

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:

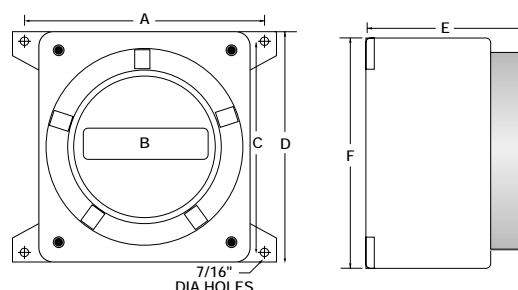
3 @ 3/4" - NPT located in bottom side of enclosure 3.625" from mounting plane and centered on 3.5" centers

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.