

Weighdisc WDI 25 ... 200 t – 0.07



NEW:

- Improved Combined Error: 0.07 %

Further Features:

- Load transducer for direct fitting
- No bearing elements required
- Transmission of high interferential forces
- High load application and output area
- Minimal installation space required
- Service temperature up to 125°C

Application

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

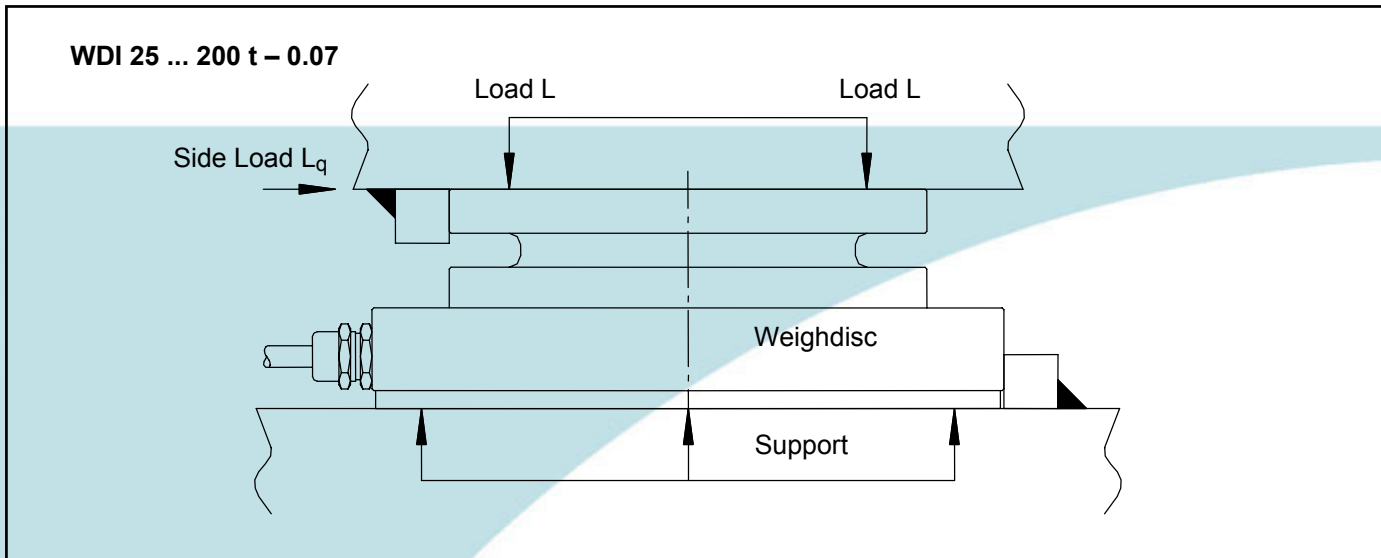
Construction

- Rotationally symmetrical design
- Two fastening flanges
- Rugged measuring body without diaphragm
- Very low headroom and installation space
- Optional: Connection of cable and Weighdisc through a connector

Function

- Simple and economical installation through direct screwing to the connecting structure without movable parts
- Virtually impervious to shock loads and side forces
- Minimal measurement value reaction on high interferential forces and moments
- Suitable to the construction of service free scales in severe environments
- High overload capability
- High degree of repeatability
- High long-term stability

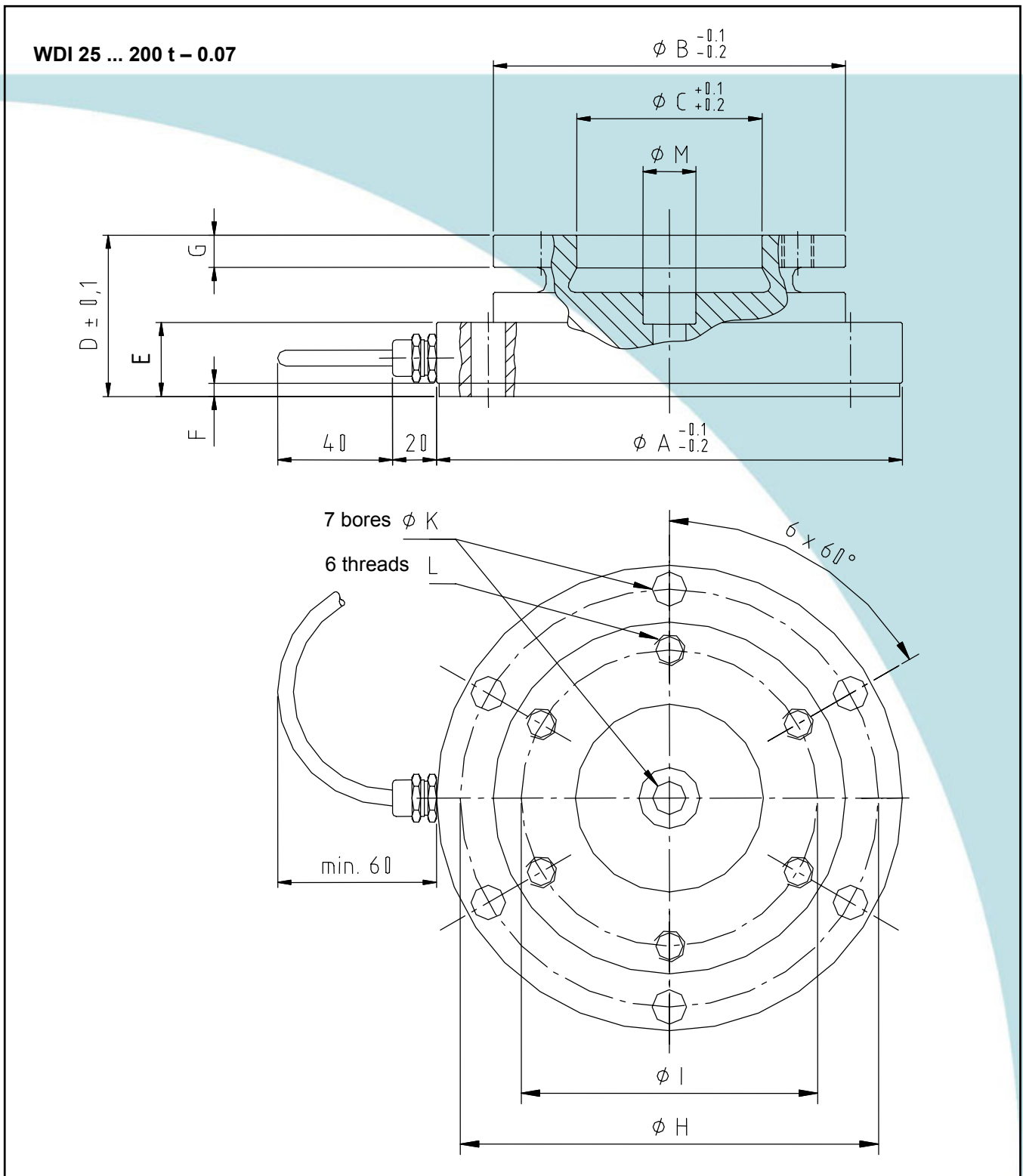
Operating principle



Technical Data

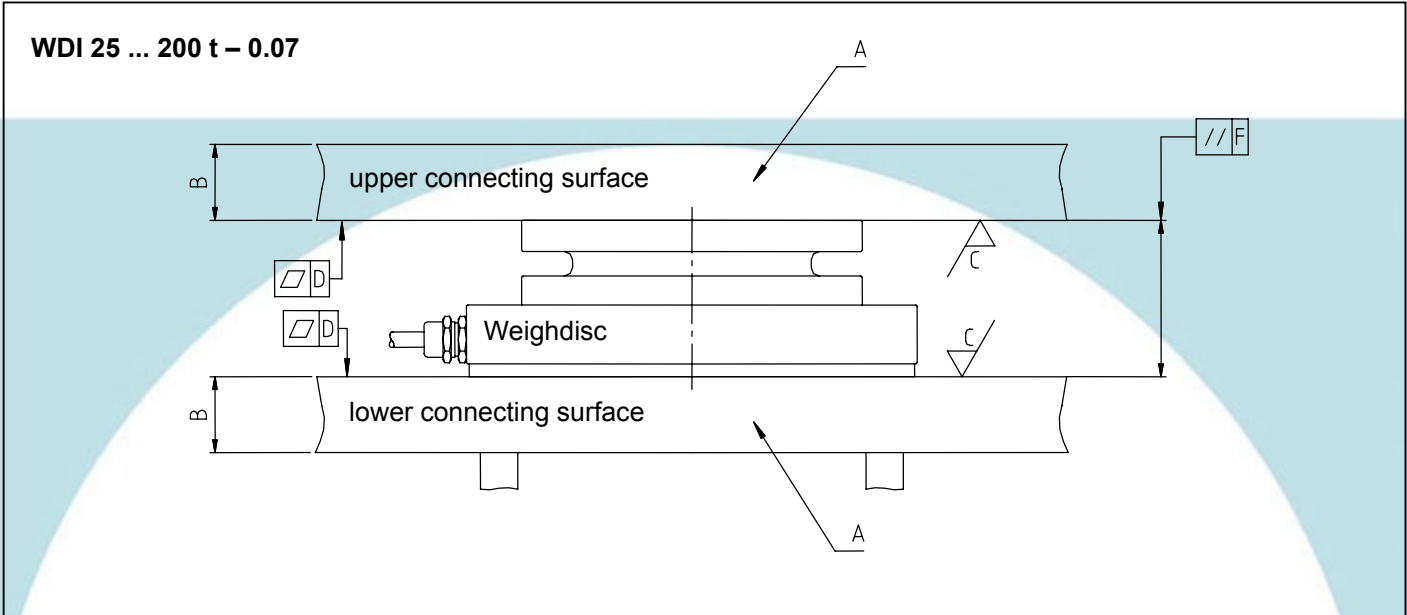
		WDI 25 - 0.07	WDI 50 - 0.07	WDI 100 - 0.07	WDI 200 - 0.07	Reference
Rated capacity	E_{max}	25 t	50 t	100 t	200 t	
Limit load (with $L_{q=0,15xL_n}$) Limit load = Maximum admissible load	L_l	75 t	150 t	300 t	600 t	
Rupture load (with $L_{q=0,15xL_n}$)	L_d	125 t	250 t	500 t	1000 t	
Max. admissible side load	L_{qmax}	12 t	25 t	50 t	100 t	
Sensitivity	C_n	0.9 mV/V				E_{max}
Combined Error	F_{comb}	± 0.07 %				C_n
Creeping under load (30 min)	F_{cr}	0.05 %				C_n
Input resistance	R_e	756 Ohm ± 6 Ohm				T_r
Output resistance	R_a	700 Ohm ± 4 Ohm				T_r
Reference supply voltage	U_{sref}	10V				
Max. supply voltage	U_{smax}	36V				
Nominal temperature range	B_{tn}	- 10°C to + 80°C				
Service temperature range	B_{tu}	- 15°C to + 125 °C				
Reference temperature	T_r	+ 22°C				
Storage temperature range	B_{ts}	- 50°C to + 130°C				
Temperature effect on zero signal	TK_o	± 0.05% / 10K				C_n in B_{tu}
Temperature effect on sensitivity	TK_c	± 0.03% / 10K				
Dead weight	m_e	15 kg	15 kg	25 kg	52 kg	
Corrosion protection		hot dip galvanized				
Protection class		IP 67				
Cable specification		<p>Standard: silicon cable (∅ 6,5 mm x 15 m), hardwired, screened; Bending radius: ≥ 40 mm; Temperature range: -30 ...+150 °C</p> <p>Optional: same silicon cable (∅ 6,5 mm x 15 m) with plug (∅ 30 mm x 160 mm) 200 mm distance from Weighdisc</p>				
Colour code		black: input + / blue: input - red: output + / white: output - green-yellow : screening				

Mounting Dimensions



Variant	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	K mm	L	M mm
WDI 25t / 50t	192	136	70	65	28	5	16	168	115	17,5	M16	26
WDI 100t	265	195	100	88	36	8	23	234	164	22	M20	32
WDI 200t	350	263	140	120	54	8	25	310	220	26	M24	38

Connecting surface quality requirements



- Material quality „A“:
Usually construction steel of a minimum quality S235 is used
- Plate thickness „B“:
Depends on stiffness of total construction. Plate thickness of connecting surface must be such high, that maximum deflection is less than 0.05 mm.
- Surface quality „C“:
Requisite mean roughness of the connecting surfaces is 6.3 µm
- Planeness „D“:
Maximum admissible planeness tolerance within every connecting surface is 0.03 mm
- Plane parallelism „F“:
Upper and lower connecting surfaces to the Weighdisc have to be plane parallel to minimum 0.1 mm

Variant	Order No.
<i>Weighdisc with hardwired cable (15 m)</i>	
WDI 25 t - 0.07	V039000.B05
WDI 50 t - 0.07	V039000.B06
WDI 100 t - 0.07	V039000.B07
WDI 200 t - 0.07	V039000.B08
<i>Weighdisc with plug and cable (15m)</i>	
WDI 25 t - 0.07 K	V039000.B01
WDI 50 t - 0.07 K	V039000.B02
WDI 100 t - 0.07 K	V039000.B03
WDI 200 t - 0.07 K	V039000.B04
<i>Spare Part:</i>	
15 m connecting cable with plug	V023643.B01



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The Group

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