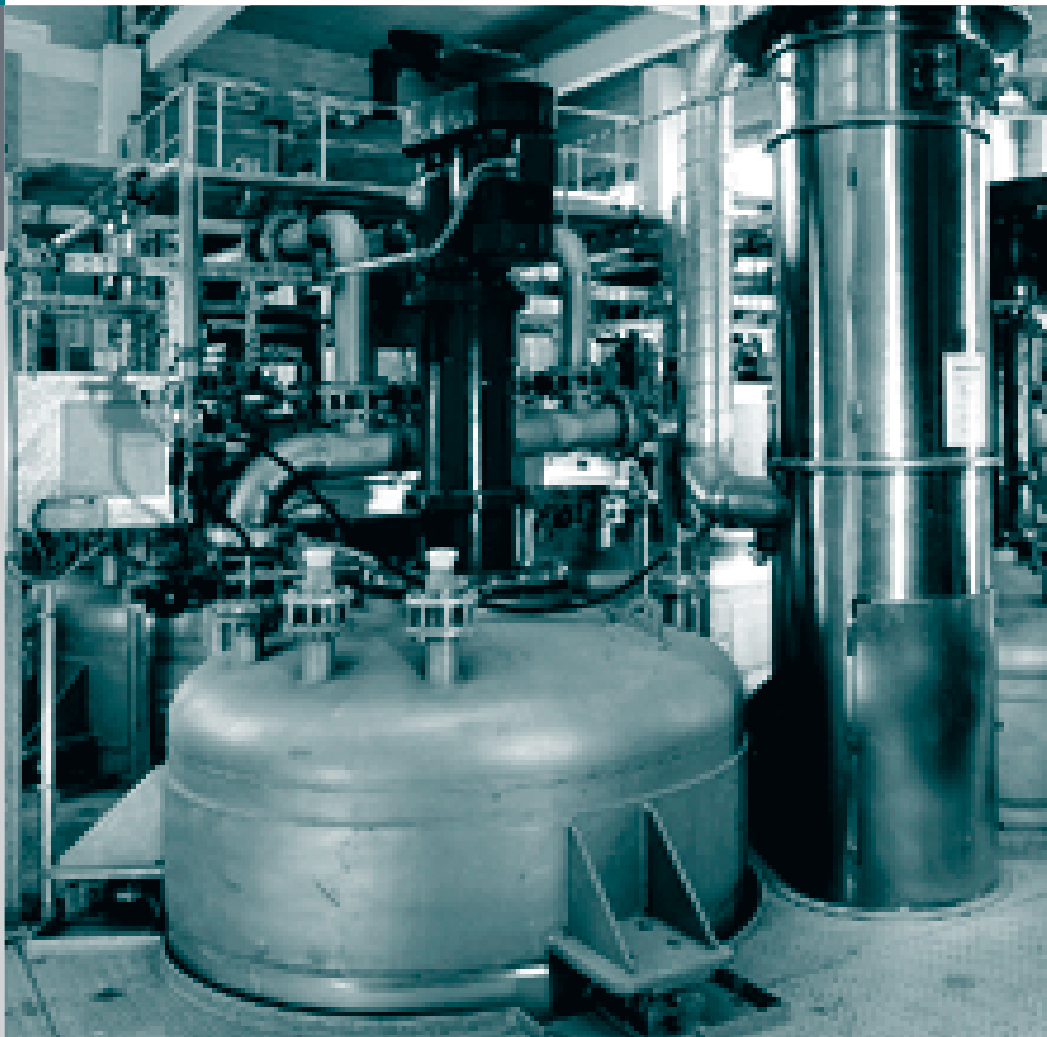


Fill-level Measuring Devices Bin Weighers

Highly accurate, maintenance-free – flexible for placement anywhere along the production line



You'll find Schenck Process fill-level measuring devices and bin weighers everywhere where the exact weight of material in silos, bins, mixers, or reactors needs to be determined. They can be found in the foodstuffs industry with its stringent sanitary and protection requirements; in hazardous areas in the chemical industry and in industrial environments where dust accumulation occurs. Maintenance-free in nearly every temperature range and for the widest variety of weight classes and bin sizes.

Whether it's a small feeding bin, a mixer, a reactor, or a large storage silo, Schenck Process weighing technology weighs reliably and accurately in every weight class from a few hundred kilograms (pounds) to several hundred tons.

Easy to integrate with highly accurate results

The compact unit consists of a load cell and a mount designed for simple integration into the bin support. The advantage is that the mounts compensate for forces created by internal stirring systems.

Weighing is recorded outside the bin, eliminating any influence product characteristics might have had on the result.

Function

Communication of fill level data to customer's control system can be done in different ways:

- ☒ Binary limit values
- ☒ 0/4 ... 20 mA
- ☒ Serial point-to-point communication
- ☒ Fieldbus systems such as Profibus DP

Precise results under aggravated conditions

Schenck Process weighing technology goes far beyond standard fill-level measuring requirements, depending on the application. For example, you can control the filling of product into the bin or discharge of product from the bin (batching operation). The process control system supplies the rated value and receives the quantity actually fed in as feedback. This relieves the control system and guarantees high accuracy. Feeding can occur in a coarse or fine flow or using analog controls. The DISOMAT® electronic evaluation and weighing system handles the feeding control.

Extremely accurate – even at the extremes

High tare weights of reactor bins or mixers pose a special challenge. However, the relatively low product weight can still be fed and weighed with extreme accuracy, which is possible by the Schenck Process ring-torsion load cell with its strong output signal.

Applications

Fill-level measurement and weighfeeding in:

- ☒ Storage bins
- ☒ Reactors
- ☒ Mixers

Industries

In nearly all industries, including:

- ☒ Plastics
- ☒ Food
- ☒ Chemical industry

Our Solutions Package

- ☒ Bins
- ☒ Load cells with mounts (bumpers and hold-downs, see options)
- ☒ Electronic weighing and evaluation system with connection to the PLS
- ☒ Feeding element

Options

- ☒ Display and operating devices for monitoring and checking at site (even in hazardous areas)

Services

- ☒ Review of customer drawings
- ☒ Installation advice and suggestions

Advantages

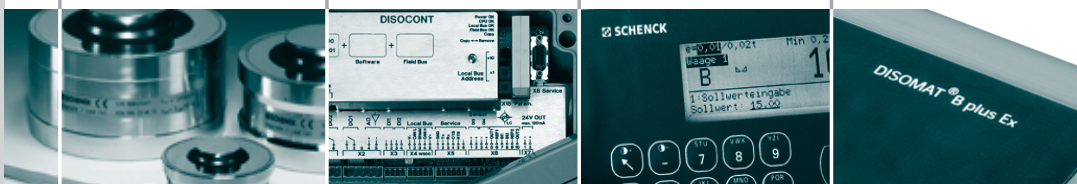
- ☒ High weighing accuracy, even for high dead loads
- ☒ High Protection class of load cells
- ☒ Applications in hazardous areas (gas and dust)
- ☒ Maintenance-free
- ☒ Large overload range
- ☒ Large temperature range
- ☒ Simple to plan and integrate
- ☒ Review of customer drawings ensures good planning

More about load cells on pages 122–123

More about DISOCONT® on pages 126–127

More about DISOMAT® on pages 128–131

More about DISOMAT® B plus Ex on pages 128–129



Product Overview

Fill-level Measuring Devices, Bin Weighers

Total weight [metric]	Weighing range/ digit step [metric]	Load cell support points	Fixed mount support points	Weighing accuracy ±%	Calibration possible	Scope of delivery		
300 – 600 kg	0 – 300 kg/100 g	1	2	1	no	1 RTN 1 0.05; 1 VEN 1; 2 TL 5; 1 DKK ²		
		2	2	1	no	2 RTN 1 0.05; 2 VEN 1; 2 TL 5; 1 DKK ²		
		3		0.1	no	3 RTN 1 0.05; 3 VEN 1; 1 DKK ²		
		4		0.1	no	4 RTN 1 0.05; 4 VEN 1; 1 DKK ²		
	600 – 1,500 kg	0 – 600 kg/200 g	3			yes	3 RTK 0.33; 3 DEM 0.33; 1 DKK ¹	
			4			yes	4 RTK 0.33; 4 DEM 0.33; 1 DKK ¹	
		(4 – 600 kg/200 g)	3			yes	3 RTN 1 C3; 3 VEN 1; 1 DKK ²	
			4			yes	4 RTN 1 C3; 4 VEN 1; 1 DKK ²	
1,500 – 3,000 kg	0 – 1,500 kg/500 g	1	2	1	no	1 RTN 2.2 0.05; 1 VEN 2.2; 2 TL 5; 1 DKK ³		
		2	2	1	no	2 RTN 2.2 0.05; 2 VEN 2.2; 2 TL 5; 1 DKK ³		
		3		0.1	no	3 RTN 2.2 0.05; 3 VEN 2.2; 1 DKK ³		
		4		0.1	no	4 RTN 2.2 0.05; 4 VEN 2.2; 1 DKK ³		
	10 – 1,500 kg/500 g	3			yes	3 RTN 2.2 C3; 3 VEN 2.2; 1 DKK ³		
		4			yes	4 RTN 2.2 C3; 4 VEN 2.2; 1 DKK ³		
		3,000 – 6,000 kg	0 – 3,000 kg/1 kg	1	2	1	no	1 RTN 7.7 0.05; 1 VEN 7.7; 2 TL 5; 1 DKK ⁴
				2	2	1	no	2 RTN 7.7 0.05; 2 VEN 7.7; 2 TL 5; 1 DKK ⁴
20 – 3,000 kg/1 kg	3			0.1	no	3 RTN 7.7 0.05; 3 VEN 7.7; 1 DKK ⁴		
	4			0.1	no	4 RTN 7.7 0.05; 4 VEN 7.7; 1 DKK ⁴		
6 – 10 t	0 – 6,000 kg/2 kg	3			yes	3 RTN 7.7 C3; 3 VEN 7.7; 1 DKK ⁴		
		4			yes	4 RTN 7.7 C3; 4 VEN 7.7; 1 DKK ⁴		
		40 – 6,000 kg/2 kg	1	2	1	no	1 RTN 10 0.05; 1 VEN 10; 2 TL 5; 1 DKK ⁵	
			2	2	1	no	2 RTN 7.7 0.05; 2 VEN 7.7; 2 TL 5; 1 DKK ⁴	
	3			0.1	no	3 RTN 7.7 0.05; 3 VEN 7.7; 1 DKK ⁴		
	4			0.1	no	4 RTN 7.7 0.05; 4 VEN 7.7; 1 DKK ⁴		
	10 – 30 t	0 – 15,00 t/5 kg	3			yes	3 RTN 7.7 C3; 3 VEN 7.7; 1 DKK ⁴	
			4			yes	4 RTN 7.7 C3; 4 VEN 7.7; 1 DKK ⁴	
0.1 – 15,00 t/5 kg		1	2	1	no	1 RTN 15 0.05; 1 VEN 15; 2 TL 15; 1 DKK ⁶		
		2	2	1	no	2 RTN 15 0.05; 2 VEN 15; 2 TL 15; 1 DKK ⁶		
3		0.1	no	3 RTN 15 0.05; 3 VEN 15; 1 DKK ⁶				
4		0.1	no	4 RTN 15 0.05; 4 VEN 15; 1 DKK ⁶				
3			yes	3 RTN 15 C3; 3 VEN 15; 1 DKK ⁶				
4			yes	4 RTN 15 C3; 4 VEN 15; 1 DKK ⁶				

Options

- ¹Compact mount DKM 0.33 substituted for elastomer mount DEM 0,33
- ²Compact mount VKN 1 substituted for elastomer mount VEN 1
- ³Compact mount VKN 2.2 substituted for elastomer mount VEN 2.2
- ⁴Compact mount VKN 7.7 substituted for elastomer mount VEN 7.7
- ⁵Compact mount VKN 10 substituted for elastomer mount VEN 10
- ⁶Compact mount VKN 15 substituted for elastomer mount VEN 15

- ⁷Compact mount VKN 33 substituted for elastomer mount VEN 33
- ⁸Compact mount VKN 68 substituted for elastomer mount VEN 68
- ⁹Compact mount VKN 100 substituted for elastomer mount VEN 100
- ¹⁰Compact mount VKN 150 substituted for elastomer mount VEN 150

Review of customer drawing

Total weight [metric]	Weighing range/ digit step [metric]	Load cell support points	Fixed mount support points	Weighing accuracy ±%	Calibration possible	Scope of delivery		
30 – 60 t	0 – 30.00 t/10 kg	1	2	1	no	1 RTN 33 0.05; 1 VEN 33; 2 KL 50; 1 DKK ⁷		
		2	2	1	no	2 RTN 33 0.05; 2 VEN 33; 2 KL 50; 1 DKK ⁷		
		3		0.1	no	3 RTN 33 0.05; 3 VEN 33; 1 DKK ⁷		
		4		0.1	no	4 RTN 33 0.05; 4 VEN 33; 1 DKK ⁷		
	60 – 100 t metric	0.2 – 30.00 t/10 kg	3			yes	3 RTN 33 C3; 3 VEN 33; 1 DKK ⁷	
			4			yes	4 RTN 33 C3; 4 VEN 33; 1 DKK ⁷	
		0.4 – 60.00 t/20 kg	3			yes	3 RTN 68 0.05; 1 VEN 68; 2 KL 50; 1 DKK ⁸	
			4			yes	4 RTN 68 0.05; 2 VEN 68; 2 KL 50; 1 DKK ⁸	
100 – 200 t	0 – 100.00 t/50 kg	3		0.1	no	3 RTN 68 0.05; 3 VEN 68; 1 DKK ⁸		
		4		0.1	no	4 RTN 68 0.05; 4 VEN 68; 1 DKK ⁸		
		1 – 100.00 t/50 kg	3			yes	3 RTN 68 C3; 3 VEN 68; 1 DKK ⁸	
			4			yes	4 RTN 68 C3; 4 VEN 68; 1 DKK ⁸	
	200 – 250 t		0 – 150.00 t/50 kg	1	2	1	no	1 RTN 100 0.05; 1 VEN 100; 2 KL 100; 1 DKK ⁹
				2	2	1	no	2 RTN 100 0.05; 2 VEN 100; 2 KL 100; 1 DKK ⁹
		1 – 150.00 t/50 kg	3		0.1	no	3 RTN 100 0.05; 3 VEN 100; 1 DKK ⁹	
			4		0.1	no	4 RTN 100 0.05; 4 VEN 100; 1 DKK ⁹	
250 – 400 t	0 – 300.0 t/100 kg	3			yes	3 RTN 100 C3; 3 VEN 100; 1 DKK ⁹		
		4			yes	4 RTN 100 C3; 4 VEN 100; 1 DKK ⁹		
		400 – 600 t	0 – 400.0 t/200 kg	1	2	1	no	1 RTN 100 0.05; 1 VEN 100; 2 KL 100; 1 DKK ⁹
				2	2	1	no	2 RTN 100 0.05; 2 VEN 100; 2 KL 100; 1 DKK ⁹
	0 – 600.0 t/200 kg		3		0.1	no	3 RTN 100 0.05; 3 VEN 100; 1 DKK ⁹	
			4		0.1	no	4 RTN 100 0.05; 4 VEN 100; 1 DKK ⁹	
	600 – 800 t	0 – 400.0 t/200 kg	3			yes	3 RTN 100 C3; 3 VEN 100; 1 DKK ⁹	
			4			yes	4 RTN 100 C3; 4 VEN 100; 1 DKK ⁹	
0 – 600.0 t/200 kg			1	2	1	no	1 RTN 220 0.05; 1 VEN 220; 2 KL 200; 1 DKK	
			2	2	1	no	2 RTN 150 0.05; 2 VEN 150; 2 KL 200; 1 DKK ¹⁰	
		3		0.1	no	3 RTN 150 0.05; 3 VEN 150; 1 DKK ¹⁰		
		4		0.1	no	4 RTN 150 0.05; 4 VEN 150; 1 DKK ¹⁰		
0 – 600.0 t/200 kg		0 – 400.0 t/200 kg	1	2	1	no	1 RTN 330 0.05; 1 VEN 330; 2 KL 200; 1 DKK	
			2	2	1	no	2 RTN 220 0.05; 2 VEN 220; 2 KL 200; 1 DKK	
	0 – 600.0 t/200 kg	3		0.1	no	3 RTN 220 0.05; 3 VEN 220; 1 DKK		
		4		0.1	no	4 RTN 220 0.05; 4 VEN 220; 1 DKK		
0 – 600.0 t/200 kg	0 – 400.0 t/200 kg	1	2	1	no	1 RTN 470 0.05; 1 VEN 470; 2 KL 300; 1 DKK		
		2	2	1	no	2 RTN 330 0.05; 2 VEN 330; 2 KL 300; 1 DKK		
	0 – 600.0 t/200 kg	3		0.1	no	3 RTN 330 0.05; 3 VEN 330; 1 DKK		
		4		0.1	no	4 RTN 330 0.05; 4 VEN 330; 1 DKK		