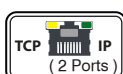


# TX320Flow

## High Precision Controller for Flow Balancers



### 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,



TX320Flow impact plate flow scale controller is a high-tech instrument developed for fast and precise flow control of powder and granular materials. TX320Flow can be used reliably in mixing applications such as all kinds of grains (wheat, rice, etc.) and nuts.

TX320Flow 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.

# 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 $\mu$ V                                                                                       |

## 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 $\Omega$ ( Maximum 8 350 $\Omega$ or 25 1100 $\Omega$ load cells ) |

## Connection Options with Peripherals

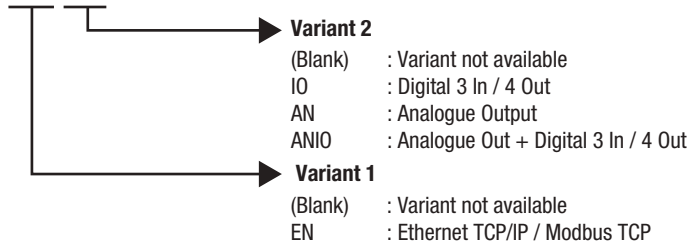
|                          |                                                                                                                                                                            |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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, $\pm$ 5 VDC, $\pm$ 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 $^{\circ}$ C - +55 $^{\circ}$ 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

### TX320Flow EN-AN



## Typical Application

