682 Synergy Series Digital Weight Indicator

As of: Friday, August 29, 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
- 20 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
- Built-in batch presets
- Four onboard configurable digital I/O points, TTL logic
- Continuous/demand serial scale input
- 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

c UL us LISTED

National Measurement Institute

WARNING: Cancer and Reproductive Harm California Proposition 65

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) one 350 ohm load cell, 15W max; 4W four 350 ohm load cells or eight 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:
Four 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 five 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)

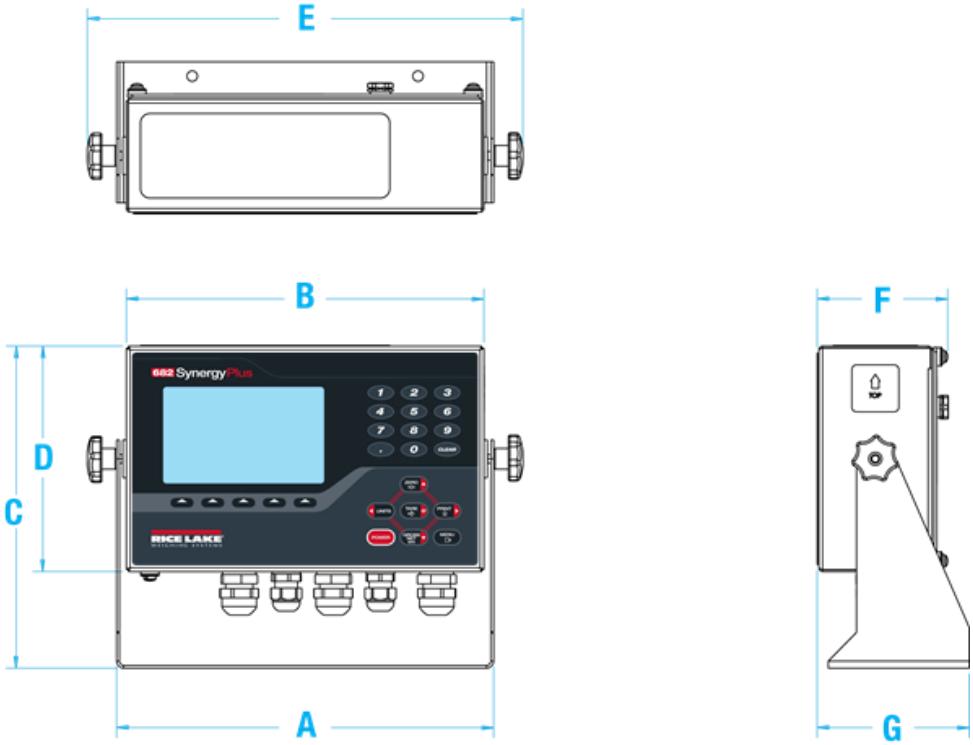
Rating/Material:
IP69K (IP66 with RJ45 option)
AISI 304 Stainless Steel

Weight:
6.25 lb (2.84 kg)

Warranty:
Two-year limited

Approvals:
NTEP 19-021, Class III/IIIL, 10,000d
Measurement Canada AM-6121C
OIML R76 2006 A NL1 19.56R3
NOM
EU Eval Certificate TC11562
CE Listed
UKCA
cULus
NMI

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

Part #	Description
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
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 68x Series/iQube3, Install Kit
211709	Ind Opt,Relay Card 68x Series/iQube3, Install Kit
211710	Ind Opt,Dual Serial Card 68x Series/iQube3, 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)

www.ricelake.com | 800-472-6703

An ISO 9001 Registered Company ©2024 Rice Lake Weighing Systems