## **BELT SCALE SERIES 1014**



## Precision Beltscale Series 1014.

High-precision beltscale for industrial applications.

Accuracy: ±0.125%.



## Rugged, high-precision Beltscale

DATA SHEET

Our EmWeA series 1014 precision belt scale is specifically designed for highest accuracy or basis-of-payment applications requiring certification by government and regulatory agencies. This belt scale is extremely accurate to within  $\pm 0.125\%$  and is the most widely certified belt scale in the world.

The series 1014 precision belt scale lets you monitor production output and inventory, or regulate product loadout, while providing vital information for the effective management and efficient operation of your business.



Its weighing assembly consists of the 1014 low-deflection, full-floating unitized weighing frame and a speed sensor. It also utilizes a state-of-the-art electronic integrator.

Our series 1014 precision belt scale represents the world standard of accuracy and performance for loadout, inventory monitoring and fee-holder type applications requiring certification.



#### **System Components**

The EmWeA series 1014 precision belt scale consists of three major components: control unit (integrator), weighing frame, and belt speed sensor.

#### **Control Unit (Integrator)**

As control units, state-of-the-art integrators are used. These devices are characterized by their high accuracy, their ruggedness and their easy handling. Interfaces make it easy connecting the belt scale with process control systems.

#### **Weighing Frame**

The 1014 weighing frame is normally designed for four idler stations. For special applications, the weighing frame may be designed for two, three, six or more idler stations as well. All series 1014 weighing frames are constructed of structural steel tubing and are factory pre-assembled with checkrods to facilitate fast and easy field installation. Only eight bolts are required to mount the unit to conveyor stringers. Four environmentally-sealed precision strain gauge load cell assemblies are applied in tension to support the weigh platform.

#### 1014 Weighing Frame Advantages:

- Rigid structural steel tubing construction with check rods maintains positive alignment.
- No moving or wearing parts lead to a longer life span and low maintenance costs.
- Factory pre-assembled and easily installed.
- Four strain gauge load cells applied in tension.
- Full-floating, pivotless weigh platform.



#### **Belt Speed Sensor**

For belt speed measurement, the WI520 digital belt speed sensor is being used. Different sensors on request.

#### WI520 Belt Speed Sensor Advantages:

- Rugged housing, suitable for outdoor installations.
- Digital rotary encoder; not affected by belt slippage or dirt.





#### **Performance Guarantee**

On installations approved by EmWeA, we warrant that the EmWeA series 1014 precision belt scale will weigh and totalize to a value within  $\pm 0.125$  % of the test load when calibrated to our specifications.

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### **1014-4 Weighing Frame:**



## **Dimensions (Examples):**

Belt Width	Dimensions (ca.)						
	А	В	С	D	E	F	
500 mm	600 mm	750 mm	800 mm	650 mm	190 mm	14 mm	
650 mm	750 mm	900 mm	950 mm	800 mm	190 mm	14 mm	
750 mm	850 mm	1,000 mm	1,050 mm	900 mm	190 mm	14 mm	
850 mm	950 mm	1,100 mm	1,150 mm	1,000 mm	190 mm	14 mm	
1,000 mm	1,100 mm	1,250 mm	1,300 mm	1,150 mm	250 mm	18 mm	
1,200 mm	1,300 mm	1,450 mm	1,500 mm	1,350 mm	250 mm	18 mm	
1,400 mm	1,500 mm	1,650 mm	1,700 mm	1,550 mm	250 mm	18 mm	
1,600 mm	1,700 mm	1,850 mm	1,900 mm	1,750 mm	250 mm	18 mm	
1,800 mm	1,900 mm	2,050 mm	2,100 mm	1,950 mm	250 mm	18 mm	
2,000 mm	2,100 mm	2,250 mm	2,300 mm	2,150 mm	250 mm	18 mm	

Idler Specing	Dimensions (ca.)					
Idler Spacing	G	Н	I	J		
900 mm	3,250 mm	3,050 mm	1,800 mm	450 mm		
1,000 mm	3,550 mm	3,350 mm	2,000 mm	500 mm		
1,200 mm	4,250 mm	4,050 mm	2,400 mm	600 mm		



### **Technical Specifications:**

**1014 Weighing Frame:** 



No. of weighing idlers: Clearance requirements: Belt width: Construction: Mounting:

Load Cells:



Quantity: Enclosure: Mounting: Excitation: Output: Accuracy: Operating temperature: Nominal temperature: Safe load: Certificates (standard): Certificates (optional): 4 (standard), 3, or 2 fits any standard conveyor; no space required above belt line from 400 mm (no upper limit) mechanical steel tubing (option: stainless steel) 8 bolts to conveyor stringers

4 environmentally-protected load cell, stainless steel, IP 67 welded bending beam type load cell 10 V DC 3 mV/V ±0.02 % / 3000 d -40°C ... +80°C -10°C ... +40°C 150 % full span CE ATEX, MID, OIML

#### WI520 Belt Speed Sensor:



Type: Mounting: Housing: Mounting hardware: Certificates (standard): Certificates (optional):

digital, brushless direct to shaft of tail pulley or bend pulley weatherproof, IP 67 supplied with flexible coupling CE ATEX, cCSAus

Control and Display Unit (Integrator):





Different variants are available for different requirements. Choose from field mount, or panel mount. Various interfaces such as binary and analogue inputs and outputs, serial inferfaces, PROFIBUS, PROFINET®, EtherNet TCP/IP, or EtherNet/IP enable connection to process control systems and controllers. We would be happy to make you an individual offer!



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