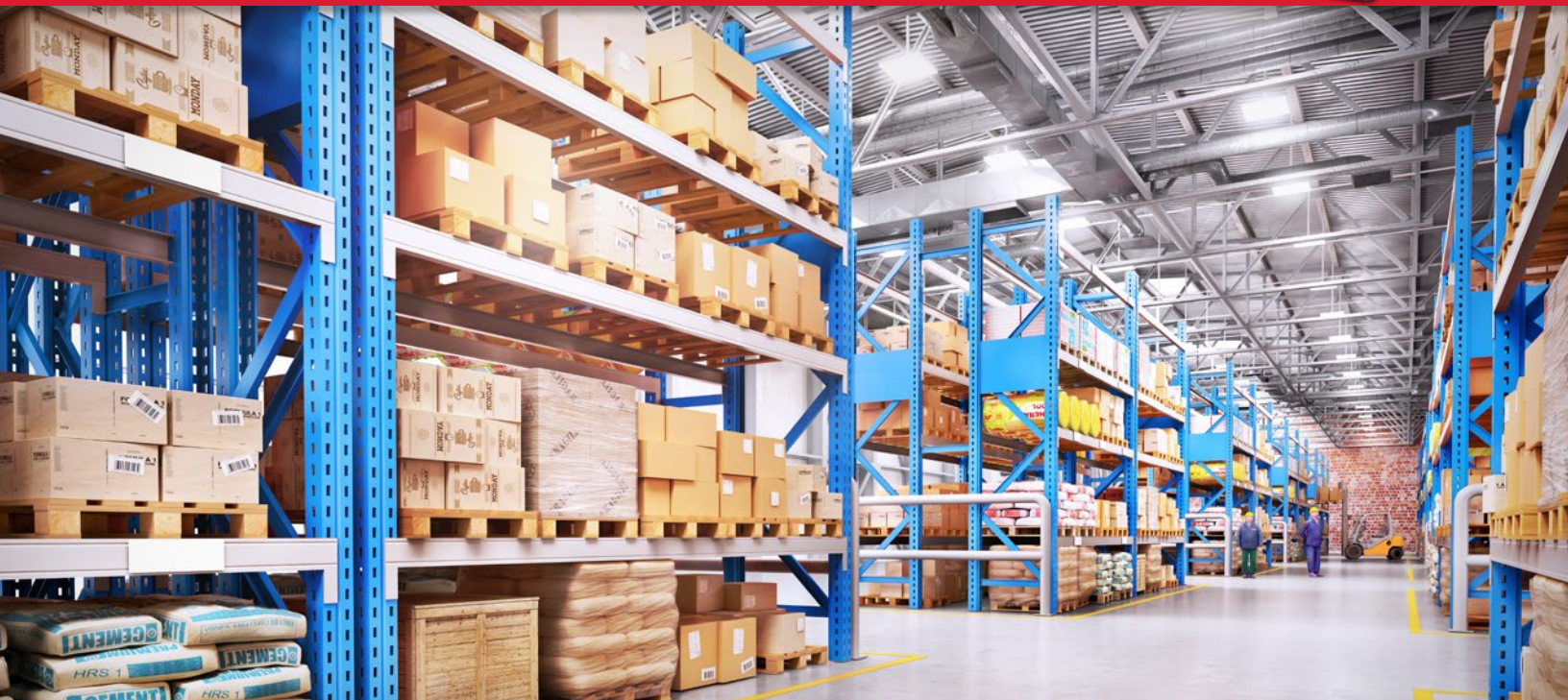


# 381 Synergy

BATTERY-POWERED  
DIGITAL WEIGHT INDICATOR



**RICE LAKE®**  
WEIGHING SYSTEMS

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# 381 Synergy

BATTERY-POWERED DIGITAL WEIGHT INDICATOR



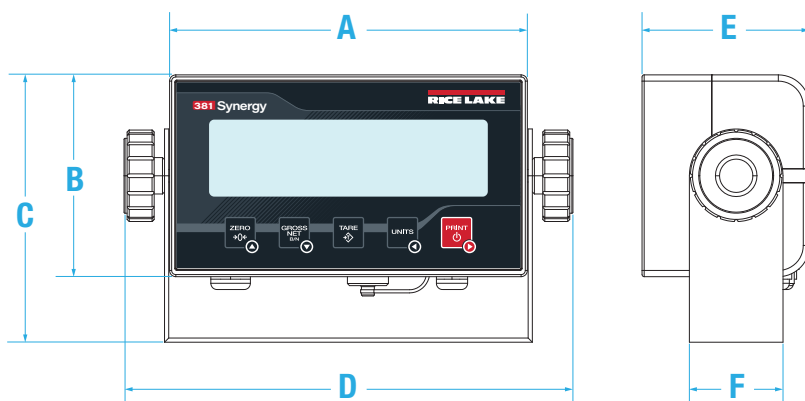
## Performance Meets Economy

The 381 Synergy Series digital weight indicator is designed to provide reliable operation of straightforward weighing systems, including material handling and warehouse scales. The LCD weight display is clearly visible to operators, allowing the 381 Synergy to be mounted almost anywhere. A five-button keypad simplifies operation, and RS-232 and USB ports provide connection to peripheral equipment.

## Reliable Battery-backed Performance

The 381 Synergy has an ABS plastic enclosure with two different battery options, enabling you to create the ideal portable weighing solution for your operations. The AA battery-operated model provides up to 40 hours of operation and has an IP54 rating. The Nickel Metal Hydride (NiMH) battery-operated model provides up to 80 hours of operation with an IP66 rating. Both battery versions have an optional external power adapter.

Dimensions	
A	6.77 in (175 mm)
B	3.82 in (97 mm)
C	5.06 in (129 mm)
D	8.50 in (216 mm)
E	3.17 in (81 mm)
F	1.77 in (45 mm)



## STANDARD FEATURES

- LCD display
- Battery powered
- Push-button and keyed tare
- Two communication ports
- Five tactile buttons
- Configurable print formats
- ABS enclosure

## OPTIONS

- Time/date
- External power supply

## SPECIFICATIONS

<b>POWER:</b>	Batteries: AA or nickel metal hydride (NiMH) Optional: 115/230VAC to 12VDC adapter
<b>POWER CONSUMPTION:</b>	6 W max with external power adapter
<b>BATTERY LIFE:</b>	AA: 40 hours with 1 × 350 ohm load cell NiMH: 80 hours with 1 × 350 ohm load cell
<b>EXCITATION VOLTAGE:</b>	5 VDC, 8 × 350 ohm or 16 × 700 ohm load cells
<b>ANALOG SIGNAL INPUT RANGE:</b>	-0.3 mV to +30 mV common mode voltage 0.7V to 3.3V
<b>ANALOG SIGNAL SENSITIVITY:</b>	1 µV/graduation recommended
<b>A/D SAMPLE RATE:</b>	5, 6, 10, 12, 20, 25, 40, 50, 80, 100Hz, software selectable
<b>RESOLUTION:</b>	Internal: 8,000,000 counts Display: 100,000
<b>SYSTEM LINEARITY:</b>	Within 0.01% full scale
<b>COMMUNICATION PORTS:</b>	One RS-232 (three-wire) One USB 2.0
<b>ANNUNCIATORS:</b>	g, lb, t, tn, kg, oz, battery level, PT, LT, gross, zero, unstable, net
<b>DISPLAY:</b>	Six 1 in (25 mm) tall, LCD digits
<b>KEYS/BUTTONS:</b>	5 tactile buttons
<b>DIMENSIONS:</b>	(L × W × H) 8.50 x 3.17 x 5.06 in (215.8 x 80.5 x 128.5 mm)
<b>TEMPERATURE RANGE:</b>	Legal: 14 °F to 104 °F (-10 °C to 40 °C) Industrial: 14 °F to 122 °F (-10 °C to 50 °C)
<b>RATING/MATERIAL:</b>	AA Battery: IP54, ABS NiMH Battery: IP66, ABS
<b>WARRANTY:</b>	Two-year limited
<b>EMC IMMUNITY:</b>	10 V/m

## APPROVALS:



NTEP CC 21-051  
Class III 10,000 D

Measurement  
Canada  
Approved

AM-6184,  
Class III 10,000 D



SALES AND TECHNICAL ASSISTANCE

**RICE LAKE**  
WEIGHING SYSTEMS

## HEADQUARTERS

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

# 381 Synergy Series

## Battery Powered Digital Weight Indicator



### Approvals



Measurement  
Canada  
Approved

### Standard Features

- LCD display
- Battery powered
- Push-button and keyed tare
- Two communication ports
- Five tactile buttons
- Configurable print formats
- ABS enclosure

### Options

- Time/date

### Part Number/Price

Part #	Description	Price
215695	381 Universal, AA battery powered	Consult
215696	381 Universal, Nickel metal hydride (NiMH) battery powered	Consult

### Options/Accessories

Part #	Description	Price
215273	RS-232 DB9 cable, 1.5 m DB9 female RJ11 connector, compatible with 381 model	Consult
204258	Real time clock module	Consult
216647	3 mm t-handle hex key	Consult
223864	Knob, stainless steel M6 x 1.0 inch	Consult

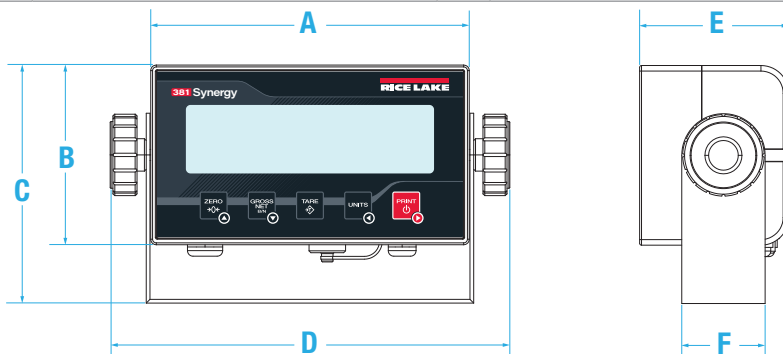
To have your option factory installed, please specify when placing your order.



† US plug (NA) - Type B

### Dimensions

381 Synergy Series			
A	6.77 in (172 mm)	D	8.50 in (216 mm)
B	3.82 in (97 mm)	E	3.17 in (81 mm)
C	5.06 in (129 mm)	F	1.77 in (45 mm)



### Specifications

#### Power:

Battery: AA or Nickel Metal Hydride (NiMH)  
381-2D-AA Adapter: 115/230 VAC to 12 VDC  
381-2D-NiMH Charger: 115/230 VAC

#### Power Consumption:

AA: input 0.8 A  
(6 W while using AC adapter)  
NiMH: input of 0.35 A

#### Battery Life:

AA: 40 hours with 1 × 350 ohm load cell  
NiMH: 80 hours with 1 × 350 ohm load cell

#### Excitation Voltage:

5 VDC, 8 × 350 ohm or 16 × 700 ohm load cells

#### Analog Signal Input Range:

-0.3 mV to +30 mV  
common mode voltage 0.7 V to 3.3 V

#### Analog Signal Sensitivity:

1 µV/graduation recommended

#### A/D Sample Rate:

5, 6, 10, 12, 20, 25, 40, 50, 80, 100Hz,  
software selectable

#### Resolution:

Internal: 8,000,000 counts  
Display: 100,000

#### System Linearity:

Within 0.01% full scale

#### Communication Ports:

One full-duplex RS-232  
One USB 2.0

#### Annunciators:

g, lb, t, tn, kg, oz, battery level, PT, LT, gross, zero,  
unstable, net

#### Display:

Six 1 in (25 mm) tall, LCD digits

#### Keys/Buttons:

5 tactile buttons

#### Dimensions:

(L × W × H)  
8.50 × 3.17 × 5.06 in  
(215.8 × 80.5 × 128.5 mm)

#### Temperature:

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

#### Rating/Material:

AA Battery: IP54, ABS  
NiMH Battery: IP66, ABS

#### Warranty:

Two-year limited

#### EMC Immunity:

10 V/m

#### Approvals:

NTEP 21-051 Class III/IIIL, 10,000 d  
Measurement Canada AM-6184