

# 680 Synergy Series

Digital Weight Indicator

INDICATORS / CONTROLLERS



## 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 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

## Options

- Analog output: 16-bit resolution, 0-10VDC, 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 ( $\pm 5$  VDC), 8 x 350 $\Omega$  or 16 x 700 $\Omega$  load cells

### Analog Signal Input Range:

-5 mV to +70 mV

### Analog Signal Sensitivity:

1  $\mu$ V/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 (five-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/IIHD,  
10,000d  
OIML  
UL/cUL Listed  
CE Marked

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## Digital Weight Indicator

### Part Number/Price

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

IP Rating is IP66 with RJ45 option



† US plug (NA) - Type B



†† Euro Plug - Type E



††† BS1363 (UK) - Type G

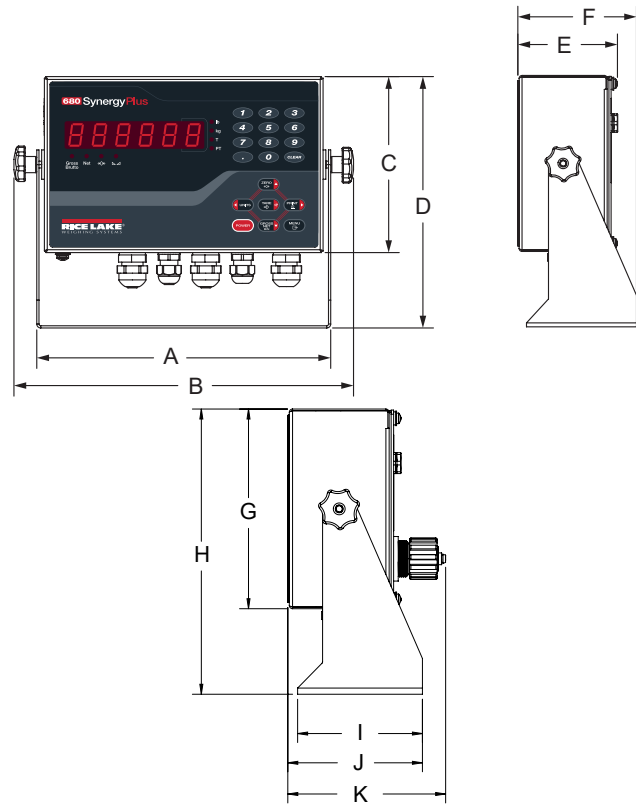


†††† AS 3112 (Australian) - Type I

### Options/Accessories

Part #	Description	Price
195084	Analog output option card	Consult
151099	Panel mount option, gasketed non-NEMA seal	Consult

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



With External RJ45 Connector

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