

## 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

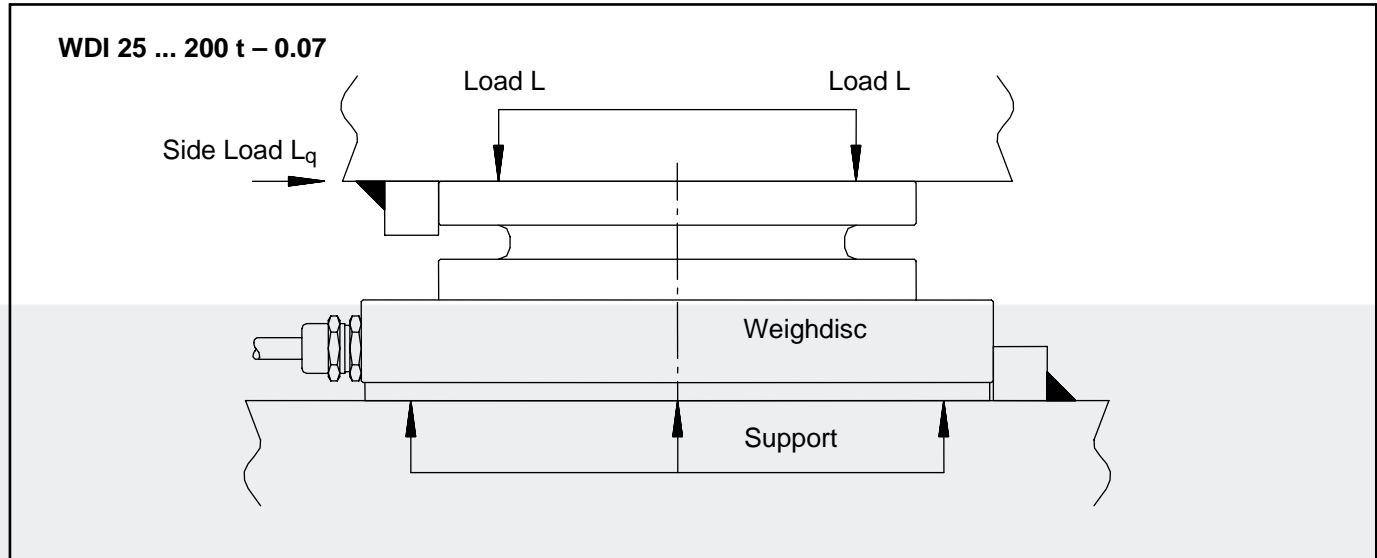
### Construction

- 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

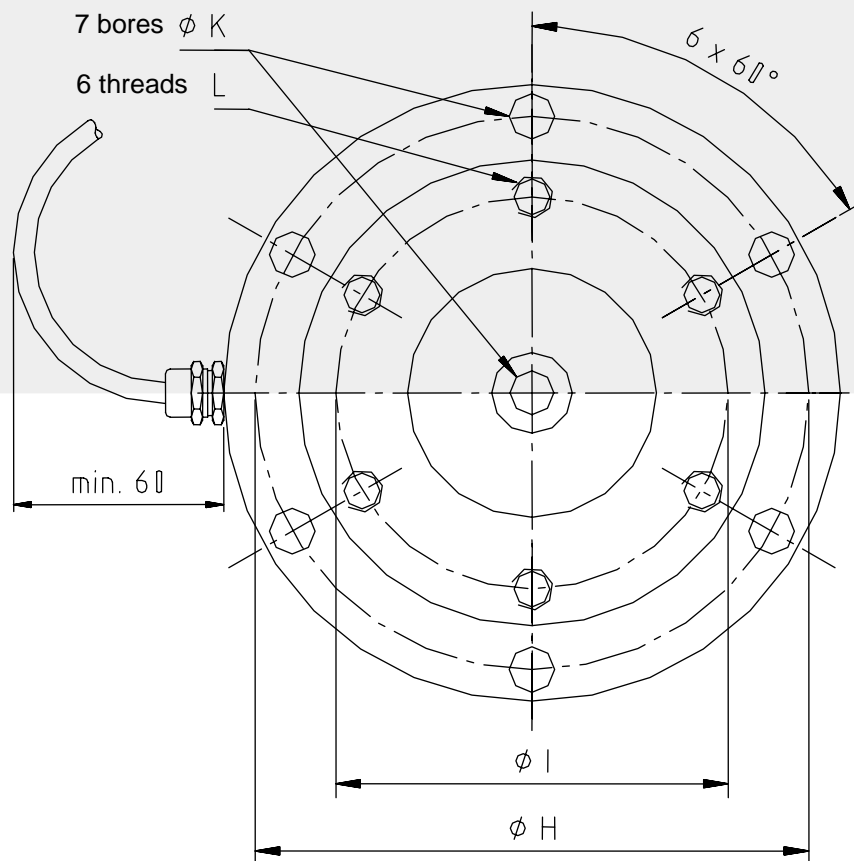
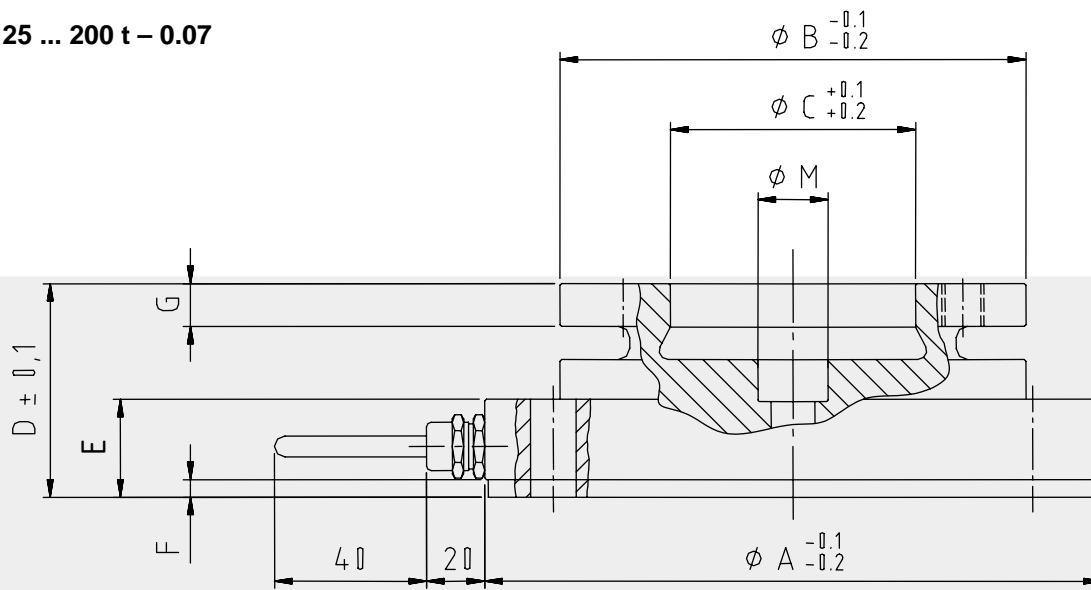


## Technical Data

		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 $L_{q=0,15 \times L_n}$ ) Limit load = Maximum admissible load	$L_l$	75 t	150 t	300 t	600 t	
Rupture load (with $L_{q=0,15 \times L_n}$ )	$L_d$	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	$m_e$	10 kg	10 kg	20 kg	47 kg	
Corrosion protection		hot dip galvanized				
Protection class		IP 67				
Cable specification		<p><i>Standard:</i> silicon cable (∅ 6,5 mm x 15 m), hardwired, screened; <u>Bending radius:</u> ≥ 40 mm; <u>Temperature range:</u> -30 ...+150 °C</p> <p><i>Optional:</i> 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				

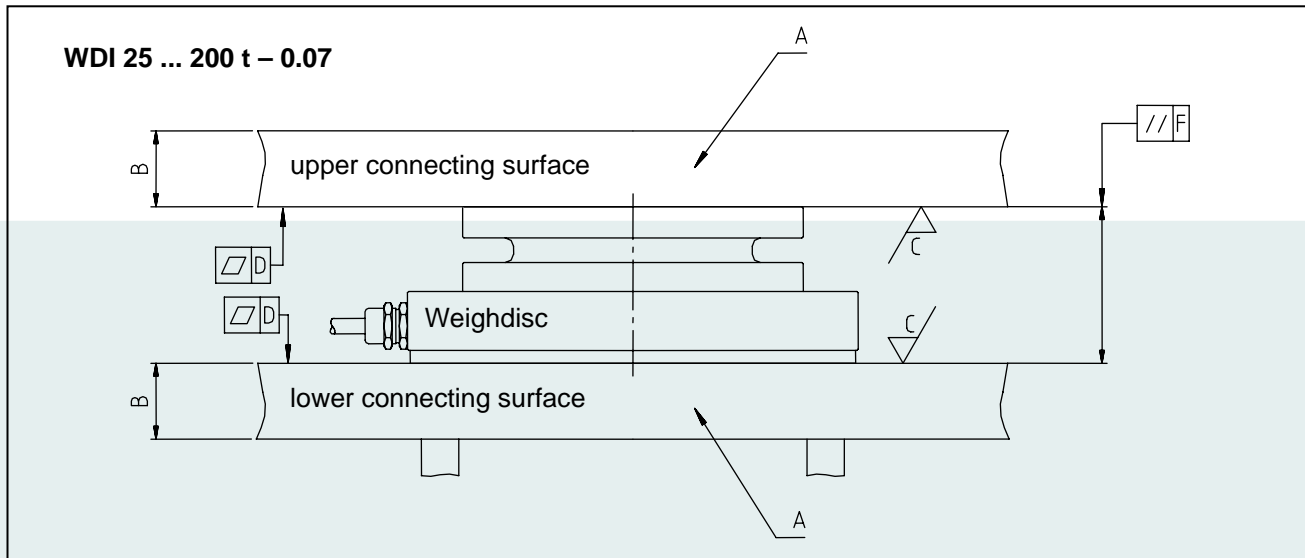
## Mounting Dimensions

WDI 25 ... 200 t – 0.07



Variant	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	K mm	L	M mm
<b>WDI 25t / 50t</b>	192	136	70	65	28	5	16	168	115	17,5	M16	26
<b>WDI 100t</b>	265	195	100	88	36	8	23	234	164	22	M20	32
<b>WDI 200t</b>	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