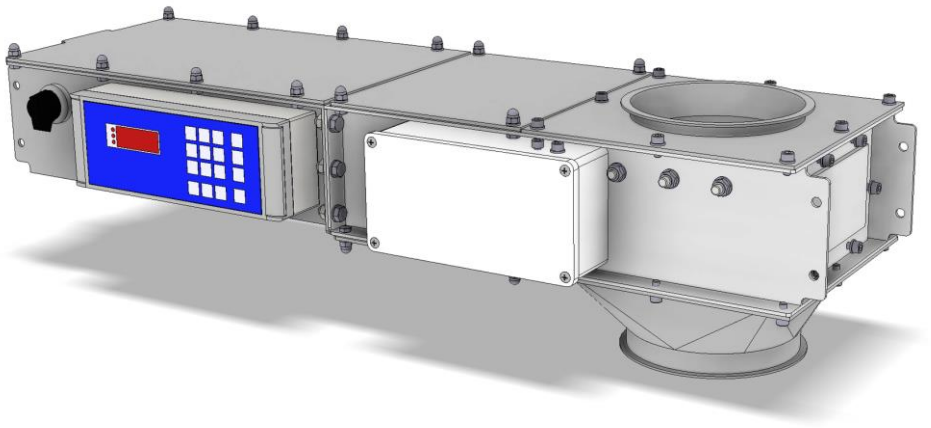
FLOW CONTROLLER FC3

Continuous, gravimetric dosage of free-flowing bulk solids



Overview

- Electrically controlled flat slider with weighing sensor
- Precise regulation of flow capacity in kg/h
- Summation of total amount in kg
- Compact shape with low installation height,
  - ideal for assembly below silos
- Control of slider position and position presetting possible

Applications

The Flow Controller FC3 is particularly suited for:

- Producing grain blends via controlled dosing from multiple silos – ideal for automated recipe management
- Regulated discharge from silos to ensure continuous feeding of downstream processing equipment
- Retrofitting or replacing outdated dosing and weighing systems with minimal installation effort

Note: For proper operation, the Flow Controller FC3 requires a consistent product supply at the inlet.

Function

The Flow Controller FC3 is enclosed in a robust steel housing.

An electrically driven slide gate opens continuously according to the desired setpoint.

Free-flowing bulk material passes over a weighing sensor that measures the actual flow rate. The device adjusts the opening of the slide gate until the measured and target flow rates are in balance — enabling precise, continuous dosing.

Applied products

The system is compatible with all free-flowing bulk materials, including: grains, seeds, granules, pellets, pulses, malt, and various milled or crushed products.

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Construction

The Flow Controller FC3 consists of a dust-tight steel housing, a ball-bearing mounted flat slide gate, a stepper motor–controlled cylinder unit, a high-precision weighing sensor with load cell, and an integrated electronic control unit (24 V DC) mounted directly on the device.

Installation is carried out directly below the outlet of a silo or bin.

Sizes

The following sizes are available:

Type	Pipe diameter	Flow capacity approx.	Height with round outlet	Height without outlet
FC3.100	100 mm	0,5 - 10 m³/h	220 mm	135 mm
FC3.120	120 mm	1,0 - 20 m³/h	220 mm	135 mm
FC3.150	150 mm	2,0 - 40 m³/h	220 mm	135 mm
FC3.200	200 mm	4,0 - 80 m³/h	275 mm	140 mm
FC3.250	250 mm	6,0 - 133 m³/h	250 mm	140 mm
FC3.300	300 mm	10,0 - 200 m³/h	250 mm	140 mm

The housing is made of standard steel, powder-coated in color RAL7035 or stainless steel, the standard-inlet pipe is round. Rectangular inlets are also available.

Integration

The device is installed with flared pipe ends. On request other pipe connections can be realizes. The device is installed at the outlet of a silo. A cleaning connection is optionally available.

Accuracy

The *Flow Controller* has a measuring tolerance of 0,5 – 2 %*, depending on inlet condition, product homogeneity and flow capacity.

Evaluation

Compact electronic, mounted directly at the dosing unit (24 V DC), with LED-display and keypad, easy integration with the following interfaces:

- Digital input (24V), 2 x relay output (24V, kg-pulses/alarms)
- Analogue input (0-10V), analogue output (0(4)-20mA)
- RS485-interface
- Fieldbus interfaces optionally available (Profibus, Profinet, Ethernet/IP, ...)

*(*Related to working range of 20-100% of maximum capacity. Variations may occur caused by wrong feed pipe design, product inhomogeneity and extern disturbing sources.)*
Due to our policy of continuous development, given specifications and data are subject to change.