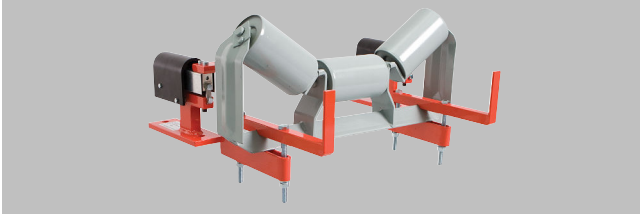


Overview



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.

Milltronics MUS

Selection and ordering data

Milltronics MUS Belt scale		Article No.					
Accuracy is ± 0.5 ... 1 % of totalization over 25 ... 100 % operating range with capacity up to 5 000 t/h (5 512 STPH).		7MH7123-	●	●	●	●	0
Click on the Article No. for the online configuration in the PIA Life Cycle Portal.							
Scale construction							
Standard for belt width up to 1 000 mm (42 inch), stainless steel load cells			3				
Heavy-duty for belt width up to 1 524 mm (60 inch), stainless steel load cells			4				
Load cell capacity							
Standard Duty Scale Load Cell							
20 kg (44.1 lb) ¹⁾				A	A		
30 kg (66.1 lb) ¹⁾				A	B		
50 kg (110.2 lb) ¹⁾				A	C		
75 kg (165.3 lb) ¹⁾				A	D		
100 kg (220.4 lb) ¹⁾				A	E		
Not specified ²⁾				X	X		
Heavy-Duty Scale Load Cell							
50 kg (110.2 lb) ³⁾				B	A		
100 kg (220.4 lb) ³⁾				B	B		
150 kg (330.7 lb) ³⁾				B	C		
200 kg (440.9 lb) ³⁾				B	D		
300 kg (661.4 lb) ³⁾				B	E		
500 kg (1 102.3 lb) ³⁾				B	F		
Fabrication							
C5-M rated polyester painted mild steel							1

Selection and ordering data	Order code
Further designs	
Please add "-Z" to article no. and specify order code(s).	
Stainless steel tag [69 x 38 mm (2.7 x 1.5 inch)], Measuring-point number / identification (max. 27 characters), specify in plain text.	Y15
Application Eng. reference number (max. 15 characters), specify in plain text.	Y31
Manufacturer's test certificate: According to EN 10204-2.2	C11
Operating instructions	
All literature is available to download for free, in a range of languages, at http://www.siemens.com/weighing/documentation	
Spare parts	
Standard Duty Scale Load Cell	
20 kg (44.1 lb)	A5E51496337
30 kg (66.1 lb)	A5E51496338
50 kg (110.2 lb)	A5E51496339
75 kg (165.3 lb)	A5E51496340
100 kg (220.5 lb)	A5E51496341
Standard Duty Scale Load Cell, includes mounting hardware	
20 kg (44.1 lb)	A5E51593526
30 kg (66.1 lb)	A5E51593558
50 kg (110.2 lb)	A5E51593559
75 kg (165.3 lb)	A5E51593562
100 kg (220.5 lb)	A5E51593564
Heavy-Duty Scale Load Cell	
50 kg (110.2 lb)	A5E51496329

Selection and ordering data	Order code
100 kg (220.5 lb)	A5E51496330
150 kg (330.7 lb)	A5E51496331
200 kg (440.9 lb)	A5E51496332
300 kg (661.4 lb)	A5E51496333
500 kg (1 120.3 lb)	A5E51496335
Heavy-Duty Scale Load Cell, includes mounting hardware	
50 kg (110.2 lb)	A5E51593568
100 kg (220.5 lb)	A5E51593585
150 kg (330.7 lb)	A5E51593588
200 kg (440.9 lb)	A5E51593591
300 kg (661.4 lb)	A5E51593592
500 kg (1 120.3 lb)	A5E51593593
Rock Guard, MUS Standard Duty Scale, spare	7MH7723-1DM
Conduit replacement kit	7MH7723-1NA
Calibration weights	
See Milltronics flat bar calibration weights catalog page: https://support.industry.siemens.com/cs/document/109813400	
Note: calibration accessories should be ordered as a separate item on the order.	

- 1) For use with scale construction option 1 only.
2) Only for quotation purposes, not a valid ordering option.
3) For use with scale construction option 2 only.

Technical specifications

Milltronics MUS	
Technical specifications	
Mode of operation	
Measuring principle	Heavy duty strain gauge load cells measuring load on belt conveyor idlers
Typical applications	<ul style="list-style-type: none"> Monitor fractionated stone on secondary surge belts and recirculating loads Track daily production totals
Measurement accuracy	
Accuracy ¹⁾	± 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"> Standard duty up to 1 000 mm (CEMA width up to 42 inch) Heavy-duty up to 1 524 mm (CEMA width up to 60 inch) Refer to dimensional drawing
Belt speed	Up to 3.0 m/s (600 fpm) ²⁾
Capacity	Up to 5 000 t/h at maximum belt speed ²⁾
Conveyor incline	<ul style="list-style-type: none"> ± 20° from horizontal, fixed incline Up to ± 30° with reduced accuracy³⁾
Idlers	
Idler profile	<ul style="list-style-type: none"> Flat to 35° To 45° with reduced accuracy³⁾
Idler diameter	50 ... 180 mm (2 ... 7 inch)
Idler spacing	0.6 ... 1.5 m (2.0 ... 5.0 ft)
Load cell	
Construction	17-4 PH (1.4568) stainless steel Strain gauge protection: silicon
Degree of protection	IP67
Cable length	3 m (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"> -40 ... +65 °C (-40 ... +150 °F) operating range -10 ... +40 °C (15 ... 105 °F) compensated
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"> < 150 m (500 ft) 18 AWG (0.75 mm²) 6 conductor shielded cable > 150 m ... 300 m (500 ... 1 000 ft) 18 ... 22 AWG (0.75 ... 0.34 mm²) 8 conductor shielded cable
Approvals	CE, UKCA, RCM, EAC, CMC, KC

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.

Technical specifications (continued)

²⁾ Contact Siemens (http://www.automation.siemens.com/aspa_app) for consideration of higher values.

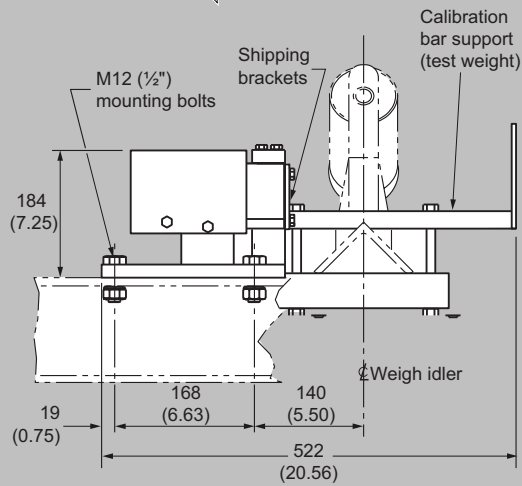
³⁾ Review by Siemens required (http://www.automation.siemens.com/aspa_app).

Dimensional drawings

Standard duty

Belt direction for all flat or inclined conveyors

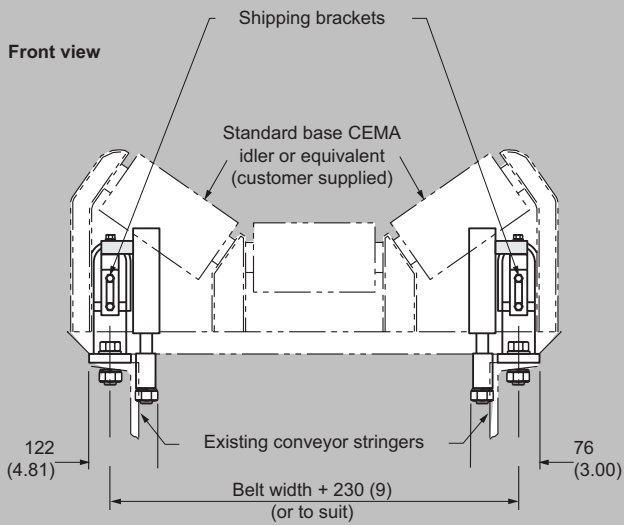
Side view



Note:

(2) approach and (2) retreat idlers should be aligned with the weigh idler to within 0.8 (+1/3) to 0 (0).

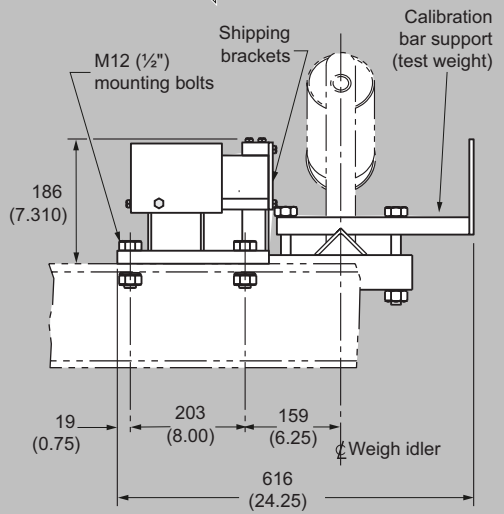
Front view



Heavy duty

Belt direction for all flat or inclined conveyors

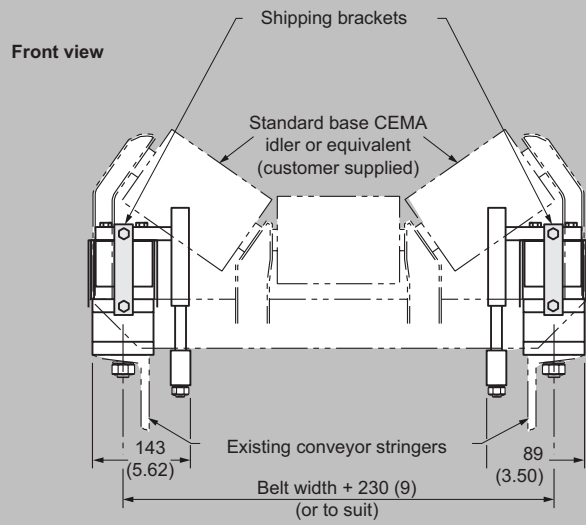
Side view



Note:

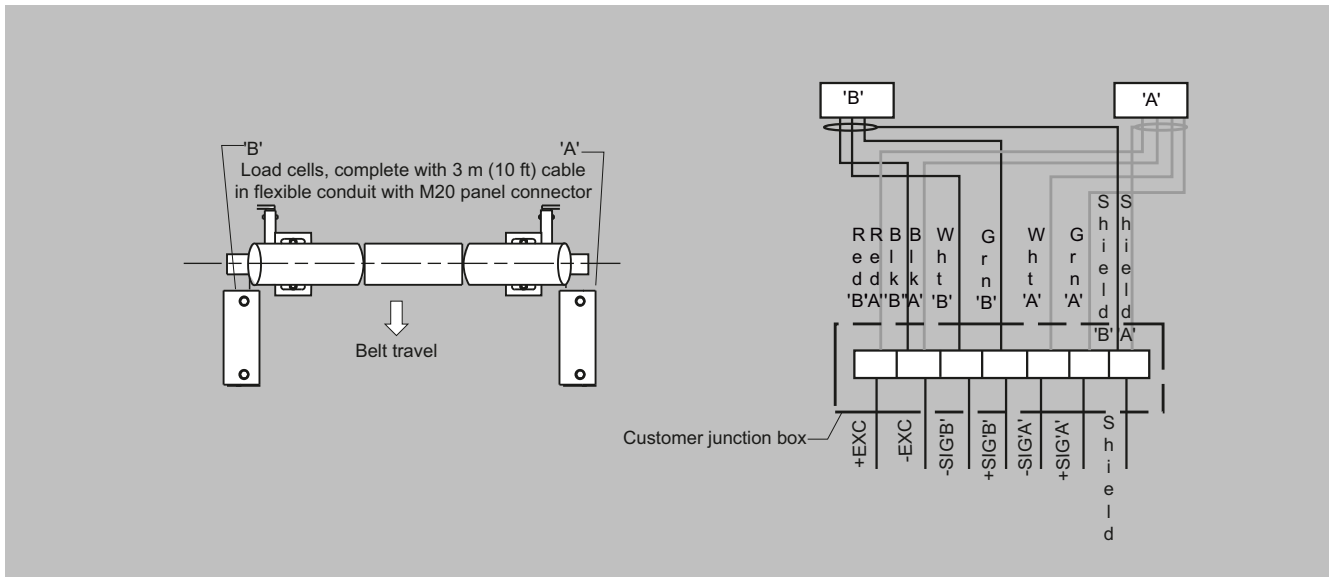
(2) approach and (2) retreat idlers should be aligned with the weigh idler to within 0.8 (+1/3) to 0 (0).

Front view



MUS, dimensions in mm (inch)

Circuit diagrams



MUS connections