

880/880 Plus Performance™ Series

Programmable Weight Indicator and Controller



880 Plus Universal



880 Panel Mount

INDICATORS /
CONTROLLERS

Specifications

Power:

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

Power Consumption:

AC: 15 W, DC: 20 W

Excitation Voltage:

10 VDC (± 5 VDC), 16 \times 350 ohm or
32 \times 700 ohm load cells

Analog Signal Input Range:

-45 mV to 45 mV

Analog Signal Sensitivity:

0.3 μ V/graduation minimum at 7.5 Hz;
1.0 μ V/graduation recommended

A/D Sample Rate:

7.5 to 960 Hz, software selectable

Resolution:

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

System Linearity:

$\pm 0.01\%$ full scale

Digital I/O:

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

(Optional) Analog Output:

Voltage output: 0-10 VDC
Load resistance: 1 k ohm minimum
Current output: 0-20 mA or 4-20 mA
External loop resistance: 500 W maximum

(Optional) Relay Board:

Four channel relay module, dry contact 3 A at
115 VAC, 3 A at 30 VDC

Communication Ports:

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

Annunciators:

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

Display:

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

Keys/Buttons:

Membrane panel, tactile feel

Dimensions:

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

Temperature:

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

Rating/Material:

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

Weight:

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

Warranty:

Two-year limited

EMC Immunity:

10 V/m

Approvals:

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

Approvals



Measurement
Canada
Approved



Standard Features

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

Options

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

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Digital Weight Indicator and Controller

INDICATORS /
CONTROLLERS

Part Number/Price

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

*Power cord not included

Indicator part numbers contain the single port network card



† US plug (NA) - Type B



†† Euro Plug - Type E

Options/Accessories

Part #	Description	Price
Option Cards (5.5 in CPU only)		
179156	Analog output, 0 to 10 VDC, 0 to 20 mA, 4 to 20 mA	Consult
179157	Relay board, four dry contact outputs	Consult
197343**	Digital I/O, 24-channel TTL output	Consult
197347**	Serial ports, dual-channel RS-232/RS-485	Consult
Network Cards		
179158	EtherCAT interface	Consult
179159	EtherNet/IP® interface, single port	Consult
179160	Profinet® interface, single port	Consult
179161	Modbus TCP/IP interface, single port	Consult
179162	DeviceNet® interface	Consult
179163	Profibus DP interface	Consult
205566	EtherNet/IP interface, dual port	Consult
205567	Profinet interface, dual port	Consult
Hardware		
153660	Metrological sealing kit for panel mount	Consult
158404	Adapter plate for IQ310 and 520 replacement	Consult
101923	Relay box enclosure, does not include relay	Consult
177850	Mount kit, convert Universal to Panel, non-NEMA	Consult
180835	Universal backplate with RJ-45 receptacle	Consult
197422	Universal backplate with micro USB receptacle	Consult
197724	Clear protective overlay for Universal (pack of 5)	Consult
15436	Power cord for Panel Mount, US plug	Consult
105382	Power cord for Panel Mount, Euro plug	Consult
223864	Knob, stainless steel M6 x 1.0 in	Consult

Options/Accessories

Part #	Description	Price
Cables		
152434	Cable, USB A to micro A shielded, 2 meters	Consult
156817	Cable, Ethernet RJ45 connectors 1 meter	Consult
156806	Cable, USB A to A, 1 meter	Consult
156809	Cable, USB A to B, 1 meter	Consult
Manuals and Software		
152240	Operators manual	Consult
158387	Technical manual	Consult
Primary Component Parts		
131740	Overlay, Panel Mount, six-key	Consult
163986	Overlay, Universal with numeric keypad	Consult
131598	Display board	Consult
175603*	Power supply, 100 to 240 VAC	Consult
175604*	Power supply, 12 to 24 VDC	Consult
175109*	CPU board	Consult

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

** Requires version 4.0 firmware

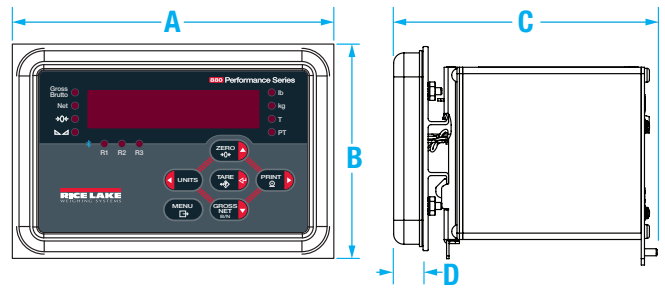
To have your option factory installed, please specify when placing your order.

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Digital Weight Indicator and Controller

Dimensions

880 Panel Mount			
A	6.00 in (152 mm)	C	4.95 in (126 mm)
B	4.00 in (102 mm)	D	0.58 in (14 mm) BEZEL DEPTH



INDICATORS /
CONTROLLERS

Dimensions

880 Universal			
A	8.10 in (206 mm)	D	9.87 in (248 mm)
B	9.38 in (235 mm)	E	4.00 in (102 mm)
C	8.37 in (213 mm)	F	6.50 in (165 mm)

