

Belt Scale

FEATURES

- Robust single-idler belt scale for installation in belt conveyors
- Two single-point load cells with overload and transport protection
- Feed rates from 2 to 500 t/h
- Belt widths from 500 to 1,000 mm
- High frame stiffness
- Low installation height
- Easy installation
- Stainless steel version (optional)



DESCRIPTION

The belt scale ESW 2.3 serves to continuously record the quantity of bulk material during the transport on a belt conveyor. The ESW 2.3 is a robust and simple designed single-idler belt scale for stationary and mobile conveyors with belt widths up to 1,000 mm and feed rates up to 500 t/h. The belt scale can be used in nearly all kinds of conveyors.

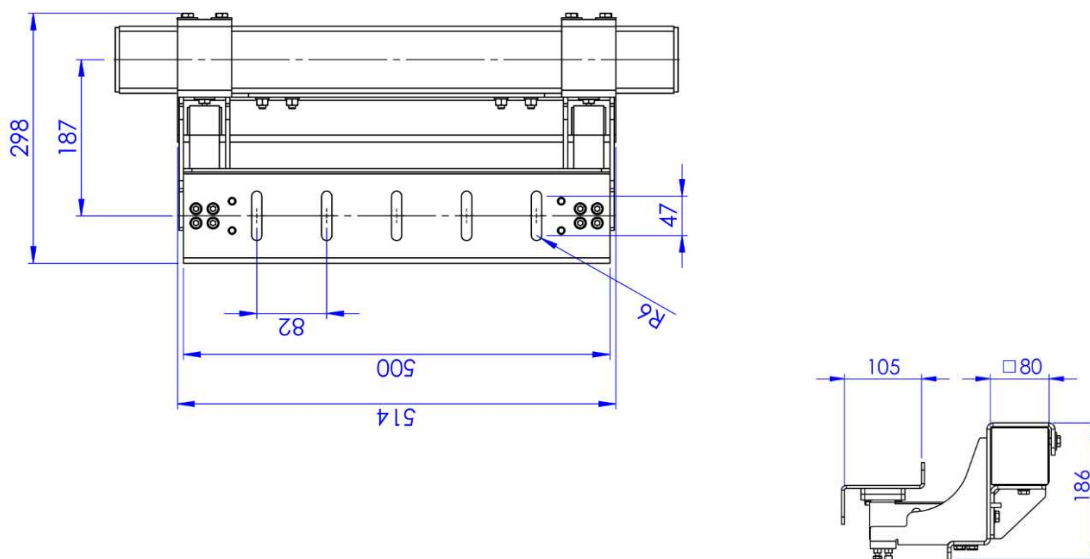
The completely revised measurement mechanism of the ESW 2.3 with more robust load cells made of stainless steel results in a much higher stability in the transverse axis. Advantage for the service: The revised design of the belt scale also provides a quicker access to the load cells – this reduces time and effort.

The support bar and the weighing platform are made of powder-coated angle steel profile. The scale is optionally as a stainless steel or galvanized version available. The support bar serves as bracket for the weighing platform as well as for the speed measuring wheel. Two singlepoint load cells are installed on both sides of the weighing platform and are secured by a transport and overload protection.

The bulk material generates a pressure load on the measuring idler station which is recorded by the strain gauge load cells.

At the same time, the measuring wheel running simultaneously on the lower belt records the current belt speed. By the control unit, the signals of the load cells and the speed measurement are recorded, scaled and provided as a weight value in kg/h or t/h.

OUTLINE DIMENSIONS (MM)



Belt Scale

Built-in belt scale ESW 2.3

consisting of support bar and weighing platform with two integrated strain gauge load cells

SPECIFICATIONS	
Feed rate	2 to 500 t/h
Belt width	500 to 1,000 mm
Combined measuring error of belt scale	± 1 % to max. 2 % in the range of 50 % and 100 % of the maximum feed rate and checked application in the temperature range from -10°C to +40°C
Material	angle or tube steel profile completely powder-coated, optionally painted or in stainless steel, fittings made of stainless steel
Weight scale	approx. 19 kg (without support bar)
Loadcell - full bridge single-point load cells (2 pcs.)	
Supply voltage	10 to 15 V DC - via control unit
Material	stainless steel, optionally nickel-plated steel
Electronic overload capacity	3 times nominal load, based on nominal feed rate
Electrical connection	6-wire cable
Working temperature range	-20°C to +70°C
Environmental protection	IP 69K (stainless steel), IP 66 (nickel-plated)
Measuring wheel MTS MR 10 - consisting of ball bearing mounted friction wheel with polyurethane running surface and inductive proximity switch	
Wheel diameter	200 mm, alternatively 160 mm
Wheel bar	stainless steel
Weight measuring wheel	approx. 5 kg
Proximity switch	
Supply voltage	10 to 36 V DC - via control unit
Outgoing signal	Voltage pulse, 22 per rotation
Switching function	PNP (NPN)
Electrical connection	M12-plug, 3-wire, cable length 5 m
Working temperature range	-25°C to +70°C
Environmental protection	IP 68

Alternatively, a rotary encoder can be used, which is mounted on the bend pulley.

Delivery includes: Weighing platform, support bars, measuring wheel or incremental encoder, junction box.

Idler stations can be delivered optionally.



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