

BX30 Weighing Indicator

For all your weighing processes

northern
BALANCE



Main Features

- Stainless steel front panel, IP67 protected for wet, hygienic and harsh areas
- Color selectable LCD display with alphanumeric info line
- Bar graph to follow gross weight capacity
- Key lock to protect against user interference

High Technology & Performance

- Up to 300 000 display resolution
- Up to 1600 conversion per second
- Smart and adaptive filter
- High capacity tank scales supported by eCAL electronic calibration
- Span adjustment of loaded tanks without emptying

Typical Applications

- Process weighing applications; tank, silo, hopper and conveyor weighing
- Livestock and dynamic weighing with strong dynamic weighing algorithm

Integration & Connectivity

- Opto isolated RS232C, RS485 and RS422
- Ethernet TCP/IP
- Micro USB port
- Profibus, Profinet, CANopen, EtherNet/IP, EtherCAT, CC-Link, Powerlink, Modbus RTU / TCP and Analogue outputs with Digital I/O with variants.

- RS-232C
- RS-485
- RS-422
- USB
- Ethernet TCP/IP
- Profibus
- Profinet
- CANopen
- EtherCAT
- CC-Link
- Powerlink
- Modbus RTU
- Modbus TCP
- EtherNet/IP
- Analogue output
- Parallel I/Os



The BX30 is a high quality and low-cost panel mount weight Indicator that offers high accuracy weighing performance with powerful connectivity options for all types of weighing applications. With it's IP67 stainless steel front panel the BX30 provides reliable and safe operation in wet, hygienic and harsh industrial environments.

The BX30 has powerful calibration options including eCAL Electronic Calibration - an extremely useful tool for heavy capacity tank scales and for Calibrating tanks and silos without the need to empty their contents.

Connectivity features of the BX30 include RS232C, RS485, RS422, USB and Ethernet TCP/IP as standard with optional Analogue Output, EtherNet/IP, Profibus, Profinet, Modbus RTU, Modbus TCP, CANopen, EtherCAT, CC-Link, Powerlink and Digital I/O as 4 opto isolated inputs and 5 relay outputs.

Typical Applications

1. Industrial Scales

With its state of the art features, BX30 is a very accurate and reliable weighing indicator for industrial scale applications such as bench, floor and truck scales

2. Industrial Process Weighing Applications

BX30 is a high tech instrument for use with tank, silo, hopper, conveyor, and overhead scales.

3. Weighing at Wet, Hygienic and Harsh Environments

BX30 is designed for use in wet and harsh industrial environments and it's IP67 stainless steel housing complies with international hygienic requirements.

4. Livestock and Dynamic Load Weighing

Weighing of dynamic items on the platform (like livestock) is available and this dynamic filtering also makes the BX30 ideal for filtering out unwanted vibrations found in industrial environments.

5. Applications Require Powerful Data Interface and Fieldbus Connection

The BX30 offers powerful interfacing to PC and PLCs including Profibus, Profinet, Ethernet TCP/IP, EtherNet/IP, Modbus RTU / TCP, CANopen, EtherCAT, CC-Link, Powerlink, Analogue output, RS232C, RS485 and RS422 serial ports.



BX30 Technical Specifications

Accuracy class & EU type approval	OIML class III, single 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 300 000 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	Standard calibration tests with test weights, eCAL: (electronic calibration without test weight), span adjustment of non-empty tanks, Coefficient entry
Digital filter	5 step adjustable digital adaptive filter
Functions	Ticket number, date & time, unit change
Standard applications	Labelling with Barcode, livestock weighing and free setpoints, basic peak, hold, functional outputs, 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 14 different functions
Data output	Opto isolated RS232C, RS422 and RS485, USB and Ethernet TCP/IP
Number of load cells	Up to 8 load cells 350 ohm or 27 load cells 1200 ohm
Load cell connection	Connection with 4 or 6 wires. Cable length maximum 1000 m/mm ²
Alibi memory	99 999 weighing records
Operation temperature	-15°C ~ +55°C Legal metrology -10°C ~ +40°C
Humidity	Max. 90% non-condensing relative humidity legal metrology max. 80 %
Housing and protection class	Panel type stainless steel, IP67 protected
Power supply	12 - 28 VDC
Indicator options	Alibi memory, Modbus RTU/TCP
Interfaces of variants	Digital 4 inputs / 5 outputs EtherNet/IP Analogue Output EtherCAT Profibus CC-Link Profinet Powerlink CANopen

(Specifications are subject to change without notice. 01- 04 / 2018)