

# 682 Synergy Series Weight Indicator

**RICE LAKE**  
WEIGHING SYSTEMS

As of: Thursday, March 6, 2025



## 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 ports
- Eight setpoints, 22 configurable types
- 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
- Four onboard configurable digital I/O points, TTL logic
- Local/remote
- Multi-range/interval

### Options

- Analog output: 16-bit resolution, 0-10 VDC, 0-20 mA, 4-20 mA
- Relay card
- Dual serial card
- 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



Measurement  
Canada  
Approved





## Advanced Simplicity: 682 Synergy Plus Scale Indicator

The durable 682 Synergy Series indicator is constructed with 304 stainless steel and has an IP69 ingress rating to stand up to high-pressure, high temperature washdowns found in food processing and other environments.

The 682 indicator has a bright five-inch color LCD screen and configurable softkeys for an interface that is easy to use.

## Advanced Connectivity

The 682 indicator comes standard with advanced communications to take on a wide range of applications. Connections to external devices and networks are available through RS-232 and RS-485 serial ports, USB, Ethernet, fieldbus, Wi-Fi and Bluetooth®. This digital weight indicator also has a built-in web server for easy remote monitoring and process control.

## Truck Weighing

The 682 indicator has an integrated truck in/out mode specifically designed for vehicle scale applications. This mode stores the transaction after each weigh-out with truck ID, gross, tare and net weights. Transactions may be printed or cleared at any time.

## 682 Synergy Series Specifications

### Power:

Line voltage: 100 to 240 VAC, 50/60Hz  
Optional: 9 to 36 VDC

### Power Consumption:

3.2W (AC) 1 × 350 ohm load cell, 15W max;  
4W 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 to 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, 5 V logic

**(Optional) Analog Output:** 16-bit resolution, voltage output 0-10 VDC, current output 0-20 mA/4-20 mA

### (Optional) Relay Board:

4 normally open dry contact relays and can switch 20-250 VAC @ 3A or 30 VDC @ 3A. Use of external fusing to limit current is recommended. Relay COM-NO are transient protected to 400V @ 600W

### Communication Ports:

Two full-duplex RS-232  
RS-485/422 (two-wire or four-wire)  
Micro USB (device)  
Ethernet TCP/IP (10/100)  
Wi-Fi  
Bluetooth®

### 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

### Dimensions:

(L x W x H)  
10.0 x 4.0 x 8.6 in  
(254 x 102 x 218 mm)

### Temperature:

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

### Rating/Material:

IP69K (IP66 with RJ45 option)  
AISI 304 Stainless Steel

### Weight:

6.25 lb (2.84 kg)

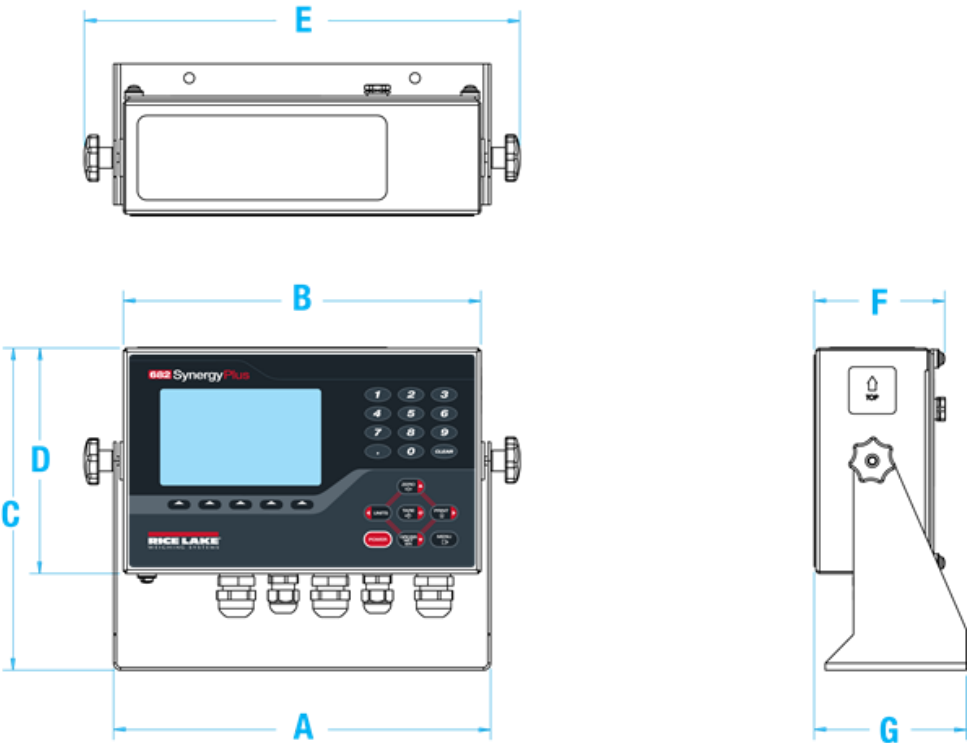
### Warranty:

Two-year limited

### Approvals:

NTEP CC 19-021, Class III/IIIL, 10,000d  
Measurement Canada AM-6121C  
OIML R76 2006 A NL1 19.56R3  
EU Test Certificate TC11562  
CE Marked  
UKCA  
cULus

682 Synergy Series Dimensions



Dimensions					
A	10.00 in (254 mm)	D	6.00 in (152 mm)	G	4.00 in (102 mm)
B	9.50 in (241 mm)	E	11.60 in (295 mm)		
C	8.60 in (218 mm)	F	3.50 in (89 mm)		

## Parts

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Part #	Description
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### 115-230 VAC

193155	Indicator,682 Plus Universal LCD Display, 115-230VAC Power Supply, US Power Cord
193156	Indicator,682 Plus Universal LCD Display, 115-230VAC Power Supply, Europe Power Cord
207348	Indicator,682 Plus Universal LCD Display, 115-230VAC Power Supply, UK Power Cord
207349	Indicator,682 Plus Universal LCD Display, 115-230VAC Power Supply, AUS Power Cord

### 9-36 VDC

193157	Indicator,682 Plus Universal LCD Display, 9-36VDC Power Supply
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### With External RJ45 Connector (IP66)

207354	Indicator,682 Plus Universal LCD Display, 115-230VAC Power Supply, US Power Cord w/ RJ45 Option
207355	Indicator,682 Plus Universal LCD Display, 115-230VAC Power Supply, EU Power Cord w/ RJ45 Option
207356	Indicator,682 Plus Universal LCD Display, 115-230VAC Power Supply, UK Power Cord w/ RJ45 Option
207357	Indicator,682 Plus Universal LCD Display, 115-230VAC Power Supply, AUS Power Cord w/ RJ45 Option

Options

Part #	Description
195084	Ind Opt,Analog Output 680 Series, Install Kit
211709	Ind Opt,Relay Card 68x Series, Install Kit
211710	Ind Opt,Dual Serial Card 68x Series, Install Kit
151099	Panel,Mount Option 480/680 Indicator,Gasketed Non-NEMA Seal.
211701	Board ASSY,Replacement 682 CPU with battery and memory card installed.
223864	Knob, Star M6x1.0 304 SST
194477	Parts Kit,680/682 Indicators

Network and Fieldbus Interface Cards

182592	Fieldbus,SCT2200,Profinet 12-24VDC, RS485 Connection and ProfiNet output DIN Mount
194343	Fieldbus,SCT2200, WIFI 12-24VDC, RS485 Connection and WiFi and TCP/IP Output DIN Mount
182593	Fieldbus,SCT2200,Profibus 12-24VDC, RS485 Connection and Profibus output DIN Mount (SCT-2200 Only)
182591	Fieldbus,SCT2200, E/IP 12-24VDC, RS485 Connection and Ethernet/IP output DIN Mount
182596	Fieldbus,SCT2200,Dev.Net 12-24VDC, RS485 Connection and DeviceNet output DIN Mount
182598	Fieldbus,SCT2200,Ethercat 12-24VDC, RS485 Connection and Ethercat output DIN Mount
182597	Fieldbus,SCT2200,CANOPEN 12-24VDC, RS485 Connection and CANOPEN output DIN Mount
196694	Fieldbus,SCT2200, Modbus 12-24VDC, RS485 Connection and Modbus TCP output DIN Mount
182599	Cable,RS485 Network Connection Cable for Fieldbus, 150mm long, w/RJ45, DIN Mount
212772	Fieldbus,SCT2200,Profibus 12-24VDC, RS485 Connection and Profibus output DIN mount (682 Only)

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