BX11 Weighing Indicator

Compact and Powerful Performance

Phoenix Scales Limited

Features

- Up to 1600 measurement per second
- 16.000.000 internal counter
- Ergonomic design with small size
- 13,5 mm LED display
- eCal Electronic calibration
- Programmable via PC
- RS-232C & RS-485 serial interface
- 4 digital input 5 Relay contact output

System Integration

- 4-20 mA, 0-10 V Analogue output
- RS-232C / RS 485
- Modbus RTU, Modbus TCP
- Ethernet TCP/IP, EtherNet/IP
- EtherCAT
- Profibus, Profinet
- CANopen
- CC-Link

The Baykon BX11 is a smart weight indicator for industrial weighing and process applications. It offers powerful PLC integration options including RS232 and RS485 serial ports as standard as well as 4 digital inputs and 5 digital outputs. Connectivity options include Ethernet, Analogue and fieldbus connections such as Ethernet/IP, Modbus, Profibus, Profinet CANopen, EtherCAT and CCLink.

Powerful calibration functionality includes eCal which enables electronic calibration without the need for test weights. This ensures fast setup and efficient servicing especially for tank scales. The BX11 also has adaptive digital filtering for a super-fast and stable weighing performance and up to 1600 conversions per second.

The BX11's compact size is perfect for panel installations and a large 13.5mm LED display provides clear and easy reading even from a distance. The stylish stainless steel front panel makes it ideal for use in harsh environments.

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BX11 Specifications

Accuracy

Accuracy class	OIML Class III
EU Type approval	10.000 division
Linearity	% 0.0015 FS
Temperature coefficient	≤ 2 ppm/°C

Display and Keyboard

Display	6 digits, 7 segments, LED 13,5 mm high
Status annunciators	Gross, net, motion, centre of zero, units
Keyboard	5-key (function, GN, tare/clear, zero, print)
Key lock	Keys can be locked against unauthorized access

A/D Converter

Type	24 bit Delta-Sigma ratiometric ADC
Conversion rate	Up to 1600 conversions per second
Minimum input sensitivity	0.4 µV/d (Approved); 0.1 µV/d (Non approved)
Analogue input range	0 mV to +18 mV (unipolar); - 18 mV to +18 mV (bipolar)
Resolution	Internal up to 16.000.000; up to 10.000 increment (Approved); up to 999.999 increment (Non approved)

Scale Calibration and Functions

Calibration	Standard: With etalon weights via keys or via IndFace1X software on serial port eCal: Electronic calibration without etalon weights Fieldbus: Fieldbus commands for zero and span adjustments sCal: Span calibration of non-emptied tanks.
Digital filter	10 step adjustable adaptive digital filter
Weighing functions	Tare, zeroing, auto zero tracking, motion detection, auto-zero at power-up.
Other functions	Label number, gross, tare indication

Digital Inputs / Outputs

Digital outputs	5 set points with relay contact output.
Digital inputs	4 inputs are programmable for zeroing, tare, clear, hold, peak, print etc.

Interfaces

Analogue	Programmable to 4 – 20 mA, 0 – 20 mA, 0 – 5 VDC or 0 – 10 VDC
RS-232C	1200 to 115200 baud, programmable Continuous, Printer, BSI (Baykon Serial Interface) protocol
RS-485	1200 to 115200 baud, 8 none 1, 7 even 1, 7 odd 1, 8 even 1 or 8 odd 1, Up to 31 units on the bus
Modbus RTU	1200 to 115200 baud, 8 none 1, 8 even 1 or 8 odd 1, up to 31 units on the RS-485 bus
Ethernet TCP/IP or Modbus TCP	10 Mbit/s (half duplex), galvanically isolated
EtherNet/IP	10 Mbit/s or 100 Mbit/s, full dublex, galvanically isolated
EtherCAT	100 Mbit/s, full dublex, galvanically isolated
Profibus	Profibus DP V1. 9,6 kbit/s to 12 Mbit/s automatic baud rate detection
Profinet	100 Mbit/s (full duplex), galvanically isolated
CANopen	10 kbit/s to 1 Mbit/s automatic baud rate detection
CC-Link	156 Kbit/s – 10 Mbit/s (selectable), baud rate
POWERLINK	100Mbit/s, half duplex

Load Cell Connection

Excitation	5 VDC, max. 125 mA
Number of load cells	Up to 6 load cells 350 Ω or 18 load cells 1100 Ω in parallel
Connection	4 or 6 wire technique. Cable length 1000 m/mm² for 6 wire connection

Environment and Enclosure

Operation temperature	-15°C to +55 °C; 85% RH max., non-condensing.
Enclosure	Stainless steel front panel, aluminum body, stainless steel rear panel. 48mm x 96mm panel size; 100mm depth
Power requirement	12 to 28 VDC max. 300 mA

Order Codes

	BX11	BX11MB	BX11AN	BX11EN	BX11PB	BX11PN	BX11EI	BX11CO	BX11EC	BX11CC	BX11PW
RS232C				● Standard							
RS485	●			● Selectable as Modbus RTU							
Digital IO				● Standard 4 optically-isolated input - 5 set points with relay contact output.							
Analogue	-	-	●	-	-	-	-	-	-	-	-
Ethernet TCP/IP	-	-	-	●	-	-	-	-	-	-	-
Ethernet Modbus	-	-	-	●	-	-	-	-	-	-	-
EtherNet/IP	-	-	-	-	-	-	●	-	-	-	-
Profibus	-	-	-	-	●	-	-	-	-	-	-
Profinet	-	-	-	-	-	●	-	-	-	-	-
CANopen	-	-	-	-	-	-	-	●	-	-	-
EtherCAT	-	-	-	-	-	-	-	-	●	-	-
CC-Link	-	-	-	-	-	-	-	-	-	●	-
POWERLINK	-	-	-	-	-	-	-	-	-	-	●

(Specifications are subject to change without notice. 03-11 / 2016)