Dependable process monitoring for continuous weighing

Milltronics Integrators

Accurate monitoring
Electronic integrators process sensor signals into operating data for continuous in-line weighing/flow measurement. They offer basic control functions like PID and batch control. Easy to install, commission, and maintain, Siemens integrators incorporate patented electronic load cell balancing and perform basic and sophisticated weighing and flow control functions.
Integrators process the speed or load signal and perform functions to convert the data into rate or totalization. The integrator displays primary speed and load values, as well as derived values of rate and total on the LCD, or outputs the information as analog mA, alarm relay, or remote totalizer.

Mode of operation
The Milltronics BW100 offers basic control functions for use with belt scales. It can be retrofitted for use with previously installed belt scale systems with a maximum of two load cells.

The Milltronics BW500/L is used for two loadcell belt scales and offers connectivity with PROFIBUS DP, A-B Rio, and DeviceNet. It can also be used with SITRANS RD500 via standard Modbus connection and features four language options.

The Milltronics BW500 is a versatile integrator for use with a wide range of belt scales or weighfeeders. It is NTEP, MID, OIML and Measurement Canada certified as legal-for-trade when used with an MMI-2 belt scale. Operating with any belt scale or weighfeeder the BW500 processes belt load and speed signals for accurate flow rate and totalised weight of bulk solids.

The Milltronics SF500 is an advanced integrator for use with load cell or LVDT style solids flowmeters. The Milltronics BW500 and SF500 offer online calibration so the process does not need to be shut down to calibrate the integrator. Both models also offer linearization, PID and batch control, multi-span and auto zero.

Weighing technology
www.siemens.com/weighing

Answers for industry.

SIEMENS

Milltronics Integrators

Milltronics BW100
- Rate, load, or speed alarms
- Two adjustable pulsed outputs
- Programmable analog output
- Large backlit display with bar graph

Milltronics BW500
- Multiple alarms (rate, load and speed)
- Programmable analog output
- Electronic span calibration available
- Two adjustable pulsed outputs
- Dual PID Control, moisture meter and incline sensor input with optional I/O card*
- Differential speed detection with second speed sensor*
- SmartLinx communications
- NTEP, OIML, MID, SABS and Measurement Canada approved*

Milltronics SF500
- Alarms for rate or diagnostic error
- Two adjustable pulsed outputs
- Programmable analog output
- Up to 8 multi-spans for application of more than one feed/flow condition and/or material
- Multi-point linearization function
- Dual PID control and moisture meter input with optional I/O card
- SmartLinx communications
- Batching control functions

	Milltronics BW100	Milltronics BW500	Milltronics SF500
Mode of operation			
Measuring principle	Belt scale integrator	Belt scale integrator	Flowmeter integrator
Applications and compatibility	• Milltronics MLC, MBS, MUS, MCS, MSI, and WD600 • Retrofit with other installed belt scale systems (maximum of two load cells)	• Milltronics belt scales or equivalent 1, 2, 4 or 6 load cell scales • SITRANS WW100, 200, and 300 series weighfeeders • Retrofit of most other belt scale or weighfeeder systems	• Milltronics E, A, V series flowmeters • Other 1 or 2 load cell flowmeters • Linear Variable Differential Transformer (LVDT) equipped solids flowmeters, using optional interface board
Input			
Load cell	0 to 45 mV DC per load cell	0 to 45 mV DC per load cell	0 to 45 mV DC per load cell or LVDT interface card
Output			
Display	• Rate • Belt loading • Totalized weight • Belt speed	• Rate • Belt loading • Totalized weight • Belt speed • PID* • Batching*	• Rate • Totalized weight • PID • Batching
Analog	• Optically isolated 4 to 20 mA, scalable • Selectable for rate, load, or speed	• Optically isolated 4 to 20 mA, scalable • Option: 2 additional analog inputs and 2 outputs programmable for PID control*	
Remote totalizer	2 adjustable pulsed open collector outputs		
Alarm relay	1 programmable form C (SPDT) contact relay rated 5A at 250 V AC, non-inductive	BW500/L: 2 programmable form A (SPST) BW500: 5 programmable form A (SPST) contact relays rated 5A at 250 V AC, non-inductive, reversible	
Performance			
Resolution	0.02% of full scale		
Accuracy	0.1% of full scale		
Rated operating conditions/ambient conditions			
Ambient temp.	-20 to 50 ˚C (-5 to 122 ˚F)		
Deg. of protection	Suitable for outdoor/Type 4X/NEMA 4X/IP65		
Design			
Enclosure	PVDF	Polycarbonate	
Dimensions	270 x 138 x 74 mm (10.6 x 5.4 x 2.9")	209 x 285 x 92 mm (8.23 x 11.23 x 3.6")	
Communications			
	• Bi-polar serial current loop • Dolphin Plus interface configuration software	Two RS-232 ports, one RS-485 port, Modbus® RTU/ASCII (RS-232/RS-485) Optional: • PROFIBUS DP, A-B® RIO, DeviceNet™ via SmartLinx communications modules • Dolphin Plus software	
Approvals			
	All integrators: CE, $CSA_{NRTL/C}$, FM, and C-TICK BW500: SABS, NTEP, OIML , MID, and Measurement Canada		

*Not available on BW500/L

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