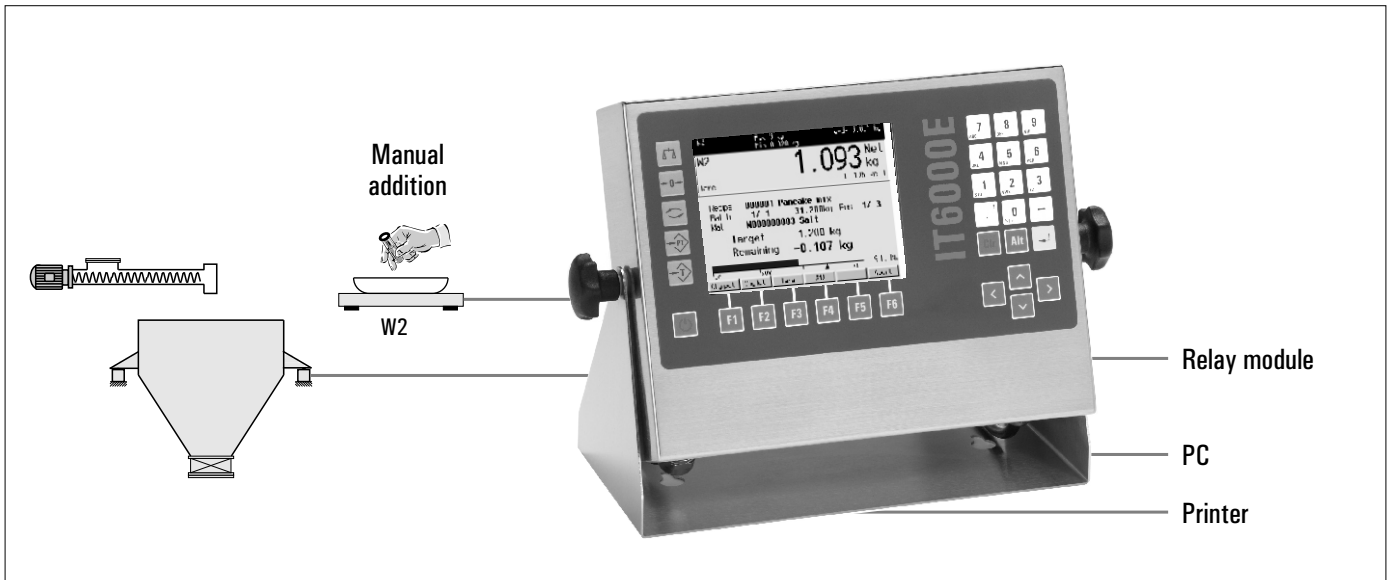


## Batchweighing Controller with Onscreen Operation for Automatic and Manual Batching of Solid and Liquid Materials at 1 to 2 scales



**IT6000E BATCH** is a batchweighing controller for automatic weighing of solid and liquid materials in the **chemical, pharmaceutical, food and other industries**.

The controller connects to loadcells or scales of all types and weight ranges, including Ex-area applications.

**IT6000E BATCH** is suitable for:

- Automatic multi-ingredient batchweighing in hoppers, mixers or tanks,
- Recipe batchweighing on floor and pit-mounted scales including control of manually added ingredients,
- Subtractive batchweighing (weighout) from hopper scales.

The system controls fast and dribble feed of **valves, screw feeders or similar for up to 31 materials**.

**Batching sequences are recipe-controlled.** Recipes contain functions for automatic or manual weighing, weight tolerance check, operator inputs and synchronization steps.

**Production and processing procedures can also be included into an automatic cycle, simply, safely and fast.**

The controller offers functionality to conform with ISO 9001 standards:

- Accurate fill control through fast signal processing, trend-sensing preact adjustment and weight tolerance control.
- **High operational security** through extensive monitoring functions and simple operation via onscreen menus.
- Operator prompting and permanent indication of status with **clearly structured menus on color screen** ensure fast and error-free operation and minimum training requirements.
- **Recording of all data** in a batch log, totals for raw material usage, production quantities and error reports.

The controller is available in two styles:

- **Compact stainless steel enclosure** for desk-top or wall mounting, or
- **Panel-mount housing.**

IT6000E BATCH is designed for:

- **Semi-automatic operation**, as stand-alone batchweighing controller with its own recipe and raw material database, or
- **Automatic operation**, linked to a process control system or PLC with database maintenance and overall process control.

Sequence and operation are configurable and can be adapted to the requirements of a specific application.

### Typical sequence in semi-automatic operation:

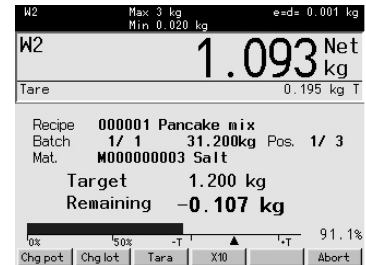
To start a batch, batch size, number of batches and, possibly, application-specific data are keyboard entered. The sequence is started via the keyboard or from an external signal.

A batch log is printed at the end of each batch.

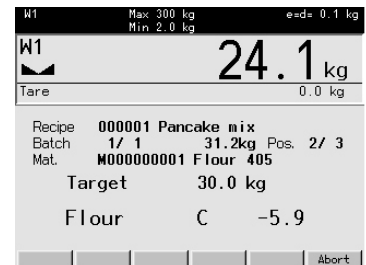
Error messages are displayed in clear text and printed out on a printer (if connected).



Entry of target values



Manual weighing with bargraph display



Automatic batching

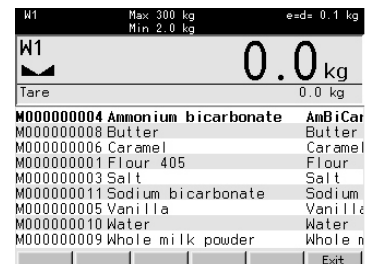
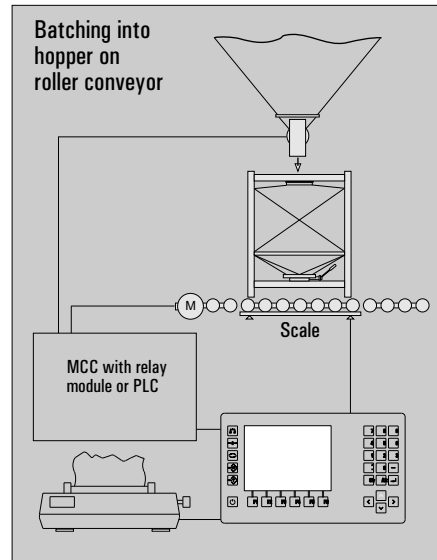
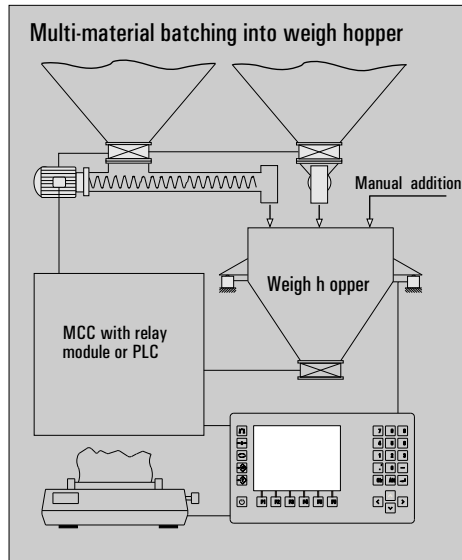


Table of raw materials



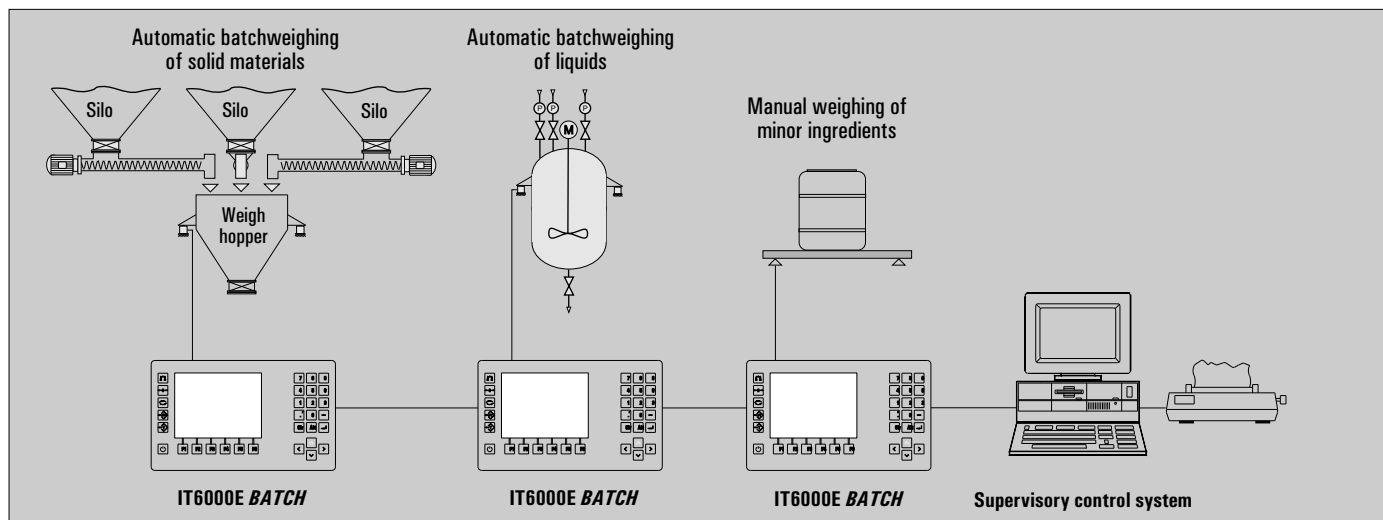
### Typical sequence in automatic operation:

To start a batch, recipe-No., batch size, No. of batches and the start command are transferred to the IT6000E BATCH over Ethernet.

During a batching sequence it is possible to continuously output status

information and actual weight over the Ethernet interface. On completion of a batch, batch information is transferred to the host system.

Automatic operation is typically used when a number of batchweighers equipped with IT6000E BATCH controllers are employed.

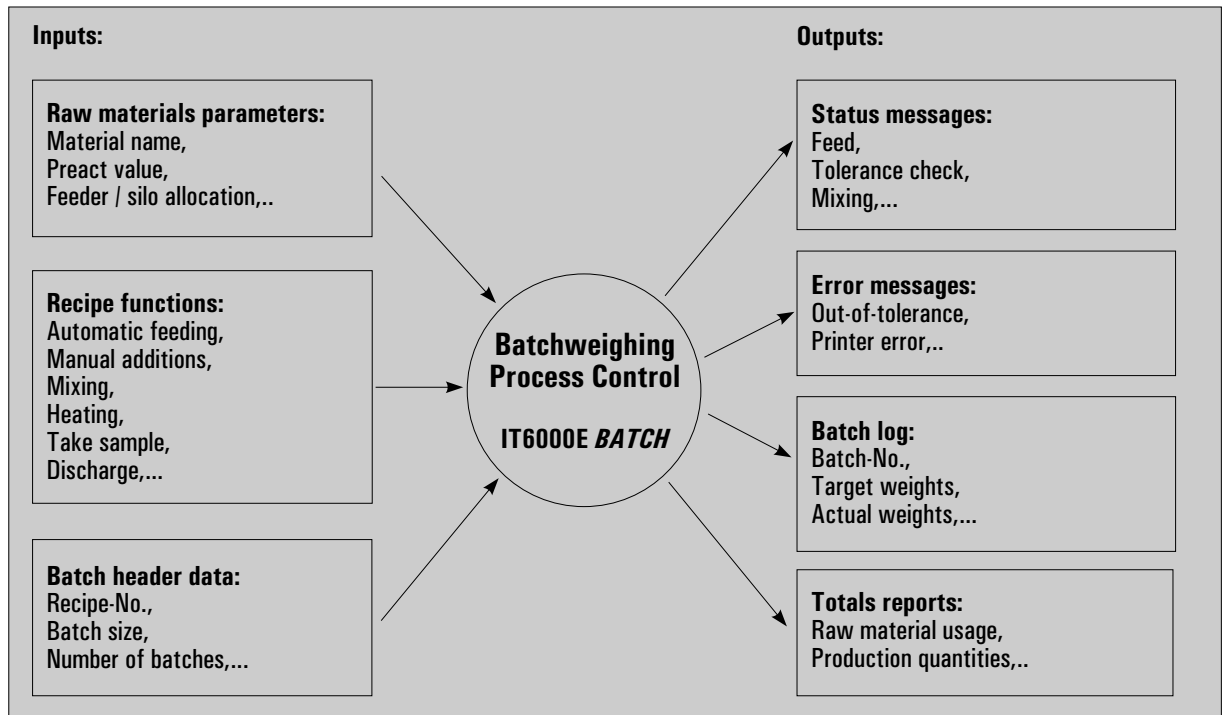


**Recipes:**

- **Recipe database** with max. 100 recipes and max. 2000 recipe lines
- **Capturing of production quantities** for each recipe.
- **Each recipe line may have one of these functions:**
  - Automatic fill control
  - Manual additions
  - Subtractive weighing
  - Discharging
  - Zero check
  - Tare check
  - Confirm fixed value
  - Read data word
  - Write data word
  - Text prompts with operator acknowledgement
  - Synchronization step
  - Time preset
  - Control of mixer, heater, feeder, etc.

**Raw materials:**

- **Automatic batching** of up to 31 raw materials.
- **Manual batchweighing** of a further 69 materials.
- **Parameter entry** of material-No., name, preact value, etc. for each raw material.
- **Feeder assignment** (eg to silos) is configurable.
- **Capturing of raw material usage** for each material.



**Typical batchweighing sequence for a mixer mounted on loadcells:**

- Zero check
- Automatic feeding of major materials with tolerance check and preact adjustment
- Manual addition of minor materials with tolerance check
- Mixing
- Wait for request signal
- Discharging
- Transfer and/or print batch log.

**Typical example of a recipe batching sequence for a container on a roller-bed scale:**

- Zero check
- Move container onto scale
- Tare control
- Automatic feeding of materials with tolerance check and preact adjustment
- Move container off scale.

### Feed control:

- Fast and dribble feed with countdown display and tolerance check.
- Manual feeding with display of remaining target weight and bargraph display, with capturing of batch-Nos.
- Manual filling with change of item and horizontal weighing
- Automatic recalculation of target weights based on desired batch size.
- Automatic trend-sensing preact adjustment (selectable).
- Automatic top-up feed (jog) in the event of minus tolerance (selectable).
- Material flow check with violation alarm (selectable).
- Automatic intermediate discharge when batch size is larger than weighing range (selectable).
- Capturing of operator-No.

### Operation:

- Operator is guided on a high-contrast color TFT display. Numeric keyboard with multiple key assignment for the entry of alphanumeric data, tactile acid-resistant membrane keyboard and soft keys or optional full-size PC keyboard.
- Sequence and operation can be individually configured. This eliminates unnecessary operator steps.
- Input, printout and transfer of application-specific data, eg order-No. or batch-No.
- Operator prompting in English, French or German, other languages on request.

### Reporting:

- Batch log
- Error messages
- Files, totals, parameters
- Logging on printer and/or to file (internal memory or external USB device).

### Files:

- Recipe file with 2000 function entries (recipe lines)
- Raw material file with 100 entries
- Parameter file
- Personnel file with 50 entries.

### Simple integration:

- Stand-alone or remote-controlled operation possible - material parameters, recipes, etc. can be keyboard entered or downloaded.
- Accept, Start, Interrupt functions are possible via external switches.

### Weighing electronics:

- Integrated signal amplifier for connection of up to 16 strain gauge loadcells each in 4- or 6- wire mode
- Calibration as single or multiple-range and as single or multi-interval scale
- Fast signal processing (50 - 800 updates / sec.
- Weights and Measures approved resolution of 6,000d with a maximum preload of 80%, 524,000d internal resolution
- Second scale interface as option possible via serial interface.

### Operating temperature:

-10°C to +40°C, max. 95% relative humidity, non-condensing.

### Security:

- Data are retained in the event of power loss.
- Power fail recovery, continuation of program possible after power failure
- Password protection for all data
- Battery-backed realtime clock
- Display, printout and transfer of all error messages is possible.

### Ethernet interface (Option: WLAN):

Connection to PC network via integrated Ethernet interface with configurable IP address, for data transmission to printer/PC (option), for communication with the host system or remote diagnosis over Internet.

### Serial interfaces:

- For printer (option)
- RS232, 20mA CL, RS422, RS485, selectable, protocol/baudrate configurable.

### Integrated USB interface (Option):

for connection of PC keyboard, scanner, printer or USB stick.

### Parallel interfaces:

- 4 internal opto-isolated inputs / outputs (24V) or
- External relay modules to connect to MCCs / PLC

### Electrical connections:

115 (-15%) - 240 (+10%) VAC; 50/60 Hz, option: 12-30VDC, power consumption max. 20 VA.

### Accessories:

- Support stand for floor mounting
- Relay module with secure separation of inputs and outputs (24V, 3A).

### Ex2/22 version:

for installation in Ex zones 2 and 22.

### Construction:

**Desk/wall version**



- Stainless steel housing, IP69K
- for desk-top or wall-mount installation or with optional column for floor mounting
- Dimension WxHxD: 330x239x134mm

**Panel-mount version**



- Stainless steel housing fascia plate protected to IP65
- Panel-mount installation
- Dimension WxHxD: 285x224x69mm
- Cutout in panel: 268x207mm


### Display / operation:

**Bargraph display**




Manual weighing with bargraph display

**Raw material table**



Maintenance of raw material file

**Directives:** 2009/23/EC, 2004/108/EC, 2006/95/EC

 EC-approval as non-automatic weighing instrument

 ETL-certified in accordance with UL 60950-1 and CSA C22.2 No. 60950-1

**Standards:** EN 45501, OIML R76-1, EN 61000-6-2, EN 61000-6-3, NAMUR NE21, EN 60950

 NTEP approval as indicating element

 EMI compliance with FCC Part 15