# Batching Controller

# Model no.: MA10..B

## Description:

The compact and robust Batching Controller offers exceptional reliability, advance filtering, ability to perform under heavy interference and the most severe industrial environment. It is customized for batching up to 6 types of materials in process industries like steel, Ferro Alloy, Glass, Welding Electrodes, Food & Beverages, Pharmaceuticals, Soap & Detergent, Chemical, Rubber, Cement, Paint, Healthcare, Ready mix concrete etc.

## Key Features:

- 20 I/O control (8 inputs and 12 outputs)
- Perfect balance between speed and precision with automatic three-speed feeding control
- Smart calibration without weights
- Storing up to 40 recipes for different batching capacity
- Advanced in-flight material correction algorithm for extremely precise result every time
- Two serial communication ports to connect with computer, printer and/or a second display
- Controls up to 6 kinds material batching process

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We are specialized in all type of Industrial weighing (Like Tank/Hopper, Crane, Ladle, Belt/Screw Weighfeeders, Belt Weighers, Loss in Weighfeeders), Bag/Bin Filling and Batching systems, process equipments (Like Level Switches & Measurements, Vibro-Feeders, Screw Feeders, Mixer, Bucket Elevators, RALV, Vibrating Motors, all type of Valves & Actuators), Process Automation (PLC, DCS & SCADA) and Turnkey Projects.

# Specification:

| CONTROLLER POWER | |
|---|---|
| Power Supply | 90V ~ 260V AC 50Hz(or 60Hz)±2% |
| Power Consumption | 15W |
| **A/D CONVERTER** | |
| Type | 24-bit Delta-Sigma |
| Analogue input range | 0.2mV to 37mV |
| Linearity | <0.001%FS |
| Gain Drifting | 10PPM/℃ |
| Minimum Sensitivity | 0.5 μ V/d |
| Conversion Rate | 120/s |
| Display Accuracy | 1 / 30,000 |
| **DISPLAY & KEYBOARD** | |
| Main Display | 6 digits, 7 segments, VFD |
| Sub Display | 3 digits, 7 segments, VFD |
| Keyboard | 16 membrane switches with beeping feedback |
| Status Indicator | (18 VFD indicator) ZERO, STAB, RUN, SUM, OVER, UNDER, SP1, SP2, SP3, DISC, NZ, FILL, HILIM, HI, GO, LO, LOLIM, HOLD |
| LED Status | Gross, Net, Tare, Pack |
| **CALIBRATION & WEIGHING FUNCTIONS** | |
| Calibration | By test weight or by software calibration |
| Digital Filter | Multiple FIR filter with 9 selectable levels |
| Weighing Functions | zero, zero tracking, auto-zero at power |
| **ENVIRONMENTAL** | |
| Operating Temperature | -10℃ to 50℃ |
| Storage Temperature | -25℃ to 70℃ |
| Relative Humidity | 90% R.H without dew |
| IP Level | Front panel IP 65 |
| **LOAD CELLS** | |
| Excitation | 12V |
| Load Cells | Drives 8 Nos Load Cells of 350Ω |
| **MECHANICAL DATA** | |
| Dimensions & Weight | 165×181×98 mm (L×W×H) weight approx. 2.5kgs |
| Standard Mounting | Panel Mount |
| Enclosure | ABS front panel, cast aluminum body |
| **DIGITAL INPUT** | |
| Input Number | 8 |
| Input Functions | (12 Self-defined functions)  Start, Stop, Zero, Clear Alarm, Change Recipe select, Manual discharge, Manual fine feeding, Print, Key locker, Hi-limit, low-Limit |
| **DIGITAL OUTPUT** | |
| Output Number | 12 |
| Output Functions | (15 Self-defined functions) Run, Stop, Fast feeding, Moderate feeding, Fine-feeding, Fixing-value, Discharge, No. 1 ~No.6 Material short. |
| **INSTRUMENT WITH ANALOGUE OUTPUT(OPTIONAL)** | |
| Type | Isolaed 16-bit D/A converter |
| Accuracy | 0.04% |
| Voltage Output | 0-10V |
| Current Output | 4-20mA / 0-20mA |
| **PRINT FUNCTION** | |
| Print | Rs232 Port |
| **UART RS232/RS485 INTERFACE** | |
| BUS | Standard Modbus RTU |
| CONT | Sending Continuous Data |
| READ | Command and Response Mode |