IQ plus® 510 Digital Weight Indicator

Sloped face model shown

Measurement Canada Approved

ANOTHER REVOLUTION™ SOLUTION

PART #	DESCRIPTION
44543	IQ plus 510, 115 VAC, sloped face
44542	IQ plus 510, 230 VAC, sloped face
45526	IQ plus 510, 115 VAC, flat face, deep enclosure
46041	IQ plus 510, 230 VAC, flat face, deep enclosure
52054	IQ plus 510, 230 VAC, CE marked/OIML approved, sloped face
52053	IQ plus 510, 230 VAC, CE marked/OIML approved, flat face, deep enclosure

The IQ plus 510 offers an exceptional combination of high-performance and affordability.

Completely menu driven and featuring a large 16-character alphanumeric VFD display, the IQ plus 510 simplifies operation and reduces operator error, even in the most poorly-lit environments. Additionally, operator productivity is optimized by the IQ plus 510's intuitive panel display and simple five-button keypad.

Operating at a speed of 30 updates/second, the IQ plus 510 consistently delivers timely and accurate weighments. Two independent communication ports enable simple setup through Revolution™ Scale Software. It is encased in a tough, all stainless steel NEMA 4X/IP66 enclosure for maximum protection from the harshest environments. The IQ plus 510 is available in a panel-mountable flat face model or a convenient sloped face model.

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

Available with Allen-Bradley or Profibus DP interface, the IQ plus 510 connects to industrial networks for fast, simple, and accurate measurement and control of complex, multi-ingredient batching and blending.

Applications

• Industrial weighing applications
• Truck scales
• Straight weighing

Standard Features

• 8 digital inputs
• Selectable analog-to-digital measurement rate
• Operates on 115 or 230 VAC
• Two communication ports: (1) EDP port, full duplex RS-232 or RS-485, (1) printer port, simplex RS-232 or 20 mA
• Three programmable ticket formats, up to 300 characters each
• Power for eight 350Ω load cells or sixteen 700Ω load cells
• NEMA 4X/IP66 stainless steel enclosure
• Completely menu driven
• Front panel or EDP serial interface calibration
• Simple operation with 5-button keypad
• Intuitive display
• Large 0.75" (19mm) Vacuum Fluorescent Display (VFD)
• Key functions: zero, tare, gross/net, print, units
• 5-point linearization calibration
• Time and date

Options/Accessories

43381	Analog output: selectable 0-10V, 4-20 mA
45409	Allen-Bradley Remote I/O (internal)
49976	PROFIBUS® DP Interface kit (internal)
45410	Panel mount kit (flat face only)
46030	Revolution™ Scale Software*
64880	Additional operating manual

* Revolution can be downloaded for FREE from the distributor section of our web site at www.rlws.com

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

RICE LAKE WEIGHING SYSTEMS
Industrial Solutions on a Global Scale®

ISO 9001 REGISTERED

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:
2 x 250 mA (115 VAC) or 2 x 125 mA (230 VAC)

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

FULL SCALE INPUT SIGNAL:
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

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

REAL TIME CLOCK:
Time and date are standard, accessible by EDP command, battery-backed

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.

DIGITAL INPUTS:
8 digital inputs, active low

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

PRINT TICKETS:
Three programmable print formats — 300 characters each with 50-character title blocks

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

KEYBOARD:
5-key flat membrane panel

OPERATING TEMPERATURE:
Legal: 14°F to 104°F (-10°C to 40°C)
Industrial: 14°F to 122°F (-10°C to 50°C)

WEIGHT:
Sloped: 7.4 lb (3.3 kg)   Flat: 7.8 lb (3.5 kg)
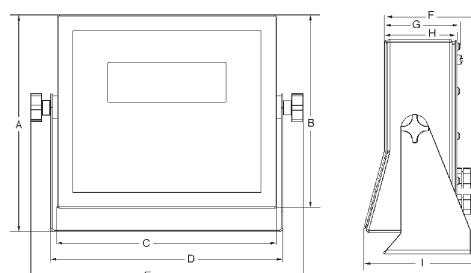
RATING/MATERIAL:
NEMA 4X/IP66, stainless steel

CERTIFICATIONS AND APPROVALS:
NTEP certified per H-44 at 10,000 Divisions, Class III/IIIL, CC#98-081; Measurement Canada approved, AM-5253, Class III/IIIL, III at 10,000 Divisions and IIIHD at 20,000 Divisions; CE marked, UL & CUL listed, OIML approved
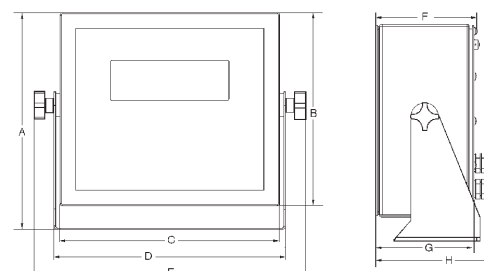
WARRANTY:
Two year limited warranty

SLOPED FACE

FLAT FACE

DIMENSIONS	
Sloped face	**Flat face**
A = 9.88" (250.9mm)	A = 9.88" (250.9mm)
B = 8.38" (212.9mm)	B = 8.38" (212.9mm)
C = 9.50" (241.3mm)	C = 9.50" (241.3mm)
D = 10.02" (254.5mm)	D = 10.02" (254.5mm)
E = 11.78" (299.2mm)	E = 11.78" (299.2mm)
F = 4.07" (103.3mm)	F = 4.36" (110.7mm)
G = 3.30" (83.8mm)	G = 4.25" (107.9mm)
H = 3.15" (80.0mm)	H = 5.25" (133.3mm)
I = 4.95" (125.7mm)	