

# IQ 700IS

## Intrinsically Safe Digital Weight Indicator



### STANDARD FEATURES

- Bright Light Emitting Diode (LED)
- Stainless steel NEMA 4X enclosure
- Front panel digital calibration
- Automatic zero and span temperature compensation
- Excitation for four 350Ω load cells at 5VDC
- Gross/Tare/Net computation
- Time and date
- Tilt stand
- Setup parameters printout
- Bidirectional 20mA current loop communication port

### APPROVALS



Measurement  
Canada  
Approved



FM Entity Approved for use in hazardous locations per Rice Lake Weighing Systems' control drawing file number 72717.

### SPECIFICATIONS

#### LOAD CELL EXCITATION:

- 1 - 350Ω load cell @ 4.56VDC
- 2 - 350Ω load cell @ 4.28VDC
- 3 - 350Ω load cell @ 4.06VDC
- 4 - 350Ω load cell @ 3.82VDC

#### LOAD CELL CURRENT:

57 mA (4 x 350Ω load cells)

#### LOAD CELL CABLING:

6-wire with remote sensing

#### ANALOG SIGNAL INPUT RANGE:

0.7 mV/V - 3.2 mV/V

#### ANALOG SIGNAL SENSITIVITY:

0.3 μV/graduation

#### CONVERSION RATE:

10 updates/second

#### INTEGRATION TIME:

20 mSec typical

#### RESOLUTION:

10,000 displayed graduations (NTEP),  
80,000 expanded  
The maximum number of allowed graduations will vary by application

#### DISPLAY INCREMENTS:

1, 2, 5, 10, 20, 50, 100

#### UNDERRANGE COUNT CAPACITY:

(-) 400 graduations, typical

#### LEAD ZERO BLANKING:

Standard per NBS Handbook H-44

#### DISPLAY:

Six digits, Light Emitting Diode (LED); 0.6 in (15.2 mm), 7-segment display digits

#### POLARITY INDICATION:

" - " sign

#### DECIMAL POINT:

Configurable to 0, 0.0, 0.00, 0.000, 0.0000

#### LB/KG SWITCHING:

Configurable for front panel operation with conversion for tare and setpoint values

#### FRONT-PANEL CONTROL SWITCHES:

Zero, Gross/Net, Tare, Tare Recall, Print, lb/kg conv

#### 5-POINT LINEARIZATION:

Allows up to 5 entry points when selected

#### NUMERIC KEYBOARD:

0-9 keys plus ENT (Enter) and CE (Clear Entry) keys

#### FRONT-PANEL LED ANNUNCIATORS:

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

#### AZM: (ZERO TRACK)

"Gross" mode only; operable over ±5 grads, ±1.0 grads, ±3.0 grads (or Off)

#### PAZ AND AZM APERTURE:

Configurable to ±1.9% Full Scale or 100% Full Scale

#### MOTION BAND:

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

#### POWER INPUT:

115/230 VAC; 50/60 Hz,  
6VDC battery option

#### OPERATING TEMPERATURE:

14°F to 104°F (-10°C to 40°C)

#### RATING/MATERIAL:

NEMA 4X polished stainless steel housing

#### WEIGHT:

9.5 lb (4.31 kg)

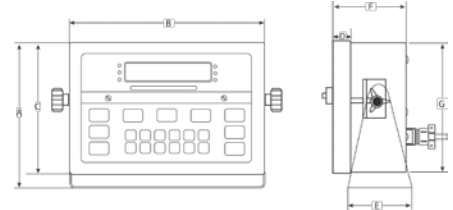
#### APPROVALS:

NTEP Certified per H-44 at 10,000 Divisions, Class III/IIIL, CC# 89-023A2  
Measurement Canada approved, S.WA-4131 Add.1.  
Factory Mutual approved, #0Z0A2.AX

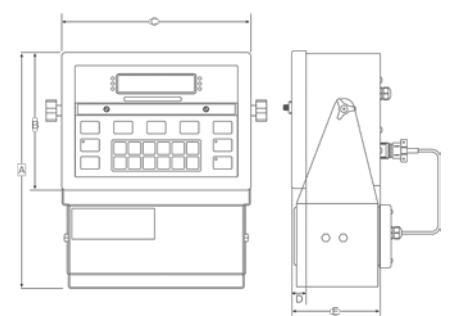
#### WARRANTY:

One-year limited warranty

Without battery



With optional battery and tilt stand



DIMENSIONS WITHOUT BATTERY			
<b>A</b>	7.36 in (186.9 mm)	<b>E</b>	3.94 in (100.1 mm)
<b>B</b>	9.12 in (231.6 mm)	<b>F</b>	4.14 in (105.2 mm)
<b>C</b>	6.62 in (168.1 mm)	<b>G</b>	6.35 in (161.3 mm)
<b>D</b>	.70 in (17.8 mm)		
WITH OPTIONAL BATTERY AND TILT STAND			
<b>A</b>	11.35 in (288.3 mm)	<b>D</b>	0.70 in (17.8 mm)
<b>B</b>	6.62 in (168.1 mm)	<b>E</b>	4.25 in (107.9 mm)
<b>C</b>	9.12 in (231.6 mm)		

NOTE: The following load cells can not be used with IQ 700 IS or Condec™  
UMC 600 IS: RL71000HE, RLBEAM, RL32155 and RL8000, RL8000KM

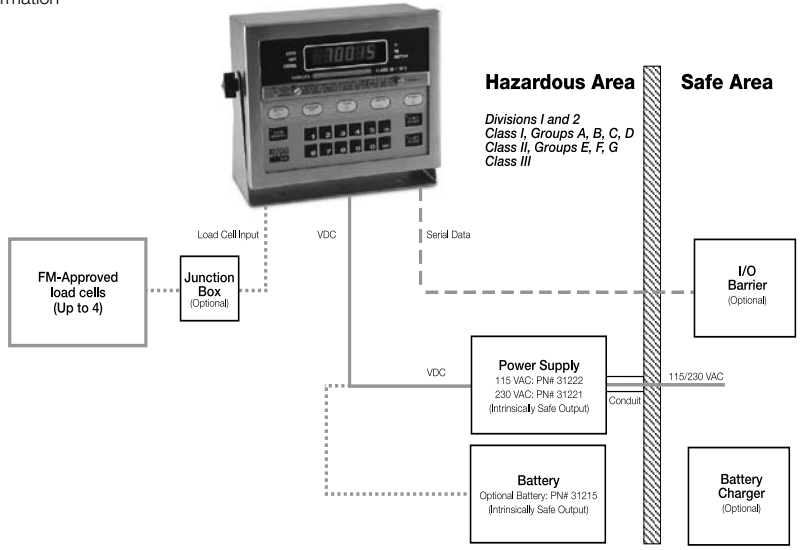
<b>PART #</b>	<b>DESCRIPTION</b>	<b>EST. SHIP WEIGHT</b>
32708.....	IQ 700 IS Hazardous Environment Digital Weight Indicator .....	14 lb .....
<b>System Hardware</b>		
31222.....	115 VAC EP/IS power supply w/6 ft AC cable (needs PS cable B) .....	9 lb .....
31221.....	230 VAC EP/IS power supply w/6 ft AC cable (needs PS cable B) .....	9 lb .....
31215*.....	IS battery option w/12 in cable w/connector.....	8 lb .....
<b>A-Load Cell Cable Assembly: Required with Junction Box</b>		
36444.....	Load cell cable, 10 ft .....	
44313.....	Load cell cable, 25 ft .....	
44314.....	Load cell cable, 50 ft .....	
44315.....	Load cell cable, 75 ft .....	
44316.....	Load cell cable, 100 ft .....	
<b>B-Power Supply Cable Assembly: Required with AC supply</b>		
31212.....	Power supply cable, 10 ft .....	
48690.....	Power supply cable, 25 ft .....	
48691.....	Power supply cable, 100 ft .....	

\* Tilt stand #52216 and battery charger required for indicator with battery  
 For custom cable lengths add \$1.50 per foot to the standard lengths listed above

**OPTIONS/ACCESSORIES**

51966 .....	Battery charger, 115 VAC .....
63027.....	Battery charger, 230 VAC .....
52216 .....	Tilt stand, required for indicator with battery.....
63224.....	Analog output, 0-10 or 4-20 mA (safe area option, requires I/O barrier) .....
44061.....	I/O barrier assembly.....
36528.....	Additional operating manual.....
<b>C-Serial Output Cable (required with I/O barrier):</b>	
36448.....	Serial output cable, 10 ft.....
48687.....	Serial output cable, 25 ft.....
48688.....	Serial output cable, 100 ft.....

NOTE: Consult factory for information on intrinsically safe indicator repair/exchange program



Rice Lake Weighing Systems/Condec™ warrants that all Rice Lake Weighing Systems/Condec Intrinsically Safe (IS) equipment and systems installed by a distributor or Original Equipment Manufacturer (OEM) will operate per written specifications as confirmed by the Distributor/OEM and accepted by Rice Lake Weighing Systems. All systems and components are warranted against defects in materials and workmanship for one year.

All Rice Lake Weighing Systems/Condec Intrinsically Safe equipment carries a Factory Mutual approval and is documented on various control drawings. Each device is manufactured and sealed at the Rice Lake Weighing Systems/Condec factory authorized personnel. Breaking the enclosure seal on these devices will void both the warranty and Factory Mutual approval. This includes circuit board and component replacement. To preserve the warranty and Factory Mutual approval, all repairs or replacement of circuit boards or components housed within the enclosures must be performed by Rice Lake Weighing Systems/Condec factory authorized personnel.

**CAUTION!** The equipment contained within this Explosive Environment section requires explicit attention to specification and installation guidelines. Improper specification, installation, or service of these products can result in loss of equipment and/or serious injury.