

Weighbeam DWB 11.5 ... 25 t

- Simple and cost-effective installation through direct bolted joints to the connecting structure
- Transfer of high disturbance forces and torques with minimum measuring value interference
- Very low installation height
- For rough operation
- For maintenance-free scales
- Option:
HT model for operating temperatures up to 120°C



Application

- Silo and bin weighers
- Crane scales
- Rail weighbridges
- Scrap basket, roller and tundish scales
- Platform scales

Construction

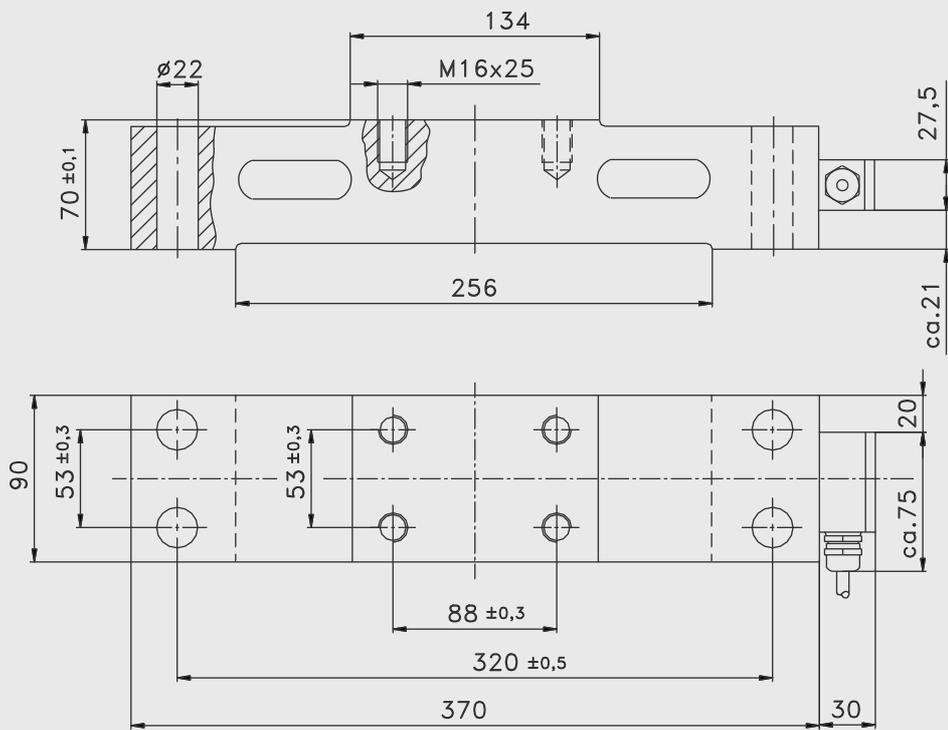
- Low and compact design
- Surface galvanized
- Type of protection IP67
(HT model IP65)

Function

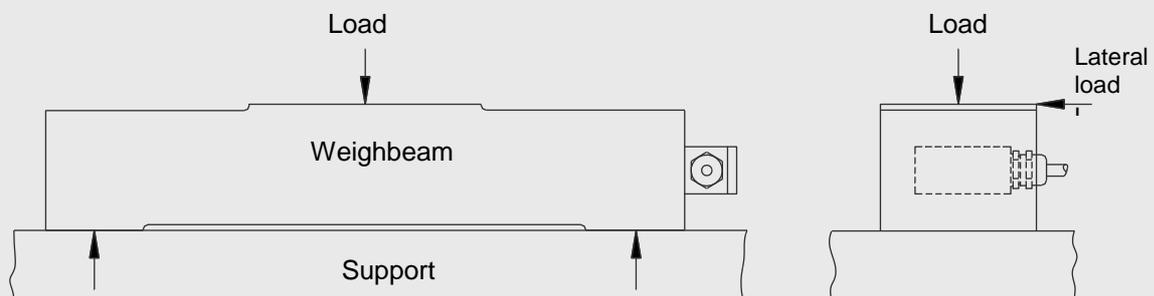
- High functional safety and availability, even with frequently unavoidable impact loads and constraining forces
- No additional straps or hold down bolts required

Dimensions

Weighbeam DWB 11.5 ... 25t



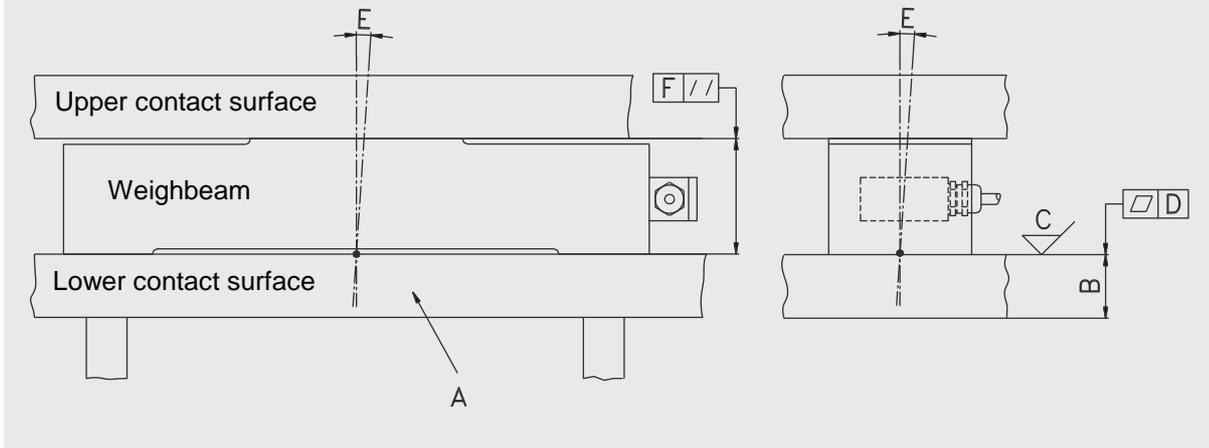
Operating Principle



Technical Data

		DWB 11.5 t	DWB 15 t	DWB 25 t	Ref
Nominal load	L_n	11.5 t	15 t	25 t	
Load limit (with $L_q = 0.15 \times L_n$)	L_l	23 t	26 t	35 t	
Breaking load (with $L_q = 0.15 \times L_n$)	L_d	35 t	38 t	40 t	
Max. permitted lateral load	L_{qmax}	15 t	18 t	25 t	
Nominal characteristic value	C_n	0.90 mV/V	1.16 mV/V	1.40 mV/V	L_n
Compound error	F_{comb}	± 0.3 %			C_n
Creep error (30 min)	F_{cr}	± 0.05 %			C_n
Input resistance	R_e	415 Ω ± 25 Ω	415 Ω ± 25 Ω	830 Ω ± 25 Ω	T_r
Output resistance	R_a	350 Ω ± 8 Ω	350 Ω ± 8 Ω	700 Ω ± 8 Ω	T_r
Ref- supply voltage	U_{sref}	10V			
Max. supply voltage	U_{smax}	18V	18V	36V	
Nominal temperature	B_{tn}	- 10°C to + 40°C			
Operating temperature range	B_{tu}	- 15°C to + 80°C (for HT model + 120°C)			
Temperature	T_r	+ 22°C			
Storage temperature range	B_{ts}	- 30°C to + 85°C (with HT model + 120°C)			
Temperature coefficient of the zero signal	TK_o	± 0.1% / 10K (with HT model: ± 0.05%)			C_n in B_{tu}
Temperature coefficient of the characteristic value	TK_c	± 0.07% / 10K (with HT model: ± 0.05%)			
Dead load	m_e	18kg	18kg	18kg	
Surface		galvanized,			
Protection class		IP67 (with HT model IP65)			
Cable specification		Silicon RAL 7000 (gray) Ø 6.5mm x 15m – 30°C to + 150°C			
Cable connection		Black : Input + (82) / Blue : Input - (81) Red : Output + (28) / White : Output - (27) Green-yellow : Screening			

Requirements of the Quality of both Contact Surfaces



- **Material selection "A"**: As a rule, construction steel is used of at least S235 grade
- **Plate thickness "B"**: This depends on the stiffness of the overall construction. The operating thickness of the connect surface must be at least 40% of the the weighbeam height
- **Surface quality "C"**: The average peak-to-valley height required of the contact surfaces is 6.3 μm
- **Flatness "D"**: The maximum permissible flatness tolerance of each contact surface is 0.05 mm
- **Angle error to the vertical axis "E"**: The permitted maximum value for the angle deviations of the connection surface to the vertical axis is $\pm 2^\circ$
- **Plane parallelism "F"**: The upper and lower contact surfaces to the weighbeam must be plan parallel to each other within at least 0.1 mm

Variants

Type	Order no.
DWB 11.5 t	D 703 100.01
DWB 15 t	D 703 100.02
DWB 25 t	D 704 280.03

**Options
(HT model for operating temperatures up to 120 °C):**

Type	Order no.
DWB 11.5 t HT	D 703 100.04
DWB 25 t HT	D 704 280.05

