

This integrator works with single or dual strain gauge load cell based belt scales. With a speed sensor, it measures flow rate and totalized weight of bulk solids. It electronically balances the weigh bridge load cells to provide exceptional accuracy. The system is unaffected by uneven lateral loading – no need for load cell matching or mechanical balancing.

The large backlit display features a bar graph comparing current rate to full scale, reducing the possibility of human error.

The unit has a four-button control pad with tactile feedback keys used to set all parameters, or you can use Milltronics Dolphin Plus software for programming and downloading through a PC or laptop.



## Product Features

- Multi-field backlit LCD
- 2 remote totalizer contacts
- Auto zero function
- Load linearization
- Isolated mA output
- Programmable relay

## Technical Specifications

### Power

- standard: 100/115/200/230 Vac  $\pm$  15%, 50/60 Hz, 15 VA
- optional:
  - 10 - 15 Vdc, 15 W
  - 18 - 30 Vdc, 15 W

### Application

- compatible with Mass Dynamics belt scales MSI, MLC, MUS and MTS, or equivalent

### Accuracy

- 0.1% of full scale

### Resolution

- 0.02% of full scale

### Environmental

- location: indoor / outdoor
- altitude: 2000 m max
- ambient temperature: -20 to 50°C (-5 to 122°F)
- relative humidity: suitable for outdoor
- installation category: II
- pollution degree: 4

### Enclosure

- polypropylene alloy
- Type 4X / NEMA 4X / IP 65
- sealed electronics compartment
- integral junction box with termination block for
  - 0.2 - 4 mm<sup>2</sup> solid, or
  - 0.2 - 2.5 mm<sup>2</sup> stranded (12 - 24 AWG)

### Programming

- via local keypad with silicone boot and/or Dolphin interface

### Display

- 38 x 100 mm (1.5 x 4") multi-field liquid crystal display

### Memory

- program stored in non-volatile FLASH memory, upgradable via Dolphin interface
- parameters stored in non-volatile EEPROM

### Communications (refer to options)

- proprietary bipolar current loop via BIC-2 or CVCC loop length
- Dolphin compatible

### Inputs

- load cell: 0 - 45 mVdc per load cell
- speed sensor: pulse train
  - 0-5 V low, 0-15 V high, or
  - 1 to 2000 Hz / open collector switch, or
  - relay dry contact
- auto zero: dry contact from external device

### Outputs

- analog:
  - optically isolated 0/4 - 20 mA
  - 750  $\Omega$  max loading
  - resolution: 0.1% of 20 mA
- load cell: 10 Vdc compensated for strain gauge, 2 cells max.
- speed sensor: 12 Vdc, 50 mA max. excitation
- remote totalizer 1:
  - contact closure 32 - 288 ms duration
  - open collector switch rated 30 Vdc, 100 mA max.
- remote totalizer 2
  - contact closure 32 - 288 ms duration
  - open collector switch rated 240 Vac/dc, 100 mA max.
- relay output:
  - programmable function 1 form 'C' SPDT relay contact rated 5 A at 250 Vac, non- inductive

### Cable/Separation

- single load cell:
  - non-sensing: Belden 8404, 4 wire shielded, 20 AWG or equivalent, 150 m (500 ft.) max.
  - sensing: Belden 9260, 6 wire shielded, 20 AWG or equivalent, 300 m (1000 ft.) max.
- dual load cell:
  - non-sensing: Belden 9260, 6 wire shielded, 20 AWG or equivalent, 150 m (500 ft.) max.
  - sensing: Belden 8418, 8 wire shielded, 20 AWG or equivalent, 300 m (1000 ft.) max.
- speed sensor: Belden 8770, 3 wire shielded, 18 AWG or equivalent, 300 m (1000 ft.)
- auto zero: Belden 8760, 1 pair, twisted/shielded, 18 AWG, 300 m (1000 ft.) max
- bipolar current (comm. port): Belden 9552, 2 pair, twisted/shielded, 18 AWG, 3000 m (10,000 ft.) max. loop
- remote total (t1 (dc)): Belden 8760, 1 pair, twisted/shielded, 18 AWG, 300 m (1000 ft.) max.

### Options

- speed sensor: Mass Dynamics MD-36, MD-256 or TASS, or equivalent
- Dolphin Plus: Milltronics Windows based software interface and infrared ComVerter link
- CVCC: Milltronics bipolar loop to RS-232 or RS-422 passive converter, communications interface
- BIC-2: Milltronics bipolar loop to RS-232 or RS-422 buffered converter, communications interface, max. 6 BW100 per BIC-2
- Mass Dynamics Incline Compensator, for signal compensation on variable incline conveyors

### Approvals

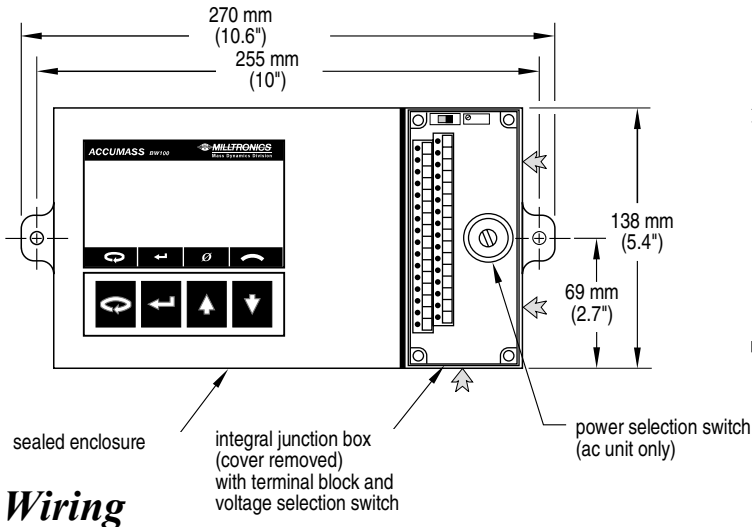
- CE\*, CSA NRTLUC

\*EMC performance available upon request.

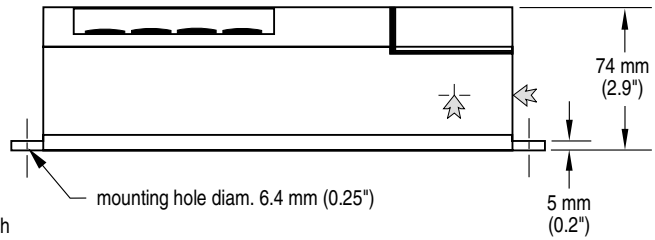
Specifications are subject to change without notice.

# Accumass BW100

## Dimensions



➤ Conduit entry area. Recommended drilling the enclosure with a hole saw and the use of suitable cable glands to maintain ingress rating.



## Wiring

### Terminal Block ac Supply

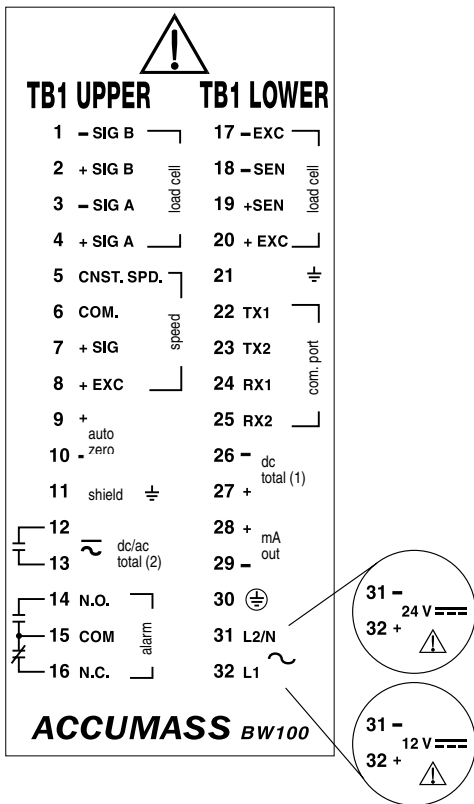
### Interconnection

All field wiring must have insulation for at least 250 V.

dc terminals shall be supplied from an SELV source in accordance with IEC-1010-1 Annex H.

For dc versions TB#31 is used for '-' and TB#32 is used for '+' connection.

Non-metallic enclosure does not provide grounding between connections. Use grounding type bushings and jumpers.



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