



IT2000M BAG

Fill Control for Automatic Bagging Systems

IT2000M BAG is a universal fill control for use in gravity-fill applications of bulk material into bags as automatic filling instrument (AGFI).

The controller will connect to load cells or scales of all types and weight ranges, e.g.:

- Floor scales
- Built-in scales
- Tension load cells.

Single bags or batches can be filled in semi or fully automatic operation. Also selectable is gross or net mode.

The controller is available in two styles:

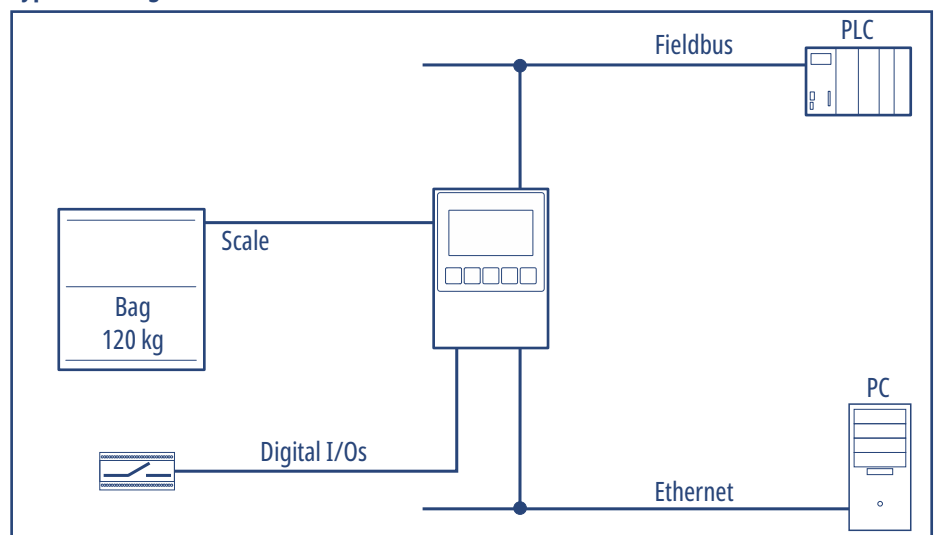
- **Compact module for the installation on DIN rail** with integrated display/keyboard
- **Split-mount version consisting of Blackbox module for the installation on DIN rail** and a separate display/keyboard for the installation in door of switch cabinet.

Essential features:

- **Maximum throughput** through fast signal processing with efficient digital filtering
- **Accurate fill control** through fast acting trend-sensing preact adjustment and weight tolerance control
- **High operational security** through extensive monitoring functions and simple operator control

IT2000M BAG controls the filling process via screw feeders, sliding gates or vibratory feeders. Optionally, bag clamps and the movement of bags onto and off the scale can be controlled.

Typical Setting:



Weighing electronics

Integrated factory calibrated signal amplifier to connect up to 8 strain gauge load cells (350 Ohm) in 4- or 6-wire mode.

Resolution 30,000 d, internal resolution 524,000 d, W&M approved resolution 10,000 d with a max. of 80 % preload. Smallest load cell signal 0.33 μ V/e, update rate 50–800 filtered weight values / sec.

Calibration as single or multiple-range and as single or multi-interval scale. Option for the linearization of the load curve.

Security

Power-fail-safe storage of data, password protection, securing of calibration parameters with switch. Fast replacement without recalibration possible for applications that are not subject to Weights & Measures acceptance.

Simple integration

- Stand-alone or remote-controlled operation possible
- Accept, Start, Interrupt functions are possible from external switches.
- Freely configurable I/Os.

Monitoring functions

- Bag rupture check / flow rate monitor
- Tolerance check
- Tare check.

Transmission

Of weight, product data and process data via fieldbus to PLC possible.

Simple and secure operation

- Operator is guided on a high-contrast display, with symbols for scale status and with keys for taring, zero setting, and other functions
- Display of remaining quantity, bags/h, mean value, standard deviation, total weight, bag counter or target weight
- Data word monitor
- Bag clamp control with discharge flap check
- Up to 99 products with pertaining values for target weight, weight tolerance etc. can be stored against a 2-digit ident number.

Standard interfaces

USB, Ethernet and 2 digital outputs.

Options

- Plug-on modules for the connection to Profinet, Profibus DP, Ethernet/IP or Modbus® TCP
- Plug-on module with 8 digital inputs (24 V, 7 mA, optoisolated) and 8 digital outputs (24 V, 500 mA, optoisolated, short-circuit proof)
- Plug-on module with 2 digital inputs (24 V, 7 mA, optoisolated) and
 - socket for a serial-interface module (SIM)
 - two sockets for digital I/O modules (PIM500) or analog I/O modules (DAU15, ADI)
- Zener barriers for the connection to Exi load cells (max. 15,000 d, 3,000 d for W&M approved applications)
- Grounding rail to connect the shield of connection cables.

Electrical connections

Supply voltage: 12–30 V DC, power consumption max. 17 VA.

Operating temperature

–10 °C (+14 °F) to +40 °C (+104 °F) at max. 95 % relative humidity, non condensing.

Bag filling in gross or net mode

- Product selection – input of target weight (number of bags or total weight)
- Ready status – start filling
- Tare check and/or automatic taring
- Filling with 1 or 2 speeds
- Tolerance weight check and automatic preact adjustment
- End of sequence, ready for next filling cycle
- Adjustment of preact values during operation.

Construction:

Module With Display



Dimensions W x H x D:
92 x 120 x 106 mm
(3.6" x 4.7" x 4.2")

Display Unit And Blackbox



Display Unit W x H x D:
110 x 107 x 35 mm
(4.3" x 4.2" x 1.4")

Directives: 2014/30/EU, 2014/31/EU, 2014/32/EU

CE EU Type-examination Certificate as AGFI

ETL ETL certified in accordance with UL 62368-1 and CSA C22.2 No. 62368-1

UK CA Type-examination Certificate as AGFI

Standards: EN 61000-6-2, NAMUR NE21, EN 61000-6-4, EN 45501, OIML R 76-1, OIML R 61

NTEP NTEP approval as indicating element

FC EMI compliance with FCC Part 15

Canada Measurement Canada: Approval as indicating element

EtherNet/IP **Modbus**
PROFI **PROFI**
NET **BUS**