

# BX23 Ex2/22 Weighing Indicator

ATEX and IECEx certified for usage in Zones 2/22



## Main Features

- Multi-language operator prompts
- Stainless steel, IP67 protected for wet, hygienic and harsh areas
- Color selectable LCD display with alphanumeric info line.
- Bar graph to follow gross weight capacity.
- Key locking against interfering.



## High Technology & Performance

- Up to 999 999 display resolution.
- Up to 1600 conversions per second.
- Smart and adaptive filter.
- High capacity tank scales supported by eCAL - electronic calibration.
- Span adjustment of loaded tanks without emptying.



## Typical Applications

- Weighing in the hazardous areas. ATEX and IECEx approvals for;  
**Gases:** Hydrogen, propan, etylene, acetylene, carbon disulfide etc.  
**Dust:** Carbon, magnesium, flour, grain, rayon, cotton lint, flax etc.
- Scales and Process weighing.



## Integration & Connectivity

- Zone 2/22 Certified interfaces;
- 2 x RS232C, 1 x RS485.
  - Ethernet TCP/IP,
  - Profibus, Profinet, EtherNet/IP, EtherCAT, CC-Link, Powerlink,
  - Analogue output and Digital I/O.



BX23 Ex2/22 is a weighing terminal offers high accuracy and performance with strong connectivity options for weighing applications in hazardous areas. With its IP67 protected stainless steel housing, it provides reliable and safe operation in wet, hygienic and harsh industrial areas. BX23 Ex2/22 is certified for ATEX and IECEx and can be used in the zones 2/22 hazardous areas having explosive gases and dust.

BX23 Ex2/22 has strong calibration alternatives including eCal-electronic calibration, which is an extremely important tool for heavy capacity tank scales and for the calibration of tanks without emptying.

For connectivity, BX23 Ex2/22 is certified for the following interfaces: 2 x RS232C, 1 x RS485, and Ethernet TCP/IP, Modbus RTU, Modbus TCP as standard; and Analogue output, EtherNet/IP, Profibus, Profinet, EtherCAT, CC-Link, Powerlink and Digital I/O with 4 opto isolated inputs and 5 relay outputs option.

**BAYKON**  
Industrial Weighing Systems

# Typical Applications in Hazardous Area

## 1. Industrial Scales in Hazardous Areas

BX23 Ex2/22 is very accurate and reliable weighing indicator for industrial scale applications such as bench, floor and truck scales.

## 2. Industrial Process Weighing Applications

BX23 Ex2/22 is high tech instrument for usage at tank, silo, hopper, conveyor and overhead scales in hazardous areas.

## 3. Weighing at Wet, Hygienic and Harsh Environments

BX23 Ex2/22 is designed to use in wet and harsh industrial environments. Design of its stainless steel housing complies with international hygienic requirements.

## 4. Dynamic Load Weighing


With its statistical filter, BX23 Ex2/22 weighs the dynamic loads accurately.

## 5. Applications Require Powerful Data Interface and Fieldbus Connection

BX23 Ex2/22 is used in industrial weighing systems in Zones 2/22 hazardous area, which require the following interfaces: Profibus, Profinet, Ethernet TCP/IP, EtherNet/IP, Modbus RTU / TCP, EtherCAT, CC-Link, Powerlink, Analogue output, 2 x RS232C and RS485 serial ports and opto isolated digital 4 inputs and 5 outputs.



# Technical Specifications

Accuracy class & EU type approval	OIML class III, single range, up to three range multi range or multi interval.	
Display	Wide angle LCD display with multicolor backlight, 6 digits 22 mm in height weight display and 16 digits 8 mm in height alphanumeric information display.	
Display resolution	Up to 999 999 division.	
A/D conversion	24 bit Delta-Sigma ADC with up to 1600 conversion rate.	
Minimum input sensitivity	0.4 $\mu\text{V/d}$ (legal metrology), 0.05 $\mu\text{V/d}$ (industrial).	
Analogue input range	-5 mV to +19 mV	
Internal resolution	Up to 16 000 000 counts.	
Calibration technics	Standard calibration tests with test weights, multipoint calibration eCAL: Electronic calibration without test weight, span adjustment of non-empty tanks.	
Digital filter	5 step adjustable digital adaptive filter.	
Functions	Ticket number, date & time, unit change.	
Standard applications	Basic industrial weighing, tank / silo weighing, control at weighing, dynamic weighing, weighing in process, interface with PC or PLC over Fieldbus, Ethernet etc.	
Memory	500 item limit values. Each item has 5 pcs free programmable set points in the memory.	
Digital inputs	Opto isolated 4 inputs programmable for zeroing, taring, print, fieldbus controlled input, etc.	
Digital outputs	Relay contact outputs can be programmable independently to 9 different functions.	
Data output	Galvanically isolated 2 pcs RS232C, RS485 (Modbus RTU), Ethernet TCP/IP (Modbus TCP ) and micro USB.	
Number of load cells	Up to 8 load cells 350 $\Omega$ or up to 24 load cells 1200 $\Omega$ (min. 43 $\Omega$ )	
Load cell connection	Connection with 4 or 6 wires. Cable length maximum 1000 m/mm <sup>2</sup>	
Alibi memory	99 999 weighing records.	
Hazardous Area	 <b>ATEX Approval</b> II 3G Ex ic ec [ic] IIC T6 (Gases) II 3D Ex ic tc [ic] IIIC T85°C IP67 (Dust)	<b>IECEx Approval</b> Gases Ex ic ec [ic] IIC T6 Gc Dust Ex ic tc [ic] IIIC T85°C Dc IP67
Operation temperature	-15°C ~ +50°C max. ( Operational ), -10°C ~ +40°C ( Legal metrology and Hazardous area )	
Humidity	Max. 90% non-condensing relative humidity. Legal metrology max. 80 %	
Housing and protection class	Desktop and wall type stainless steel, IP67 protected.	
Power source	100 - 240 VAC, 50/60 Hz or 12 - 28 VDC for power supply in Ex area or for external Battery.	
<b>Options</b>		
Scales options	Alibi memory.	
Interfaces	ATEX and IECEx certified interfaces are; Analogue Output      Profibus      Profinet      Ethernet IP Digital 4 Inputs / 5 Outputs      Powerlink      EtherCAT	
Accessories	Ex Battery pack, Ex load cell cable, data cable, Ex junction box, Column mount kit, Wall mount kit, 2D Wall mount kit.	

Specifications are subject to change without notice. 03 - 04 / 2023