REMBE® Kersting GmbH

**PRODUCT INFORMATION**

# UNIBAND®

## Mass measurement on the belt conveyor

## EXACT DETECTION OF CONVEYED RATES

The UNIBAND® is a stainless steel conveyor belt scale for the weighing of continuous material flows. With its simple integration into a conveyor system the throughput and usage measurements may be commercially effected for the desired bulk materials. Because of the low construction height of UNIBAND® it can be integrated into any conveyor system for mass measurement. The UNIBAND® optimises processes with accurate measurements in many different kinds of industrial sectors: stone, earth, food, chemicals and much more.

## Operation

The weight of the material upon the conveyor belt acts on the measuring roll station, to which the weighing framework is connected. An overload-protected loadcell transforms the weight signal into a voltage signal. Using an optional speed measurement wheel, which continuously runs on the lower belt, the current belt speed is registered. A downstream transmitter processes the weight signal in relation to the belt speed.
The conveyor's performance is displayed in "t/h" and the selected meter reading, for example daily amount in "t" (tonnes).

**In combination with the ADAM HighEnd transmitter**

## Your Benefits

- **Simple integration** into existing belt constructions due to low construction height. Dimensions can be adapted individually.
- For implementation in rough process environments **completely made of stainless steel.**
- Readjustments can be performed by customer.
- **Maintenance-free** – no wear as no pivot bearings are included.
- **Extremely robust and corrosion-resistant;** with assembled, fully enclosed, laser welded loadcell.
- For **implementation in potentially explosive areas.**

You can find detailed information and contacts for the UNIBAND® on: **www.rembe-kersting.com**
or contact us at: **+49 2961 7405-300, info@rembe-kersting.de.**

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# PRODUCT INFORMATION

## Technical data

| | |
|---|---|
| Material (standard version) \| Weighing frame | Stainless steel 1.4301 |
| Accuracy | ± 0,5 up to 2 % |
| Working temperature | -40 °C up to +75 °C, optional high-temperature version up to 200 °C |
| Output signal | 2 mV / V |
| Supply voltage | 5 up to 12 VDC |

## Designs

| Type | Belt width [mm] | Pipe dimensions [mm] | |
|---|---|---|---|
| **UNIBAND® A** | 500-800 | 40 x 40 x 4 | |
| **UNIBAND® B** | 800-1,000 | 40 x 40 x 4 | 60 x 60 x 3 |
| **UNIBAND® C** | > 1,000 | 40 x 40 x 4 | 60 x 60 x 3 |
| **UNIBAND® Tandem** | 500 … > 1,000 | 40 x 40 x 4 | 60 x 60 x 3 |

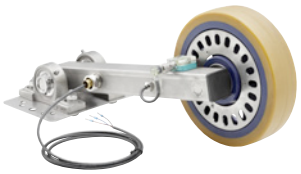
**Designs with customer-specific dimensions upon request.**

## Technical data of integrated loadcell

| | |
|---|---|
| Material | Stainless steel 1.4301 |
| Working temperature | -40 °C up to +75 °C operating range; -18 °C up to +65 °C compensated, optional high-temperature version for up to 200 °C |
| Housing protective type | IP 68 |
| Supply | 10 VDC nominal, 15V DC maximum |
| Output | 2 mV/V supply at nominal capacity of the loadcell |
| Linearity | 0.017 % of output power rating |
| Hysteresis | 0.03 % of output power rating |
| Reproducibility | 0.01 % of output power rating |
| Overload | Safe up to 150 % of the rated capacity, maximum 300 % |
| Approval | ATEX, UNIBAND® and electronics inter-connectivity |

## Speed measurement wheel (optional)

| | |
|---|---|
| Material \| Wheel | Cast aluminium |
| Material \| Side arm and pedestal bearing | Stainless steel 1.4301 |
| Deceleration | Contactless with an inductive proximity switch, optional incremental encoder for low belt speeds |
| Connection | Pluggable |
| Approval | ATEX |



**Consulting. Engineering. Products. Service.**

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