



# MILLTRONICS MUS

## Belt scales

### Milltronics belt scales

ELECTRONIC  
EQUIPMENT

ACOUSTIC

**WEIGHT**

ANTI-TILTING

VALVES

TEMPERATURE

DETECT  
A FIRE®

FLOW/  
RATE

DENSITY

INTERFACE

PRESSURE

LEVEL



Milltronics MUS is a modular designed, medium- to heavy-duty belt scale for process indication. Idler not included with belt scale.

#### Benefits

- Unique modular design
- Simple installation
- Low cost
- Easy retrofit

#### Application

Milltronics MUS operates with products like aggregates, sand, or minerals, providing continuous in-line weighing at a minimal cost. With no cross bridge, this versatile unit will fit most conveyor widths and standard idlers, and product build-up is reduced.

The construction and easy assembly of the MUS ensures quick delivery to meet even the tightest of schedules. Where scales are moved from conveyor to conveyor, the MUS also provides unmatched flexibility.

Operating with Milltronics BW500, SIWAREX WT241, WP241, or FTC microprocessor-based integrators, the MUS provides indication of flow rate, total weight, belt load, and speed of bulk solids materials on a belt conveyor. A speed sensor monitors conveyor belt speed for input to the integrator.

# TECHNICAL SPECIFICATIONS

Mode of operation	Heavy duty strain gauge load cells measuring load on belt conveyor idlers
Measuring principle	
Typical applications	<ul style="list-style-type: none"> <li>• Monitor fractionated stone on secondary surge belts and recirculating loads</li> <li>• Track daily production totals</li> </ul>
Measurement accuracy	
Accuracy	± 0.5 ... 1 % of totalization over 25 ... 100 % operating range, application dependent
Repeatability	± 0.1 %
Medium conditions	
Max. material temperature	65 °C (150 °F)
Belt design	
Belt width	<ul style="list-style-type: none"> <li>• Standard duty up to 1 000 mm (CEMA width up to 42 inch)</li> <li>• Heavy-duty up to 1 524 mm (CEMA width up to 60 inch)</li> <li>• Refer to dimensional drawing</li> </ul>
Belt speed	Up to 3.0 m/s (600 fpm) <sup>1)</sup>
Capacity	Up to 5 000 t/h at maximum belt speed
Conveyor incline	<ul style="list-style-type: none"> <li>• ± 20° from horizontal, fixed incline</li> <li>• Up to 30° with reduced accuracy<sup>3)</sup></li> </ul>
Idlers	
Idler profile	<ul style="list-style-type: none"> <li>• Flat to 35D</li> <li>• To 45° with reduced accuracy<sup>3)</sup></li> </ul>
Idler diameter	50 ... 180 mm (2 ... 7 inch)
Idler spacing	0.6 ... 1.5 m (2.0 ... 5.0 ft)
Load cell	
Construction	Nickel plated alloy steel
Degree of protection	IP66
Cable length	3m (10 ft)
Excitation	10 V DC nominal, 15 V DC max.
Output	2 mV/V excitation at rated load cell capacity
Non-linearity and hysteresis	0.02 % of rated output
Non-repeatability	0.01 % of rated output
Capacity	
• Standard duty ranges	20, 30, 50, 75, 100 kg (44, 66, 110, 165, 220 lb)
• Heavy-duty ranges	50, 100, 150, 200, 500 kg (110, 220, 330, 440, 1 100 lb)
Overload	150 % of rated capacity, ultimate 200 % of rated capacity
Temperature	<ul style="list-style-type: none"> <li>• -40 ... +65 °C (-40 ... + 150 °F) operating range</li> <li>• -10 ... +105 °C (15 ... +221 °F) compensated</li> </ul>
Weight	Standard duty up to 44 lb (20 kg), 22 lb (10 kg) per side Heavy-duty up to 64 lb (30 kg), 32 lb (15 kg) per side
Interconnection wiring (to integrator)	<ul style="list-style-type: none"> <li>• &lt; 150 m (500 ft) 18 AWG (0.75 mm<sup>2</sup>) 6 conductor shielded cable</li> <li>• 150 m 300 m (500 ... 1 000 ft) 18 AWG (0.75 mm<sup>2</sup>) 8 conductor shielded cable</li> </ul>
Hazardous locations	Consult the factory
Approvals	CE, RCM, EAC, CMC

1) Accuracy subject to: on factory approved installations the belt scale system's totalized weight will be within the specified accuracy when compared to a known weighed material test sample. The test rate must be within the specified range of the design capacity and held constant for the duration of the test. The minimum material test sample must be equivalent to a sample obtained at the test flow rate for three revolutions of the belt or at least ten minutes running time, whichever is greater.

2) Contact Siemens application engineering (factorysupport.smpi@siemens.com) for consideration of higher belt speeds.

3) Review by Siemens application engineer required.