

## Control Beltscale Thermo Ramsey IDEA 10-101.

Low-priced, rugged beltscale for  
in-company belt weighing.

**Accuracy:  $\pm 1\%$ .**



### Rugged, low-priced Beltscale

Specifically designed for operations where economy and ease of installation are important considerations, the Thermo Ramsey IDEA beltscale provides basic rate and totalization functions. The IDEA belt scale is ruggedly designed and outstandingly easy to install.

The IDEA 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.



The weighing assembly consists of the modular IDEA weighing frame and the speed sensor ZA-11. It also utilizes the modern MINI CK series electronic integrator.

The IDEA beltscale is suited for basic registration and monitoring of continuously conveyed bulk materials. Accuracy is normally  $\pm 1\%$ .



## System Components

The Ramsey IDEA beltscale consists of three major components: control unit (integrator), weighing frame, and belt speed sensor.

### Control Unit (Integrator)

As control units, the modern MINI CK series integrators are used. These devices are characterized by their high accuracy, their ruggedness and their easy handling. Interfaces and expandabilities make it easy connecting the beltscale with process control systems.

### Weighing Frame

The IDEA weighing frame is designed for one idler station. The weighing frame consists of either one or two weighing modules, depending on conveyor width. Compact and designed to attach to the conveyor's stringers, the modules support the weigh idler and measure the weight of material on the conveyor belt.

### IDEA Weighing Frame Advantages:

- Factory installed and calibrated overload protection.
- Pivotless design.
- No moving or wearing parts to cause potential maintenance problems.
- Compact design for easy installation and alignment.
- No place for material to build up and cause measurement errors.
- Identical weighing modules fit on any belt width and are interchangeable.



### Belt Speed Sensor

For belt speed measurement, the ZA-11 digital lower belt measuring wheel is being used which stands out due to very simple installation. The PTFE measuring wheel reduces soilings and adhesions.

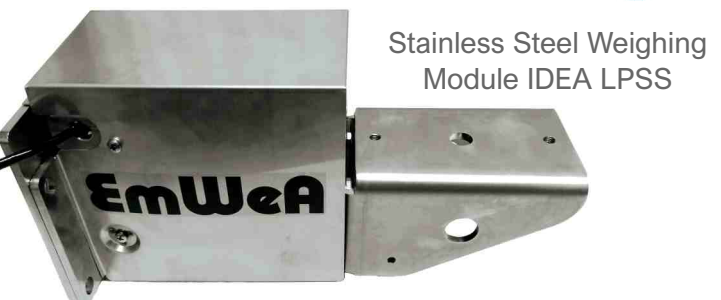
As an alternative, the 60-12 digital belt speed sensor without measuring wheel can be used.

### ZA-11 Lower Belt Measuring Wheel Advantages:

- Simplest installation.

### 60-12 Belt Speed Sensor Advantages:

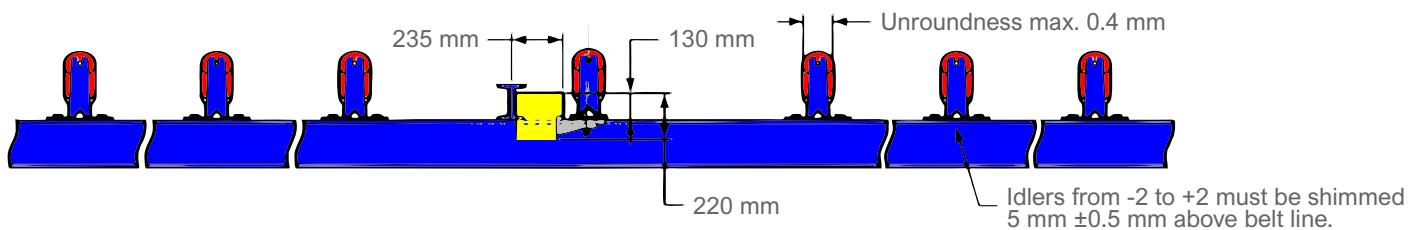
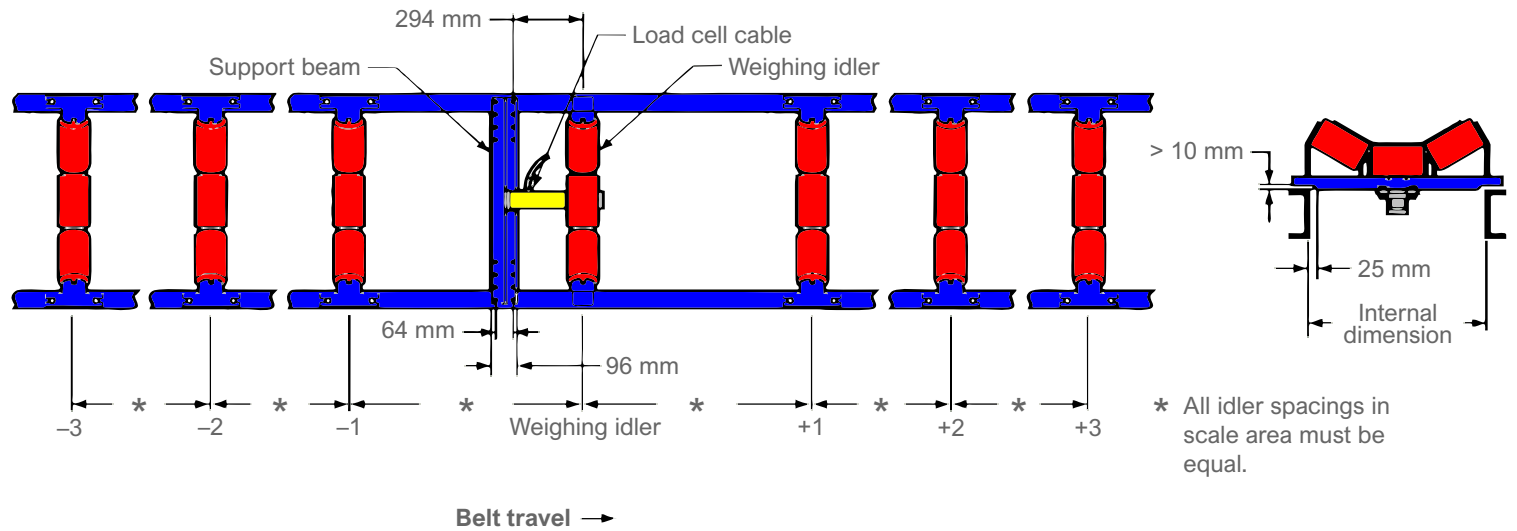
- Rugged housing, suitable for outdoor installations.
- A/C pulse generator means no brushes to adjust or replace.



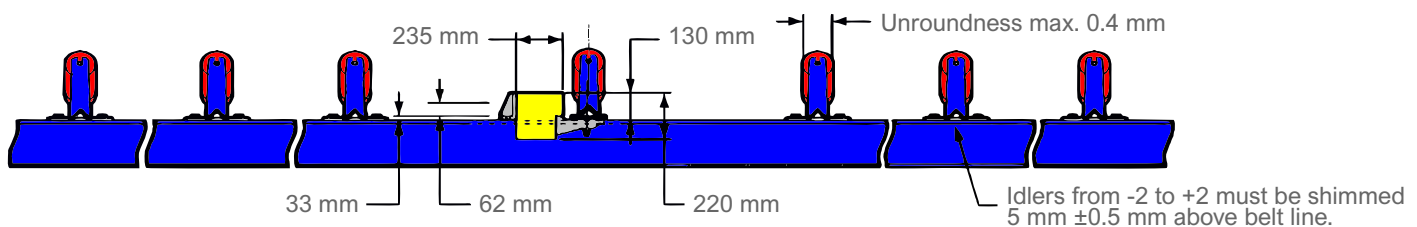
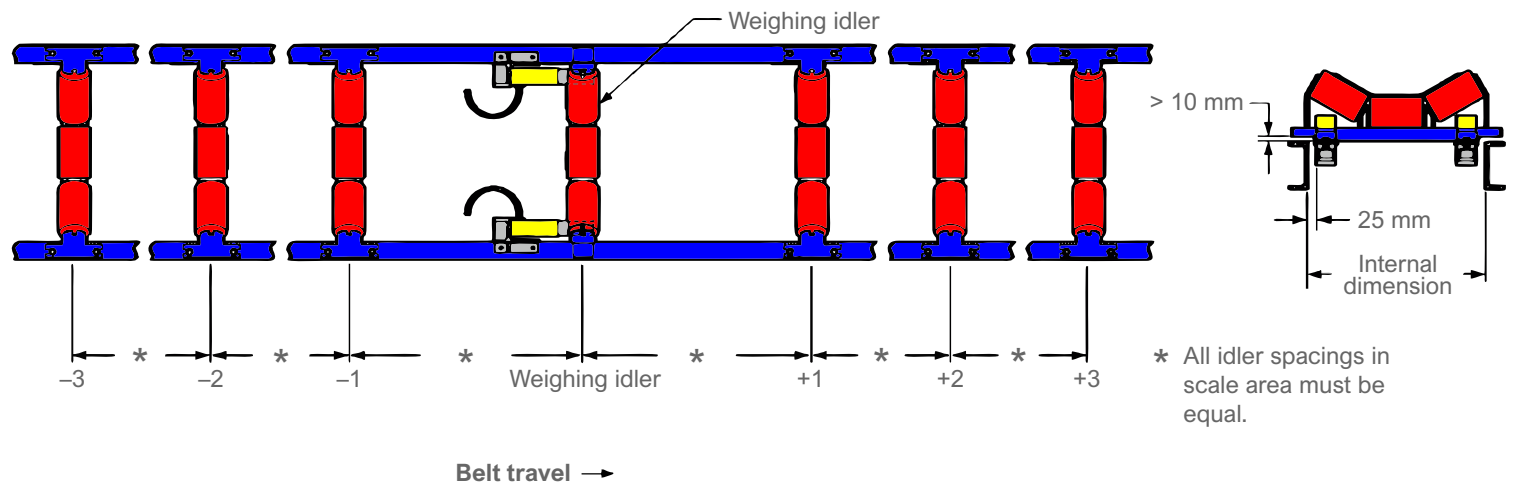
### Performance Guarantee

On installations approved by EmWeA, we warrant that the Thermo Ramsey IDEA beltscale will weigh and totalize to a value within  $\pm 1\%$  of the test load when calibrated to our specifications.

## IDEA-1 Weighing Frame:



## IDEA-2 Weighing Frame:



## Technical Specifications:

### IDEA Weighing Frame:



No. of weighing idlers:	1
No. of weighing modules:	1 (IDEA-1) or 2 (IDEA-2)
Clearance requirements:	fits any standard conveyor; no space required above belt line
Belt width:	up to 800 mm (IDEA-1) / up to 1600 mm (IDEA-2)
Construction:	compact module, steel / aluminium (option: stainless steel)
Mounting:	4 bolts to conveyor stringers

### Load Cell:



Quantity:	1 per weighing module
Enclosure:	environmentally-protected load cell, stainless steel, IP 67
Mounting:	welded bending beam type load cell
Excitation:	10 V DC
Output:	2 mV/V
Accuracy:	$\pm 0.02\%$ / 3000 d
Operating temperature:	-40°C ... +80°C
Nominal temperature:	-10°C ... +40°C
Safe load:	150 % full span
Certificates (standard):	CE

### ZA-11 Lower Belt Measuring Wheel:



Type:	digital, brushless
Mounting:	lower belt measuring wheel
Housing:	weatherproof, IP 65
Mounting hardware:	supplied with coupling, restraint arm and restraint spring
Certificates (standard):	CE
Certificates (optional):	ATEX

### 60-12 Belt Speed Sensor:



Type:	digital, brushless
Mounting:	direct to stub shaft with M16 thread hole or 16 mm trunnion, on tail pulley or bend pulley
Housing:	weatherproof, IP 65
Mounting hardware:	supplied with coupling, restraint arm and restraint spring
Certificates (standard):	CE
Certificates (optional):	ATEX, FM, PTB, OIML, MID

### Control and Display Unit (Integrator):



Various control units for variant requirements are available. Choose a weatherproof field mount enclosure or a DIN panel mount housing. Optional interfaces and expandabilities (binary and analog outputs, RS232, RS485, Profibus DP, or Ethernet/IP allow connecting the belt scale with customer's process control systems. We would be happy to prepare an individual quotation for you!



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*Any question?*

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