TX20Flow

High Precision Controller for Flow Balancers

Analog Output 4-20 mA 0-10V | Digital I/O | RS 485 | Modbus RTU / TCP | TCP IP (2 Ports)

Commonly Used Areas
- Food industry,
- Flour and semolina mills,
- Feed mills,
- Formulation units,
- Tempering units, and
- Blending units,

used in impact plate flow control scales.

For broader ranges of use
- 3 different operating modes,
- Single or Dual speed, flow control,
- Motor control via analogue or digital output,
- Detection of start/stop, lower auger running via digital input.

Fast and Precise Flow Control
- Up to 1600 conversions per second
- 1 000 000 000 counts internal resolution
- 60 000 counts analogue output resolution
- Fast control with adaptive filter

Advantages
- Programmable flow rate,
- Continuous monitoring of the flow rate in kg/hour format on display,
- Easy programming with Alphanumeric Display,
- 3 point load cell linearization
- Highly accurate total value,

mA | V | CE | IP20

TX20Flow impact plate flow scale controller is a high-tech instrument developed for fast and precise flow control of powder and granular materials. TX20Flow can be used reliably in mixing applications such as all kinds of grains (wheat, rice, etc.) and nuts.

TX20Flow calculates the flow rate and flow quantity of product through the flow balancer system and controls the feeder to adjust the flow, ensuring that the targeted working capacity is realized with high precision.

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Technical Specifications

A/D Converter	
Type	30 bit Delta-Sigma ratio metric analog and digital filter. Cycle rate up to 1600 conversions/sec.
Minimum Input Signal / vsi	0.1 µV
Setting and Programming	
Zero and Load Adjustment	With alphanumeric display guidance and buttons on the device, eCal via communication line; high accuracy electronic calibration without test load (instrument error < 0.003%).
Digital Filter	8-step adjustable digital adaptive filter
Weighing Functions	Zero reset, automatic zero tracking, motion detector, automatic zero reset on start-up, increased precision display.
Operating Modes	
Mode-1	Applications where the flow control flapper is pneumatically controlled,
Mode-2	Applications where the flow control flapper is controlled by a motor,
Mode-3	Motorized control of the flow control flapper; and control applications of the front flapper,
Load Cell	
Excitation and Connection	5 VDC, max. 125 mA. 4 or 6 core cable connection.
Number of parallel load cells	Minimum 43 Ω (Maximum 8 350 Ω or 25 1100 Ω load cells)
Connection Options with Peripherals	
RS-485 serial output	1200 - 115200 baud, Length 7 or 8 bits; even/odd/none, continuous data output, Maximum number of stations 31. BSI or Modbus RTU can be selected as communication protocol.
Digital input and output	3 opto-isolated 12 - 24 VDC digital inputs and 4 opto-isolated 12 - 24 VDC digital outputs
Analog Output	65000 steps Galvanically isolated 0 - 20 mA, 4 - 20 mA, 0-5 VDC, 0-10 VDC, ±5 VDC, ±10 VDC Analogue output
Enclosure and Environment	
Power Supply	10 - 28 VDC, min. 60 mA ~ max. 600 mA (Variable according to model and number of load cell connections)
Operation condition	-15 °C - +55 °C, 85% RH non-condensing humidity
Box Material, type, protection class	Polyamide, DIN-rail type, protection class IP20
Packing size and weight	132 x 112 x 30 mm, 254 g

Ordering Code

TX20Flow EN-AN

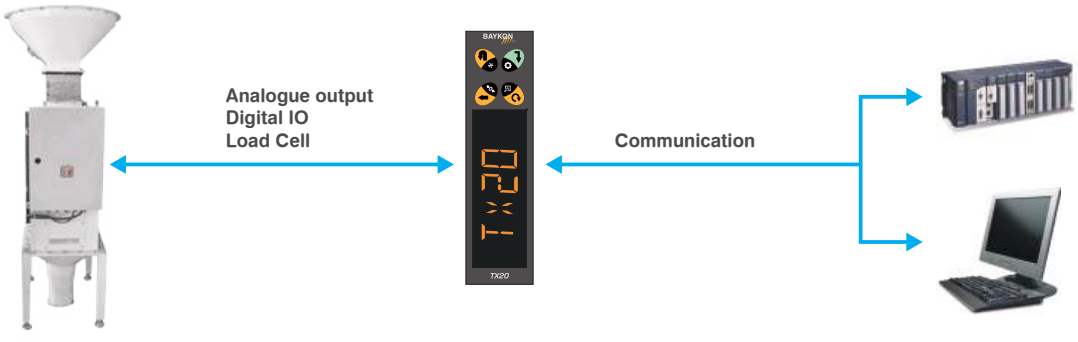
Variant 2

(Blank)	: Variant not available
IO	: Digital 3 In / 4 Out
AN	: Analogue Output
ANIO	: Analogue Out + Digital 3 In / 4 Out

Variant 1

(Blank)	: Variant not available
EN	: Ethernet TCP/IP / Modbus TCP

Typical Application



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