BX14 Weighing Controller

For discontinuous totalizer & extraction rate scales

Advanced Technology
- 16.000.000 internal resolution
- Up to 1600 measurement values per second
- Display resolution 999.999
- Easy control with digital 6 Inputs and 5 Outputs
- Ergonomic design with small size

Smart Process Control
- Flow rate control
- Totalising control
- By-pass functions
- Emptying pipe control
- Displaying actual flow rate and estimated daily total
- Recording erasable total, current day's total, yesterday's total and non-erasable total

External Programming
- Calibration is performed with or without test weights (eCal)
- Easy programming and calibration via RS-232C port by BAYKON "IndFace1x" software
- Calibration via PLC interfaces

System Integration
- RS-232C / RS 485
- Modbus RTU, Modbus TCP
- Ethernet TCP/IP, EtherNet/IP
- EtherCAT
- Profibus, Profinet
- CANopen
- CC-Link

BX14, is a smart weighing controller and it is designed for discontinuous totalizer or extraction rate scale applications. BX14 is used for flow control on the production line together with totalizing the transferred material. This instrument also gives information estimated next 24h total for the actual flow rate and daily total. Additional 3 accumulations can be used for different purposes like production batch total, turn total, Non-erasable total etc. This controller has 4 opto-isolated digital input, 2 non-isolated digital input and 5 relay contact outputs. They are used for filling and disacharge processes.

It has 16.000.000 internal resolution and high speed with up to 1600 measurements per second.

Powerful calibration options including electronic calibration without test weights support easy and fast start-up and service. It's small size aluminium body provides perfect panel installation with its big display and with its small space need on control panels.

BAYKON
Industrial Weighing Systems

Technical Specifications

Accuracy

Accuracy	Compatible with R76 Class III
External resolution	10.000 division
Linearity	% 0.0015 FS
Temperature coefficient	≤ 2 ppm/°C

Display and Keyboard

Display	6 digits, 7 segments, LED red, 13,5 mm high
Status annunciators	Gross, net, centre of zero, 1 / hour flow rate, estimated next 24 hour total, total, unit (kg, t, lb)
Keyboard	5 key (function, star key, tare/clear, zero, print), with tactile feedback
Key lock	Key can be locked against unauthorized access

A/D Converter

Type	24 bit Delta-Sigma ratiometric with internal analogue and digital filtres
Conversion rate	Up to 1600 measurement values per second
Min. input sensitivity	0.4 µV/d (Approved); 0.1 µV/d (Non approved)
Analogue input range	- 18 mV to +18 mV
Resolution	Internal up to 16.000.000; display up to 10 000 increment (Approved); up to 999 999 increment (Non approved)

Scale Calibration and Functions

Calibration	Calibration is performed with or without test weights (eCal)
Digital filter	10 steps programmable adaptive filter
Weighing functions	Taring, zeroing, auto zero tracking, motion detection, increased resolution
Process functions	Flow rate control, totalising control, emptying pipe control, by-pass functions Accumulations; daily total, estimated next 24h total, batch total, turn total, Non-erasable total

Digital Inputs / Outputs

Digital outputs	5 relay contact 250 VAC or 30 VDC, 1 A
Digital inputs	4 opto - isolated and 2 non - isolated digital inputs 12 - 28 VDC, 10 mA

Interfaces

RS-232C	1200 to 115200 baud, 8 none 1, 7 even 1, 7 odd 1, 8 even 1 or 8 odd 1 Continuous, BSI (Baykon Serial Interface) protocol and printer forms
RS-485	1200 to 115200 baud, 8 none 1, 7 even 1, 7 odd 1, 8 even 1 or 8 odd 1, 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 DPV1. 9,6 kbit/s to 12 Mbit/s automatic baud rate detection
Profinet	100 Mbit/s, full dublex, galvanically isolated
CANopen	10 kbit/s - 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 8 load cells 350 Ω or up to 24 load cells 1100 Ω (min. 43 Ω)
Connection	4 or 6 wire technique. Cable length 1000 m/mm² for 6 wire connection

Environment and Enclosure

Operation temperature	-15 ºC to +55ºC; %85 RH max., non - condensing
Enclosure	Stainless steel front panel, aluminum body, stainless steel rear panel. 48mm x 96mm panel size; 100mm depth
Protection class	Front panel IP65
Power requirement	12 - 28 VDC, Max. 300mA

Application Modes

Discontinuous Totalizer

Extraction Rate Scales

BAYKON
Industrial Weighing Systems