820i™ Series

Programmable Weight Indicator/Controller

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/Internal
- Peak hold, rate of change
- Audit trail tracking and Alibi™ software
- 1000 - ID truck register for in/out weighing
- User programmable 256 K flash memory
- Onboard data storage 190 K
- Downloadable programs
- Visual programming for easily creating custom programs
- Eight digital I/O (expandable)
- Configurable with Revolution® software

Optional Communication:

- Ethernet TCP/IP (serial port 2 header)
- RS-485 four wire
- Fiber optic
- USB
- Wi-Fi
- Network Protocols

Approvals

Measurement Canada Approved

Specifications

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

Excitation Voltage:
10 VDC, 8 x 350Ω or 16 x 700Ω 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 typical at 120 Hz (manual only)
4.0 µV/graduation typical at 960 Hz (manual only)
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: 9,999,999

System Linearity:
± 0.01% full scale

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

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 output
Keyboard port hard wired (scan code 1)
Optional dual-channel serial expansion boards available
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, external keyboard support
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:
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
OIML R76/1992-GB1-04.02, Class III 6,000d
EU Test Certificate GB-1140
UL/cUL Listed
ROHS compliant
CE Marked

An ISO 9001 Registered Company © 2018 Rice Lake Weighing Systems 01/18 Prices and specifications subject to change without notice. Visit ricelake.com for current prices.

Part Number/Price

Part #	Description	Est. Weight	Price
Single Channel			
91995†	820i Universal, 115 VAC	10 lb	$1,625.00
91996†	820i Universal, 115–230 VAC	10 lb	$1,625.00
91997††	820i Universal, 115–230 VAC CE/OIML	10 lb	$1,625.00
107711*	820i Universal, 12–24 VDC nominal	10 lb	$1,725.00
Dual Channel			
93011†	820i Universal, 115 VAC	10 lb	$1,725.00
93012†	820i Universal, 115–230 VAC	10 lb	$1,725.00
93013††	820i Universal, 115–230 VAC CE/OIML	10 lb	$1,725.00

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

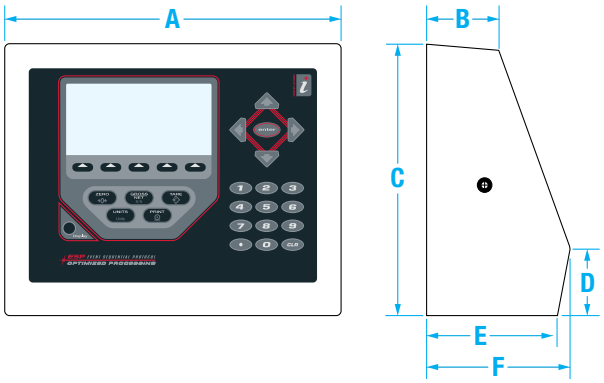
† NEMA 5-15 plug

†† CEE 7/7 plug (Euro)

Options/Accessories

Part #	Description	Price
Option Cards		
67601	Digital I/O, 24-channel	$275.00
67602	Analog output: selectable 0-10 V, 0-20 mA	$300.00
103138	Analog output, dual channel 0-10 V, 0-20 mA	$525.00
67604	Serial, dual channel	$325.00
87697	Analog input +/-10 VDC, 0-20 mA & thermocouple	$600.00
93245	USB Port (PC connection only-replaces serial port)	$160.00
Network Cards		
77142	Ethernet TCP/IP Port (serial port 2 header)	$400.00
65383	Ethernet thin server (external)	$295.00
71986	Ethernet TCP/IP module (installed in option slot)	$400.00
98057	Wireless LAN card 802.11 B/G (installed in option slot)	$650.00
108671	Wireless LAN card 802.11 A/B (serial port 2 header)	$570.00
68539	Remote I/O interface	$650.00
68540	Profibus® DP interface	$650.00
68541	DeviceNet™ interface	$650.00
87803	EtherNet/IP®	$800.00
103136	ControlNet® interface	$1,000.00
Hardware		
93359	PS/2 keyboard	$90.00
83569	Clear protective overlay (package of 5)	$75.00
19369	Start/stop switch box	$395.00
101923	Relay box enclosure, does not include relay	$235.00
Manuals and Software		
93018	Installation manual	$25.00
77925	Revolution® scale software	$35.00
93019	IRITE IDE software (version 1.0 included with indicator)	$95.00
Primary Component Parts		
102331	CPU board assembly-single channel includes display	$995.00
102333	CPU board assembly-dual channel includes display	$1,095.00
93246	Display, transmissive blue	$265.00
67613	AC power supply 100-240 nominal, 25 watt	$135.00
132791	DC/DC converter, 12-24 VDC, nominal, 25 watt	$160.00
93247	Switch panel membrane	$68.00

Relay products can be found on page 549



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)

An ISO 9001 Registered Company © 2018 Rice Lake Weighing Systems 01/18 Prices and specifications subject to change without notice. Visit ricelake.com for current prices.

880/880 Plus Performance™ Series

Digital Weight Indicator/Controller

880 Plus Universal

880 Panel Mount

Board information:
previous version green CPU board is 5.0" wide
current version 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 connects to a keyboard or flash drive
- 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
- Local/remote operation
- Multi-range or multi-interval weighing
- Filter settings for light, medium and heavy noise

Options/Accessories

- Metrological hardware sealing kit
- Adapter plate for converting 310 A and 520 panel mounts
- Panel mount kit for universal enclosure

Approvals

Measurement Canada Approved

Specification Options

Analog Output:
16-bit resolution, 0-10 VDC, 0-20 mA, 4-20 mA

Relay Board:
Four dry contract relays; DC Max: 30 VDC at 3 amps; AC max: 250 VAC at 3 amps per contact

EtherNet/IP Interface:
According to EN 50325-2

Profinet Interface:
According to IEC 61784 (CPF-3/3)

Modbus/TCP Interface:
Up to 8 bytes of I/O data, 100 Mbps full duplex Ethernet

DeviceNet Interface:
According to EN 50325-2

Profibus DP Interface:
According to EN 50170
EtherCAT
According to IEEE 802.3

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, 8 x 350Ω or 16 x 700Ω 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 typical at 120 Hz (manual only)
4.0 µV/graduation typical at 960 Hz (manual only)
1.0 µV/graduation recommended

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

Resolution:
Internal: Eight million counts 23 bit
Display: 100,000

System Linearity:
± 0.01% full scale

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

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

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

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

Keys/Buttons:
Flat 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:
Display bezel NEMA Type 4X, IP69K
Panel display: stainless steel
Universal: stainless steel
Controller box: aluminum

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 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

An ISO 9001 Registered Company © 2018 Rice Lake Weighing Systems 01/18 Prices and specifications subject to change without notice. Visit ricelake.com for current prices.