

# 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 310A and 520 panel mounts
- Panel mount kit for universal enclosure

## Specification Options

### Analog Output:

16-bit resolution, 0-10 VDC, 0-20 mA, 4-20 mA

### Relay Board:

Four dry contact 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

## Approvals



Measurement  
Canada  
Approved

## Specifications

### Power:

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

### Excitation Voltage:

10VDC, 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/III.L, 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

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Digital Weight Indicator/Controller

## Part Number/Price

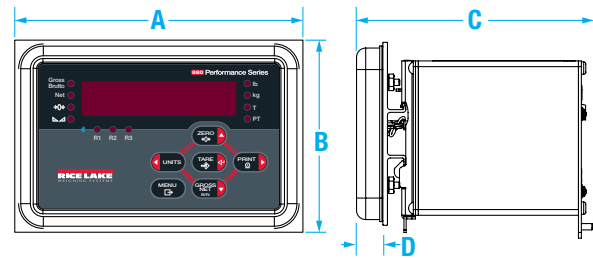
Part #	Description	Est. Weight	Price
<b>880 Panel Mount AC Powered*</b>			
151674	Display only	2 lb	Consult
177977	115-230VAC, controller only	4 lb	Consult
177976	115-230VAC	4 lb	Consult
177979	115-230VAC with analog output	4 lb	Consult
177980	115-230VAC with relay board	4 lb	Consult
177982	115-230VAC with EtherNet/IP	4 lb	Consult
177983	115-230VAC with ProfiNet	4 lb	Consult
177984	115-230VAC with Modbus/TCP	4 lb	Consult
177985	115-230VAC with Profibus DP	4 lb	Consult
177986	115-230VAC with DeviceNet	4 lb	Consult
179155	115-230VAC with EtherCAT	4 lb	Consult
<b>880 Panel Mount DC Powered*</b>			
177987	12-24 VDC	4 lb	Consult
177988	12-24 VDC controller only	4 lb	Consult
<b>880 Plus Universal AC Powered</b>			
177989 <sup>†</sup>	115 VAC	8 lb	Consult
178496 <sup>†</sup>	115 VAC, with analog	8 lb	Consult
178499 <sup>†</sup>	115 VAC, with relay board	8 lb	Consult
179147 <sup>†</sup>	115 VAC with EtherNet/IP	8 lb	Consult
179148 <sup>†</sup>	115 VAC with Profinet	8 lb	Consult
179149 <sup>†</sup>	115 VAC with Modbus/TCP	8 lb	Consult
179150 <sup>†</sup>	115 VAC with Profibus	8 lb	Consult
179152 <sup>†</sup>	115 VAC with DeviceNet	8 lb	Consult
179154 <sup>†</sup>	115 VAC with EtherCAT	8 lb	Consult
177990 <sup>††</sup>	115-230VAC	8 lb	Consult
178497 <sup>††</sup>	115-230VAC with analog	8 lb	Consult
178500 <sup>††</sup>	115-230VAC, with relay board	8 lb	Consult
<b>880 Plus Universal DC Powered</b>			
178495	12-24 VDC	8 lb	Consult

\*Power cable not included



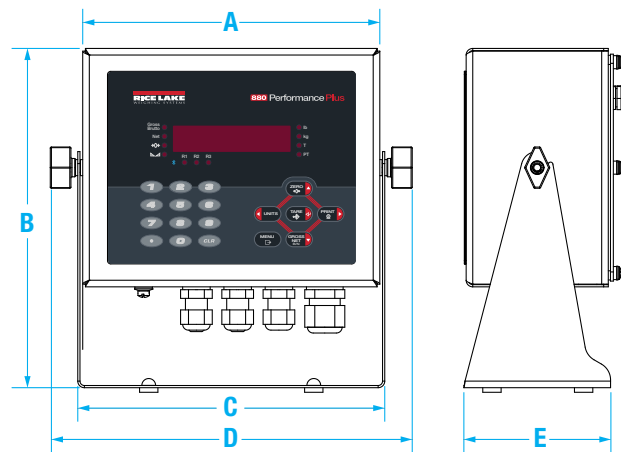
## Options/Accessories

Part #	Description	Price
<b>Option Cards (5.5 in CPU only)</b>		
179156	Analog output, 0-10 VDC, 0-20 mA, 4-20 mA	Consult
179157	Relay board, four dry contact outputs	Consult
<b>Network Cards</b>		
179158	EtherCAT interface	Consult
179159	EtherNet/IP® interface	Consult
179160	ProfiNet™ interface	Consult
179161	Modbus/TCP® interface	Consult
179162	DeviceNet™ interface	Consult
179163	Profibus DP interface	Consult
<b>Hardware</b>		
153660	Metrological sealing kit	Consult
158404	Adapter plate for IQ310 and 520 replacement	Consult
101923	Relay box enclosure, does not include relay	Consult
177850	Panel mount kit for universal enclosure	Consult
180835	Backplate with RJ-45 receptacle	Consult
15436	Power cord, pigtail with US NEMA 5-15 plug	Consult
105382	Power cord, pigtail with Euro Plug CEE 7/7	Consult



### 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) <b>BEZEL DEPTH</b>



### 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)		

## Options/Accessories

Part #	Description	Price
<b>Cables</b>		
152434	Cable, USB A to micro A shielded, 2 meters	Consult
156817	Cable, Ethernet TCP/IP CAT.5E shielded RoHS compliant blue RJ45 connectors 1 meter	Consult
156818	Cable, Ethernet TCP/IP CAT.5E shielded RoHS compliant blue RJ45 connectors 3 meters	Consult
156821	Cable, Ethernet TCP/IP CAT.5E shielded RoHS compliant blue RJ45 connectors 5 meters	Consult
<b>Manuals and Software</b>		
77925	Revolution™ scale software	Consult
152240	Operators manual	Consult
158387	Technical manual	Consult
<b>Primary Component Parts (5.5 in CPU only)</b>		
131740	Overlay, panel mount, six-key	Consult
163986	Overlay, universal with numeric keypad	Consult
131598	Display board	Consult
175603*	Power supply, 100-240VAC	Consult
175604*	Power supply, 12-24VDC	Consult
175109*	CPU board	Consult

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