

682 Synergy Series Weight Indicator



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)

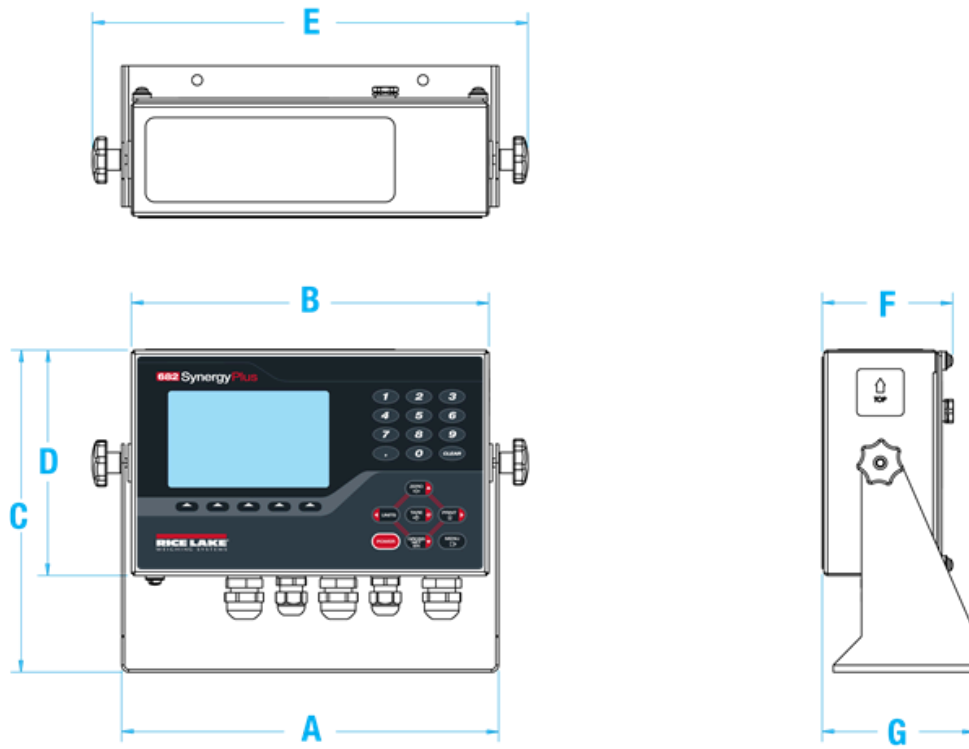
Warranty:

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

Part #	Description
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115-230 VAC

193155	Indicator,682 Plus Universal LCD Display, 115-230VAC Power Supply, US Power Cord
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193156	Indicator,682 Plus Universal LCD Display, 115-230VAC Power Supply, Europe Power Cord
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207348	Indicator,682 Plus Universal LCD Display, 115-230VAC Power Supply, UK Power Cord
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207349	Indicator,682 Plus Universal LCD Display, 115-230VAC Power Supply, AUS Power Cord
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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
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207355	Indicator,682 Plus Universal LCD Display, 115-230VAC Power Supply, EU Power Cord w/ RJ45 Option
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207356	Indicator,682 Plus Universal LCD Display, 115-230VAC Power Supply, UK Power Cord w/ RJ45 Option
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207357	Indicator,682 Plus Universal LCD Display, 115-230VAC Power Supply, AUS Power Cord w/ RJ45 Option
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Options

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

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

Part # Description

682 Synergy Series AC Models

190231	Enclosure,682 Plus Indicator 5 Inch Color TFT Display
190232	Overlay,682 Plus Indicator Membrane Switch with Numeric Keys 5 inch Color TFT Display
68600	Cord Grip,PG11 Black For Cable OD .20" - .39"
68599	Seal Ring,Nylon PG-11
68601	Nut,PG11 Cord Grip Black Nylon
15626	Cord Grip,PG9 Black Clamping Range .138 - .315 Nut: 15627. Torque at 3.75Nm (33.19 inch lbs.)
30375	Seal Ring,Nylon PG9 .59 ID X .75 OD X .08
15627	Locknut,Black PCN9 Used on PG9 Cord Grips. (PN 15626)
202248	Display,5-in LCD TFT 500nit 800 x 480 Resolution RGB, 682 display
199474	Screw,MACH M3-0.5x5 Phillips Pan Head External Tooth Lock Washer SEMS Steel Zinc Plated
211701	Board ASSY,Replacement 682 CPU with battery and memory card installed.
71408	Battery,Lithium CR2032 3 Volt for Welding Helmet, Metal
164939	Memory,8G Micro SDHC 8GB microSDHC Class 4 Memory Card with SD adaptor
206442	Screw,MACH M3-0.5x10 Phillips Pan Head External Tooth Lock Washer SEMS Steel Zinc Plated
193108	Setup Switch ASSY,Remote 680 682
15650	Mount,Cable Tie 3/4in Square Nylon
15631	Cable Tie,3in Nylon
192439	Bracket,Power Supply MeanWell 15 and 25 watt supplies
193281	Power Supply,12V,15W Meanwell RS-15-12
16892	Label,Ground Protective Earth Adhesive IEC 60417-5019 (DB:2002-10)
15601	Wire ASSY,Ground 6 In. 16 AWG Green/Yellow Wire, w/#8 Eye Connector Both Ends
180856	Washer,M4 Internal Tooth SST
202140	Screw,MACH M4-0.7x10 Phillips Pan Head External Tooth Lock Washer SEMS Steel Zinc Plated
180826	Nut,Keeps,Hex, M4 x 0.7 External Tooth 18-8 SST
193337	Cable Assy, Power Harness, 2 POS, Flying Lead, 680
206509	Antenna,2.4/5GHz Strip RF Antenna 2.4 GHz/5Gz PCB Trace w/Adhesive 100mm Cable Ethertronics PN 1001932FT-AA10L0100
206510	Antenna,2.4/5GHz Strip RF Antenna 2.4 GHz/5Gz PCB Trace w/Adhesive 200mm Cable Ethertronics PN 1001932FT-AA10L0200
207345	Overlay,682 Antenna Cover Black
192562	Backplate,680 Universal with Gore Vent, no options
84388	Gasket,Backplate 680 682 CW90, CW90X, 320IS, 420 indicators

Part #	Description
88733	Vent,Breather Sealed Goretex Membrane in black molded plastic chassis Gore IP69K rated
88734	Nut,Breather Vent molded plastic for PN-88733
46381	Washer,Bonded Sealing SST #10 x .50 OD
180861	Screw,Machine M5-0.8x10 Slotted Drilled Cheese Head A2 18-8 SST Torque at 10 in-lbs
193230	Screw,Machine M4-0.7x10 Phillips Pan Head A2 18-8 SST
75062	Washer,Bonded Sealing #8 7/16 (.4375) OD SST
29635	Stand,Tilt SST
103988	Washer,Nylon .515 -.52 ID X 1.00 OD x .093 -.094 Thick White Nylon 6/6
180825	Knob,Star,5 or 7 Lobes, M6-1, Threaded Through, 32mm DIA, Nylon, SST Insert, Black
53307	Label,4.000x2.875 PolyTrans 3000T Silver Polypropylene 3" Core 8" OD 1,810 LPR
180842	Cable Assy,Power Cord, 10ft, SJTOW, 18 AWG / 3 Conductor, Nema 5-15P to Pigtail, UL Certified Power Supply Cord Label Required
180850	Power Cord ASSY,680 882D Belt Scale Integrator Europe CEE7/7
196900	Pwr Cord Assy, UK Plug BS1363, pigtail w/ring terminal
196901	Power Cord Assy,Australia AS/NZS 3112 Plug, pigtail w/ring terminal
198676	Backplate,680 Universal with Gore Vent, RJ45 Option
200296	Cable Assy,RJ45 Bulkhead to Four Position 3.50mm Spacing Connector
682 Synergy Series DC Models	
190231	Enclosure,682 Plus Indicator 5 Inch Color TFT Display
192439	Bracket,Power Supply MeanWell 15 and 25 watt supplies
199474	Screw,MACH M3-0.5x5 Phillips Pan Head External Tooth Lock Washer SEMS Steel Zinc Plated
202248	Display,5-in LCD TFT 500nit 800 x 480 Resolution RGB, 682 display
84388	Gasket,Backplate 680 682 CW90, CW90X, 320IS, 420 indicators
190232	Overlay,682 Plus Indicator Membrane Switch with Numeric Keys 5 inch Color TFT Display
29635	Stand,Tilt SST
103988	Washer,Nylon .515 -.52 ID X 1.00 OD x .093 -.094 Thick White Nylon 6/6
180825	Knob,Star,5 or 7 Lobes, M6-1, Threaded Through, 32mm DIA, Nylon, SST Insert, Black
211701	Board ASSY,Replacement 682 CPU with battery and memory card installed.
71408	Battery,Lithium CR2032 3 Volt for Welding Helmet, Metal
207345	Overlay,682 Antenna Cover Black
30375	Seal Ring,Nylon PG9 .59 ID X .75 OD X .08
68599	Seal Ring,Nylon PG-11
15626	Cord Grip,PG9 Black Clamping Range .138 - .315 Nut: 15627. Torque at 3.75Nm (33.19 inch lbs.)
68600	Cord Grip,PG11 Black For Cable OD .20" - .39"

Part #	Description
15627	Locknut,Black PCN9 Used on PG9 Cord Grips. (PN 15626)
68601	Nut,PG11 Cord Grip Black Nylon
193108	Setup Switch ASSY,Remote 680 682
193337	Cable Assy, Power Harness, 2 POS, Flying Lead, 680
46381	Washer,Bonded Sealing SST #10 x .50 OD
75062	Washer,Bonded Sealing #8 7/16 (.4375) OD SST
180861	Screw,Machine M5-0.8x10 Slotted Drilled Cheese Head A2 18-8 SST Torque at 10 in-lbs
88733	Vent,Breather Sealed Goretex Membrane in black molded plastic chassis Gore IP69K rated
88734	Nut,Breather Vent molded plastic for PN-88733
206442	Screw,MACH M3-0.5x10 Phillips Pan Head External Tooth Lock Washer SEMS Steel Zinc Plated
202140	Screw,MACH M4-0.7x10 Phillips Pan Head External Tooth Lock Washer SEMS Steel Zinc Plated
193230	Screw,Machine M4-0.7x10 Phillips Pan Head A2 18-8 SST
206510	Antenna,2.4/5GHz Strip RF Antenna 2.4 GHz/5Gz PCB Trace w/Adhesive 200mm Cable Ethertronics PN 1001932FT-AA10L0200
206509	Antenna,2.4/5GHz Strip RF Antenna 2.4 GHz/5Gz PCB Trace w/Adhesive 100mm Cable Ethertronics PN 1001932FT-AA10L0100
15601	Wire ASSY,Ground 6 In. 16 AWG Green/Yellow Wire, w/#8 Eye Connector Both Ends
180856	Washer,M4 Internal Tooth SST
180826	Nut,Keps,Hex, M4 x 0.7 External Tooth 18-8 SST
16892	Label,Ground Protective Earth Adhesive IEC 60417-5019 (DB:2002-10)
53307	Label,4.000x2.875 PolyTrans 3000T Silver Polypropylene 3" Core 8" OD 1,810 LPR
15650	Mount,Cable Tie 3/4in Square Nylon
15631	Cable Tie,3in Nylon
164939	Memory,8G Micro SDHC 8GB microSDHC Class 4 Memory Card with SD adaptor
209417	Power Supply,DC/DC +12V 9-36VDC Input 30 watt DC/DC Supply
202064	Spacer,Round Nylon/Plastic M3 x .250 OD x .260 Length
202061	Nut,Kep M3x0.5, Hex, External Tooth Lockwasher, A2 18-8 SST

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