

882IS

INTRINSICALLY SAFE
DIGITAL WEIGHT INDICATOR



IECEx

RICE LAKE
WEIGHING SYSTEMS

www.ricelake.com

882IS

INTRINSICALLY SAFE
DIGITAL WEIGHT INDICATOR

The Hazardous Environment Instrumentation Solution

Designed for hazardous locations that are potentially explosive, the 882IS digital weight indicator is built to safely operate in these settings without sacrificing performance. With cFMus, ATEX and IECEx approvals, the 882IS is the industry's choice for flammable and combustible applications such as fuel refineries, chemical plants, distilleries, textile manufacturing and more.

Safe, Accurate Weight Readings in Hazardous Locations

The intrinsically safe, auto-ranging power supply enables wiring to a single AC conduit line and seal from the safe area. An FM approved, rechargeable battery is also available for isolated power or movable applications.

The 882IS utilizes a backlit LCD display to maintain brilliant visibility for user-friendly operation, even in dimly lit areas. Its stainless steel enclosure provides superior protection from the elements.

Enhanced Connectivity

Expand flexibility with an optional safe area I/O Module, featuring a serial port, Ethernet TCP/IP and optional analog output or fieldbus cards for communication with printers, computers and other peripherals. A duplex fiber-optic port allows for electrically-isolated communication with the I/O Module.

To complete the IS entity approved system, Rice Lake offers FM/ATEX-approved load cells and junction boxes that interface with the 882IS indicator.



Safe Area

Hazardous Area

I/O Module
(optional)

115/250 VAC

Battery
Charger
(optional)

Fiber Optic

AC Power Supply
(Intrinsically Safe
Output) Entity
Approved

Battery (optional)
Entity Approved

VDC

VDC

Junction
Box
(optional)

FM-Approved
load cells
(Up to 4 x 350Ω
or 8 x 700Ω) Entity
Approved



SPECIFICATIONS

LOAD CELL EXCITATION:

3.0 VDC at 87.5 Ω
4.6 VDC at 700 Ω

LOAD CELL CURRENT:

34 mA (4 x 350 Ω load cells) or (8 x 700 Ω load cells)

LOAD CELL CABLING:

Four- and six-wire with remote sensing (recommended)

ANALOG SIGNAL INPUT RANGE:

0.6 mV/V - 4.0 mV/V

ANALOG SIGNAL SENSITIVITY:

0.2 μ V/graduation minimum
1.5 μ V/graduation recommended

CONVERSION RATE:

60 updates/second

RESOLUTION:

10,000 displayed graduations (Legal for Trade), 1,000,000 expanded
The maximum number of allowed graduations will vary by application

DISPLAY INCREMENTS:

1, 2, 5

DISPLAY:

Seven-digit, seven-segment LCD display 121 x 24 dot matrix messaging area with white LED backlight

DECIMAL POINT:

Configurable with dead zeros

UNIT SWITCHING:

Configurable for two units of measurement with front panel operation with conversion for tare and setpoint values

DISPLAY CONTROL SWITCHES:

8821S: Zero, Gross/Net, Tare, Print, Units Conv, Start, Stop

8821S Plus: Zero, Gross/Net, Tare, Print, Units Conv, Start, Stop, Full numeric keypad

FRONT PANEL:

Ten-button flat membrane panel

FRONT PANEL ANNUNCIATORS:

Center Zero, Gross, Net, Motion, lb, kg, oz, g

MOTION BAND:

Configurable to ± 1 or ± 3 graduations, 1 second delay (or Off)

POWER INPUT:

5.8-7.9 VDC, 100-175 mA, maximum power consumption 0.25 watts

OPERATING TEMPERATURE:

14 $^{\circ}$ F to 104 $^{\circ}$ F (-10 $^{\circ}$ C to 40 $^{\circ}$ C) legal

ELECTRICAL OPERATING TEMPERATURE:

14 $^{\circ}$ F to 104 $^{\circ}$ F (-10 $^{\circ}$ C to 40 $^{\circ}$ C) legal

RATING/MATERIAL:

Stainless steel IP66 enclosure

OPTIONAL BATTERY:

Operating times: 4 x 350 Ω = 60 hrs. 1 x 350 Ω = 80-100 hrs.
Charging times: 8-10 hrs

WEIGHT:

6.1 lb (2.8 kg)

WARRANTY:

One-year limited warranty

882IS

INTRINSICALLY SAFE
DIGITAL WEIGHT INDICATOR

882IS/882IS Plus Hazardous (Classified) Location Electrical Equipment Per U.S., Canadian, ATEX and IECEx Requirements

Certificate No: FM18US0195X, FM18CA0092X, FM18ATEX0047X, IECEx FMG 18.0018X

Approval Standards: FM/cFM:
INTRINSICALLY SAFE
Class I,II,III, Division 1, Groups ABCDEFG T4
Class I, Zone 0 AEx/Ex ia IIC T4 Ga
Zone 20 AEx/Ex ia IIIC T135°C Da
Ta = -10°C to +40°C (14°F to 104°F)
ATEX/IECEx

Equipment Ratings: II 1 G Ex ia IIC T4 Ga
II 1 D Ex ia IIIC T135°C Da

Model IS6V2 (Battery) Hazardous Location Electrical Equipment Per U.S., Canadian, ATEX and IECEx Requirements

Certificate No: FM18US0195X, FM18CA0092X, FM18ATEX0047X, IECEx FMG 18.0018X

Approval Standards: FM/cFM:
INTRINSICALLY SAFE
IS for Class I,II,III, Division 1, Groups ABCDEFG T4
Class I, Zone 0 AEx/Ex ia IIC T4 Ga
Zone 20 AEx/Ex ia IIIC T135°C Da
Ta = -10°C to +40°C (14°F to 104°F)
ATEX/IECEx

Equipment Ratings: II 1 G Ex ia IIC T4 Ga
III 1 D Ex ia IIIC T135°C Da

Model mb-EPS-100-240-X2 (Power Supply) Hazardous Location Electrical Equipment Per U.S., Canadian, ATEX and IECEx Requirements

Certificate No: FM18US0195X, FM18CA0092X, FM18ATEX0047X, IECEx FMG 18.0018X

Approval Standards: FM/cFM:
Class I,II,III, Division 1, Groups ABCDEFG T4 with IS outputs for
Class I,II,III, Division 1, ABCDEFG
Class I, Zone 1, AEx/Ex mb [ia Ga] IIC T4 Gb
Zone 21, AEx/Ex mb [ia Da] IIIC T135°C Db
Ta = -10°C to +40°C (14°F to 104°F)
ATEX/IECEx

Equipment Ratings: II 2(1) G Ex mb [ia Ga] IIC T4 Gb
II 2(1) D Ex mb [ia Da] IIIC T135°C Db

FEATURES

- Seven-digit, seven-segment LCD display with white LED backlight
- Stainless steel NEMA IP66 enclosure
- T4 temperature rating
- Front panel digital calibration
- Numeric keypad (882IS Plus only)
- Duplex fiber optic interface
- Power ON/OFF; battery save mode
- I/O module option: one serial port, optional analog outputs, optional fieldbus cards
- FM Entity Approved for use in hazardous locations per Rice Lake Weighing Systems control drawing file numbers 180948, 182301, and 186430

OPTIONS

- Battery option, IS6V2 VDC
- Battery charger, 6 VDC
- Power supply, 882IS mb-EPS-100-240-X2, dual output 6.8 VDC 200mA
- Cable, M12 power 22 in hazardous location (for battery version)
- Cable, M12 power 10 ft hazardous location
- Cable, M12 power 50 ft hazardous location
- Cable, M12 power 100 ft hazardous location
- Tilt stand, 882IS battery option
- Module, 882 smart I/O interface

APPROVALS



*UL applicable for 882IS I/O module and battery charger

SALES AND TECHNICAL ASSISTANCE



EUROPE OFFICE
Via Della Fisica, 20
41042 Fiorano Mod.se (MO) - Italy
Tel. +39 0536 843418
www.diniargeo.com



HEADQUARTERS
230 West Coleman Street
Rice Lake, Wisconsin 54868 - USA
Tel: (715) 234 9171 | Fax: (715) 234 6967
www.ricelake.com