

Weighbeam DWR 50 ... 70 t



- Service temperature up to 120°C
- Separate mounting of connecting cable through connector
- Simple mechanical design
- Simple and economical installation through direct screwing onto the connecting structure

Application

- Scrap bucket, roller table weighing and tundish scales
- Silo and hopper scales
- Crane scales

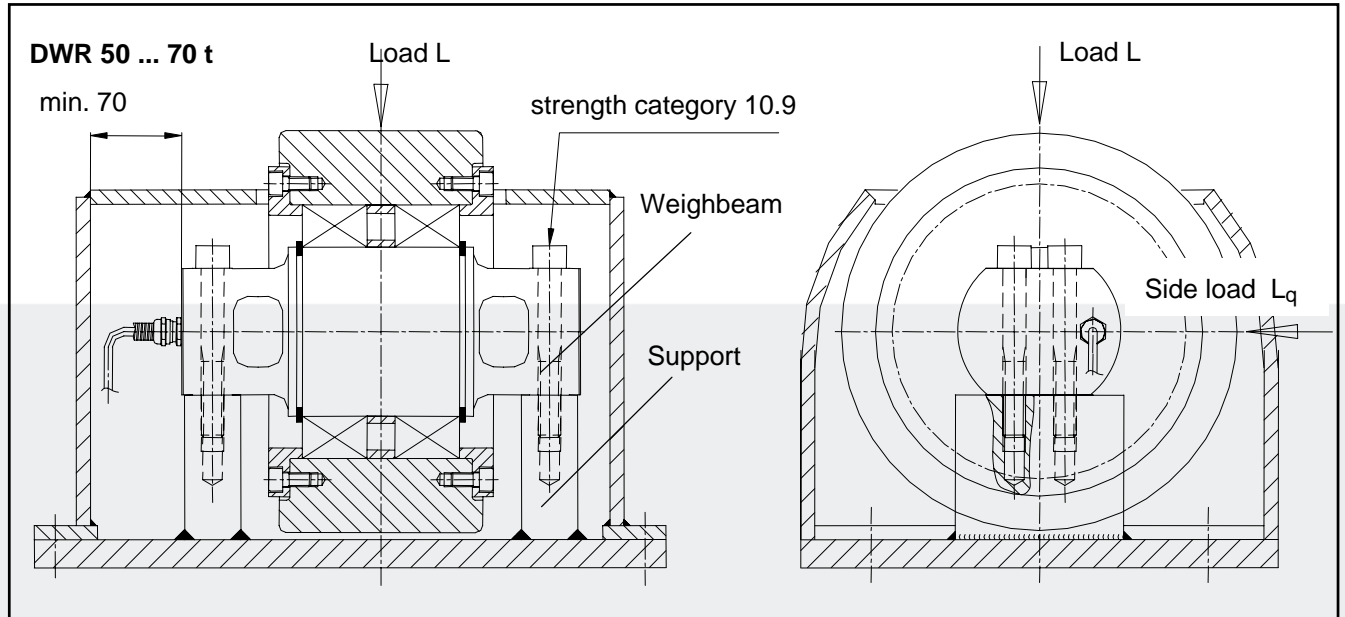
Construction

- Rugged design, low headroom
- Plug-in connector
- High-grade stainless steel

Function

- Simple and economical installation through direct screwing to the connecting structure without movable parts
- No need for additional tie-rods and hold-downs
- High long-term stability
- High degree of repeatability
- Separate mounting of weighbeam and connecting cable possible
- Easy cable exchange

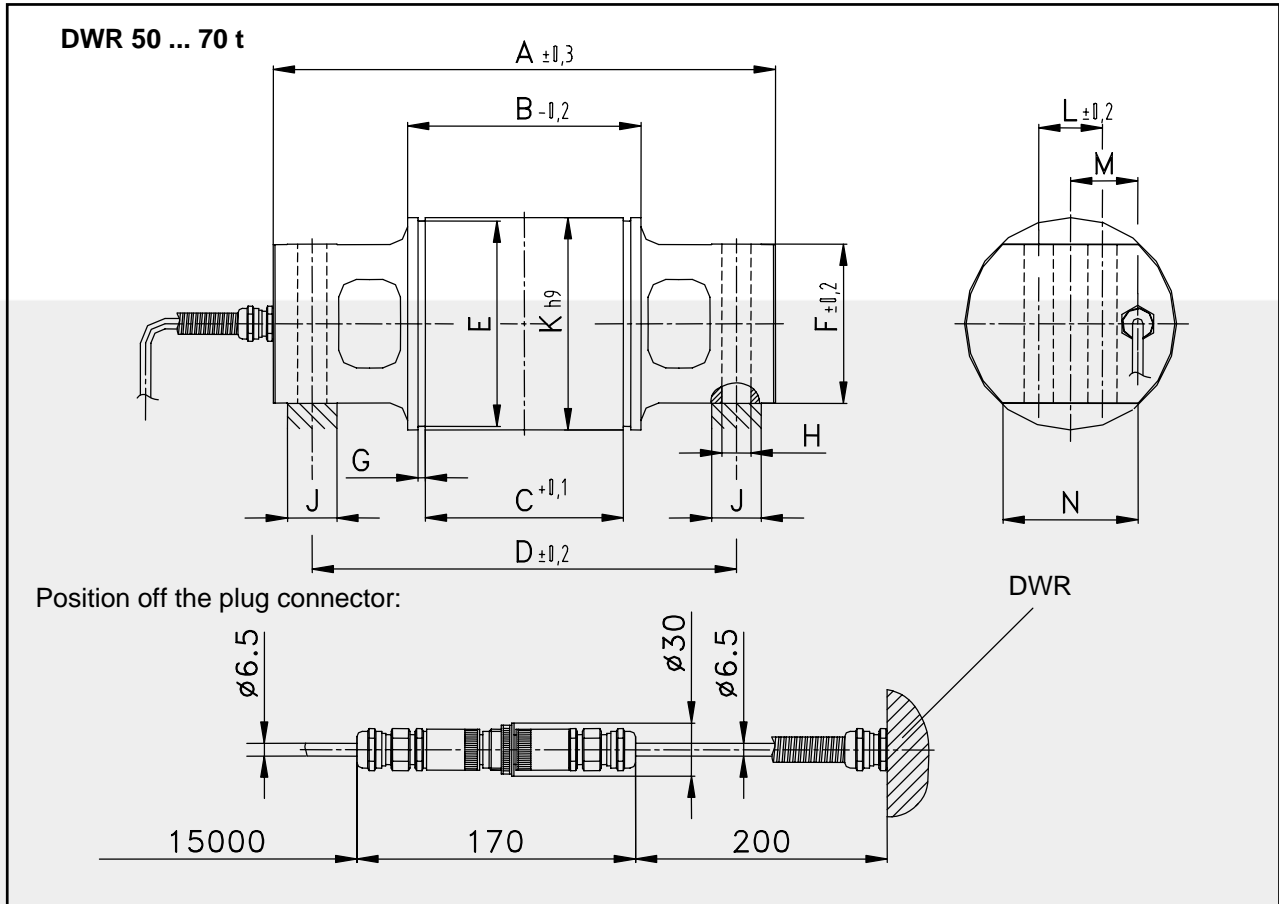
Operating principle (application tundish scale)



Technical Data

		DWR 50 t	DWR 60 t	DWR 70 t		Reference
Rated capacity	E_{max}	50 t	60 t	70 t		
Limit load = Maximum admissible load	L_l	100 t	120 t	140 t		
Rupture load	L_d	150 t	180 t	210 t		
Max. admissible side load (with screw friction)	L_{qmax}	5 t	5 t	5 t		
Max. admissible side load (with form fit)	L_{qmax^*}	35 t	42 t	49 t		
Sensitivity	C_n	1,3 mV/V	1,0 mV/V	1,1 mV/V		E_{max}
Combined error	F_{comb}	± 0,5%				C_n
Creeping under load (30 min)	F_{cr}	± 0,05%				C_n
Input resistance	R_e	380 Ω ± 3 Ω				T_r
Output resistance	R_a	350 Ω ± 2 Ω				T_r
Reference supply voltage	U_{sref}	10V				
Max. supply voltage	U_{smax}	15V				
Nominal temperature range	B_{tn}	- 10°C to + 80°C				
Service temperature range	B_{tu}	- 15°C to + 120°C				
Reference temperature	T_r	+ 22°C				
Storage temperature range	B_{ST}	- 50°C to + 130°C				
Temperature effect on zero signal	TK_o	± 0,1% / 10K				C_n in B_{tn}
Temperature effect on sensitivity	TK_c	± 0,07% / 10K				C_n in B_{tn}
Dead weight	m_e	14 kg	22 kg	27 kg		
Corrosion protection		metallic bright, stainless				
Protection class		IP 65				
Cable specification		Special silicone RAL 7000 (grey) Ø 6,5 mm x 15 m, - 30°C to + 150°C				
Colour code		Black: Red: Green-yellow:	Input + (82) Output + (28) Screening	Blue: White:	Input - (81) Output - (27)	

Mounting Dimensions

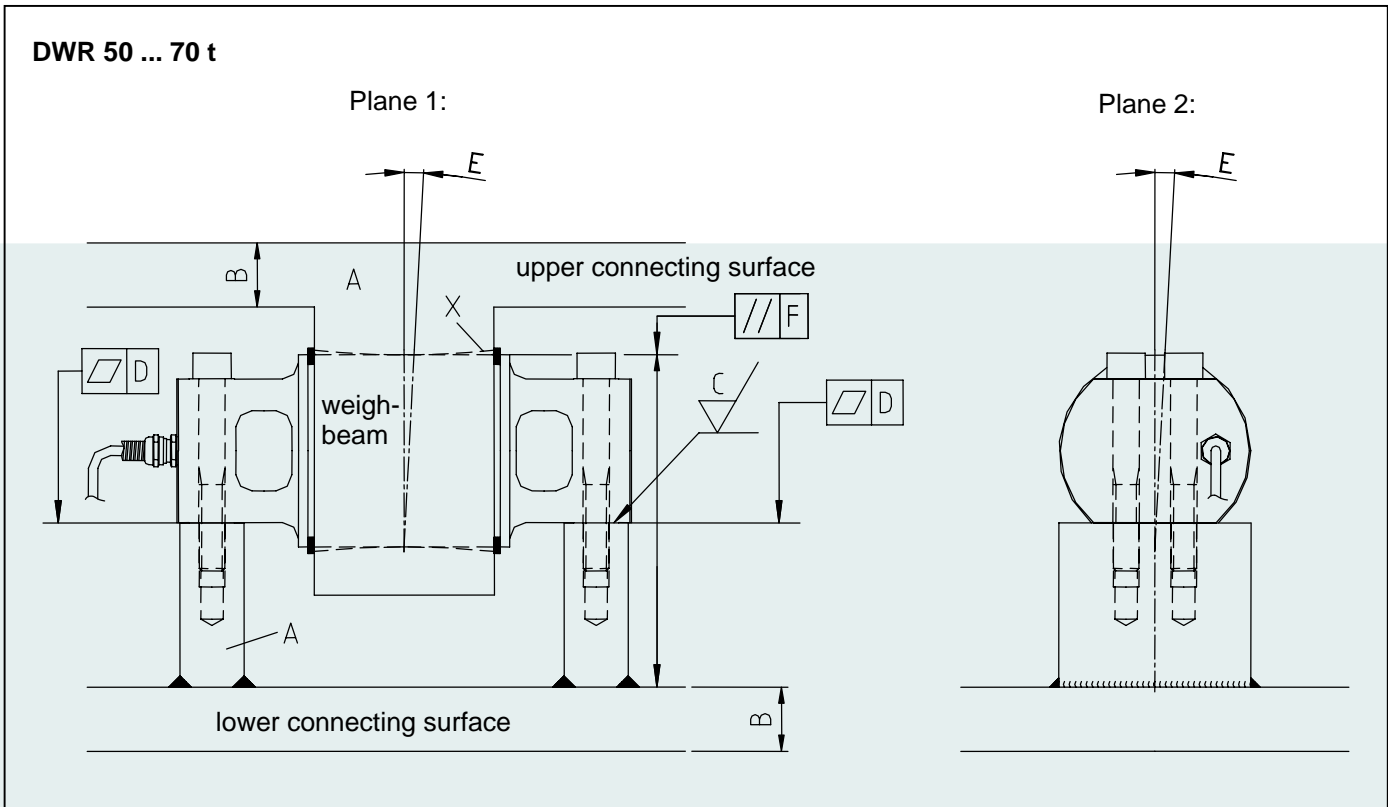


Variante	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	J mm	K mm	L mm	M mm	N mm
DWR 50 t	230	88	67	190	Ø 96,5 _{h12}	80	3,15	Ø 16,5	40	Ø 100	36	35	57
DWR 60 t	284	132	112	240	Ø 116 _{h13}	90	4,15	Ø 16,5	40	Ø 120	36	38	76
DWR 70 t	330	146	127,8	290	Ø 126 _{h13}	96	4,15	Ø 16,5	40	Ø 130	40	43	85

Dimensions E and G for retaining ring DIN 471

Recommended tolerance of the bore (dimension K): F8

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 (dimension F on page 3)
- Surface quality "C":
Requisite mean roughness of the connecting surfaces is 6.3 μm
- Planeness "D":
Maximum admissible planeness tolerance within the two outer conjoint connecting surfaces for each weighbeam 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 minimum 0.1 mm
Plane 1:
Possibly execute load input convex (detail „X“).
Plane 2:
Construction is angle compensating (also for elastic deflections).

Variant	Order No.
DWR 50 t	V 013 257 .B04
DWR 60 t	V 013 257 .B05
DWR 70 t	V 013 257 .B06
<u>Spare Part:</u> 15 m connecting cable with plug socket	V 023 643 .B01

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