

Belt Scale

FEATURES

- Double-idler belt scale for very high measuring accuracy
- Load cell with transport and overload protection
- Feed rates from 2 to 400 t/h
- Belt widths from 500 to 1,000 mm
- Completely painted, optionally galvanized or stainless steel
- Compact design - especially for small belt widths
- For legal-for-trade applications too



DESCRIPTION

The EBW 20/1 is a double-idler belt scale for continuously recording of the quantity of the bulk material during the transport on a belt conveyor. Due to its compact design, the scale is particularly suitable for small belt conveyors with belt widths up to 1,000 mm.

The extended frame unit of the scale allows a much higher measuring accuracy compared to single-idler belt scales.

The belt scale EBW 20/1 has a simple mechanical design. The belt scale frame is mounted on two support bars. Within the frame, there is located the measuring rocker, which is mounted on spring steels and a load cell. The load cell is equipped with a transport and overload protection.

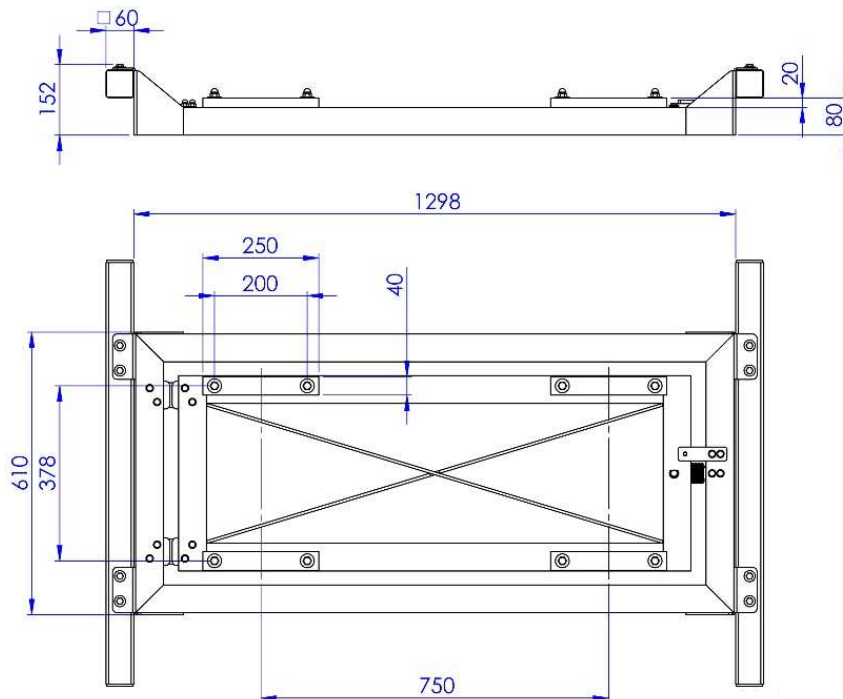
The low installation height allows the use for applications in conveyors with a very small interspace between the upper and lower belt.

Frame, measuring rocker and support bars are made of steel and painted as standard, optionally powder-coated, hot-dip galvanized or stainless steel.

The bulk material generates a pressure load on the measuring idler stations which is recorded by strain gauge load cell. At the same time, the measuring wheel running simultaneously on the lower belt and records the current belt speed.

By the control unit, the signals of the load cell 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 EBW 20/1

consisting of weighing platform with integrated strain gauge load cell with transport and overload protection

SPECIFICATIONS	
Feed rate	2 to 400 t/h
Belt width	500 to 1,000 mm
Combined measuring error of belt scale	$\leq \pm 1\%$ in the range of 20 % to 100 % of max. feed rate and checked application in the temperature range from -10°C to +40°C
Material frame, support bars, weighing platform	steel, painted, optionally powder-coated or galvanized or stainless steel; fitting made of stainless steel
Weight scale	approx. 50 kg (without support bars)
Loadcell - full bridge strain gauge bending beam load cell (1 pc.)	
Accuracy	C3 according to OIML R60, optionally C6
Supply voltage	10 to 15 V DC - via control unit
Material	Stainless steel
Electronic overload capacity	3 times nominal load, based on nominal feed rate
Electrical connection	6-wire cable
Working temperature range	-30°C to +70°C
Environmental protection	IP 69K
Speed 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, an incremental 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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