

## IQ plus<sup>®</sup> 710 Electronic Digital Weight Indicator



Sloped face model shown



Measurement  
Canada  
Approved



PART #	DESCRIPTION
44545	..... IQ plus 710, 115 VAC, sloped face
44544	..... IQ plus 710, 230 VAC, sloped face
45527	..... IQ plus 710, 115 VAC, flat face, deep enclosure
45528	..... IQ plus 710, 230 VAC, flat face, deep enclosure
52052	..... IQ plus 710, CE 230 VAC, sloped face
52051	..... IQ plus 710, CE 230 VAC, flat face, deep enclosure

For those seeking maximum digital performance—the IQ plus 710 delivers. Designed and built to provide superior programmability and durability, the IQ plus 710 offers an array of advanced features.

Utilizing a large VFD display and full alphanumeric keypad, the IQ plus 710 can store and display 16-character programmable user prompts, 300 truck ID numbers, or part numbers. Four programmable macro function keys (each capable of 30 steps) enable the IQ plus 710 to quickly and accurately complete a variety of functions. Additionally, macros can be linked to setpoints during batching operations, allowing the macro to initiate each batch setpoint. For easy operation, all functions and parameters are selected by menus.

Two independent communication ports provide full EDP and programmable printer ports. Using Revolution™ Scale Software, print tickets can be programmed with up to six 300-character formats and a 300-character title block. Furthermore, two serial ports allow remote configuration and calibration. Five-point linearization calibration ensures the highest accuracy in every application.

Allen-Bradley and Profibus DP enabled, the IQ plus 710 interfaces with networks for fast, simple, and accurate measurement and control of complex, multi-ingredient batching and blending.

The IQ plus 710 is encased in a tough, all stainless steel NEMA 4X/IP66 enclosure and is available in a flat face model or sloped face. The flat face is panel-mountable and features a deeper enclosure, allowing it to utilize an A-B I/O, as well as two, 4-channel relay boards, and an analog output option. The sloped face model utilizes the analog output option and either the A-B I/O option or the one 4-channel relay boards.

### Applications

- High-performance industrial weighing
- Batch weighing
- Truck weighing applications

### Standard Features

- Stainless steel NEMA 4X/IP66 washdown enclosure
- Large 0.75" (19mm) Vacuum Fluorescent Display (VFD) with 16 characters for operator prompting
- Selectable analog to digital measurement rate
- 5-point linearization calibration
- 4 macros, 30 steps each, ability to interconnect macros with setpoints (macro can start batch setpoints)
- 8 digital inputs plus 8 digital outputs
- 60 16-character programmable fields for display prompts.
- Power for eight 350Ω load cells or sixteen 700Ω load cells
- Expanded 29-key alphanumeric keyboard
- Full alphanumeric keyboard for entering truck ID, numbering, prompts, etc.
- 300-ID truck in/out programs (6 modes)
- Batching and continuous mode setpoint functions
- Programmable consecutive numbering
- Two communication ports: (1) EDP port, full duplex RS-232 or RS-485, (1) printer port, simplex RS-232 or 20 mA
- Operate, configure and calibrate via 2 interfaces: front panel (keyboard & display) or EDP serial command port (RS-232, RS-485)
- Six 300-character programmable output formats, independent transmission to EPD or printer port
- 300-character alphanumeric "title block" for custom printouts
- Completely menu driven
- Angled/sloped keypad for user comfort
- Time and date
- Accumulator

### Options/Accessories

- 43381 ..... Analog output: selectable 0-10V, 4-20 mA
  - 45409 ..... Allen-Bradley Remote I/O (internal)
  - 49976 ..... PROFIBUS® DP Interface kit (internal)
  - 45408 ..... 4-channel internal relay board (requires two for 8 relays)
  - 45410 ..... Panel mount kit (flat face only)
  - 19369 ..... Batching start/stop switch box
  - 46030 ..... Revolution™ Scale Software
  - 45391 ..... Additional operating manual
- I/O relay modules sold separately:**
- 15969 ..... 10-32 VDC Input relay module (N/O)
  - 15970 ..... Dry contact 100 VDC/1.5A output (N/O)
  - 22848 ..... Dry contact 100 VDC/1.5A output (N/C)
  - 15971 ..... 115 VAC Output relay module (N/O)
  - 15972 ..... 115 VAC Input relay module (N/O)
  - 22847 ..... 115/230 VAC Output relay module (N/C)
  - 36632 ..... 115/230 VAC Output relay module (N/O)
  - 36631 ..... 230 VAC Input relay module (N/O)
  - 16478 ..... Quencharc arc suppressor

**LINE VOLTAGES:**

115 or 230 VAC

**FREQUENCY:**

50 or 60 Hz

**POWER CONSUMPTION:**

100 mA @ 115 VAC (11.5W)  
50 mA @ 230 VAC (11.5W)

**FUSING:**

115 VAC 2 x 250 mA  
230 VAC 2 x 125 mA

**ANNUNCIATORS:**

Text description

**LOAD CELL EXCITATION:**

10 +/- 0.5 VDC, 8 x 350Ω load cells or  
16 x 700Ω load cells

**FULL SCALE INPUT:**

4.5 mV/V (max)

**INPUT IMPEDANCE:**

200 MΩ typical

**NOISE (REFERRED TO INPUT):**

0.3 uV p-p with digital filter at 4

**INTERNAL RESOLUTION:**

1,000,000+ internal graduations

**EXTERNAL RESOLUTION:**

Up to 60,000 displayed graduations

**MEASUREMENT RATE:**

30, 15, 7 1/2, 3 3/4 per second

**FILTERING:**

RATTLETRAP® software filtering

**ANALOG FILTERING:**

2 Hz, 8 Hz, OFF

**SERIAL PORTS:**

Two channels, RS-232, full duplex. Channel 1 has an additional RS-485 transceiver; RS-485 is used if an RS-485 address is configured. Channel 2 simplex also has a 20 mA active transceiver.

**SYSTEM LINEARITY:**

Within 0.01% of FS

**ZERO STABILITY:**

150 nV/°C maximum

**SPAN STABILITY:**

3.5 ppm/°C maximum

**CALIBRATION METHOD:**

Software calibration, constants stored in EEPROM

**COMMON MODE VOLTAGE:**

+/- 4V, referred to earth

**INPUT OVERLOAD:**

+/- 12V

**SENSE AMPLIFIER:**

Differential amplifier with selectable 4- and 6-wire sensing

**CONSECUTIVE NUMBER:**

Selectable start point of "0" or "1" to 999,999

**RFI PROTECTION:**

Signal, excitation, and sense lines protected by capacitor bypass

**REAL TIME CLOCK:**

Time and date are standard, accessible by EDP command, battery-backed

**DIGITAL INPUTS/OUTPUTS:**

8 digital inputs, 8 digital open collector outputs

**PRINT TICKETS:**

6 programmable print formats — 300 characters each with 50-character title blocks

**ANALOG OUTPUT:**

Voltage output: 0-10 VDC  
Load resistance: 1KΩ minimum  
Current output: 4-20 mA  
External loop resistance: 500Ω maximum

**DISPLAY:**

Large 0.75" (19mm) Vacuum Fluorescent Display (VFD)  
7-digit, 2 unit descriptors, 16 5x7 VFD dot matrix secondary display

**KEYBOARD:**

Full 29-key alphanumeric flat membrane panel

**OPERATING TEMPERATURE:**

Legal: 14° to 104°F/-10° to 40°C  
Industrial: 14° to 122°F/-10° to 50°C

**RATING/MATERIAL:**

NEMA 4X/IP66, stainless steel

**WEIGHT:**

Sloped: 7.4 lb (3.3 kg) Flat: 7.8 lb (3.5 kg)

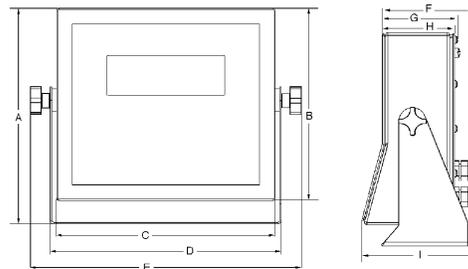
**APPROVALS:**

NTEP certified per H-44 at 10,000 Divisions, Class III/IIIL, CC#98-081; Measurement Canada approved, AM-5253, Class III/IIHHD, III at 10,000 Divisions and IIHHD at 20,000 Divisions; CE marked, UL & CUL listed, OIML approved

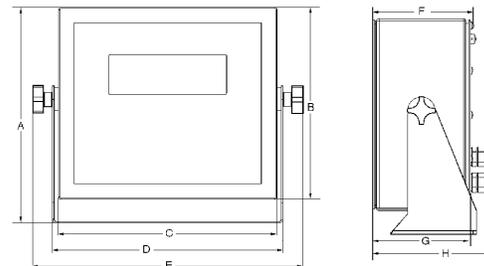
**WARRANTY:**

Two year limited warranty

**SLOPED FACE**



**FLAT FACE**



**DIMENSIONS**

**Sloped face**

A = 9.88" (250.9mm)  
B = 8.38" (212.9mm)  
C = 9.50" (241.3mm)  
D = 10.02" (254.5mm)  
E = 11.78" (299.2mm)  
F = 4.07" (103.3mm)  
G = 3.30" (83.8mm)  
H = 3.15" (80.0mm)  
I = 4.95" (125.7mm)

**Flat face**

A = 9.88" (250.9mm)  
B = 8.38" (212.9mm)  
C = 9.50" (241.3mm)  
D = 10.02" (254.5mm)  
E = 11.78" (299.2mm)  
F = 4.36" (110.7mm)  
G = 4.25" (107.9mm)  
H = 5.25" (133.3mm)

*NOTE: Because A-B Remote I/O and Profibus interface with programs written by non-RLWS parties, please consult factory for latest technical updates before quoting.*