

IQ plus® 810 XPCD Explosion Proof Digital Weight Indicator



PART #	DESCRIPTION
19213	IQ plus 810 XPCD

The IQ plus 810 XPCD... never before has this level of power been available in a digital weight indicator. Its unique hybrid digital circuitry provides the fastest, most accurate and flexible performance that existing technology can offer. The bright blue-green display is unmistakable even in poor visibility conditions. An optional LED bar graph enhances software capabilities and interactive operation.

Our exclusive RATTLETRAP® vibration control eliminates interference from agitators, mixers, blenders and other sources of industrial environment vibration. Now you can achieve stable, accurate weight information regardless of motion on or around your scale.

The IQ plus 810 XPCD is a batching Automation Control Center™. Its unique programmable setpoint software contains a comprehensive array of batch process possibilities. It's even self-correcting, learning as it works to assure your process integrity. The standard configuration includes 20 setpoint steps, 4 digital outputs and 3 digital inputs, providing more basic power than many custom controllers. An array of hardware and software options offer virtually unlimited solutions for your complex operations.

Applications

- Class I, Division 1 & 2, Groups C & D; Class II, Division 1 & 2, Groups E, F & G and Class III hazardous environments
- Multiple ingredient batching
- Multiple scale operation
- Complex material flow control

Standard Features

- Cast aluminum explosion proof enclosure Class I, Division 1 & 2, Groups C & D; Class II, Division 1 & 2, Groups E, F, & G; NEMA 4, 7CD, 9EFG
- Bright, bold vacuum fluorescent display (VFD)
- Includes four-channel opto22 rack with four output relays
- 27 individual externally mounted buttons for setpoint or fixed tare entry, Gross/Net, Tare, Units and Print
- Time and date
- 20 updates/second
- Advanced digital filtering
- RATTLETRAP® vibration control
- 20 programmable setpoint steps
- Multi-channel accumulators
- Three digital inputs, TTL or dry contact closure
- Four TTL digital outputs expandable to 16—consult factory
- Selectable print data and format, via EDP port
- One communication port; EDP port, full duplex RS-232 or 20 mA selectable; optional—One additional serial port
- Multi-scale control expandable to four scale inputs
- Intrinsic barriers are included for a single scale input; for multi-scale applications, consult factory
- XPCD seal-off kit for four holes
- Front panel keyswitch-protected digital calibration and configuration

Options/Accessories

Options and accessories for the IQ plus 810 XPCD may require additional hardware; consult factory with your application and specification needs.

- Multi-scale input module and expansion board
- Analog output module, 0-10VDC/4-20 mA
- Header in print
- Rate of change
- Peak hold
- Password
- 12-channel digital setpoint output module
- 48-segment LED bar graph module
- 4-channel relay rack
- 16-channel relay rack
- RS-485 serial communication
- 20 mA full duplex EDP port

I/O relay modules sold separately:

- DC input relay module
- Dry contact output relay module (N/O)
- AC output relay module, 115 VAC
- AC input relay module, 115 VAC
- AC output relay module, 230 VAC (N/C)
- AC input relay module, 230 VAC (N/O)

LOAD CELL EXCITATION:

- 1 350-ohm load cell at 8.5 VDC
- 4 350-ohm load cells at 5.88 VDC

LOAD CURRENT:

Capable of driving 4 350-ohm load cells per channel

INTERCONNECTION CABLE REQUIREMENTS:

6-wire remote sensing required

ANALOG SIGNAL INPUT RANGE:

0.6 mV/V - 3.9 mV/V

ANALOG SIGNAL SENSITIVITY:

- 0.3 microvolts/graduations minimum
- Legal-for-trade recommended minimum
- 1 microvolt/graduations

INPUT OVERLOAD:

±12V continuous, static discharge protected

CONVERSION RATE AT FULL SCALE:

- 20/second, typical (standard resolution)
- 15/second, typical (high resolution)
- Added channels reduce conversion rate per channel

RESOLUTION:

- Selectable up to 100,000 displayed graduations
- Selectable up to 740,000 graduations internal
- The maximum number of displayed graduations will vary by application—consult factory

DISPLAY INCREMENTS:

1, 2, 5

UNDERRANGE BLANKING:

-2 mV signal nominal

OVER/UNDER CAPACITY ANNUNCIATION:

- Overload displayed as: ---
- Underload displayed as: ---

LEAD ZERO BLANKING:

Standard, per NIST H-44 requirements

DISPLAY:

Large .55" (14.0mm) 7-digit, 14-segment blue/green VFD

POLARITY INDICATION:

" - " sign

DECIMAL POINTS:

8888888, 888888.8, 88888.88, 8888.888, 888.8888,
88.88888, 8.888888, 8888800, 8888880

LB/KG SWITCHING:

Front panel push button

FRONT PANEL CONTROL SWITCHES:

Zero, Net/Gross, Tare, Units, Print, Disp Accum, Disp R.O.C.,
Disp Tare, Time/Date, New I.D., Base #, Set Point, Clear

FRONT PANEL ANNUNCIATORS:

lb, kg, R.O.C., Accum, Push Tare, Keyed Tare, Motion, Center
of Zero, Gross, Net

SERIAL OUTPUT:

- "EDP" port, full duplex RS-232 or 20 mA
- "Printer" port, simplex RS-232 and 20 mA current loop -
optional

DIGITAL INPUTS:

3 inputs, TTL or switch closure, active low

AZM: (ZERO TRACK)

"Gross" mode only

SETPOINTS:

20 fully programmable steps

AZM APERTURE:

±1.9% of selected full scale capacity or 100%, internal
selectable

AZM CAPTURE RANGE:

Selectable to: "Off", ±.5, ±1, or ±3 graduations

ANALOG FILTERING:

Software selectable: 2, 8 Hz typical/3 pole, Off (25 Hz)

DIGITAL FILTERING:

Standard range software selectable: 1,2,4,8,16,32,64,128,Off
RATTLETRAP® high vibration control: 4,8,16,32,64,128

MOTION BAND:

1, 3, 5 or 10 dd

MOTION TIME SENSITIVITY:

Fixed at 1 second

POWER:

- Line Voltages: 115 or 230 VAC +10%/-15%
- Frequency: 50 or 60 Hz
- Power Consumption: 12 VA with minimum configuration, 30
VA with all options
- Fusing: 0.25A SB (UL/CSA) 5x20mm @ 115V operation
0.125A SB (UL/CSA) 5x20mm @ 230V operation

DISPLAY CHECK:

All digit segments and annunciators simultaneously illuminated
upon application of power

OPERATING TEMPERATURE:

14°F to 104°F (-10°C to 40°C)

WEIGHT:

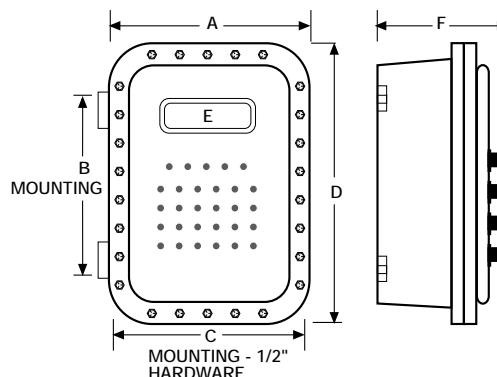
Approximately 135 lb (61.2 kg)

WARRANTY:

One year limited warranty

ENCLOSURE:

NEMA 4, 7CD, 9EFG housing for Class I, Division 1 & 2, Groups
C & D; Class II, Division 1 & 2, Groups E, F & G; Class III
hazardous environments



DIMENSIONS

A = 17.5" (444.5mm)	E = 7.0"x2.0"
B = 21.0" (533.4mm)	(177.8mmx50.8mm)
C = 17.5" (444.5mm)	F = 12.0" (304.8mm)
D = 29.0" (736.6mm)	

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