

## IQ plus® 310 XPCD Explosion Proof Weight Indicator



PART #	DESCRIPTION
19212 .....	IQ plus® 310 XPCD Indicator

The IQ plus 310 XPCD is built with advanced digital circuitry providing fast, stable and accurate readings in hazardous industrial environments. Highly-sophisticated analog-to-digital conversion, RFI/EMI signal protection and digital filtering provide high-level signal integrity in hazardous industrial environments.

The 310 XPCD features a cast aluminum explosion-proof enclosure certified for use in Class I, Division 1 & 2, Groups C & D; Class II, Division 1 & 2, Groups E, F, & G; NEMA 4, 7CD, 9EFG. Four externally-mounted buttons provide operator interface.

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.

Printer and computer communication is available with one full duplex RS-232 port and a simplex RS-232 or 20 mA port. All operation, setup and calibration features can be duplicated from a computer or other controller. Two digital inputs may be used to simulate any two front-panel keys, enabling remote "push-button" control of various weighing operations such as tare, zero or print; consult factory.

### Applications

- Class I, Division 1 & 2, Groups C & D; Class II, Division 1 & 2, Groups E, F & G; Class III hazardous environments
- Chemical plants
- Fueling stations

### Standard Features

- Cast aluminum explosion-proof enclosure with pre-wired intrinsic safety barriers
- 4 button external: Gross/Net, Tare, Zero, Print
- Bright, bold vacuum fluorescent display (VFD)
- Wall mount
- Two communication ports, (1) simplex, (1) full duplex
- Full duplex port: RS-232; simplex port: RS-232 or 20 mA
- The maximum number of displayed graduations will vary by application; consult factory
- Approximately 1,000,000 graduations internal
- 50 updates per second
- AC powered; no batteries to charge or replace
- R Stahl® intrinsic safety barriers
- RATTLETRAP® vibration control
- Includes 2 sealing fittings, packing and cement

### Options/Accessories

*Options and accessories for the 310 XPCD may require additional hardware; consult factory with your application and specification needs.*

- Parallel BCD output
- Breather drain fittings
- Vinyl organisol coating
- Polyurethane coating

**LOAD CELL EXCITATION:**

- 1 350-ohm load cell at 8.5 VDC
- 4 350-ohm load cells at 5.88 VDC
- 6 350-ohm load cells at 4.40 VDC

**LOAD CURRENT:**

Capable of driving 6 350-ohm load cells per channel

**INTERCONNECTION CABLE REQUIREMENTS:**

6-wire, remote sensing required

**ANALOG SIGNAL INPUT RANGE:**

0.5 mV/V to 4.0 mV/V

**ANALOG SIGNAL SENSITIVITY:**

0.3 microvolts/graduations minimum

**INPUT OVERLOAD:**

±12V continuous

**A/D CONVERSION RATE:**

50/second

**INTEGRATION TIME:**

20 milliseconds

**RESOLUTION:**

Selectable up to 60,000 displayed graduations  
 Approximately 1,000,000 graduations internal  
 The maximum number of allowable displayed graduations will vary by application; consult factory

**DISPLAY INCREMENTS:**

1, 2, 5

**OVER/UNDERRANGE BLANKING:**

F.S., F.S.+1d, F.S.+9d, F.S.+2%

**OVER/UNDER CAPACITY ANNUNCIATION:**

Overload displayed as: ...  
 Underload displayed as: ...

**LEAD ZERO BLANKING:**

Standard, per NIST H-44 requirements

**DISPLAY:**

14-segment vacuum fluorescent, 7 full-digit display

**POLARITY INDICATION:**

" - " sign

**DECIMAL POINTS:**

8888888, 888888.8, 88888.88, 8888.888, 888.8888,  
 88.88888, 8.888888, 88888800, 8888880

**LB/KG SWITCHING:**

Front panel push-button, optional

**FRONT PANEL CONTROL SWITCHES:**

Zero, Net/Gross, Tare, Print

**FRONT PANEL ANNUNCIATORS:**

lb, kg, Preset Tare, Tare in System, Stable, Center of Zero,  
 Gross, Net, Minus, Entry mode

**AZM: (ZERO TRACK)**

"Gross" mode only

**AZM APERTURE:**

±2% of selected full scale capacity or 100%, selectable

**AZM CAPTURE RANGE:**

Selectable: "Off", ±.5, ±1, ±2, or ±3 graduations

**DIGITAL FILTERING:**

3 separately programmable digital filter parameters with selection 1, 2, 4, 8, 16, 32, 64

**MOTION BAND:**

1, 2, 3, Off

**MOTION TIME SENSITIVITY:**

Fixed at 1 second

**POWER:**

Line Voltages: 115 or 230 VAC +10%/-15%  
 Frequency: 50/60 Hz, 12VA maximum  
 Fusing: 115 VAC: 2 x 0.25A SB (UL/CSA) 5x20mm  
 230 VAC: 2 x T 125 mA (IEC 127) 5x20mm

**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)

**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

**CONDUIT ENTRIES:**

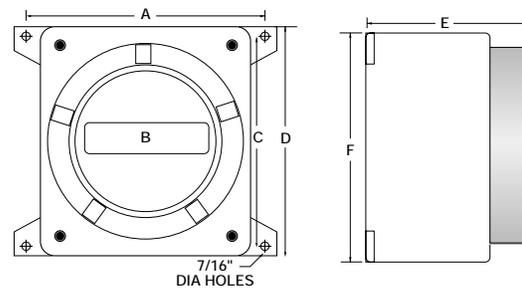
3 @ 3/4" - NPT located in bottom side of enclosure 3.625" from mounting plane and centered on 3.5" centers

**WEIGHT:**

Approximately 44 lb (20 kg)

**WARRANTY:**

One year limited warranty



**DIMENSIONS**

A = 12.13" (308.0 mm)	D = 12.0" (304.8 mm)
B = 7.38" (187.3 mm)	E = 8.50" (215.9 mm)
C = 10.75" (273.1 mm)	F = 12.0" (304.8 mm)

**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.