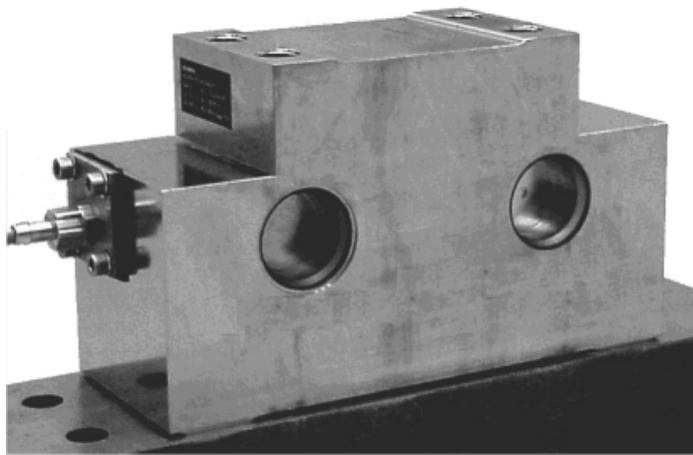


Weighbeam DMR 15 t



- High accuracy
- Hermetically sealed, protected to IP67 by laser welding
- Easy and economical installation through direct screwing to the connecting structure
- Transmission of high interferential forces and moments at minimal influence on measurement value
- For high temperatures and rugged operation
- For the design of maintenance-free scales

Application

- Railway scales
- Crane scales
- Coil scales

Equipment

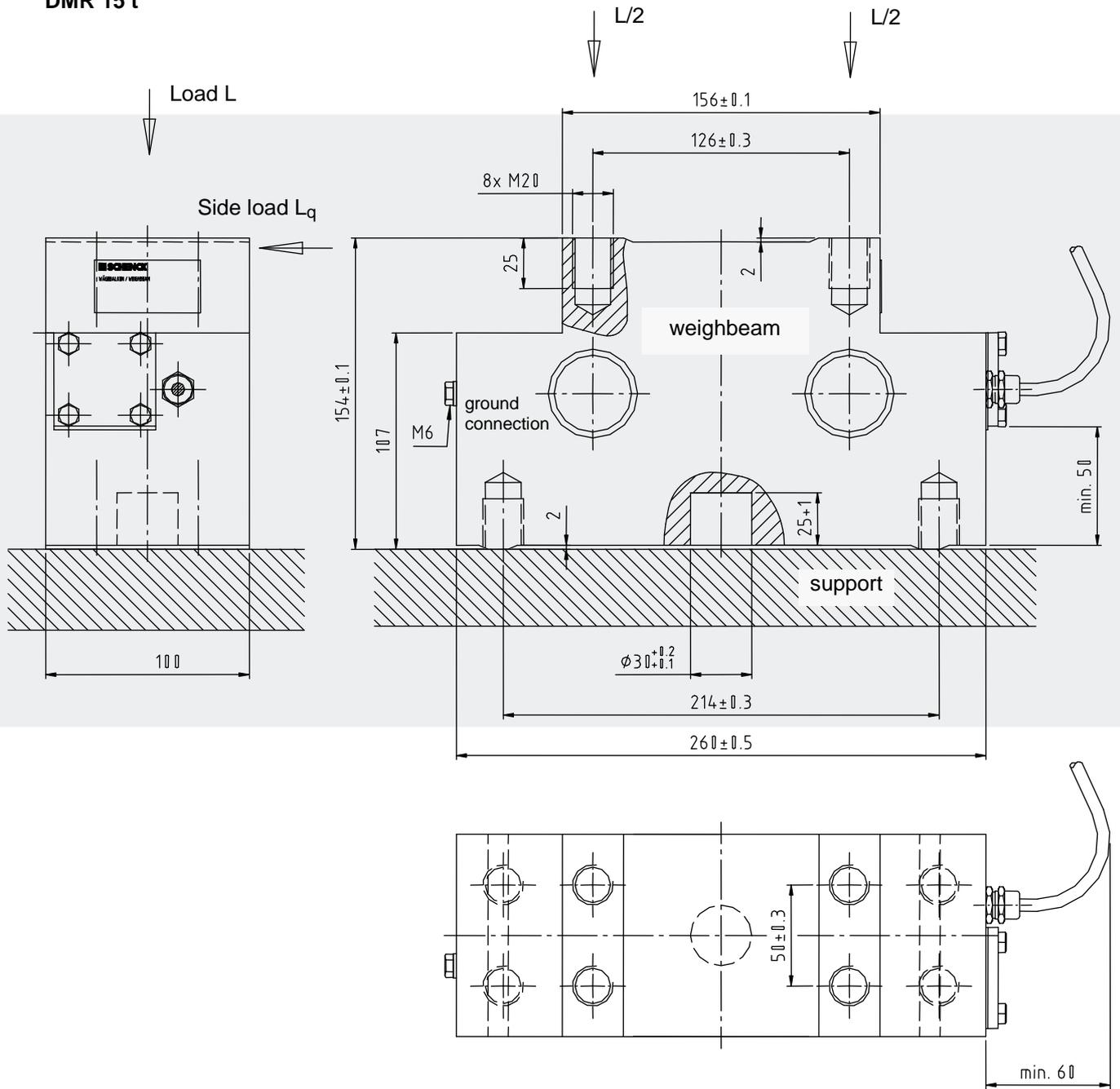
- Two-line load introduction and outlet
- Stainless steel
- Hermetically sealed

Function

- High repeatability
- High long-term stability and consistently high accuracy
- No additional tie-rods or hold-downs
- Optional execution with two measuring circuits inside one sensor available

Mounting Dimensions

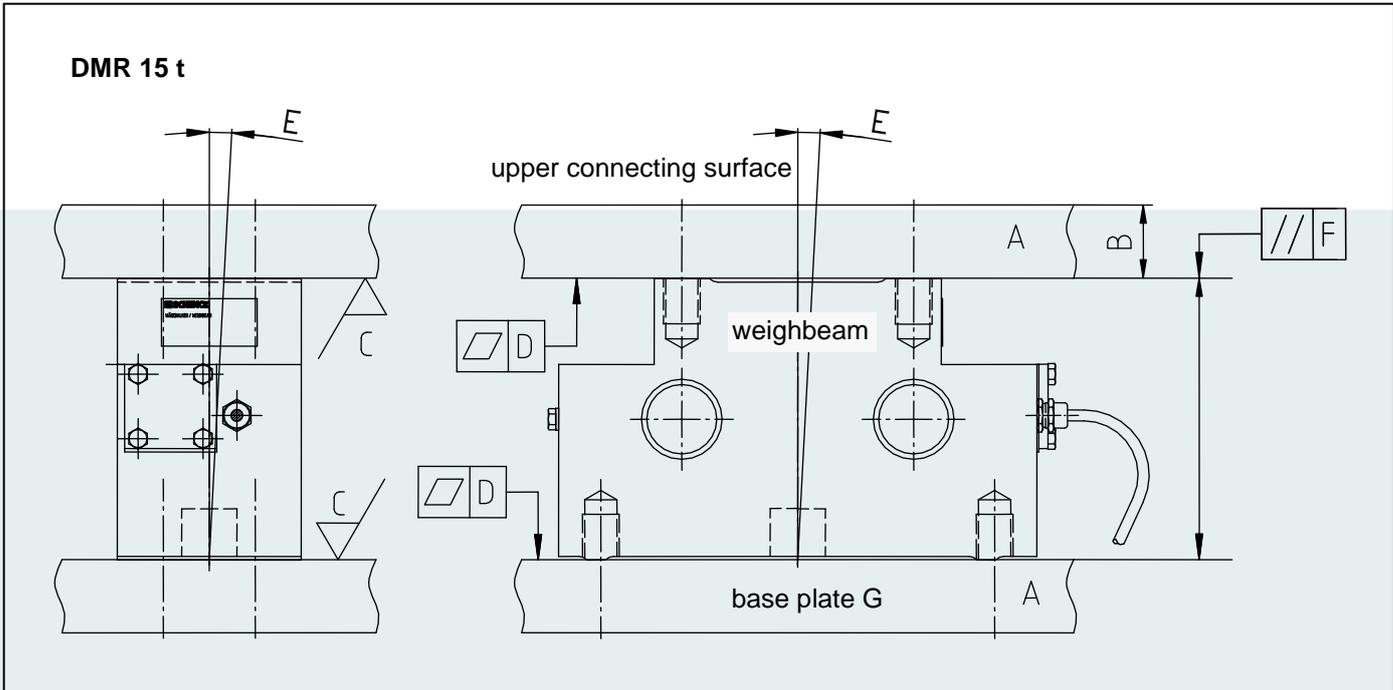
DMR 15 t



Technical Data

DMR 15 t					Ref.
Rated capacity	E_{max}	15 t			
Accuracy class (according to OIML R60)		C1 (legal-for-trade)	C2 (legal-for-trade)	0.1	
Number of increments	n_{LC}	1000	2000		
Nominal measuring range	B_{max}	$B_{max} = E_{max}$			
Sensitivity	C_n	2 mV / V			
Combined error	F_{comb}	±0.06 %	±0.03 %	±0.1 %	C_n
Return of minimum preload signal	F_{DR}	±0.03 %	±0.02 %	±0.033 %	C_n
Creep error (30 min)	F_{cr}	±0.049 %	±0.025 %	±0.05 %	C_n
Zero signal temperature coefficient	TK_o	±0.028 % / 10 K	±0.02 % / 10 K	±0.028 % / 10 K	C_n
Sensitivity temperature coefficient	TK_c	±0.016 % / 10 K	±0.008 % / 10 K	±0.023 % / 10 K	
Minimum increment value	v_{min}	$E_{max} / 5000$	$E_{max} / 6000$	---	
Minimum measuring range	B_{min}	20 %	33.3 %	---	
Limit load (with $L_Q = 0.15 \times E_{max}$)	L_L	26 t			
Rupture load (with $L_Q = 0.15 \times E_{max}$)	L_B	38 t			
Max. lateral load	L_Q	13 t			
Input resistance	R_{LC}	386 Ω ±3 Ω			t_{ref}
Output resistance	R_o	360 Ω ±0.5 Ω			t_{ref}
Zero signal	S_o	±1 %			C_n
Relative sensitivity deviation	d_c	±0.2 %			C_n
Supply voltage nominal range	B_U	5 V ... 12 V			
Nominal temperature range	B_T	-10 °C ... +40 °C			
Service temperature range	B_{tu}	-30 °C ... +120 °C			
Reference temperature	t_{ref}	22 °C			
Material		Stainless steel			
Protected to		IP67 (laser welded)			
Corrosion protection		see resistance list DDP8483			
Dead weight	m_e	25 kg			
Measuring cable		4 x 0.5 mm ² screened in pairs and external screening outer diameter 6.5 mm, Length 15 m Silicone, -30 °C ... +150 °C			
Colour code		Black:	Input +		
		Blue:	Input -		
		Red:	Output +		
		White:	Output -		
		Black-Yellow:	screen		

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 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 0.05 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 to the weighbeam have to be plane parallel to minimum 0.1 mm
- Base plate „G“:
The DMR is mounted onto a base plate with a minimum thickness of 30 mm (Torque: 270 Nm). The base plate must be mounted onto a sufficiently stiff steel construction (screwed- or welded connection). It is important that there is no gap between the sensor and the supporting structure. Alternatively, the base plate is tightly connected (form-locking) to a concrete structure by means of a cast-in plate.

Variant	Order No.
DMR 15 t 0.1	V000522.B08
DMR 15 t C1	V000522.B01
DMR 15 t C2	V000522.B07
DMR 15 t 2 channels	V000522.B04 (10 m cable) V000522.B02 (20 m cable)
DMR 15 t C2 2 channels	V000522.B09

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