

The Milltronics BW100 is an economical integrator for use with belt scales. It 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:
 - 11-15 Vdc, 15 W
 - 19-30 Vdc, 15 W

Application

- compatible with Milltronics belt scales MSI, MLC, and MUS 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 mm² solid, or
 - 0.2-2.5 mm² 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
- Dolphin compatible

Inputs

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

Outputs

- analog:
 - optically isolated 0/4 - 20 mA
 - 750 Ω 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: Siemens Milltronics MD-36, MD-256 or TASS, RBSS, or equivalent
- Dolphin Plus: Windows[®] compatible configuration software connected to unit via infrared Converter link.
- Siemens Milltronics Incline Compensator, for signal compensation on variable incline conveyors

Approvals

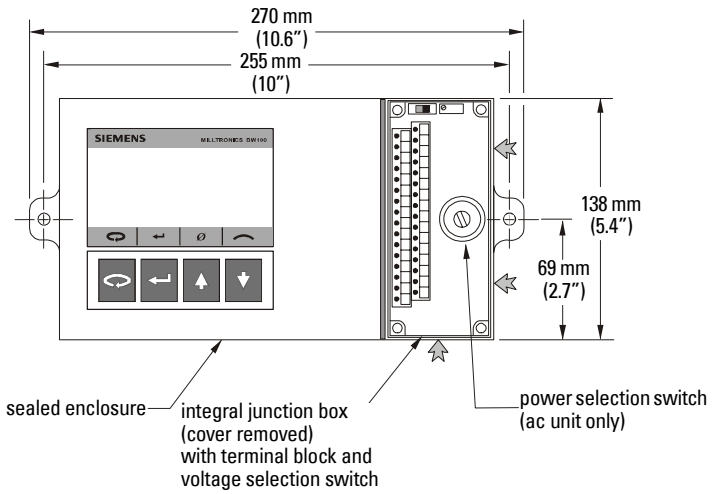
- CE*, CSA NRTL/C

[®] Windows is a registered trademark of Microsoft Corporation.

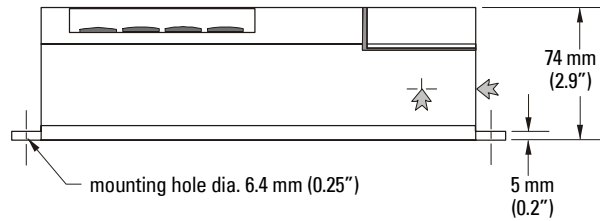
* EMC performance available upon request.

Specifications are subject to change without notice.

Dimensions

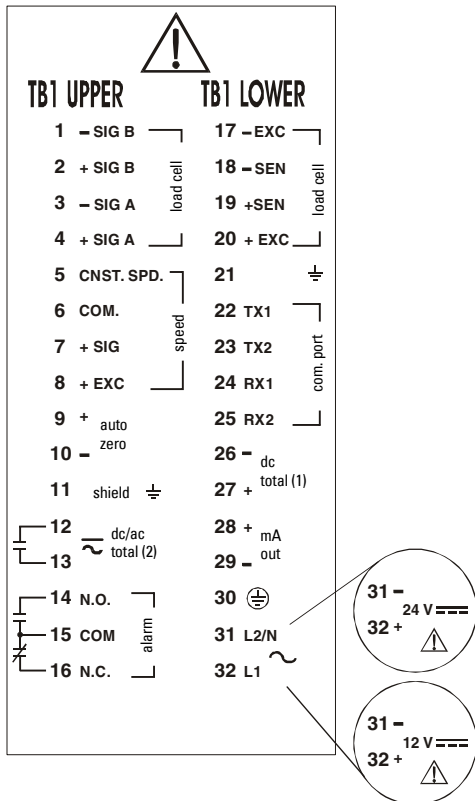


➤ Conduit entry area. Recommended drilling the enclosure with a hole saw and the use of suitable cable glands to maintain ingress rating.



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.