

IQ 700 IS Intrinsically Safe Digital Weight Indicator



This indicator is FM Approved for use in hazardous locations per Rice Lake Weighing Systems' control drawing file number 33476.

PART #	DESCRIPTION
32708 IQ 700 IS Hostile Environment Digital Weight Indicator (Requires power supply or battery)
System Hardware:	
31222 115 VAC EP/IS power supply w/15' AC cable
31221 230 VAC EP/IS power supply w/15' AC cable
31215* IS battery option w/12" cable w/connector
* Tilt stand #52216 required for indicator with battery	
See price page for power supply cable assembly and load cell cable assembly.	

In dangerously-explosive and dimly-lit environments, the FM-approved intrinsically-safe IQ 700 IS shines as the new indicator of choice. From the big and bright LED display to the convenient numeric keypad for entering tares, the IQ 700 IS is designed to be operator-friendly. The proven IQ 700 IS hardware and familiar software make setup a breeze for installers.

A revolutionary intrinsically-safe 115 VAC power supply has been designed for mounting within the hazardous area. This eliminates the need for barrier strips, and simplifies wiring by requiring only a single AC conduit line and seal from the safe area. In addition, an optional battery is available.

For IS system compatibility, Rice Lake offers hundreds of FM-approved load cells that interface with the IQ 700 IS in accordance with the official FM control drawings. To achieve complete system integration, an optional I/O barrier mounts in the safe area for connection to printers, computers, or other peripherals.

Applications

- Class I, Divisions 1 & 2, Groups A, B, C & D; Class II, Divisions 1 & 2, Groups E, F & G and Class III hazardous locations
- Chemical plants
- Portable hazardous weighing
- Fueling stations, liquid or gaseous
- Paint and ink manufacturing and/or mixing plants
- Fertilizer plants

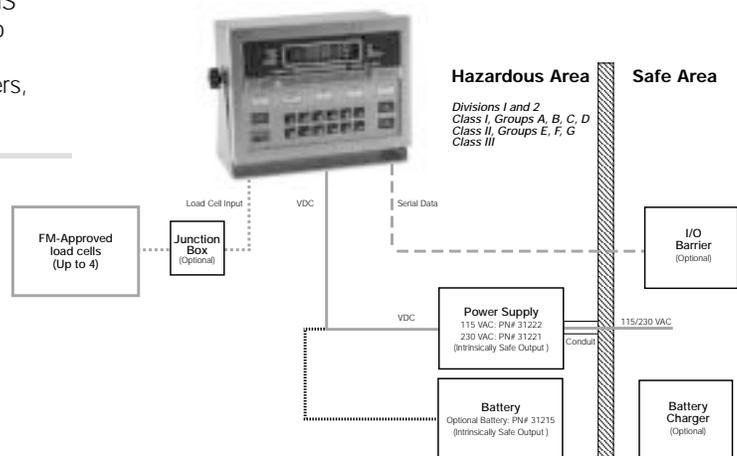
Standard Features

- 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 5 VDC
- Gross/Tare/Net computation
- Time and date
- Accumulator
- Tilt stand
- Set up parameters printout
- Bi-directional 20 mA current loop communication port

Options/Accessories

- 51966 Battery charger, 115 VAC
 - 63027 Battery charger, 230 VAC
 - 52216 Tilt stand, required for indicator with battery
 - 44061 I/O barrier assembly
 - 63224 Analog output, 0-10 VDC or 4-20 mA (safe area option, requires I/O barrier)
 - 36528 Additional operating manual
- Serial output cable assembly (required with I/O barrier):**
See price page for part numbers.

IS Cable:
Hazardous environment load cell cable—see price page for part numbers.



LOAD CELL EXCITATION:

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

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" (15.2mm), 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
6 VDC 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)

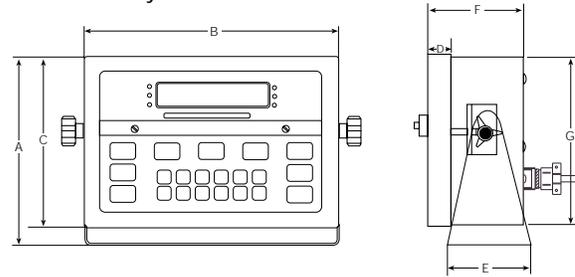
APPROVALS:

NTEP certified per H-44 at 10,000 Divisions, Class III/IIIL, CC# 89-023A2
Factory Mutual approved, #0Z0A2.AX

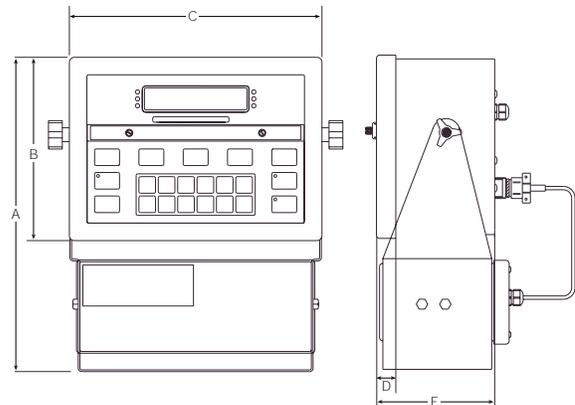
WARRANTY:

One year limited warranty

Without battery



With optional battery and tilt stand



DIMENSIONS

Without battery

A = 7.36" (186.9mm)	E = 3.94" (100.1mm)
B = 9.12" (231.6mm)	F = 4.14" (105.2mm)
C = 6.62" (168.1mm)	G = 6.35" (161.3mm)
D = .70" (17.8mm)	

With optional battery and tilt stand

A = 11.35" (288.3mm)	D = 0.70" (17.8mm)
B = 6.62" (168.1mm)	E = 4.25" (107.9mm)
C = 9.12" (231.6mm)	

WARNING! 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 or serious injury.