

## Weighbeam DWB 11.5 ... 25t



- Simple and economical installation through direct screwing onto the connecting structure
- Transmission of high interferential forces and moments at minimal impact on measurement value
- Extremely low headroom
- Designed for rugged environment
- Suitable for construction of service free scales
- Option: HT-type for service temperature up to 120°C

### Application

- Silo and hopper scales
- Crane scales
- Rail weighbridges
- Scrap bucket, roller train, and tundish scales
- Platform scales

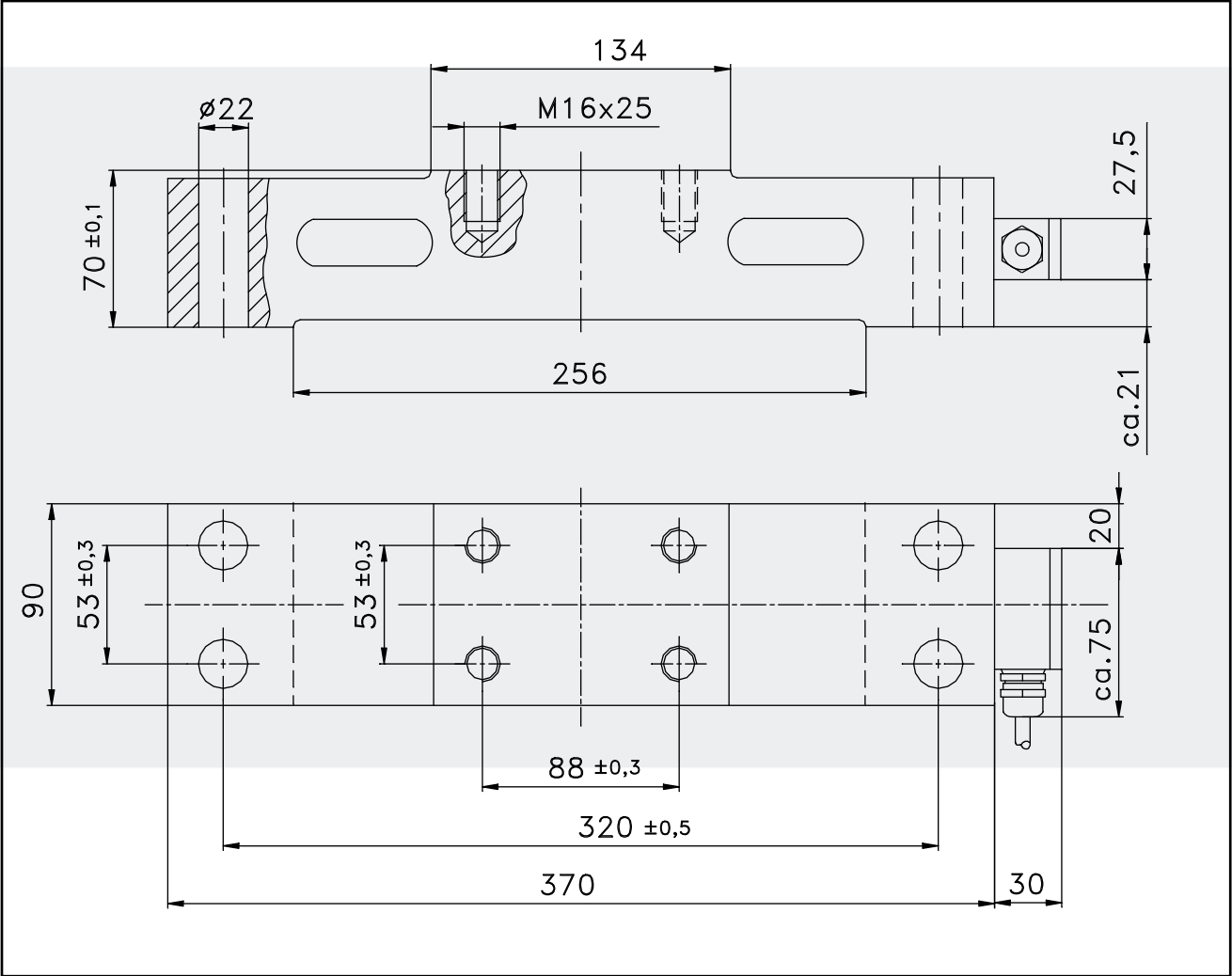
### Construction

- Low and compact design
- Galvanized surface
- Protected to IP 67

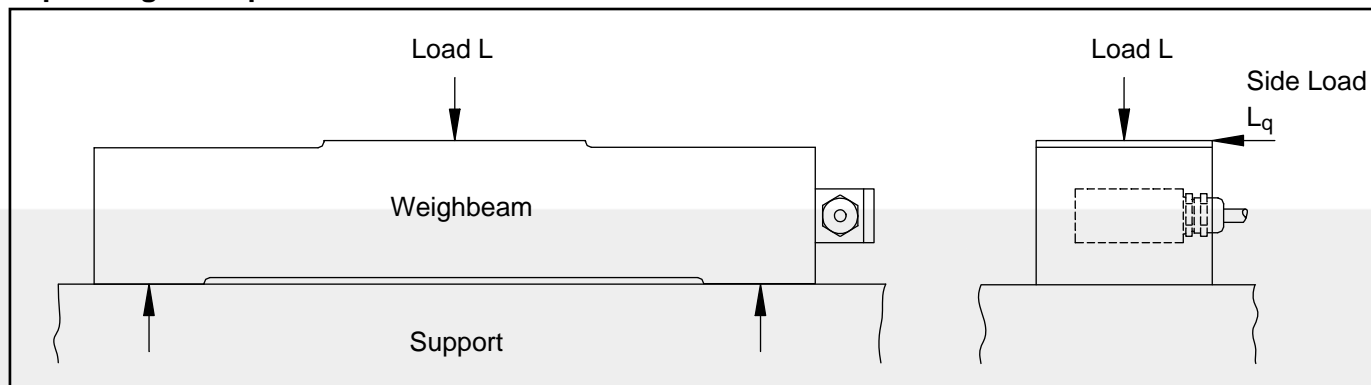
### Function

- High degree of reliability and availability
- Virtually impervious to shock loads and unavoidable side forces
- No need for additional tie-rods and hold-downs

Mounting Dimensions



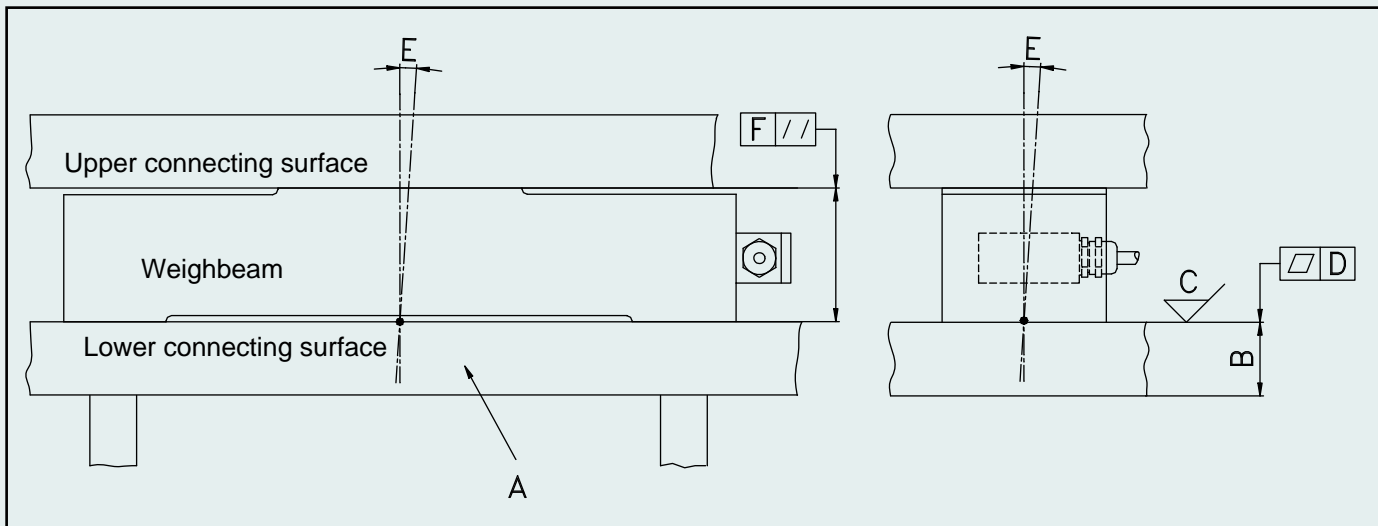
## Operating Principle



## Technical Data

		DWB 11.5 t	DWB 15 t	DWB 25 t	Reference
Rated capacity	$L_n$	11.5 t	15 t	25 t	
Limit load (with $L_q = 0.15 \times L_n$ )	$L_l$	23 t	26 t	35 t	
Rupture load (with $L_q = 0.15 \times L_n$ )	$L_d$	35 t	38 t	40 t	
Max. admissible side load	$L_{qmax}$	15 t	18 t	25 t	
Sensitivity	$C_n$	0.90 mV/V	1.16 mV/V	1.40 mV/V	$L_n$
Combined error	$F_{comb}$	$\pm 0.3 \%$			$C_n$
Creep (30 m)	$F_{cr}$	$\pm 0.05 \%$			$C_n$
Input resistance	$R_e$	378 $\Omega$	378 $\Omega$	756 $\Omega$	$T_r$
Output resistance	$R_a$	350 $\Omega$	350 $\Omega$	700 $\Omega$	$T_r$
Ref. supply voltage	$U_{sref}$	10V			
Max. supply voltage	$U_{smax}$	18V	18V	36V	
Nominal temperature range	$B_{tn}$	- 10°C to + 40°C			
Service temperature range	$B_{tu}$	- 15°C to + 80°C (HT quality + 120°C)			
Reference temperature	$T_r$	+ 22°C			
Storage temperature range	$B_{ts}$	- 30°C to + 85°C ( HT quality + 120°C)			
Temperature effect on zero signal	$TK_o$	$\pm 0.1\% / 10K$ ( HT quality: $\pm 0.05\%$ )			$C_n$ in $B_{tu}$
Temperature effect on sensitivity	$TK_c$	$\pm 0.07\% / 10K$ ( HT quality: $\pm 0.05\%$ )			
Dead weight	$m_e$	18kg	18kg	18kg	
Corrosion protection		hot dip galvanized			
Protection class		IP 67			
Cable specification		silicone RAL 7000 (grey) Ø 6.5mm x 15m – 30°C to + 150°C			
Colour code		black : input + (82) / blue : input - (81) red : output + (28) / white : output - (27) green-yellow : screening			

## Contact surfaces quality requirements



- Material "A":  
Usually, construction steel of a minimum quality S355 is used

- Plate thickness "B":  
Plate thickness depends on total construction stiffness. Connecting surfaces plate thickness must be at least 40% of weighbeam height

- Surface quality "C":  
The requisite mean rough value of connecting surfaces is around 6.3µm

- Planeness "D":  
The maximum admissible tolerance of each contact surface is 0.05 mm

- Angular error to vertical axle "E":  
The connecting surface angle may differ from the vertical axle in both planes of view by max.  $\pm 2^\circ$

- Plane parallelity "F":  
The upper and lower connecting surfaces to the weighbeam must be plane parallel to minimum 0.1 mm

Variants	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 quality for service temperature up to 120°C

Variants	Order No.
DWB 11.5 t HT	D 703 100.04
DWB 25 t HT	D 704 280.05