ethernet TCP/IP™	1 lb	$850.00
156903	SCT-20 converter with Modbus/TCP	1 lb	$850.00
131128	Installation manual	1 lb	$25.00
NTEP Approved			
162883	SCT-20 converter with Analog Output	1 lb	$525.00
162886	SCT-20 converter with EtherNet/IP single port	1 lb	$925.00
162887	SCT-20 converter with Ethernet TCP/IP	1 lb	$925.00

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

SCT-30
Signal Conditioning Transmitter

SCT converter with analog output

Specifications

Power:
Input: 12 -24 VDC
Power consumption: 3 W

Excitation Voltage:
5 VDC, 120 mA, 8 x 350 ohm

Analog Signal Input Range:
+/-39mV

Analog Signal Sensitivity:
0.3 µV/graduation minimum
1.0 µV/graduation recommended

A/D Sample Rate:
300 Hz

Resolution:
Internal resolution: 16 million counts
System linearity: ± 0.01% full scale

Serial Port:
RS-485

Analog Output:
Optoisolated, 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

Keyboard:
Control knob and DIP switches

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

Dimensions (W x H x D):
SCT converter: 3.54 x 3.74 x 2.36 in
(90 x 95 x 60 mm)

Weight:
1 lb (0.5 kg)

Rating/Material:
DIN rail mount: NEMA Type 1
Sealed enclosure: NEMA Type 4/IP67, plastic
enclosure, clear cover, six PG9 cord grips

Warranty:
One-year limited warranty

Standard Features

- LCD display, 5 mm, eight digits
- 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, ±5 V, and ±10 V
- Mounting on Omega/DIN rail for back panel or junction box
- Diagnostic message for load cell disconnect and over capacity errors

Approvals

Part Number/Price

Part #	Description	Est. Weight	Price
156794	SCT-30 converter with Analog Output	1 lb	$375.00
156834	SCT-30 converter with Analog Output in enclosure	1 lb	$525.00
131129	Installation manual	1 lb	$25.00
199707	DIN rail clip right & left end clamp		$10.00

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

Specifications

Power:
Input: 12 -24 VDC
Power consumption: 5W

Excitation Voltage:
5 VDC, 240 mA, 16 x 350 ohm

Analog Signal Input Range:
+/-39mV

Analog Signal Sensitivity:
0.3 µV/graduation minimum
1.0 µV/graduation recommended

A/D Sample Rate:
600 Hz

Resolution:
Internal resolution: 16 million counts
Weight display resolution: 999,999
System linearity: ± 0.01% full scale

Digital Inputs/Outputs:
3 inputs 5-24 VDC, 5 outputs, 115 VAC/150 mA

Serial Port:
RS-485 half duplex or RS-232 transmit only
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 10,000 ohm)

Display:
Backlit graphic LCD, transmissive
128 x 64 pixel resolution, 60 x 32 mm visible area

Keyboard:
Five-key tactile keypad
Test, Zero, Tare, Print Menu, Escape, Left and Up,
Navigator, Enter

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

Dimensions (W x H x D):
SCT converter (W x H x D):
5.82 in x 3.62 in x 2.36 in
(148 mm x 92 mm x 60 mm)

Weight:
1 lb (0.5 kg)

Rating/Material:
DIN rail mount: NEMA Type 1

Warranty:
One-year limited warranty

Standard Features

- LCD display, 60 x 32 mm
- 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™ or EtherNet/IP™ 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

Approvals

Part Number/Price

Part #	Description	Est. Weight	Price
170470	SCT-40 with Analog Output	1 lb	$675.00
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	$950.00
170474	SCT-40 with Ethernet TCP/IP	1 lb	$900.00
170475	SCT-40 with Modbus TCP	1 lb	$950.00
170476	SCT-40 with Profinet I/O	1 lb	$950.00
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

Relays and Racks

Input/Output Components
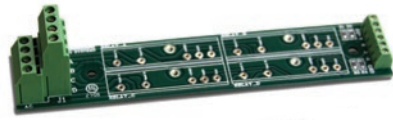
OPTO 22 G4 PN45408
(6.10 x 1.20in)

OPTO 22 G4 PN33206
(10.00 x 3.25 x 2.32in)

OPTO 22 G4 PN33205
(7.50 x 6.25 x 2.32in)

OPTO 22 G4 PN15973
(3.25 x 3.25 x 2.32in)

Grayhill Relays and Racks

8-channel relay rack

16-channel relay rack
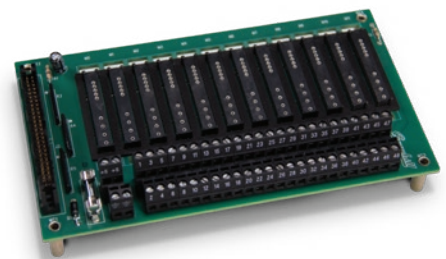
24-channel relay rack

Part Number/Price

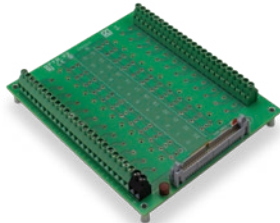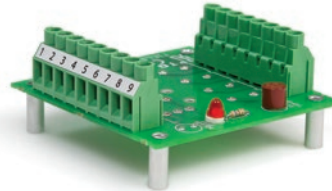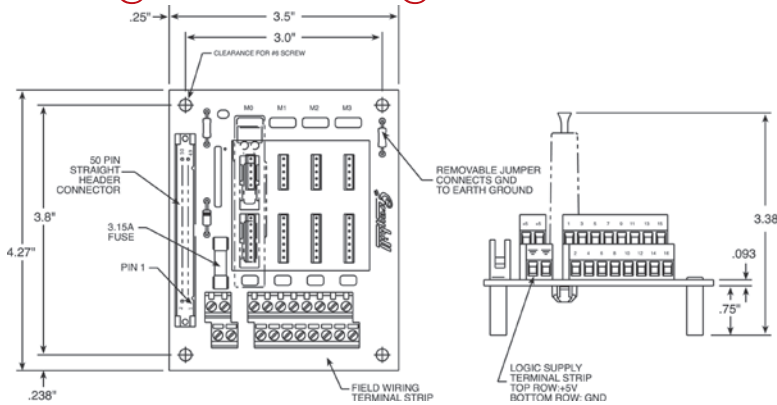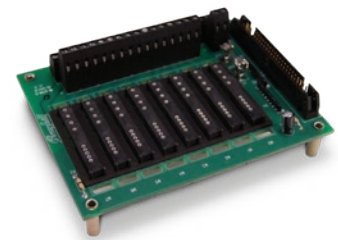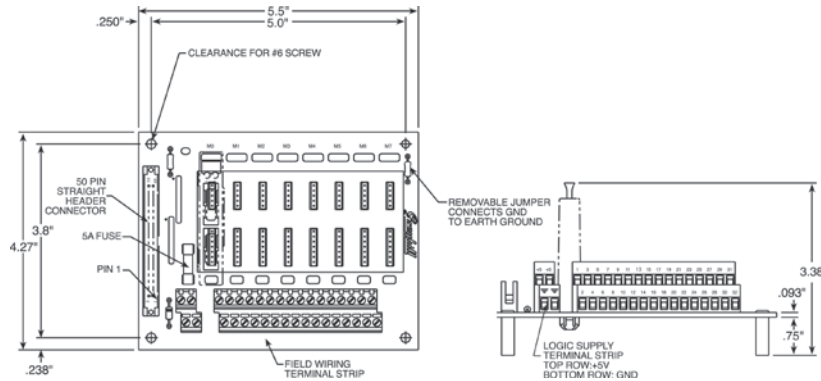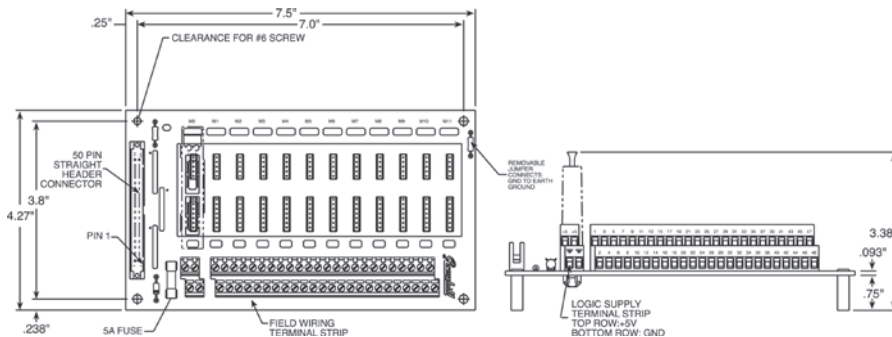| Part #	Description	Price
Input/Output Component		
43942	Allen-Bradley® multi-function relay with digital display	$575.00
29616	Dayton multi-function relay	$325.00
Other Relays		
15952	Eight-pin octal relay, AC/DC output, 10 A, 120 VAC coil	$57.00
15960	Eight-pin octal relay, AC/DC output, 10 A, 6 VDC coil	$30.00
15961	Eight-pin octal socket	$21.00
Grayhill Relays and Racks		
52332	Two-channel input relay, 2.5-28 VDC	$65.00
52318	Two-channel input relay, 120 VAC	$59.00
52319	Two-channel input relay, 240 VAC	$61.00
52331	Two-channel input relay, 10-32 VDC	$70.00
52316	Two-channel output relay, 120-140 VAC at 2 amp	$72.00
52317	Two-channel output relay, 240-280 VAC at 2 amp	$79.00
71376	Two-channel output relay, 3-60 VDC t 1 amp	$78.00
71377	Two-channel output relay, 0-200 VDC/VAC at 1.5 A/10 W (dry contact)	$105.00
52331	Two-channel input relay, 10-32 VDC	$70.00
84698	Two-channel output relay, inductive load, 120-140 VAC at 2 A	$85.00
84699	Two-channel output relay, inductive load, 240-280 VAC at 2 A	$100.00
52312	Eight-channel relay rack, 920i panel mount, wall mount requires 50-pin connector (4 slots)	$300.00
52314	16-channel relay rack, 920i panel mount, wall mount requires 50-pin connector (8 slots)	$415.00
52315	24-channel relay rack, 920i panel mount, wall mount requires 50-pin connector (12 slots)	$615.00
46189	Jumper strap, 10 position for Grayhill	$5.25
108396	Digital input 5 VDC, 15-30 VAC/10-32 VDC	$43.00
108397	Digital output 5 VDC, 3-60 VDC	$39.00
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

OPTO 22 Relays and Racks

Part #	Description	Price
15969	G4IDC5 10-32 VDC Input relay module, white (N/O)	$50.00
15970	G40DC5R dry contact 100 VDC/1.5 A output, red (N/O)	$50.00
22848	G40DC5R5 dry contact 100 VDC/1.5 A output, red (N/C)	$77.00
15971	G40AC5 115 VAC Output relay module, black (N/O)	$50.00
15972	G4IAC5 115 VAC Input relay module, yellow (N/O)	$50.00
22847	G40AC5A5 115/230 VAC Output relay module, black (N/C)	$67.00
36632	G40AC5A 115/230 VAC Output relay module, black (N/O)	$52.00
36631	G4IAC5A 230 VAC Input relay module, yellow (N/O)	$52.00
26834	Fuse, 1 A 250 V (for PN 15970 and PN 22848)	$7.50
21735	Fuse, 4 A 250 V (for PN 15971, PN 22847 and PN 36632)	$14.00
16478	Quencharc® arc suppressor	$11.00
101923	Remote relay box, does not include relay	$355.00
15973	Four-channel relay rack, 3.25 in x 3.25 in x 2.32 in	$125.00
45408	Four-channel relay rack 6.1 in x 1.2 in (non UL)	$160.00
33206	16-channel relay rack, 10 in x 3.25 in x 2.32 in	$334.00
33205	24-channel relay rack, 7.5 in x 6.25 in x 2.32 in	$372.00
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
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

INDICATORS / CONTROLLERS

www.ricelake.com | Phone: 800-472-6703

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Explosive Environment Equipment Policy

Rice Lake Weighing Systems has assembled the very best intrinsically safe and explosion-proof equipment. In order to properly specify, install and service this equipment, it is necessary that our distributors understand and appreciate the possible risks involved.

Persons involved in selection and installation of intrinsically safe equipment should have knowledge of but not limited to the following:

- Explosive environment designations: Class, Division and Group
- Standards and codes applicable to hazardous environment equipment
- Equipment liability
- Theory of intrinsically safe, explosion-proof and purged systems
- Equipment specification guidelines
- Proper installation procedures
- Service precautions
- NFPA 70, "National Electrical Code (NEC) Handbook"
- NFPA 496, "Classification of Gases, Vapors, and Dusts for Electrical Equipment in Hazardous (Classified) Locations"
- ANSI/UL 913, "Standard for Intrinsically Safe Apparatus and Associated Apparatus for use in Class I, II and III, Division 1 Hazardous Locations"
- ANSI/ISA RP 12.6, "Installation of Intrinsically Safe Instrument Systems for Hazardous (Classified) Locations"
- FM Approval Standard 3610, "Approval Standard, Intrinsically Safe Apparatus and Associated Apparatus for use in Class I, II and III, Division 1 Hazardous Locations"
- FM Approval Standard 3615, "Approval Standards, Explosion Proof Electrical Equipment"
- "Electrical Installations in Hazardous Locations"

Plant Safety Engineers and Certified Electricians should always be involved in the specification and installation of any explosive environment equipment.

Hazardous Area Classification

For assistance in selecting hazardous area control equipment for your application requirements, please complete this form and submit, along with a description of the application, to:

RICE LAKE
WEIGHING SYSTEMS

Rice Lake Weighing Systems
Attn: Hazardous Environment
230 West Coleman Street
Rice Lake, WI 54868
Telephone: 715-234-9171 • Fax: 715-234-6967

RLWS File #: _____ Date: _____

Sales Order #: _____ Checked By: _____

Equipment PN#(s) & Serial Number(s): _____

Factory Mutual Not Applicable _____ (International Orders Only) _____

For Rice Lake Office Use Only

RICE LAKE CUSTOMER INFORMATION:

Rice Lake Customer Name: _____ Customer Number: _____

Address: _____

City: _____ State: _____ Zip: _____

Telephone: (_____) _____ Fax: (_____) _____

Contact Name: _____
<div align="center">(Printed name)   (Signature)   (Date)</div>

Authorized Signature: _____
<div align="center">(Printed name)   (Signature)   (Date)</div>

END USER INFORMATION:

End User Company Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Telephone: (_____) _____ Fax: (_____) _____

Contact Name: _____
<div align="center">(Printed name)   (Signature)   (Date)</div>

Authorized Signature: _____
<div align="center">(Printed name)   (Signature)   (Date)</div>

Title: _____

(The following information is to be defined and completed by the END USER'S plant safety engineer or other authorized party)

Hazardous Area Classification: Class _____ , Division _____ , Group _____ , Temperature Class _____

Zone _____ , Group_____ , Temperature Class _____

Specific Hazard/Material (please print): _____

Defining Individual: _____
<div align="center">(Printed name)   (Signature)   (Date)</div>

Defining Authority (Title): _____

Please retain a copy of this completed form for your records.

RICE LAKE

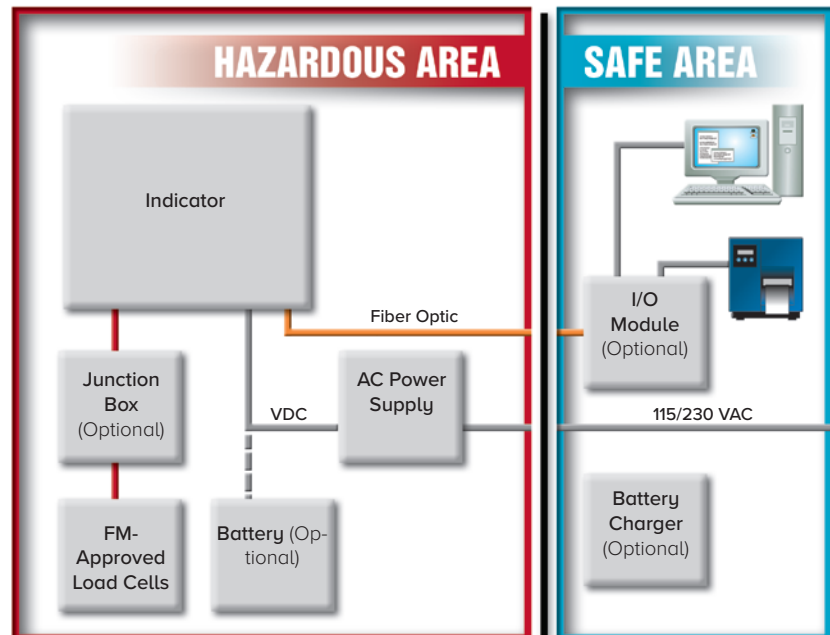# Explosive Environment Solutions

⚠️ **Caution:** The equipment contained within this Explosive Environment section requires greater attention to specification and installation guidelines. Improper specification, installation or service of these products can result in loss of equipment or serious injury.

EXPLOSION PROOF SYSTEM
What is an explosion-proof indicator?

It is simply a digital weight indicator enclosed in a special case. The purpose of an explosion-proof indicator is not, as the name suggests, to protect the indicator. Instead, the case prevents any explosion WITHIN the case from causing subsequent fire or explosion in the surrounding atmosphere.

For example, in a grain elevator application, combustible dusts (Class II hazardous atmosphere) may be present. A spark in a non-explosion-proof indicator could ignite an elevator-wide explosion. However, with an explosion-proof indicator, the spark (or even an explosion) is contained within the case. The hazardous atmosphere cannot be ignited, and the elevator is protected.

ADVANTAGES
- Explosion containment
- Requires low maintenance
- No electronics
- No moving parts

DISADVANTAGES
- Cannot indicate failure of containment capability
- Cost of protection per cubic foot increases with enclosure size
- Promotes condensation
- Cumbersome, limited access
- Causes harmful heat buildup
- Limited sizes
- Bulky designs
- Excessive weight

PURGE SYSTEM

Purged systems are ideal for hazardous environments and use positive pressure to prevent particles, gases and fibers from entering the controller enclosure. As an added safeguard, a differential pressure switch automatically cuts off power when the pressure falls below the acceptable level. Type X, Y and Z purging hardware is available that meets National Fire Protection Association (NFPA) article 496 guidelines.

The three configurations are as follows:

Type X Pressurizing: Reduces the classification within the protected enclosure from Division 1 to Safe.

Type Y Pressurizing: Reduces the classification within the protected enclosure from Division 1 to Division 2.

Type Z Pressurizing: Reduces the classification within the protected enclosure from Division 2 to Safe.

ADVANTAGES
- Reduces heat buildup
- Inhibits metal corrosion
- Requires low maintenance
- Increases equipment longevity
- Allows fast access to equipment
- Reduces moisture and dust buildup
- Reduces classification within enclosure
- Continuous system status indication
- Protects enclosures up to 450 cubic feet
- Allows use of any enclosure shape
- Cost of protection per cubic foot decreases with enclosure size

DISADVANTAGES
- Contains moving parts
- Requires instrument air supply
- Some systems contain electronics
- Some systems require electrical power

INTRINSICALLY SAFE BARRIER SYSTEM

Intrinsically safe load cells and safety barriers take the explosion proof principle a step further. Intrinsic safety ensures the indicator's electrical wiring and components are, by design, incapable of releasing enough energy to ignite flammable or combustible atmospheric mixtures in their most easily ignitable concentrations. In short, an intrinsically safe device eliminates the conditions for an explosion, no matter what the circumstances.

ADVANTAGES
- Limits energy to device
- Requires low maintenance
- No moving parts
- Ideal for sensors

DISADVANTAGES
- One barrier is required for each conductor
- Project cost increases with number of conductors
- Offers no protection against heat, moisture and dust
- Requires protection or installation in nonclassified area
- 24 VDC, 50 mA maximum power and signal strength limit

Hazardous Atmospheres
(for reference only)

Hazardous atmospheres are divided into three general classes and two divisions:

CLASS I:
Flammable gases or vapors

CLASS II:
Combustible dusts

CLASS III:
Ignitable fibers or flyings

DIVISION 1:
Hazard exists under normal conditions

DIVISION 2:
Hazardous material is handled, processed or stored. Hazard is not normally present, but may be released due to accident or equipment malfunction.

CLASS I:
Flammable gases or vapors

CLASS I, GROUP A:
- Acetylene

CLASS I, GROUP B:
- Acrolein (inhibited)
- Arsine
- Outadiene
- Ethylene oxide
- Hydrogen
- Manufactured gases containing more than 30% hydrogen by volume
- Propylene oxide
- Propylnitrate

CLASS I, GROUP C:
- Acetaldehyde
- Allyl alcohol
- N-butyraldehyde
- Carbon monoxide
- Crotonaldeghyde
- Cyclopropane
- Diethyl ether
- Diethylamine
- Epichlorohydrin
- Ethylene
- Ethylenimine
- Ethyl mercaptan
- Ethyl sulfide
- Morpholine
- 2-nitropropane
- Tetrahydrofuran
- Unsymmetrical dimethyl hydrazine
- (UMDH 1, 1-dimethyl hydrazine)

CLASS I, GROUP D:
- Acetic acid
- Acetone
- Acrylonitrile
- Ammonia
- Benzene
- Butane
- 1-butanol (butyl alcohol)
- 2-butanol (secondary butyl alcohol)
- N-butyl acetate
- Isobutyl acetate
- Di-isobutylene
- Ethane
- Ethanol (ethyl alcohol)
- Ethyl acetate
- Ethyl acrylate (inhibited)
- Ethylene diamine (anhydrous)
- Ethylene dichloride
- Ethylene glycol monomethyl ether
- Gasoline
- Heptanes
- Hexanes
- Isoprene
- Isopropyl ether
- Mesityl oxide
- Methane (natural gas)
- Methanol (methyl alcohol)
- 3-methyl 1-butanol (isoamyl alcohol)
- Methyl ethyl ketone
- 2-methyl 1-propanol (isobutyl alcohol)
- 2-methyl 2-propanol (teriary butyl alcohol)
- Petroleum naptha
- Pyridine
- Octanes
- Pentanes
- 1-pentanol (amyl alcohol)
- Propane
- 1-propanol (propyl alcohol)
- 2-propanol (isopropyl alcohol)
- Propylene
- Styrene
- Toluene
- Vinyl acetate
- Vinyl chloride
- Xylenes

CLASS II:
Combustible Dusts

CLASS II, GROUP E
Atmospheres containing:
- Aluminum, magnesium or their commercial alloys
- Metals of similarly hazardous characteristics with a resistivity of 100 ohms per centimeter

CLASS II, GROUP F
Atmospheres containing:
- Carbon black, charcoal, coal or coke dusts containing more than 8 percent total volatile material
- Dusts sensitized by other materials, presenting an explosion hazard and having a resistivity greater than 100 ohms per centimeter and equal to or less than 100 megohms per centimeter

CLASS II, GROUP G
Atmospheres containing:
- Flour
- Starch
- Grain
- Combustible plastics or chemical dusts having resistivity greater than 1 megohm per centimeter

CLASS III:
Ignitable Fibers or Flyings

Atmospheres containing:
- Rayon
- Cotton
- Other textiles

Combustible fiber manufacturing and processing plants such as:
- Cotton gins
- Cottonseed mills
- Flax processing plants
- Clothing manufacturing plants
- Sawmills
- Other woodworking locations.

Easily ignitable fibers including:
- Rayon
- Cotton (including cotton linters and cotton wastes)
- Sisal or henequen
- Istle
- Jute
- Hemp
- Tow
- Cocoa
- Oakum
- Baled waste kapok
- Spanish moss
- Excelsior
- Sawdust
- Wood chips

882IS/882IS Plus

Intrinsically Safe Digital Weight Indicator

Standard Features

- 0.8 in, seven-digit, seven-segment LCD display with white LED backlight
- Stainless steel IP66 enclosure
- T4 temperature rating
- Battery life display icon
- Excitation for four 350-ohm or eight 700-ohm load cells
- Tilt stand
- Numeric keypad (882IS Plus only)
- Duplex fiber optic interface
- Power ON/OFF; battery save mode
- Configurable local/remote mode
- I/O module has one serial port and one Ethernet TCP/IP standard as well as option analog output or fieldbus cards
- Time & date (requires I/O module)
- Setpoint functionality with remote indicator
- FM Entity Approved for use in hazardous locations per Rice Lake Weighing Systems control drawing file number 180948

Rice Lake Weighing Systems® warrants that all Rice Lake Weighing Systems intrinsically safe (IS) equipment and systems installed by a qualified electrician will operate per written specifications as confirmed by the distributor/ OEM and accepted by Rice Lake Weighing Systems. All systems and components are warranted against defects in materials and workmanship for one year. All Rice Lake Weighing Systems intrinsically safe equipment carries a Factory Mutual approval and is documented on various control drawings. Each device is manufactured by a Rice Lake Weighing Systems factory authorized personnel. To preserve the warranty and Factory Mutual approval, all repairs or replacement of circuit boards or components housed within the enclosures must be performed by Rice Lake Weighing Systems factory authorized personnel.

⚠ CAUTION! The equipment contained within this Explosive Environment section requires greater attention to specification and installation guidelines. Improper specification, installation or service of these products can result in loss of equipment or serious injury.

Approvals

FM APPROVED

* c(UL)us LISTED

Ex

IECEx

NTEP

Measurement Canada

OIML

EU NAWI CERTIFIED

*UL is only applicable to 882IS I/O and battery charger

Specifications

Load Cell Excitation:
3.0 VDC at 87.5 ohm, 4.6 VDC at 700 ohm

Load Cell Current:
34 mA (4 x 350 ohm load cells) or (8 x 700 ohm load cells)

Load Cell Cabling:
Four and six-wire with remote sensing (recommended)

Analog Signal Input Range:
0.6 mV/V— 4.0 mV/V

Analog Signal Sensitivity:
0.2 µV/graduation minimum
1.5 µV/graduation recommended

Conversion Rate:
60 updates/second

Resolution:
10,000 displayed graduations (NTEP Certified), 1,000,000 expanded
The maximum number of allowed graduations will vary by application

Display Increments:
1, 2, 5

Display:
Seven-digit, seven-segment LCD display 121 x 24 dot matrix messaging area with white LED backlight

Decimal Point:
Configurable with dead zeros

Unit Switching:
Configurable for two units of measurement with front panel operation with conversion for tare and setpoint values

Front Panel Control Switches:
882IS: Zero, Gross/Net, Tare, Print, Units Conv, Start, Stop
882IS Plus: Zero, Gross/Net, Tare, Print, Units Conv, Start, Stop, Full numeric keypad

Front Panel:
Ten-button plus power button flat membrane panel

Front Panel Annunciators:
Center Zero, Gross, Net, Motion, lb, kg, oz, g

Motion Band:
Configurable to ± 1 or ± 3 graduations, 1 second delay (or Off)

Power Input:
5.8-7.9 VDC,100-175 mA
Maximum power consumption 0.25 watts

Operating Temperature:
14° F to 104° F (-10° C to 40° C) legal

Electrical Operating Temperature:
14° F to 104° F (-10° C to 40° C) legal

Rating/Material:
Stainless steel IP66 enclosure

Optional Battery:
Operating times: 4 x 350 ohm = 60 hrs.
1 x 350 ohm = 80-100 hrs. Charging times: 8-10 hrs

Weight:
6.1 lb (2.8 kg)

Warranty:
One-year limited warranty

Intrinsic Safety:
FM/cFM:
Class I,II,III, Division 1, Groups ABCDEFG T4
Class I, Zone 0 AEx/Ex ia IIC T4 Ga
Zone 20 AEx/Ex ia IIIC T135°C Da
Ta = -10°C to +40°C (14°F to 104°F)
ATEX/IECEx:
II 1 G Ex ia IIC T4 Ga
II 1 D Ex ia IIIC T135°C Da

Approvals:
UL/cUL Listed*
FM Entity
ATEX
IECEx
NTEP CC 19-015
Measurement Canada
OIML R76/2006-A-NL1-21.11
EU Legal for Trade T11166

*UL is only applicable to 882IS I/O and battery charger

Part Number/Price

Part #	Description	Price
882IS		
195091	882IS 7.5 VDC with standard tilt stand	$1,525.00
185288	882IS with battery and charger (North American plug)	$2,455.00
194231	882IS with battery and charger (EU plug)	$2,455.00
196273	882IS with battery and charger (AU plug)	$2,455.00
185290	882IS with power supply	$2,685.00
194235	882IS indicator with power supply and metric thread adapter	$2,685.00
882IS Plus		
195092	882IS Plus 7.5 VDC with standard tilt stand	$1,525.00
185291	882IS Plus with battery and charger (North American plug)	$2,455.00
194233	882IS Plus with battery and charger (EU plug)	$2,455.00
196274	882IS Plus with battery and charger (AU plug)	$2,455.00
185293	882IS Plus with power supply	$2,685.00
194236	882IS Plus indicator with power supply and metric thread adapter	$2,685.00

⁺ US plug (NA) - Type B   ⁺⁺ Euro Plug - Type E

⁺⁺⁺ BS1363 (UK) - Type G   ⁺⁺⁺⁺ AS 3112 (Australian) - Type I

Options/Accessories

Part #	Description	Price
180831	Battery option, IS6V2	$685.00
194191	Battery charger, IS6V2, 100-240 VAC NEMA 5-15 (North American plug)	$275.00
194189	Battery charger, IS6V2 100-240 VAC (EU plug)	$275.00
194192	Battery charger, IS6V2 100-240 VAC (UK plug)	$275.00
197591	Battery charger, IS6V2 100-240 VAC (Australian plug)	$255.00
180837	Power supply, 882IS mb-EPS-100-240-X2, dual output 6.8 VDC 200mA	$1,055.00
195109	Power supply, 882IS mb-EPS-100-240-X2, dual output 6.8 VDC 200mA, 1/2 in NPT-M20	$1,095.00
179668	Cable, M12 power 22 in hazardous location (for battery version)	$76.00
179669	Cable, M12 power 10 ft hazardous location	$149.00
179670	Cable, M12 power 50 ft hazardous location	$185.00
179671	Cable, M12 power 100 ft hazardous location	$360.00
190979	Lockout device for M12 cable	$24.00
163751	Tilt stand, 882IS	$41.00
179678	Tilt stand, 882IS battery option	$45.00
177850	Panel mount option, gasketed non-NEMA seal	$215.00
206735	Battery tester, 882IS	$375.00
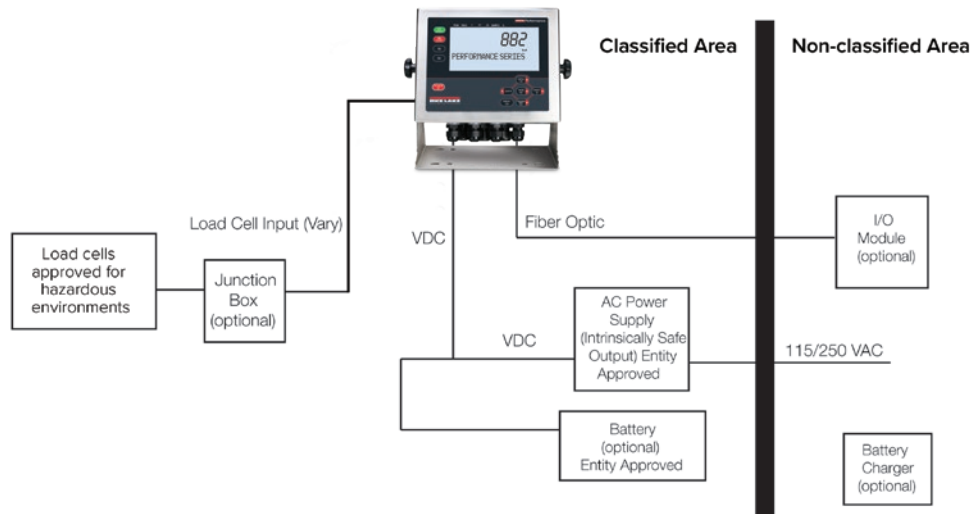
Complete Control Drawings available at www.ricelake.com

882IS/882IS Plus
Intrinsically Safe Digital Weight Indicator

Dimensions

Without Battery

A	8.94 in (227.1 mm)	E	9.96 in (253 mm)
B	7.66 in (194.6 mm)	F	4.36 in (110.7 mm)
C	6.50 in (165.1 mm)	G	8.37 in (212.6 mm)
D	8.10 in (205.7 mm)		

With Optional Battery and Tilt Stand

H	4.64 in (117.9 mm)	K	10.29 in (261.4 mm)
I	5.00 in (127 mm)	L	13.06 in (331.7 mm)
J	9.03 in (229.4 mm)		
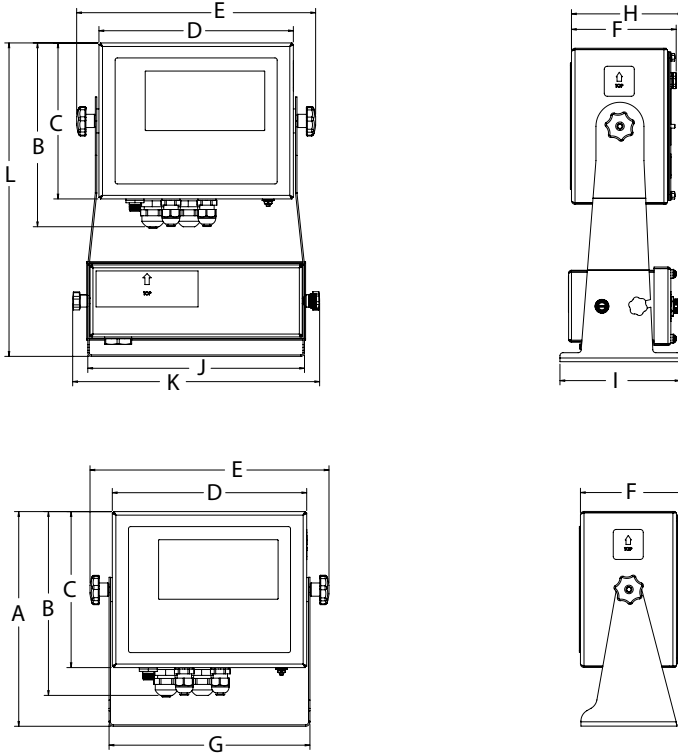
Dimensions

Optional Power Supply

A	9.25 in (235 mm)	G	0.75 in (19.1 mm)
B	2.63 in (66.8 mm)	H	1.25 in (31.8 mm)
C	1.13 in (28.7 mm)	I	2.00 in (50.8 mm)
D	6.20 in (157.5 mm)	J	1.00 in (25.4 mm)
E	3.11 in (79 mm)	K	3.00 in (76.2 mm)
F	2.00 in (50.8 mm)		
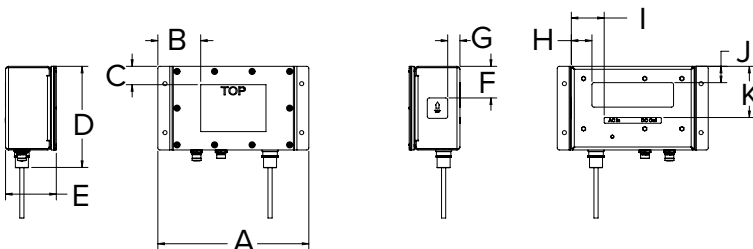
Optional I/O Module

Part #	Description	Price
177709	Module, 882 Smart I/O interface	$975.00
196166	Module, 882 Smart I/O (EU power cord)	$975.00
196769	Option, Fiber/RS232 6x6 FRP Enclosure, Fiber Optic-232 converter, Ext. Power Supply	$545.00
196770	Option,Fiber/RS422 6x6 FRP Enclosure, Fiber-RS422 converter, External Power Supply	$545.00
78026	Cable,Plastic Optical 100 ft. includes polishing kit	$175.00
78027	Cable,Plastic Optical 200 ft. includes polishing kit	$328.00
197384	Kit, polishing POF cable	$63.00
Option Cards		
190528	Single analog output (0-10 VDC, 0-20 mA, 4-20 mA)	$425.00
190530	882 option, Ethernet/IP	$600.00
190531	882 option, DeviceNet	$600.00
190532	882 option, ProfiNet	$600.00
190534	882 option, Profibus	$600.00
190533	882 option, Modbus TCP	$600.00
190535	882 option, EtherCAT	$600.00
Remote Indicator for Setpoint Functionality		
203343	920i universal indicator, 115 VAC, no A/D, with 882IS iRite software for setpoints	$2,265.00
203344	920i wall mount indicator, 115 VAC, no A/D, with 882IS iRite software for setpoints	$2,895.00

Dimensions			
Optional I/O Module			
A	10.00 in (254 mm)	D	4.00 in (101.6 mm)
B	9.13 in (231.9 mm)	E	2.75 in (69.9 mm)
C	6.91 in (175.5 mm)	F	1.50 in (38.1 mm)

INDICATORS / CONTROLLERS

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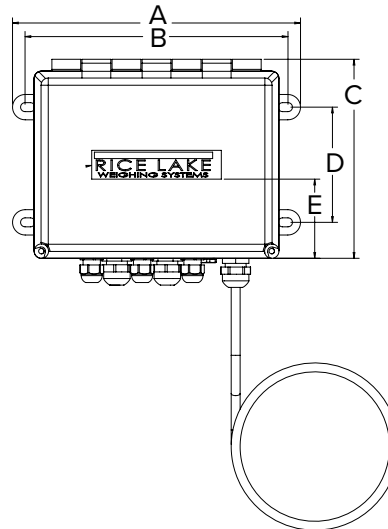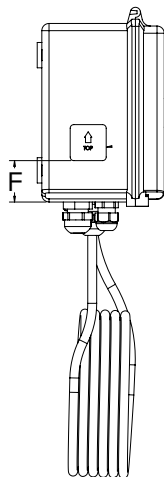
INTRINSICALLY SAFE

EL232 XPCD
Explosion Proof Remote Serial Display

NOTE: Custom enclosures as requested. All explosion-proof devices are now built-to-order, so please coordinate purchase of these items with one of our application specialists.

Standard Features

- 20 mA current loop or RS-232 input
- Compatible with most Rice Lake indicators
- NEMA Type 4, 7CD, 9EFG enclosure

Part Number/Price

Part #	Description	Est. Weight	Price
20904	EL232 XPCD explosion proof remote serial display	60 lb	$4,195.00

Dimensions			
A	10.50 in (266.7 mm)	E	10.50 in (266.7 mm)
B	9.50 in (241.3 mm)	F	7.50 in (190.5 mm)
C	5.81 in (147.7 mm)	G	11.75 in (298.5 mm) (glass diameter)
D	11.75 in (298.5 mm)	H	7/16 in (11 mm) dia holes

⚠ CAUTION! The equipment contained within this Explosive Environment section requires greater attention to specification and installation guidelines. Improper specification, installation or service of these products can result in loss of equipment or serious injury.

Specifications

Display:
High-intensity, red LED, 0.8 in (20.3 mm) high digits

Input Voltage:
115 VAC, 60 Hz

Weight:
Approximately 60 lb (27.2 kg)

NEC Classifications:
Class I, Division 1, Groups C & D;
Class II, Division 1,
Groups E, F & G and
Class III hazardous environments

Baud Rate:
1200, 2400, 4800 and 9600

Interfaces:
20 mA current loop and RS-232

Please consult factory for model numbers and interface requirements

Warranty:
One-year limited warranty
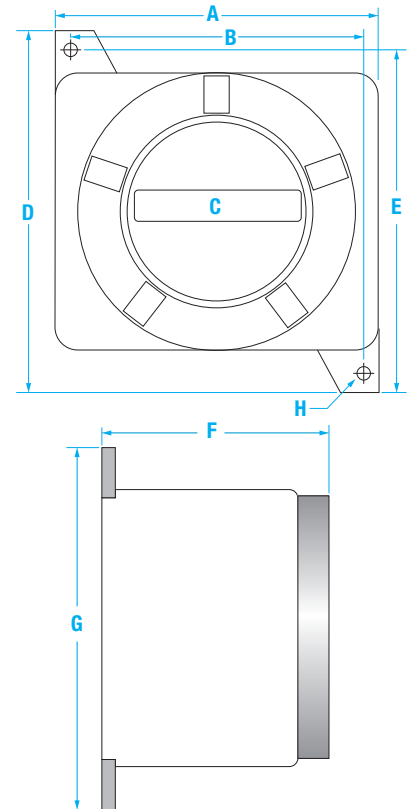
Intrinsic Safety Barriers

Standard Features

- Each system features excitation, sense and signal barriers
- Available in an enclosure for external mounting or in a chassis mount version
- R Stahl® or equivalent barriers that are approved by Factory Mutual (FM)

Specifications

Part #31201:
+ Excitation 9001/01-158-390-101
Voltage Range:
+12 VDC
Internal Resistance:
55 ohm
Open Circuit Voltage:
15.7 VDC
Short Circuit Current:
390 mA
Classifications:
FM approved, UL listed,
CSA certified, SA, CE marked

Part #31202:
± Excitation 9002/10-187-270-001
Voltage Range:
±6 VDC
Internal Resistance:
46 ohm
Open Circuit Voltage:
18.7 VDC
Short Circuit Current:
278.8 mA
Classifications:
FM approved, UL listed,
CSA- certified, SA, CE marked

Part #31540:
+ Excitation 9001/01-083-442-10
Voltage Range:
+6 VDC
Internal Resistance:
48 ohm
Open Circuit Voltage:
8.4 VDC
Short Circuit Current:
442 mA
Classifications:
FM approved, UL listed,
CSA- certified, SA, CE marked

Part #70724:
+ Sense 9001/01-086-020-101
Voltage Range:
+6 VDC
Internal Resistance:
470 ohm
Open Circuit Voltage:
8.6 VDC
Short Circuit Current:
18.3 mA
Classifications:
FM approved, UL listed,
CSA certified, SA, CE marked

Part #30263:
± Signal 9002/77-093-040-001
Voltage Range:
±6 VDC
Internal Resistance:
482 ohm
Open Circuit Voltage:
9.6 VDC
Short Circuit Current:
40.9 mA
Classifications:
FM approved, UL listed,
CSA-certified, SA, CE marked

Part #31542:
RS-232 9002/22-093-300-001
Voltage Range:
±6 VDC
Internal Resistance:
75.8 ohm
Open Circuit Voltage:
9.6 VDC
Short Circuit Current:
297.5 mA
Classifications:
FM approved, UL listed,
CSA- certified, SA, CE marked

Part #30264:
± Sense 9002/10-187-020-001
Voltage Range:
±6 VDC
Internal Resistance:
482 ohm
Open Circuit Voltage:
18.7 VDC
Short Circuit Current:
22 mA
Classifications:
FM approved, UL listed,
CSA- certified, SA, CE marked

Part #30266:
- Excitation 9001/00-086-390-101
Voltage Range:
-0.6 VDC
Internal Resistance:
30 ohm
Open Circuit Voltage:
8.6 VDC
Short Circuit Current:
377.6 mA
Classifications:
FM approved

Part #69491:
- Excitation 9001/02-016-150-111
Voltage Range:
±0.7 VDC
Internal Resistance:
12.8 ohm
Open Circuit Voltage:
1.64 VDC
Short Circuit Current:
127.4 mA
Classifications:
FM approved, UL listed,
CSA- certified, SA, CE marked

Intrinsic Safety Barriers

Part #69492:
+ Sense 9001/01-168-020-101
Voltage Range:
±12 VDC
Internal Resistance:
898 ohm
Open Circuit Voltage:
16.8 VDC
Short Circuit Current:
18.7 mA
Classifications:
FM approved, UL listed,
CSA- certified, SA, CE marked

Part #69493:
- Sense 9001/02-016-015-101
Voltage Range:
+0.7 VDC
Internal Resistance:
127 ohm
Open Circuit Voltage:
1.64 VDC
Short Circuit Current:
13.7 mA
Classifications:
FM approved, UL listed,
CSA certified, SA, CE marked

Part #72521:
- Excitation 9001/01-199-390-101
Voltage Range:
+16 VDC
Internal Resistance:
67 ohm
Open Circuit Voltage:
-19.9 VDC
Short Circuit Current:
382.7 mA
Classifications:
FM approved, CSA-certified,
CE marked

Part #30265:
+ Excitation 9001/01-086-390-101
Voltage Range:
+6 VDC
Internal Resistance:
30 ohm
Open Circuit Voltage:
8.6 VDC
Short Circuit Current:
377.6 mA
Classifications:
FM approved

Part Number/Price

Part #	Description	Est. Weight	Price
Barrier Kit #1 (For models with ± 5 Volt excitation)			
31202	9002/10-187-270-001, ± Excitation barrier	1 lb	$475.00
30264	9002/10-187-020-001, ± Sense barrier	1 lb	$495.00
30263	9002/77-093-040-001, ± Signal barrier	1 lb	$495.00
109663	DIN rail mounted kit #1 (includes 31202, 30264, 30263)	2 lb	$1,610.00
Barrier Kit #2: (For models with + 10 Volt excitation)			
31201	9001/01-158-390-101, + Excitation barrier	1 lb	$415.00
69491	9001/02-016-150-111, - Excitation barrier	1 lb	$370.00
69492	9001/01-168-020-101, + Sense barrier	1 lb	$345.00
69493	9001/002-016-015-101, - Sense barrier	1 lb	$395.00
30263	9002/77-093-040-001, ± Signal barrier	1 lb	$495.00
Barrier Kit #3: (For models with + 5 Volt excitation)			
31540	9001/01-083-442-101, + Excitation barrier	1 lb	$310.00
69491	9001/02-016-150-111, - Excitation barrier	1 lb	$370.00
30263	9002/77-093-040-001, ± Signal barrier	1 lb	$495.00
Miscellaneous Barriers:			
30266	9001/00-086-390-101, - Excitation barrier	1 lb	$345.00
30265	9001/01-086-390-101, + Excitation barrier	1 lb	$345.00
72521	9001-01-199-390-101, + Excitation barrier	1 lb	$450.00
197643	Barrier, dual channel, RS-422	1 lb	$485.00
31542	9002/77-093-300-001, RS-232	1 lb	$450.00

Options/Accessories:

Part #	Description	Price
33531	DIN rail, 6 in length	$12.00
35815	IS barrier installation manual	$15.00
110424	FRP enclosure, up to 4 barriers (not included)	$240.00
22828	Ground terminal block	$25.00
42219	Barrier fuse (160 mA)	$14.50

Profibus® DP Interface
720i™/820i®/920i®

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

Dimensions:
2.0 x 1.9 x 0.75 in
(51.8 x 48 x 19.1 mm)

Power:
5 VDC, 350 mA

Fieldbus Interface:
Pluggable screw connector

Diagnostic LEDs:
Link status and module status

Operating Temperature:
14°F to 158°F (-10°C to 70°C)
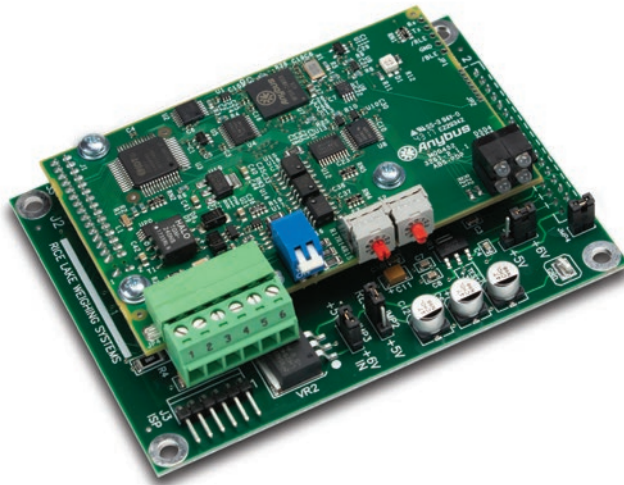
PN 68540

Part Number/Price

Part #	Description	Est. Weight	Price
68540	Profibus DP interface kit (internal), for use with 720i/820i/920i	3 lb	$700.00

Options/Accessories

Part #	Description	Price
69948	Additional operating manual, (720i/820i/920i)	$42.00

Profinet® I/O Interface
920i®

Standard Features

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

Specifications

Dimensions:
2.13 x 3.38 x 0.59 in (86 x 54 x 15 mm)

Power:
5 VDC, 350 mA (jumper for 6 VDC)

Fieldbus Interface:
RJ-45

Diagnostic LEDs:
Link status, module status, network status, activity

Operating Temperature:
14°F to 158°F (-10°C to 70°C)
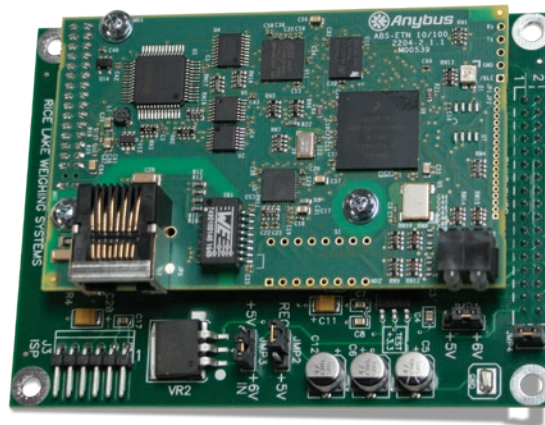
PN 187816

Part Number/Price

Part #	Description	Price
187816	Profinet IO protocol card for 920i	$840.00

Options/Accessories

Part #	Description	Price
187907	Additional Profinet IO operating manual	$35.00

INDICATORS / CONTROLLERS

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FIELDBUS CARDS

Remote I/O Interface
720i™/820i®/920i®

PN 68539

Standard Features

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

Specifications

Dimensions:
2.13 x 3.38 x 0.59 in
(86 x 54 x 15 mm)

Power:
5 VDC, 140 mA

Communications:
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

Operating Temperature:
14°F to 158°F (-10°C to 70°C)

Part Number/Price (Limited Supply)

Part #	Description	Est. Weight	Price
68539	Allen-Bradley Remote I/O (internal), for use with 720i/820i/920i	3 lb	$700.00

Options/Accessories

Part #	Description	Price
69950	Additional operating manual, (720i/820i/920i)	$42.00

FIELDBUS CARDS

DeviceNet™ Interface
720i™/820i®/920i®
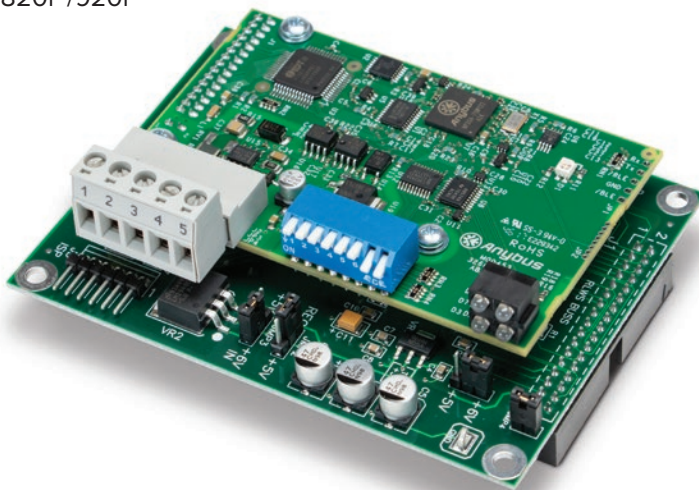
PN 68541

Standard Features

- DeviceNet communication adapter
- Compact size for internal installation in 720, 820i 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

Dimensions:
2.13 x 3.38 x 0.59 in
(86 x 54 x 15 mm)

Power:
5 VDC, 270 mA
Fieldbus connector requires 24V DC, ±10%

Communications:
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

Operating Temperature:
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

Part Number/Price

Part #	Description	Est. Weight	Price
68541	DeviceNet interface for use with 720i/820i/920i	3 lb	$700.00

Options/Accessories

Part #	Description	Price
69949	Additional operating manual	$42.00

RICE LAKE

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ControlNet™ Interface

820i®/920i®
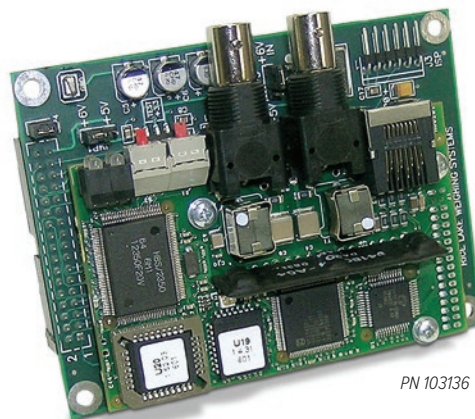
PN 103136

Standard Features

- Option for 820i and 920i
- Polled I/O connection
- Onboard LED diagnostics
- Floating-point commands support decimal points

Specifications

Dimensions:
2.13 x 3.38 x 0.59 in (86 x 54 x 15 mm)

Power:
5 VDC, 350 mA (jumper for 6 VDC)

Fieldbus Interface:
BNC connector

Diagnostic LEDs:
TX/RX data, Good link, Status, Diagnostics

Operating Temperature:
14°F to 158°F (-10°C to 70°C)

Part Number/Price

Part #	Description	Price
103136	ControlNet interface for use with 820i/920i	$1,050.00
Cables		
Consult factory for coaxial cable with cord grips		

Options/Accessories

Part #	Description	Price
103122	Additional operating manual (820i/920i)	$40.00

EtherNet/IP® Interface

720i™/820i®/920i®

PN 87803

Standard Features

- Industrial Protocol for Allen-Bradley PLC and other EtherNet/IP compliant devices
- IP address settings configurable with on-board 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

Dimensions:
2.13 x 3.38 x 0.59 in
(86 x 54 x 15 mm)

**Power:**
5 VDC, 350 mA

Fieldbus Interface:
RJ-45

Diagnostic LEDs:
Link status, module status, network status, activity

Operating Temperature:
14°F to 158°F (-10°C to 70°C)

Part Number/Price

Part #	Description	Price
87803	EtherNet/IP protocol card for 720i/820i/920i	$840.00

Options/Accessories

Part #	Description	Price
88537	Additional operating manual	$40.00

INDICATORS / CONTROLLERS

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FIELDBUS CARDS
Ethernet TCP/IP Interface
720i™/820i®/920i®
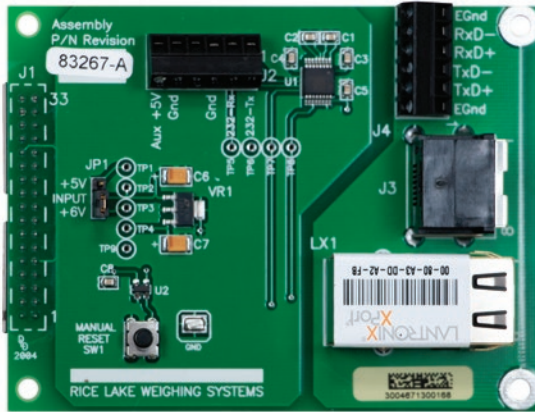
PN 71986

Standard Features

- Supports any serial devices with 7 or 8 data bits requiring Ethernet access
- Compact size for internal installation in 720i, 820i and 920i indicators
- Can be used in other applications requiring five-volt power supplied
- 10/100 megabyte through RJ-45 connector or wireless option
- HTTP, serial, telnet and SNMP management

Specifications

Dimensions:
2.0 x 1.9 x 0.75 in (52 x 49 x 19 mm)

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

Operating Temperature:
41° F to 122° F (5° C to 50° C)

Part Number/Price

Part #	Description	Est. Weight	Price
71986	Ethernet TCP/IP interface for use with 720i/820i/920i	3 lb	$420.00
206271	Wireless Ethernet TCP/IP interface for use with 720i, 820i and 920i	3 lb	$650.00
206272	Wireless Ethernet TCP/IP interface for use with 720i, 820i, CW-90 and iQube2	3 lb	$570.00

Options/Accessories

Part #	Description	Price
72117	Additional operating manual	$13.00
Cables		
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

PN 206272

PN 206271

Profibus® DP Interface
880®/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

Dimensions:
2.0 x 1.9 x 0.75 in (52 x 49 x 19 mm)

Power:
3.3 VDC, 250mA

Connector Type:
DB9, pluggable

Operating Temperature:
-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 use with 880 indicator	1 lb	$600.00
165795	Profibus DP interface kit for 1280	1 lb	$600.00

Options/Accessories

Part #	Description	Price
156784	Additional operating manual	$40.00

Profinet® Interface
880®/1280

Standard Features

- ProfiNet communication adapter
- Onboard diagnostic LEDs
- 100 Mbps Baud Rate
- Works as an I/O device on the ProfiNet network
- PROFIenergy compliant

Specifications

Dimensions:
2.0 x 1.9 x 0.75 in (52 x 49 x 19 mm)

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

Operating Temperature:
-40°F to 158°F (-40°C to 70°C)

Part Number/Price

Part #	Description	Est. Weight	Price
179160	Profinet interface kit for 880 (single port)	1 lb	$600.00
205567	Profinet interface kit for 880 (dual port)	1 lb	$750.00
165794	Profinet interface kit for 1280 (single port)	1 lb	$600.00

Options/Accessories

Part #	Description	Price
156781	Additional operating manual	$40.00

INDICATORS / CONTROLLERS

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DeviceNet™ Interface
880®/1280

Standard Features

- DeviceNet communication adapter
- DIN rail mount for installation with 880
- 125 Kbps, 150 Kbps and 500 Kbps baud rate
- Onboard diagnostic LEDs

Specifications

Dimensions:
2.0 x 1.9 x 0.75 in (52 x 49 x 19 mm)

Power:
3.3 VDC, 250 mA

Connector Type:
Pluggable screw terminal

Diagnostic LEDs:
Network status, module status

IP Address Range:
MAC ID 0-63

Operating Temperature:
-40°F to 158°F (-40°C to 70°C)

Part Number/Price

Part #	Description	Est. Weight	Price
179162	DeviceNet interface kit for 880	1 lb	$600.00
165793	DeviceNet interface kit for 1280	1 lb	$600.00

Options/Accessories

Part #	Description	Price
156783	Additional operating manual	$40.00

MODBUS-TCP® Interface
880®/1280

Standard Features

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

Specifications

Dimensions:
2.0 x 1.9 x 0.75 in
(51 x 48 x 19 mm)

Power Requirements:
3.3 VDC, 250 mA

Connector Type:
RJ-45 (Consult for dual-port version)

Diagnostic LEDs:
Link status, network status, module status

Operating Temperature:
-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 (single port)	1 lb	$600.00
205568	Modbus-TCP Interface kit for 880 (dual port)	1 lb	$750.00
165796	Modbus-TCP Interface kit for 1280 (single port)	1 lb	$600.00

Options/Accessories

Part #	Description	Price
156782	Additional operating manual	$40.00

EtherNet/IP® Interface
880®/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 or standard EDS file download

Specifications

Dimensions:
2.0 x 1.9 x 0.75 in (52 x 49 x 19 mm)

Power Requirements:
3.3 VDC, 250 mA

Connector Type:
RJ-45

Diagnostic LEDs:
Link status, network status, module status

IP Address Range:
Full IP address range

Operating Temperature:
-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 (single port)	1 lb	$600.00
205566	EtherNet/IP Interface kit for 880 (Dual Port)	1 lb	$750.00
165792	EtherNet/IP interface kit for 1280 (single port)	1 lb	$600.00
208129	EtherNet/IP Interface kit for 1280 (Dual Port)	1 lb	Consult

Options/Accessories

Part #	Description	Price
156861	Additional operating manual	$40.00

EtherCAT Interface
880®/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, cUL and RoHS compliant

Specifications

Dimensions:
2.04 x 1.97 x 0.86 in (52 x 50 x 22 mm)

Power:
3.3 VDC, 500 mA

Connector Type:
RJ-45 (dual port)

Diagnostic LEDs:
Run status, error status

Operating Temperature:
-40 °F to 158 °F (-40 °C to 70 °C)

Part Number/Price

Part #	Description	Est. Weight	Price
179158	EtherCAT interface kit for 880	1 lb	$600.00
179533	EtherCAT interface kit for 1280	1 lb	$600.00

Options/Accessories

Part #	Description	Price
164394	Additional operating manual	$40.00

INDICATORS / CONTROLLERS

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TranSend™ MSI-7000

Wireless Load Cell Interface System

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
- Auto-off mode - selectable for 15, 30, 45, 60 minutes or off
- Auto-sleep mode - power down during non-use, power up with weight change or key press
- Serial communication cable included with all transmitters

Additional HD Features

- IP68 milled aluminum enclosure
- Second radio modem available

Specifications

Power:
5-6 VDC, 7-36 VDC 85-265 VAC

Excitation Voltage:
Transmitter: +4.8 VDC, 16x 350Ω or 32x 700Ω 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 ft – 300 ft, line of sight; for longer range consult factory

Digital I/O:
Three coil relays available on select models

Circuit Protection:
RFI, EMI, ESD protection

Serial Port:
Full duplex RS-232

Operating Temperature:
-40°F to 185°F (-40°C to 85°C)

Enclosure:
NEMA Type 4 (IP66), aluminum black powder coated (excludes wall cube model)

Additional RF Options:
Wi-Fi
Bluetooth®
Cellular (consult)
802.15.4 FHSS

Warranty:
One-year limited

TranSend™ MSI-7000
Wireless Load Cell Interface System

Part Number/Price

Part #	Description	Est. Weight	Price
Transmitters			
5-6 VDC Power Input			
159207	MSI-7000 four-channel transmitter, no relays, RF 802.15.4, 2.4 GHz	2 lb	$935.00
161949	MSI-7000 four-channel transmitter, includes three coil relays, RF 802.15.4, 2.4 GHz	2 lb	$1,070.00
176638 *	MSI-7000 four-channel transmitter, no relays, Bluetooth®	2 lb	Consult
176641 *	MSI-7000 four-channel transmitter, includes three coil relays, Bluetooth®	2 lb	Consult
176648	MSI-7000 four-channel transmitter, no relays, Wi-Fi	2 lb	$985.00
176652	MSI-7000 four-channel transmitter, includes three coil relays, Wi-Fi	2 lb	$1,120.00
7-36 VDC Power Input			
159470	MSI-7000 four-channel transmitter, no relays, RF 802.15.4, 2.4 GHz	2 lb	$965.00
161951	MSI-7000 four-channel transmitter, includes three coil relays, RF 802.15.4, 2.4 GHz	2 lb	$1,120.00
176639 *	MSI-7000 four-channel transmitter, no relays, Bluetooth®	2 lb	Consult
176642 *	MSI-7000 four-channel transmitter, includes three coil relays, Bluetooth®	2 lb	Consult
176650	MSI-7000 four-channel transmitter, no relays, Wi-Fi	2 lb	$1,010.00
176653	MSI-7000 four-channel transmitter, includes three coil relays, Wi-Fi	2 lb	$1,180.00
85-265 VAC Power Input			
159469	MSI-7000 four-channel transmitter, no relays, RF 802.15.4, 2.4 GHz	2 lb	$990.00
161950	MSI-7000 four-channel transmitter, includes three coil relays, RF 802.15.4, 2.4 GHz	2 lb	$1,150.00
176637 *	MSI-7000 four-channel transmitter, no relays, Bluetooth®	2 lb	Consult
176640 *	MSI-7000 four-channel transmitter, includes three coil relays, Bluetooth®	2 lb	Consult
176647	MSI-7000 four-channel transmitter, no relays, Wi-Fi	2 lb	$1,040.00
176651	MSI-7000 four-channel transmitter, includes three coil relays, Wi-Fi	2 lb	$1,210.00
Receivers			
5-6 VDC Power Input			
160016	MSI-7000 four-channel receiver to provide an analog output signal: 4-20 mA, 0-20 mA, 0-5 VDC, 0-10 VDC, ±5 VDC, ±10 VDC, includes three coil relays, RF 802.15.4, 2.4 GHz	2 lb	$1,120.00
160017	MSI-7000 four-channel receiver to provide RS232 serial output	2 lb	$1,080.00
7-36 VDC Power Input			
159478	MSI-7000 four-channel receiver to provide RS232 serial output	2 lb	$1,125.00
159476	MSI-7000 four-channel receiver to provide an analog output signal: 4-20 mA, 0-20 mA, 0-5 VDC, 0-10 VDC, ±5 VDC, ±10 VDC, includes three coil relays, RF 802.15.4, 2.4 GHz	2 lb	$1,260.00
85-265 VAC Power Input			
159477	MSI-7000HD four-channel receiver to provide RS232 serial output	2 lb	$1,050.00
159475	MSI-7000HD four-channel receiver to provide an analog output signal: 4-20 mA, 0-20 mA, 0-5 VDC, 0-10 VDC, ±5 VDC, ±10 VDC, includes three coil relays, RF 802.15.4, 2.4 GHz	2 lb	$1,360.00

* Bluetooth modems only work with certain Android devices. Please contact MSI for potential applications.

Options/Accessories

Part #	Description	Price
162172	Charger, TranSend™ for 6 V SLA battery	$63.00
162173	Battery, TranSend 6 V SLA	$120.00
162175	Enclosure, TranSend for 6 V SLA battery	$320.00
160109	AC adaptor, TranSend 6 V	$53.00
143531	Power cord, 6 V SLA battery charger EU	$27.00
143533	Power cord, 6 V SLA battery charger, Australia	$48.00
143534	Power cord, 6 V SLA battery charger, UK	$42.00
160110	265 VAC to 6 VDC wall adapter US/UK/EU/AUS/China	$53.00
162178	Antenna extension kit, 6 ft coax cable	$440.00
139309	Antenna kit, long range Omni with 3 m coax cable	$460.00
139310	Antenna kit, corner reflector 9 dbi with 3 m coax cable	$455.00
197013	Antenna extension kit, 20 ft	$470.00
139311	Antenna kit, corner reflector 12 dbi with 3 m coax cable	$485.00
139312	Antenna kit, Yagi 15 dbi with 3 m coax cable	$375.00
144345	30 m coaxial cable, for use with non-vehicle mount antenna kits	$430.00
139313	Antenna kit, vehicle mount. 5 dbi with 5 m coaxial cable	$140.00
150964	RS-232 13 ft (4 m) serial cable with nine-pin (female) connector	$180.00
150965	RS-232 13 ft (4 m) serial cable with nine-pin (male) connector	$170.00
145085	RS-232 serial cable, nine-pin unterminated	$120.00
182244	GoDex portable printer (compatible with Android phone or tablet app)	Consult

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RF TRANSCEIVERS

TranSend™ MSI-7001

Wireless Load Cell Interface System

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
- Auto-off mode - selectable for 15, 30, 45, 60 minutes or off
- Auto-sleep mode - power down during non-use, power up with weight change or key press
- Serial communication cable included with all transmitters

Additional HD Features

- IP68 milled aluminum enclosure
- Second radio modem available

Part Number/Price

Part #	Description	Est. Weight	Price
Transmitters			
5-6 VDC Power Input			
160330	MSI-7001 single-channel transmitter, no relays, RF 802.15.4, 2.4 GHz	2 lb	$885.00
176644 *	MSI-7001 single-channel transmitter, no relays, Bluetooth®	2 lb	Consult
176655	MSI-7001 single-channel transmitter, no relays, Wi-Fi	2 lb	$930.00
7-36 VDC Power Input			
160329	MSI-7001 single-channel transmitter, no relays, RF 802.15.4, 2.4 GHz	2 lb	$935.00
176645 *	MSI-7001 single-channel transmitter, no relays, Bluetooth®	2 lb	Consult
176656	MSI-7001 single-channel transmitter, no relays, Wi-Fi	2 lb	$985.00
85-265 VAC Power Input			
160328	MSI-7001 single-channel transmitter, no relays, RF 802.15.4, 2.4 GHz	2 lb	$965.00
176643 *	MSI-7001 single-channel transmitter, no relays, Bluetooth®	2 lb	Consult
176654	MSI-7001 single-channel transmitter, no relays, Wi-Fi	2 lb	$1,010.00
Receivers			
5-6 VDC Power Input			
160337	MSI-7001 single-channel receiver to provide a mV signal to a digital weight indicator, RF 802.15.4, 2.4 GHz	2 lb	$935.00
160334	MSI-7001 single-channel receiver to provide an analog output signal: 4-20 mA, 0-20 mA, 0-5 VDC, 0-10 VDC, ±5 VDC, ±10 VDC, RF 802.15.4, 2.4 GHz	2 lb	$990.00
161941	MSI-7001 single-channel receiver to provide RS232 serial output	2 lb	$730.00
7-36 VDC Power Input			
160336	MSI-7001 single-channel receiver to provide a mV signal to a digital weight indicator. RF 802.15.4, 2.4 GHz	2 lb	$1,020.00
161939	MSI-7001 single-channel receiver to provide RS232 serial output	2 lb	$835.00
160333	MSI-7001 single-channel receiver to provide an analog output signal: 4-20 mA, 0-20 mA, 0-5 VDC, 0-10 VDC, ±5 VDC, ±10 VDC, RF 802.15.4, 2.4 GHz	2 lb	$1,120.00
85-265 VAC Power Input			
160335	MSI-7001 single-channel receiver to provide a mV signal to a digital weight indicator, RF 802.15.4, 2.4 GHz	2 lb	$1,070.00
161938	Receiver to provide RS232 serial output	2 lb	$895.00

Bluetooth modems only work with certain Android devices. Please contact MSI for potential applications.

Specifications

Power:
5-6 VDC, 7-36 VDC 85-265 VAC

Excitation Voltage:
Transmitter: +4.8 VDC, 16x 350Ω or 32x 700Ω 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 ft – 300 ft, line of sight; for longer range consult factory

Digital I/O:
Three coil relays available on select models

Circuit Protection:
RFI, EMI, ESD protection

Serial Port:
Full duplex RS-232

Operating Temperature:
-40°F to 185°F (-40°C to 85°C)

Enclosure:
NEMA Type 4 (IP66), aluminum black powder coated (excludes wall cube model)

Additional RF Options:
Wi-Fi
Bluetooth®
Cellular (consult)
802.15.4 FHSS

Warranty:
One-year limited

Options/Accessories

Part #	Description	Price
162177	Cordset, TranSend, pre-wired for use with single channel transmitters or non-relay based receivers	$120.00
164865	Cable, 4 m, one-channel, mV/V output, LC input	$135.00
165648	Cable, 5 m, one-channel, mV/V output, LC input	$145.00
165651	Cable, 10 m, one-channel, mV/V output, LC input	$205.00
162184	Load cell connector, TranSend, field wireable, 4-6 mm straight. For use with single channel transmitters and all receivers.	$55.50
162185	Load cell connector, TranSend, field wireable, 6-8 mm straight. For use with single channel transmitters and all receivers.	$55.50
162186	Load cell connector, TranSend, field wireable, 4-6 mm right angle. For use with single channel transmitters and all receivers.	$55.50
162187	Load cell connector, TranSend, field wireable, 6-8 mm right angle. For use with single channel transmitters and all receivers.	$55.50
145084	Cable, 2 m, one-channel, analog output	$58.00
144400	Cable, 5 m, one-channel, analog output	$90.00
168903	Cable, 10 m, one-channel, analog output	$135.00
Consult	Straight connector, analog output, field wire able, 4-6 mM OD	Consult
Consult	Straight connector, analog output, field wire able, 6-8 mM OD	Consult
Consult	Right angle connector, analog output, field wire able, 4-6 mM OD	Consult
Consult	Right angle connector, analog output, field wire able, 6-8 mM OD	Consult
162172	Charger, TranSend™ for 6 V SLA battery	$63.00
162173	Battery, TranSend 6 V SLA	$120.00
162175	Enclosure, TranSend for 6 V SLA battery	$320.00
160109	AC adaptor, TranSend 6 V	$53.00
143531	Power cord, 6 V SLA battery charger EU	$27.00
143533	Power cord, 6 V SLA battery charger, Australia	$48.00
143534	Power cord, 6 V SLA battery charger, UK	$42.00
160110	265 VAC to 6 VDC wall adapter US/UK/EU/AUS/China	$53.00
162178	Antenna extension kit, 6 ft coax cable	$440.00
139309	Antenna kit, long range Omni with 3 m coax cable	$460.00
139310	Antenna kit, corner reflector 9 dbi with 3 m coax cable	$455.00
197013	Antenna extension kit, 20 ft	$470.00
139311	Antenna kit, corner reflector 12 dbi with 3 m coax cable	$485.00
139312	Antenna kit, Yagi 15 dbi with 3 m coax cable	$375.00
144345	30 m coaxial cable, for use with non-vehicle mount antenna kits	$430.00
139313	Antenna kit, vehicle mount. 5 dbi with 5 m coaxial cable	$140.00
150964	RS-232 13 ft (4 m) serial cable with nine-pin (female) connector	$180.00
150965	RS-232 13 ft (4 m) serial cable with nine-pin (male) connector	$170.00
145085	RS-232 serial cable, nine-pin unterminated	$120.00
182244	GoDex portable printer (compatible with Android phone or tablet app)	Consult

INDICATORS / CONTROLLERS

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RF TRANSCEIVERS

TranSend™ MSI-7000HD
Wireless Load Cell Interface System

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
- Auto-off mode - selectable for 15, 30, 45, 60 minutes or off
- Auto-sleep mode - power down during non-use, power up with weight change or key press
- Serial communication cable included with all transmitters

Additional HD Features

- IP68 milled aluminum enclosure
- Second radio modem available

Part Number/Price

Part #	Description	Est. Weight	Price
Transmitters			
5-6 VDC Power Input			
177944	MSI-7000HD four-channel 7-36VDC, three coil relays, 802.15.4		$1,980.00
177952 *	MSI-7000HD four-channel 7-36VDC, three coil relays,Bluetooth		Consult
177997	MSI-7000HD four-channel 7-36VDC, three coil relays, Wi-Fi		$1,990.00
7-36 VDC Power Input			
177945	MSI-7000HD four-channel 9-36VDC isolated, three coil relays, 802.15.4		$2,060.00
177953 *	MSI-7000HD four-channel 9-36VDC isolated, three coil relays,Bluetooth		Consult
177998	MSI-7000HD four-channel 9-36VDC isolated, three coil relays, Wi-Fi		$2,080.00
184002	7000HD Half-plate mounted, FHSS, DC (battery) powered (half plate battery power supply sold separately)		Consult
85-265 VAC Power Input			
177942	MSI-7000HD four-channel 85-265VAC, three coil relays, 802.15.4		$2,020.00
177950 *	MSI-7000HD four-channel 85-265VAC, three coil relays, Bluetooth®		Consult
177995	MSI-7000HD four-channel 85-265VAC, three coil relays, Wi-Fi		$2,040.00

Bluetooth modems only work with certain Android devices. Please contact MSI for potential applications.

Specifications

Power:
5-6 VDC, 7-36 VDC 85-265 VAC

Excitation Voltage:
Transmitter: +4.8 VDC, 16x 350Ω or 32x 700Ω 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 ft – 300 ft, line of sight; for longer range consult factory

Digital I/O:
Three coil relays available

Circuit Protection:
RFI, EMI, ESD protection

Serial Port:
Full duplex RS-232

Operating Temperature:
-40°F to 185°F (-40°C to 85°C)

Enclosure:
IP68

Additional RF Options:
Wi-Fi
Bluetooth®
Cellular (consult)
802.15.4 FHSS

Warranty:
One-year limited

TranSend™ MSI-7000HD
Wireless Load Cell Interface System

Options/Accessories

Part #	Description	Price
187424	Dual xBee option kit for 7000HD with TNC connector	$190.00
162178	Antenna extension kit, 6 ft coax cable	$440.00
139309	Antenna kit, long range Omni with 3 m coax cable	$460.00
139310	Antenna kit, corner reflector 9 dbi with 3 m coax cable	$455.00
197013	Antenna extension kit, 20 ft	$470.00
139311	Antenna kit, corner reflector 12 dbi with 3 m coax cable	$485.00
139312	Antenna kit, Yagi 15 dbi with 3 m coax cable	$375.00
144345	30 m coaxial cable, for use with non-vehicle mount antenna kits	$430.00
139313	Antenna kit, vehicle mount. 5 dbi with 5 m coaxial cable	$140.00
148624	RS-232/RS-485 serial cable	$125.00
143348	Cordset IP68, 5-pin	$120.00
182244	GoDex portable printer (compatible with Android phone or tablet app)	Consult
141263		Consult
140140		Consult
140139		Consult

INDICATORS / CONTROLLERS

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TranSend™ MSI-7001HD

Wireless Load Cell Interface System

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
- Auto-off mode - selectable for 15, 30, 45, 60 minutes or off
- Auto-sleep mode - power down during non-use, power up with weight change or key press
- Serial communication cable included with all transmitters

Additional HD Features

- IP68 milled aluminum enclosure
- Second radio modem available

Part Number/Price

Part #	Description	Est. Weight	Price
Transmitters			
5-6 VDC			
178010	MSI-7001HD two-channel 5-6VDC, 802.15.4		$1,100.00
178014 *	MSI-7001HD two-channel 5-6VDC, Bluetooth®		Consult
178018	MSI-7001HD two-channel 5-6VDC, Wi-Fi		$1,190.00
7-36 VDC			
178011	MSI-7001HD two-channel 7-36VDC, 802.15.4		$1,180.00
178015 *	MSI-7001HD two-channel 7-36VDC, Bluetooth®		Consult
178019	MSI-7001HD two-channel 7-36VDC, Wi-Fi		$1,200.00
85-265 VAC Isolated			
178012	MSI-7001HD two-channel 9-36VDC isolated, 802.15.4		$1,190.00
178016 *	MSI-7001HD two-channel 9-36VDC isolated, Bluetooth®		Consult
178020	MSI-7001HD two-channel 9-36VDC isolated, Wi-Fi		$1,260.00
85-265 VAC			
178021	MSI-7001HD two-channel 85-265VAC, 802.15.4		$1,210.00
178013 *	MSI-7001HD two-channel 85-265VAC, Bluetooth®		Consult
178017	MSI-7001HD two-channel 85-265VAC, W-iFi		$1,240.00

* Bluetooth modems only work with certain Android devices. Please contact MSI for potential applications.

Specifications

Power:
5-6 VDC, 7-36 VDC 85-265 VAC

Excitation Voltage:
Transmitter: +4.8 VDC, 16x 350Ω or 32x 700Ω 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 ft – 300 ft, line of sight; for longer range consult factory

Digital I/O:
Three coil relays available on select models

Circuit Protection:
RFI, EMI, ESD protection

Serial Port:
Full duplex RS-232

Operating Temperature:
-40°F to 185°F (-40°C to 85°C)

Enclosure:
IP68

Additional RF Options:
Wi-Fi
Bluetooth®
Cellular (consult)
802.15.4 FHSS

Warranty:
One-year limited

TranSend™ MSI-7001HD
Wireless Load Cell Interface System

Options/Accessories

Part #	Description	Price
162172	Charger, TranSend™ for 6 V SLA battery	$63.00
162173	Battery, TranSend 6 V SLA	$120.00
162175	Enclosure, TranSend for 6 V SLA battery	$320.00
160109	AC adaptor, TranSend 6 V	$53.00
143531	Power cord, 6 V SLA battery charger EU	$27.00
143533	Power cord, 6 V SLA battery charger, Australia	$48.00
143534	Power cord, 6 V SLA battery charger, UK	$42.00
160110	265 VAC to 6 VDC wall adapter US/UK/EU/AUS/China	$53.00
162178	Antenna extension kit, 6 ft coax cable	$440.00
139309	Antenna kit, long range Omni with 3 m coax cable	$460.00
139310	Antenna kit, corner reflector 9 dbi with 3 m coax cable	$455.00
197013	Antenna extension kit, 20 ft	$470.00
139311	Antenna kit, corner reflector 12 dbi with 3 m coax cable	$485.00
139312	Antenna kit, Yagi 15 dbi with 3 m coax cable	$375.00
144345	30 m coaxial cable, for use with non-vehicle mount antenna kits	$430.00
139313	Antenna kit, vehicle mount. 5 dbi with 5 m coaxial cable	$140.00
148624	RS-232/RS-485 serial cable	$125.00
143348	Cordset IP68, 5-pin	$120.00
182244	GoDex portable printer (compatible with Android phone or tablet app)	Consult

INDICATORS / CONTROLLERS

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SendIt™ Wireless Load Cell Interface System

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
- Auto-off mode: Selectable for 15, 30, 45, 60 minutes or off
- Auto-sleep mode: Power down during non-use, power up with weight change or key press
- RS-232 cable included with transmitter and paired set

Specifications

Power:
5-6 VDC

Excitation Voltage:
Transmitter: +4.8 VDC, 16x 350 ohm or 32x 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 100-300 ft, line of sight. For longer range, consult factory

Circuit Protection:
RFI, EMI, ESD protection

Serial Port:
Full duplex RS-232

Operating Temperature:
-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 warranty

Part Number/Price

Part #	Description	Est. Weight	Price
Transmitters			
5-6 VDC Power Input			
160331	Single-channel transmitter, 5-6 VDC no relays. RF 802.15.4, 2.4 GHz 5-6 VDC	2 lb	$860.00
Receivers			
5-6 VDC Power Input			
160338	Receiver to provide a mV signal to a digital weight indicator. RF 802.15.4, 2.4 GHz 5-6 VDC Power Unit	2 lb	$885.00
Paired Set			
5-6 VDC Power Input			
165312	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	$1,820.00

Options/Accessories

Part #	Description	Price
162172	Charger, SendIt 6 V SLA battery	$63.00
162173	Battery, SendIt 6 V SLA	$120.00
162175	Enclosure, SendIt for 6 V SLA battery	$320.00
145548	Cord set, 13 ft (4 m)	Consult
150964	RS-232 13 ft (4 m) serial cable with nine-pin (female) connector	$180.00
150965	RS-232 13 ft (4 m) serial cable with nine-pin (male) connector	$170.00
160109	AC adapter, SendIt 6V	$53.00
162177	Cordset. Pre-wired for use with single channel transmitters or non-relay based receivers	$120.00
162184	Load cell connector. Field wireable, 4-6 mm straight. For use with single channel transmitters	$55.50
162185	Load cell connector. Field wireable, 6-8 mm straight. For use with single channel transmitters	$55.50
162186	Load cell connector. Field wireable, 4-6 mm right angle. For use with single channel transmitters	$55.50
162187	Load cell connector. Field wireable, 6-8 mm right angle. For use with single channel transmitters	$55.50
162178	Antenna kit, remote standard antenna, 5 ft	$440.00
139309	Antenna kit, long range Omni with 3 m coax	$460.00
139310	Antenna kit, corner reflector 9 dbi with 3 m coax	$455.00
139311	Antenna kit, corner reflector 12 dbi with 3 m coax	$485.00
139312	Antenna kit, Yagi 15 dbi with 3 m coax	$375.00

INDICATORS / CONTROLLERS

www.ricelake.com | Phone: 800-472-6703

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ConnexLink™

Wireless Radio 900 MHZ Transceivers

Wireless Network

Standard Features

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

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

Specifications

Frequency Band:
902-928 MHz

Modulation:
FHSS FSK

Interface:
Standard: RS-232 (DB9 Male)
ConnexLink PRO: RS-485 (6-Pin terminal block)

Serial Interface Data Rate:
Up to 115-200 kbps

Output Power:
5 mW-1000 mW variable

Input Power:
7 VDC-18 VDC

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 100-120 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)

Temperature:
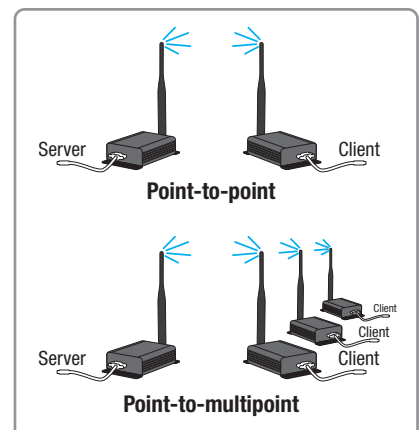-40°F to 176°F (-40ºC to 80ºC)

Humidity (non-condensing):
10% to 90%

Weight:
<6 oz (<170 g)

Dimensions:
4.75 x 2.75 x 1.17 in (121 x 70 x 30 mm)

Antenna Connector:
Reverse polarity SMA jack (female)

Server   Client
Point-to-point

Server   Client Client Client
Point-to-multipoint

Industrial Broadband Wireless Ethernet

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)
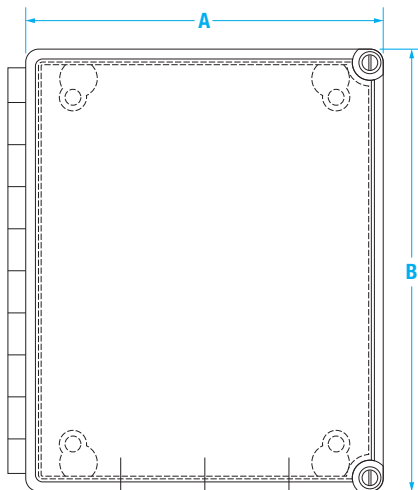802.11a: 54, 48, 36, 24, 18, 9, 6 Mbps (OFDM)

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

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˚ to 75˚C) high vibration/shock and hazardous locations (UL Class 1, Division 2, Atex Zone 2)

Part Number/Price

Part #	Description	Price
166630	Industrial hot spot, 802.11abg*	$1,985.00
161954	Industrial hot spot in FRP enclosure*	$3,175.00
161955	Paired radios for serial data tunneling*	$3,975.00

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

533

Aluminum Keypads

For Use With:
- Kiosk systems
- 920i with custom software

Part Number/Price

Part #	Description	Price
36914	Vandal-proof cast aluminum keypad	$175.00
38472	Keypad encoder	$430.00

Visible Lights and Audible Alarms

Part Number/Price

Part #	Description	Price
Visible Lights and Audible Alarms		
22838	Buzzer, 80 dB, steady	$145.00
22839	Buzzer, 80 dB, pulse	$145.00
156106	Buzzer box, 115 VAC, FRP enclosure	$755.00
43931	Strobe lights, red	$225.00
43930	Strobe lights, amber	$225.00
43929	Strobe lights, blue	$225.00

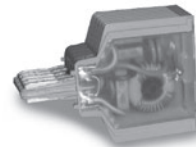*Product may vary from photo (reference photo only)*

Din Rail Transient Protector & Fuse

Part Number/Price

Part #	Description	Price
Din Rail Transient Protector and Fuse		
62965	Terminal block	$32.00
53895	Surge suppressor	$225.00

Surge Suppressor

Terminal Block

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
Manual Pushbuttons/Pushbutton Switches		
N/A	Operator and contact block combinations	Consult

Tripp-Lite USB to Serial Converters

Serial Adapters

Specifications

Data Transfer Rate:
More than 500 kbps

LED:
Data transfer/handshaking (orange)

Power Consumption:
450 mW

USB Specification:
V1.1 compliant

Standard Features

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

Part Number/Price

Part #	Description	Est. Weight	Price
153603	USB to serial converter	1 lb	$96.00
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

www.ricelake.com | Phone: 800-472-6703

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Amphenol® RJF 544

Harsh Environment Ethernet Connection System

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: 10-500 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

- 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

Part Number/Price

Part #	Description	Price
87326	RJF 544 kit	$200.00
87285	Square flange female connector	$43.00
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

AbleCable®

RS-232/USB Serial Smart Cable Direct, Keyboard Input Direct

Specifications

Baud Rate:
9600

Color:
Black

Cable Length:
74 in (1,880 mm)

Bluetooth® Cable Length:
16 in (406 mm)

Power:
USB power, no external power supply

Host:
PC and MAC compliant

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

Standard Features

- Converts serial data such as barcode 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 adaptor scale cable or connector
- Bluetooth® version allows connection to devices like iPad®, Playbook, Android® tablets and smart cell phones

Part Number/Price

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

Options/Accessories

Part #	Description	Price
119064	Slimline null modem, gender changer DB9 female to female	$11.00
22436	Blunt-end to DB9 female, straight cable	$67.00
50749	DB9 female to DB9 female	$60.00
130789	Null model DB9 adapter female to male	$13.00

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INDUSTRIAL CONTROL PRODUCTS

go-between™
Data Capture and Storage

Specifications

Baud Rate:
9600

Data Bits:
8

Parity:
None

Power:
Requires 5 VDC

Customer Supplied:
Power and USB flash drive

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

Warranty:
One-year limited warranty

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

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