

Weighbeam DWB 40 t ... 200 t



NEW:

- Improved Combined Error: $\pm 0.07\%$
- Improved TK_C Error: $\pm 0.03\%$ / 10 K

Further Features:

- Six-wire circuit
- Service temperature up to $150\text{ }^{\circ}\text{C}$
- Integrated sensor for temperature monitoring
- Separate mounting of connecting cable through connector

Application

- Ladle turret scales
- Ladle ferries
- Scrap bucket, roller table weighing and tundish scales
- Silo and hopper scales

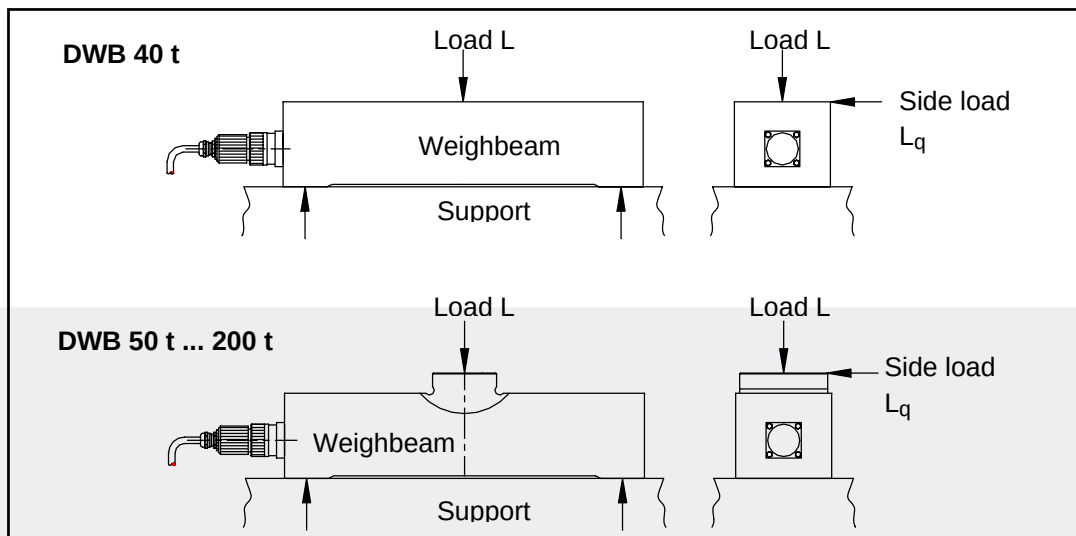
Construction

- Compact, flat design
- From 50 t: Locating head for form locking absorption of side forces
- Plug-in connector

Function

- Simple and economical installation through direct screwing to the connecting structure without movable parts
- No need for additional tie-rods and hold-downs
- Virtually impervious to shock loads and unavoidable side forces
- Suitable to the construction of service free scales in severe environments
- Minimal measurement value reaction on high interferential forces and moments
- High long-term stability
- High degree of repeatability
- Separate mounting of weighbeam and connecting cable possible
- Easy cable exchange

Operating principle

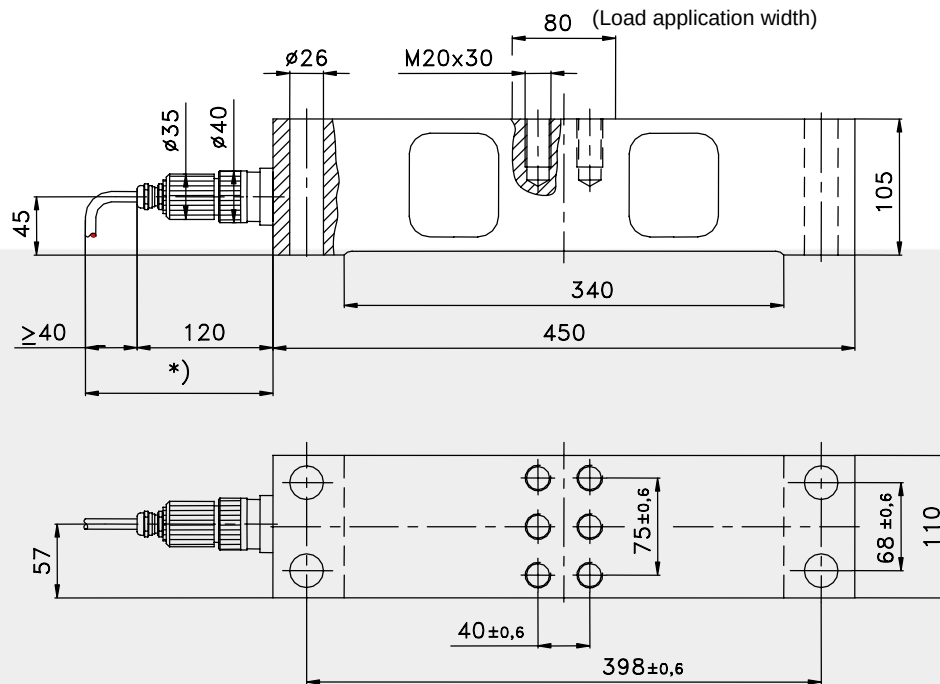


Technical Data

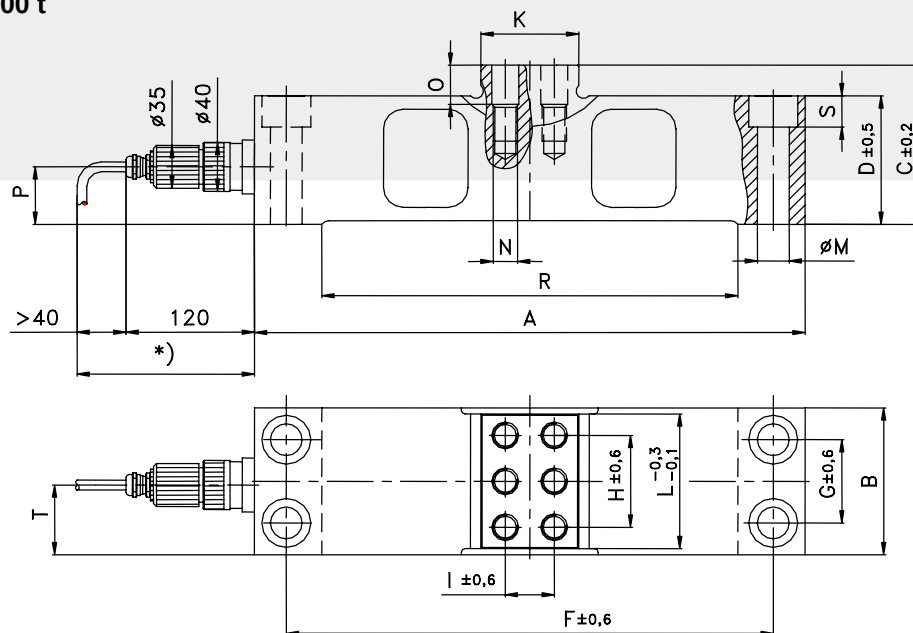
		DWB 40 t	DWB 50 t	DWB 100 t	DWB 150 t	DWB 200 t	Refer- ence
Rated capacity	E _{max}	40 t	50 t	100 t	150 t	200 t	
Limit load (with L _q = 0.15 x L _n) Limit load = Maximum admissible load	L _l	100 t	120 t	210 t	290 t	360 t	
Rupture load (with L _q = 0.15 x L _n)	L _d	160 t	200 t	350 t	480 t	600 t	
Max. admissible side load	L _{qmax}	40 t	50 t	85 t	120 t	150 t	
Sensitivity	C _n	0.95 mV / V	1.08 mV / V	1.38 mV / V	1.57 mV / V	1.63 mV / V	E _{max}
Combined error	F _{comb}	±0.1 %	±0.07 %				C _n
Creeping under load (30 min)	F _{cr}	±0.05 %					C _n
Input resistance	R _e	690 Ω ± 6 Ω					T _r
Output resistance	R _a	700 Ω ± 4 Ω					T _r
Reference supply voltage	U _{sref}	10 V					
Max. supply voltage	U _{smax}	36 V					
Nominal temperature range	B _{tn}	-10 °C bis +100 °C					
Service temperature range	B _{tu}	-15 °C bis +150 °C					
Reference temperature	T _r	+22 °C					
Storage temperature range	B _{ts}	-40 °C bis +180 °C					
Temperature effect on zero signal	TK _o	±0.05 % / 10 K					C _n in B _{tu}
Temperature effect on sensitivity	TK _c	±0.03 % / 10 K					
Dead weight	m _e	39 kg	40 kg	55 kg	85 kg	120 kg	
Corrosion protection		hot dip galvanized					
Protection class		IP65					
Cable specification		Silicone: Ø 8.5 mm x 15 m, screened, including plug socket; Bending radius: ≥ 40 mm, Temperature range: -50 °C ... +180 °C; Wire assignment: 6 wires for measurement value; 2 wires for temperature monitoring					
Colour code		Black: Input + (82) Blue: Input - (81) Red: Output + (28) White: Output - (27) Yellow: Sense + (82.1) Green: Sense - (81.1) Lila / Brown: Temperature sensor PT100					

Mounting Dimensions

DWB 40 t



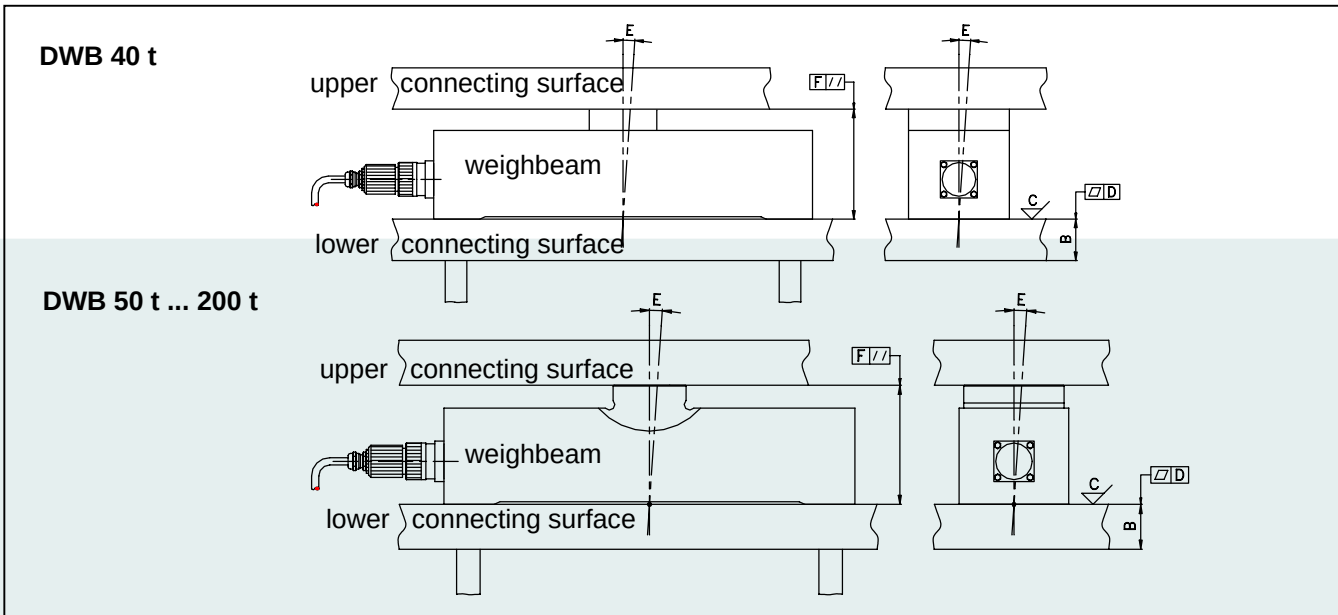
DWB 50 t ... 200 t



*) The optional version of the DWB with angular connector requires only 45 mm for the connection plus 15 mm for separating both parts of the connector.

Variant	A mm	B mm	C mm	D mm	F mm	G mm	H mm	I mm	K mm	L mm	M mm	N	O mm	P mm	R mm	S mm	T mm
DWB 50 t	450	120	130	105	398	68	75	40	80	110	26	M20 x 30	32	45	340	25,5	57
DWB 100 t	500	140	143	118	444	80	90	44	90	130	30	M24 x 36	38	54	370	28,5	62
DWB 150 t	560	160	158	133	500	94	102	44	90	150	33	M24 x 36	38	66	410	32	69
DWB 200 t	620	180	175	150	560	114	110	44	90	160	33	M24 x 40	40	75	450	32	76

Connecting surface quality requirements



- Material quality "A":
Usually construction steel of a minimum quality S355 is used
- Plate thickness "B":
Depends on stiffness of total construction. Plate thickness of connecting surface must be at least 40 % of the weighbeam height
- Surface quality "C":
Requisite mean roughness of the connecting surfaces is 6.3 µm
- Planeness "D":
Maximum admissible plane-ness tolerance within every connecting surface is 0.05 mm
- Angular deviation error to vertical axis "E":
Angle deviation of connecting surface to vertical axis in both planes of view must not exceed $\pm 2^\circ$
- Plane parallelism "F":
Upper and lower connecting surfaces have to be plane parallel to min. 0.1 mm

Variant	Order No.	Variant (*)	Order No.
DWB 40 t	V094838.B01	DWB 40 t PUR	V094839.B01
DWB 50 t	V094838.B02	DWB 50 t PUR	V094839.B02
DWB 100 t	V094838.B03	DWB 100 t PUR	V094839.B03
DWB 150 t	V094838.B04	DWB 150 t PUR	V094839.B04
DWB 200 t	V094838.B05	DWB 200 t PUR	V094839.B05
Spare Part: Connecting cable 15 m with plug socket	V090162.B01		

(*) Deviant technical data of the PUR variant:

suitable for outdoor use (better protection class IP66), Temperature range for storage and use: -40 °C ... +80 °C.
Additionally, the PUR-types are equipped with an integrated overvoltage protection.