

Model 302 Compact Batcher

- **A cost effective solution for multi-ingredient, multi-recipe batching and dosing**
- **Handles up to 12 ingredients and 50 recipes**
- **In-flight compensation and tolerance checking**
- **Totalising of recipe production and ingredient consumption**
- **Serial data ports for connection to computer or other devices**
- **Legal-for-Trade with optional Alibi Memory**
- **Optional analogue output**
- **Optional Profibus output**



Model 302 compact batcher

The Model 302 is a compact batch controller that provides an extremely cost effective solution for multi-ingredient, multi-recipe batching applications.

With OIML class weighing performance and the capability to store up to 50 recipes and handle 12 ingredients, the 302 matches the performance of high-end recipe controllers but at a much lower cost.

The basic 302 provides ...

- Storage for up to 50 recipes
- Six volt-free contact outputs
- Eight opto-isolated inputs
- Com. port 1 (RS232C)
- Com. port 2 (RS422 / 485) with ModBus™ capability
- Real-time clock with battery back-up

The six outputs can be configured for dual speed filling (fast/slow) for a maximum of three ingredients or for four ingredients with single speed filling.

Recipes can be started from the keypad or via the digital inputs. A batching cycle can either accumulate several ingredients followed by a single discharge or ingredients can be dosed and discharged individually.

The 302 can also be used as a loss in weight controller to dose a single component.

By connecting a printer, a batch report can be created with date & time, recipe number, individual ingredient weights and total batch weight.

The 302 can be used as a slave controller connected to a PLC or DCS via a serial network

Expansion options

Although even the basic 302 has a wealth of features, expansion options are available to extend the capability of the controller further still ...

- One or two eight-way expansion modules increase the outputs to 24
- Analogue output (4 – 20 mA)
- Profibus DP for fieldbus communication
- BCD output
- Alibi memory (used to provide audit trail for Legal-for-Trade Weighing)

Technical Specification

Performance	
Non-linearity	0.01% of full scale
Display resolution	600,000 divisions of total capacity (6,000 divisions in the case of legal-for-trade)
A/D type and conversion rate	24-bit 160 conversions per second
Calibration method	Menu driven via keypad
Load cell circuit	5 Vdc with 6 wire connection including sense circuit
Signal range	-3.9 mV/V to +3.9 mV/V
Temperature	<0.003% of full scale/°C
Filtering	0.2 Hz to 50 Hz selectable
CE marked	EN50081-1, EN50082-2, EN61010-1, EN45501
Legal-for-Trade	OIML 6,000 divisions
Inputs and outputs (basic unit)	
Parallel inputs and outputs	Inputs: 8 opto isolated 12 Vdc/ 24 Vdc PNP Outputs: 6 relays NO contact, max 115 Vac/30 Vdc 0.5 A each
Serial	Com port 1: RS232C half-duplex Com port 2: RS422/RS485 half-duplex, supports ModBus™ protocol
Inputs and outputs (expansion options)	
Parallel outputs	2 x 8 way expansion modules (spec as above)
Serial	Profibus-DP
Analogue	4-20 mA active, 0-10 V, 16 bit
BCD	Via external module
User interface	
Display size and type	7 digit red LED, 7 segment, 14 mm, plus 7 red status LEDs
keypad	Membrane type, 14 keys and buzzer

Batching functions	
Ingredients	Basic unit: max 4 (3 with dual speed filling) Can be expanded to 12 ingredients (11 with dual speed filling)
Recipes	Max 50
Batching mode	Batching in - either cumulative with discharge or discharge after individual ingredients Batching out - single ingredient
In-flight	Automatically adjusted according to achieved results
Calming time	Programmable
Tolerance check	Automatic and adjustable. Alarm output if tolerance check fails
Batch start/stop	Via keypad or digital I/O
Reporting	Batch report with date/time, recipe number, individual weights and total batch weight (if printer connected). On demand reports of consumption by ingredient and production by recipe
Power requirements	
Voltage and VA	230 Vac 50/60 Hz, (115 Vac optional) 15 VA , 12 Vdc optional
Construction and housing	
Enclosure	Fireproof Noryl (UL 94V1)
Dimensions	144 x 72 x 120 mm (l x h x d) DIN 43700 Panel cut-out 139 x 67 mm, separate installation drawing available
Protection	Front panel IP54
Connections	2 part terminals, serial ports via sub-miniature D connectors
Environmental	
Operating temperature	-10 - +40°C
Storage temperature	-20 - +50°C
Relative humidity	Max 85% without condensation



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