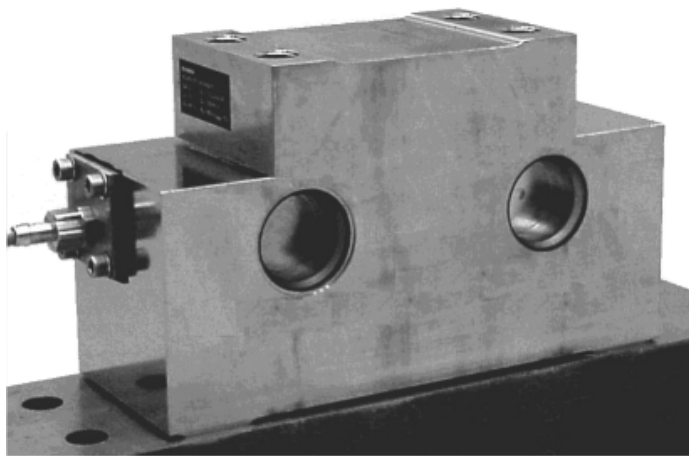


## Weighbeam DMR 15 t



- 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

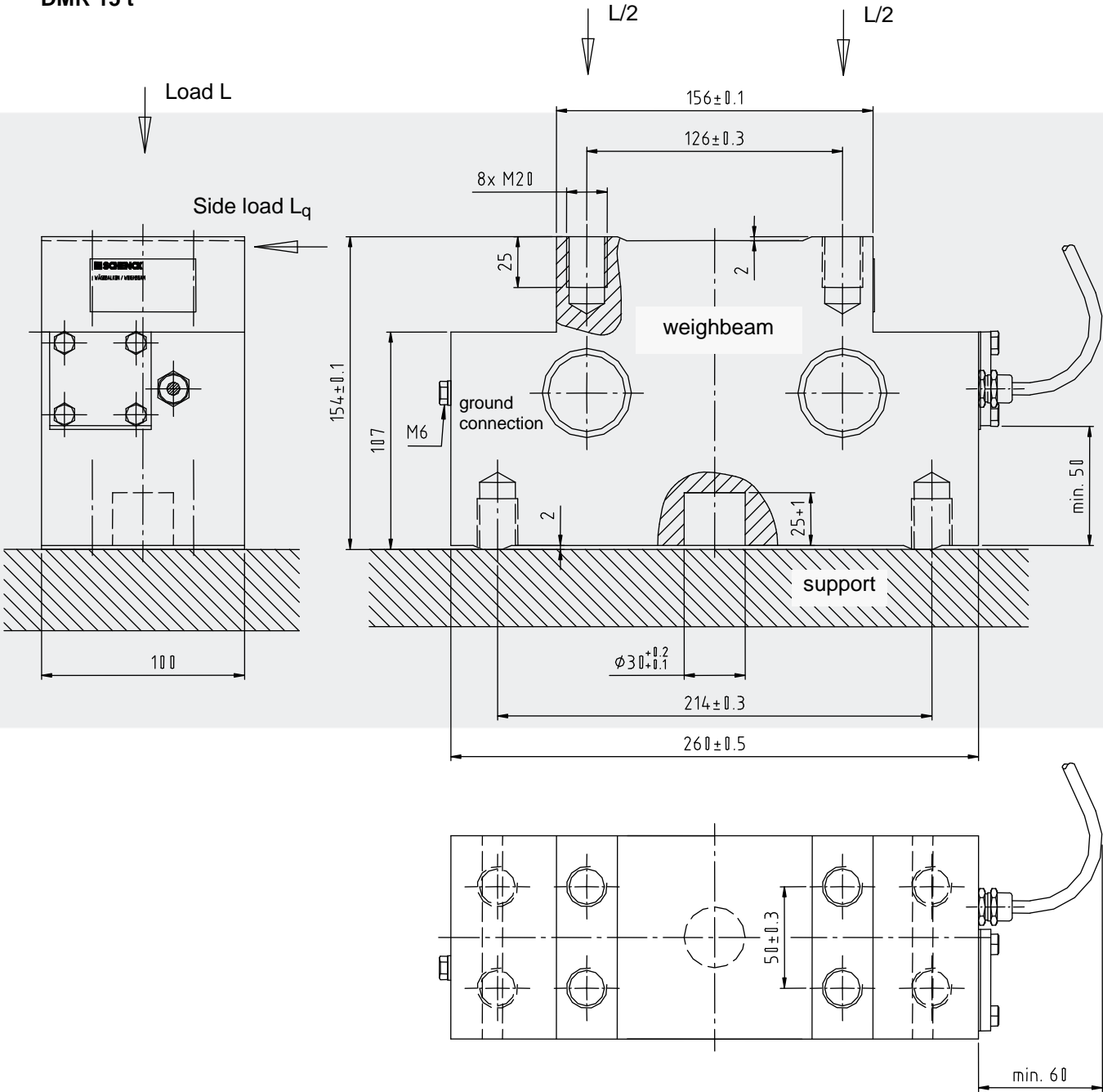
- Two-line load introduction and outlet
- Stainless steel
- Hermetically sealed

### 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

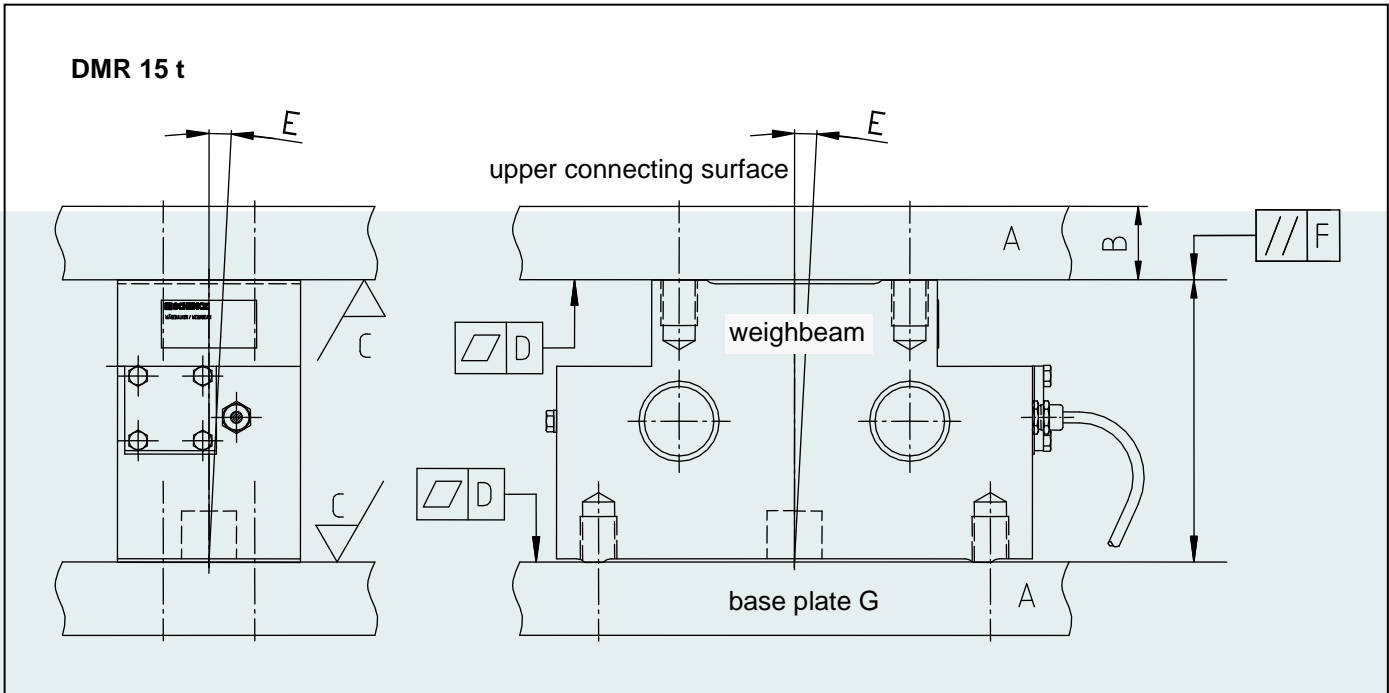
DMR 15 t



## 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	$F_{\text{comb}}$	$\pm 0.06 \%$	$\pm 0.03 \%$	$\pm 0.1 \%$	$C_n$
Return of minimum preload signal	$F_{DR}$	$\pm 0.03 \%$	$\pm 0.02 \%$	$\pm 0.033 \%$	$C_n$
Creep error (30 min)	$F_{cr}$	$\pm 0.049 \%$	$\pm 0.025 \%$	$\pm 0.05 \%$	$C_n$
Zero signal temperature coefficient	$TK_o$	$\pm 0.028 \%$ / 10 K	$\pm 0.02 \%$ / 10 K	$\pm 0.028 \%$ / 10 K	$C_n$
Sensitivity temperature coefficient	$TK_c$	$\pm 0.016 \%$ / 10 K	$\pm 0.008 \%$ / 10 K	$\pm 0.023 \%$ / 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 $\Omega \pm 3 \Omega$			$t_{\text{ref}}$
Output resistance	$R_o$	360 $\Omega \pm 0.5 \Omega$			$t_{\text{ref}}$
Zero signal	$S_o$	$\pm 1 \%$			$C_n$
Relative sensitivity deviation	$d_c$	$\pm 0.2 \%$			$C_n$
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	$t_{\text{ref}}$	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 <sup>2</sup> 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  $\mu\text{m}$
- **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 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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