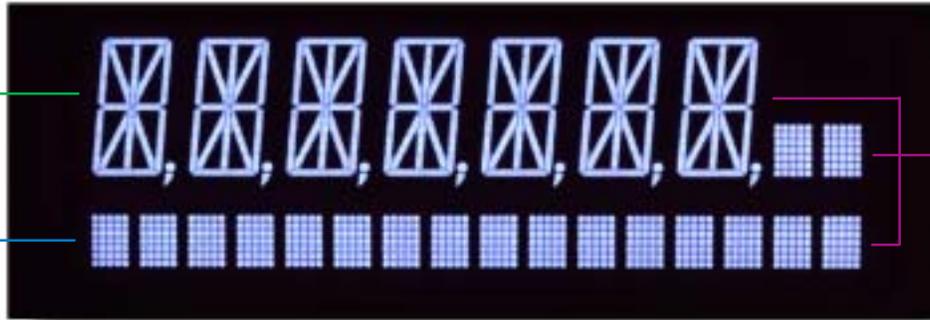# IQ PLUS

510-710

DIGITAL WEIGHT INDICATORS

ANOTHER **REVOLUTION**™ SOLUTION
SCALE SOFTWARE

RICE LAKE WEIGHING SYSTEMS
Industrial Solutions on a Global Scale®

More of what you look for in a display... more display.

16 bright .3-inch vibrant blue dot-matrix VFD characters

7 oversize .71 inch vibrant blue VFD characters 14 segments for more character options

Alphanumerics
Until now, full alphanumeric capabilities required a PC or support keyboard. As a standard feature, the IQ plus 710 offers the ability to use alpha characters in your part numbering, labeling and data capture processes.

Customized Prompts
Simply program any instructions you need to guide operators through a process.

1. 1425 lb
PUT BOX ON SCALE

2. 00.00 lb
PRESS TARE

3. 48.52 lb
ADD MATERIAL 1

4. 48.52 lb
PRINTING...

00.00 lb
PRESIONE TARA

Multilingual Capabilities
26-character alphabets can be easily programmed for international language requirements.

RATTLE TRAP® Vibration Control

962.8 lb
Net

Virtually eliminate interference caused by agitators, mixers and other forms of industrial vibration. Now you can depend on stable, accurate weight readouts regardless of motion on or around your scale.

Communications Protocols Enhance 510/710 Functionality

The powerful IQ plus 510 and 710 are available with optional Remote I/O link technology, allowing easy integration of fast, accurate weight control with Allen-Bradley PLC or SLC automation systems.

Profibus is a quick, easy and cost-effective interoperable interface for multi-vendor use. Through the DP interface, you have instant access to over 3 million Profibus devices, with over 1,750 unique tional benefit is the ability to retrofit 510/

ENCOMPASS
ROCKWELL AUTOMATION

PROFI® BUS PROCESS FIELD BUS

The 510. Basic design, anything _but_ basic performance.

Value and performance. What do you get when you combine an extra-large display, high-speed 30 Hz operating speed, and a universal NEMA 4X stainless steel enclosure? IQ plus® 510 confidence. Not only is the display easy to read, it also tells you what it's doing. No more guessing if the tare weight has been accepted—the 510's 16-character alphanumeric dot matrix display let's you know!

Fully interactive, the IQ plus 510 features two independent communication ports for complete EDP and print ticket programmability. It easily programs ticket formats with up to 300 characters, allowing you to create complex custom tickets.

The IQ plus 510 drives up to 16 700-ohm load cells, making it the perfect choice for simple multi-cell applications. Additionally, the 510 features RattleTrap® digital filtering, virtually eliminating vibration interference and providing stable, accurate weight data regardless of environment. A simple five-button front panel provides easy operation with full calibration and configuration capabilities.

The 710. It's _your_ process, _you_ make the choices.

It's all about choices. From operating environment considerations to automated batch control, the IQ plus® 710 introduces a whole new level of flexibility to its class. The 710's standard features give you the freedom to make the choices best suited to _your_ process.

- 30 Hz high-speed operation
- Universal NEMA 4X stainless steel enclosure for use anywhere in your operation
- Alphanumerics for application requirements such as labels, part numbers, or license numbers
- Programmable printouts provide the specific hard-copy information you need
- Truck in/out program
- Four 30-step programmable macros automate simple or complex processes
- 20 setpoints, 18 types of setpoints
- 8 digital inputs, 8 digital outputs
- Key disabling to reduce operator error
- RATTLETRAP® vibration filtering

Simply sophisticated.
Because it's so affordable, the 710 is also ideal for applications simply requiring a tough, reliable instrument without all the bells and whistles. (But isn't it nice to know they're there if you need them?) The keyboard is easy to understand, and allows you to eliminate features not required by simply turning them off. All functions are clearly displayed in real-life terms, or you can easily create custom prompts to tell operators exactly what you want. Messages are promptly available during batching and macro routines.

We're about to change your perception of programmable indicators.

What do you want to do today?
Traditional controllers have always worked a certain way. It was up to you to fit your process to the technology available. With the IQ plus 710, you have choices available to fit the technology to your process—with ease. Want to automate a new or existing manual process? Go ahead! Use any of the four standard macro keys to do it for you.

Still want more? Link the 60 available prompts with your macro functions and the 710 will automatically prompt your operators through a series of operations, or just tell them what it's doing at the time. Need a process to stop and wait for operator verification or add an ingredient? Go ahead! After all, it's *your* process.

Still not enough for you? Link macros and prompts with the 710's unique programmable setpoints to fully automate your system. Now you can see what stage your process is in—because the IQ plus 710 tells you!
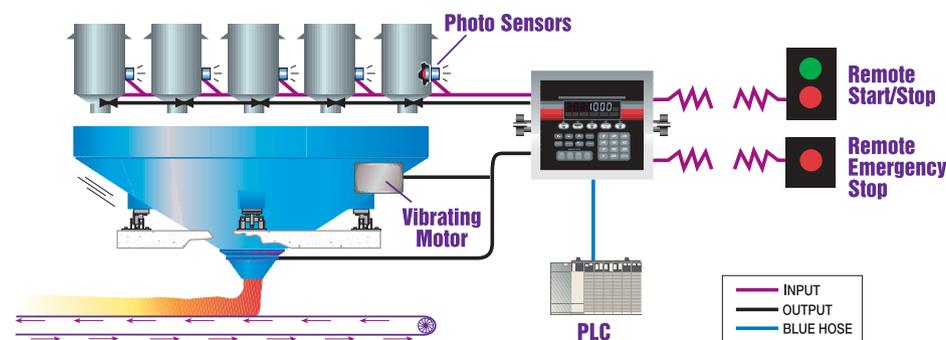
It's not the data, it's what you do with it.
With two communication ports standard, our industry-standard protocols provide the ultimate in flexibility. The IQ plus 710 offers 6 programmable printer outputs, giving you the freedom to choose which information you would like to transmit via which communication port. Need to communicate to several 710's in your plant? Our standard RS-485 multi-drop feature provides address locations for bidirectional communication.

Customized printer output. ▲
Virtually unlimited formatting control makes it easy to custom design the most effective solution for *your* individual labeling operations.

Setpoint control made easy!
Continuing IQ instrumentation leadership in setpoint control, the 710 offers a wide array of preset or programmable features including free-running setpoints, relative setpoints, weight bands, preacts, pauses, timers and many others.

60 programmable prompts can be combined with setpoint operation to notify operators what stage their process is in, ask for action, or label ingredients. There simply isn't a more powerful single-scale control product on the market. With 8 digital inputs and 8 digital ouputs standard, extremely cost-effective complex batch control is now a reality.

Photo Sensors

Remote Start/Stop

Remote Emergency Stop

Vibrating Motor

INPUT
OUTPUT
BLUE HOSE

PLC

Standard Features/Options	IQ plus® 510	IQ plus® 710
NEMA 4X stainless steel enclosure	STD	STD
Angled/sloped keypad	STD	STD
Vacuum Fluorescent Display (VFD)	STD	STD
Wall mount kit	STD	STD
Panel mount kit (flat face only)	OPT	OPT
Time and date	STD	STD
30 updates/second	STD	STD
RATTLETRAP® vibration control	STD	STD
20 programmable setpoint steps	N/A	STD
8 digital inputs	STD	STD
8 digital outputs, open collector	N/A	STD
8-channel relay module	N/A	OPT (INT.)
0-10 VDC/4-20 mA analog output module	OPT	OPT
2 communication ports: (1) EDP port, full duplex RS-232 or RS-485; (1) printer port, full duplex RS-232/20 mA current loop	STD	STD
Front panel or EDP configuration & operation	STD	STD
300 truck ID memory w/6 modes of operation	N/A	STD
Power for 8 350-ohm load cells	STD	STD
Alphanumeric keypad	N/A	STD
High-speed A/D converter	STD	STD
Six 300-character programmable print formats	N/A	STD
Three 300-character programmable print formats	STD	N/A
300-character title block for custom tickets	STD	STD
Menu selection of functions and parameters	STD	STD
Four programmable macro function keys	N/A	STD
16-character alpha prompts	N/A	STD
ID numbering	STD	STD
Consecutive numbering	STD	STD
Accumulators	N/A	STD
Supervisor setpoint code	N/A	STD
5-point linearization calibration	STD	STD
Transmit error status command	STD	STD
Passwords	N/A	STD
Selectable conversion rates	STD	STD
Revolution™ scale software package	STD	STD
Allen-Bradley Remote I/O	OPT	OPT
Profibus	OPT	OPT

N/A - Not available

Specifications   IQ plus® 510/IQ plus® 710

Display:	Large .71" (1.8 cm) 7-digit, Vacuum Fluorescent Display, 2 unit descriptors, 16-5 x 7 VFD dot matrices for alphanumerics
Keyboard:	IQ plus 510: 5-key membrane IQ plus 710: 29-key alphanumeric membrane
Internal Resolution:	1,000,000+ internal graduations
Display Resolution:	Up to 100,000 display graduations
Conversion Rate:	30 measurements/second
Full Scale Input Signal:	4.5 mV/V (max)
Noise (referred to input):	0.3 μV p-p with digital filter at 4
Excitation Voltage:	10±0.5 VDC, 8 x 350Ω load cells
Static RAM:	128K battery-backed Static RAM
Digital Filter:	RATTLETRAP® software filtering
Analog Filter:	2, 8, off
Analog Output:	Optional: fully isolated 0-10V or 4-20 mA
Digital Inputs:	8 inputs, active low
Digital Outputs:	IQ plus 710: 8 open collector
EDP Port:	Full duplex, RS-232 or RS-485
Printer Port:	Full duplex, RS-232 and 20 mA active (output only)
Line Voltages:	115 or 230 VAC
Frequency:	50 or 60 Hz
Operating Temp.:	14° to 104°F/-10° to 40°C
Enclosure Dimensions IQ plus 510 & 710	9.5 in. W (24 cm) 8.4 in. H (21 cm) 5.25 in. D (13 cm)
Weight IQ plus 510: IQ plus 710:	7.5 lb (3.4 kg) 7.5 lb (3.4 kg)
Enclosure Finish:	NEMA 4X/IP66 stainless steel
Warranty:	Two year limited warranty
Approvals:	NTEP certified per H-44, at 10,000 Divisions, Class III/IIIL, CC# 98-081. OIML approved 10,000 Divisions, Class III, TC5678. EC-type approval, T5692. Measurement Canada approved, AM-5253, 20,000 divisions. UL listed, CE marked.

NTEP
IQ+510/IQ+710
CC# 98-081
$n_{max} = 10,000$
Class III/IIIL

OIML
TC5678
$n_{max} = 10,000$
Class III

MEASUREMENT CANADA
AM 5253
$n_{max} = 20,000$
Class III/III HD

CE

UL

PROFIBUS®

ROCKWELL AUTOMATION
ENCOMPASS®
AMERICAS PARTNER