



## Short Description



- Stainless steel shear beam load cell (150kg and 300kg are bending beam load cells)
- Hermetically sealed IP68
- Suitable for platform scales, container and tank scales, etc.
- High accuracy
- Wide range of capacities



Test certificate no. TC7869 Revision 2  
C of C no R60/2000-NL1-12.11



Certificate no. 10-056A1

## Available Models

Capacity	Accuracy	Full Article Description
150kg	C3	BM8D-C3-150kg-6B-G1
300kg	C3	BM8D-C3-300kg-6B-G1
500kg	C3/C4/C5/C6	BM8D-C3/C4/C5/C6-500kg-6B
1t	C3/C4/C5/C6	BM8D-C3/C4/C5/C6-1t-6B-SC
1.5t	C3/C4/C5/C6	BM8D-C3/C4/C5/C6-1.5t-6B
2t	C3/C4/C5/C6	BM8D-C3/C4/C5/C6-2t-6B-SC
2.5t	C3/C4/C5/C6	BM8D-C3/C4/C5/C6-2.5t-6B
3t	C3/C4/C5	BM8D-C3/C4/C5-3t-6B
5t	C3/C4/C5	BM8D-C3/C4/C5-5t-6B
7.5t	C3/C4/C5	BM8D-C3/C4/C5-7.5t-6B
10t	C3/C4/C5	BM8D-C3/C4/C5-10t-6B

## Technical Specifications BM8D

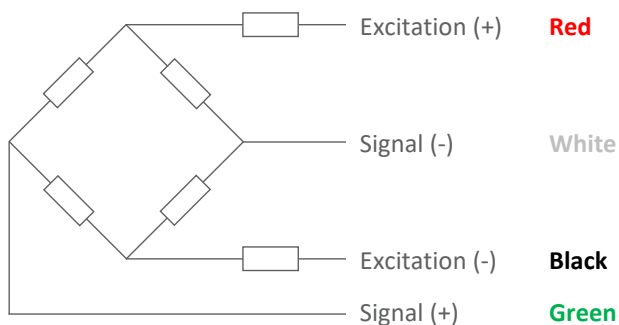
Accuracy Class		C3	C4	C5	C6
Output Sensitivity ( = FS )	mV/V	2.0 ± 0.04		3.0 ± 0.08	
Maximum Capacity ( E <sub>max</sub> )	t	0.15, 0.3, 0.5, 1, 1.5, 2, 2.5, 3, 5, 7.5, 10	0.5, 1, 1.5, 2, 2.5, 3, 5, 7.5, 10		0.5, 1, 1.5, 2, 2.5
Max. Number of Load Cell Intervals	n <sub>LC</sub>	3000	4000	5000	6000
Ratio of min. LC Verification Interval	Y = E <sub>max</sub> / V <sub>min</sub>	10000	15000	18000	20000
Combined Error	%FS	≤± 0.023	≤± 0.018	≤± 0.010	≤± 0.009
Creep Error (30 minutes)	%FS	≤± 0.016	≤± 0.013	≤± 0.012	≤± 0.008
Temperature Effect on Zero (ZTC)	%FS/10°C	≤± 0.015	≤± 0.017	≤± 0.014	≤± 0.007
Temperature Effect on Sensitivity	%FS/10°C	≤± 0.011	≤± 0.014	≤± 0.007	≤± 0.006
Zero Balance	%FS	≤± 1.0			
Safe Overload	%FS	150			
Ultimate Overload	%FS	300			
Maximum Deflection	mm	0.15 – 3t: 0.3 ~0.5	5t – 7.5t: ~0.7	10t: 0.9	
Excitation, Recommended Voltage	V	5 ~ 12			
Excitation, Maximum Voltage	V	18			
Input Resistance	Ω	350 ± 3.5			
Output Resistance	Ω	350 ± 3.5			
Insulation Resistance (50V)	MΩ	≥5000			
Compensated Temperature	°C	-10 ~ + 40			
Operating Temperature	°C	-35 ~ + 65			
Storage Temperature	°C	-40 ~ + 75			
Load Cell Weight	kg	0.15t – 2t: ~1.1	2.5t – 5t: ~1.6	7.5 – 10t: ~3.7	
Element Material		Stainless Steel			
Ingress Protection (acc. to EN 60529)		IP68			
Recommended Torque on Fixation	Nm	M12: 75	M20: 450	M24: 750	
ATEX Classification (optional)		II 1G Ex ia IIC T4 Ga	II 1D Ex ia IIIC T <sub>200</sub> 135°C Da	II 3G Ex ic IIC T4 Gc	

## Wiring

### Features:

Cable type: Shielded, 4 conductor cable, conductor AWG 20  
 Cable diameter: Ø 5.0mm  
 Cable length: 6m  
 Cable jacket: Polyurethane  
 Shield not connected to element

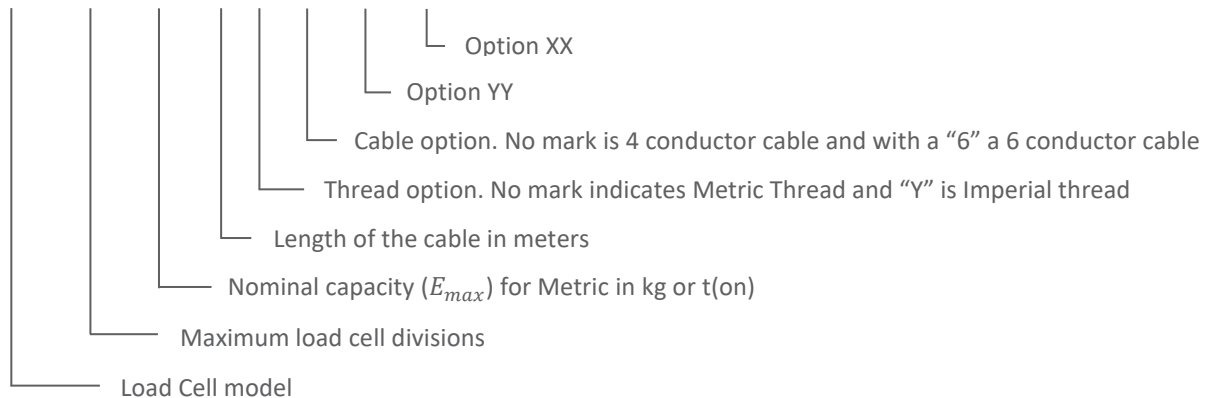
### 4-Wire Connection Diagram



Specifications and dimensions are subject to change without notice and do not constitute any liability whatsoever.

## Ordering Info:

**BM8D - C3 - 1.0t - 4 - - BX - YY - XX**

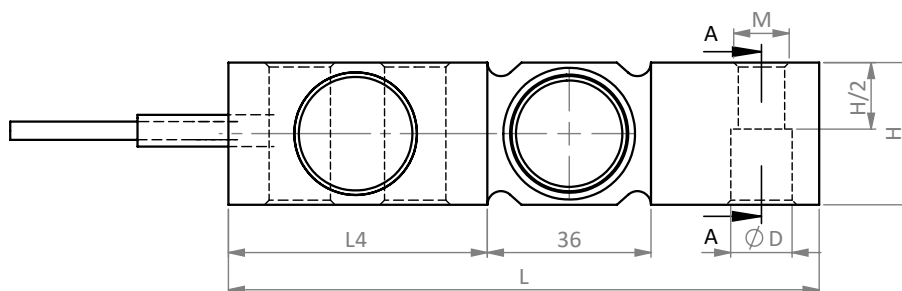


Options Capacity	YY			XX	
	G1 (2mV/V-SC)	SC (3mV/V-SC)	None(3mV/V)	W6("T"end)	
150kg	Standard	Not available	Not available	Option only available in combination with G1 option	
300kg					
500kg	Option	Option	Standard		
1t		Standard	Option		
1.5t		Option	Standard		
2t		Standard	Option		
2.5t		Option	Option		Standard
3t					
5t					
7.5t	Option	Option	Standard		Not available
10t					

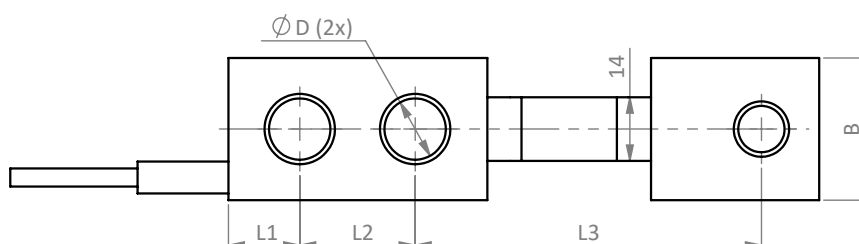
## Dimensions in mm

### 150 – 300kg (Bending)

#### Side View



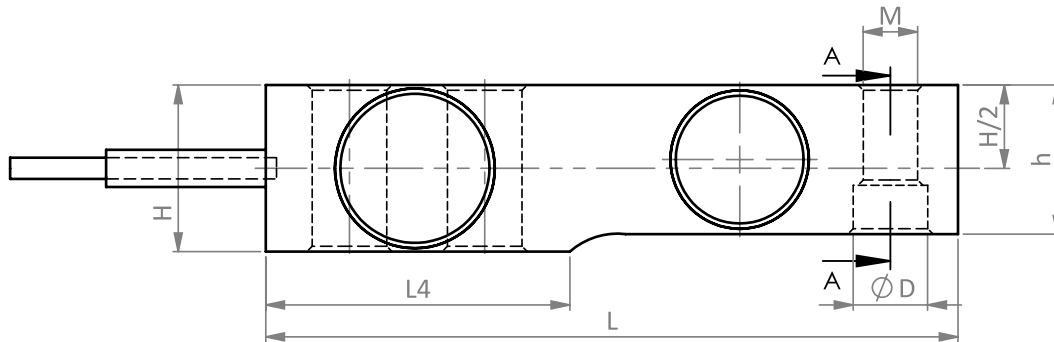
#### Top View



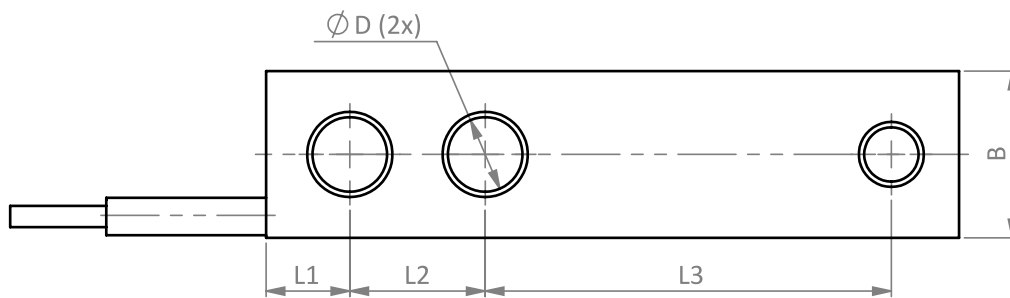
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## Other Capacities (Shear)

### Side View

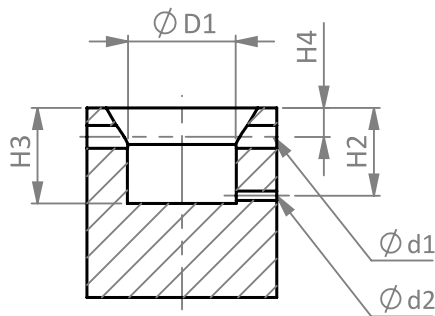


### Top View



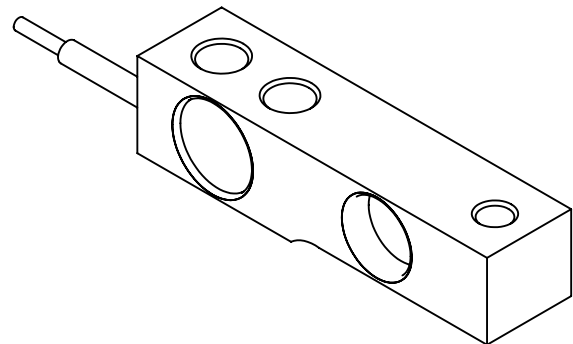
### Option W6

#### Dimensions loading hole



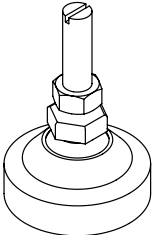
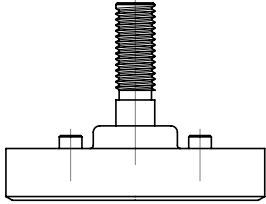
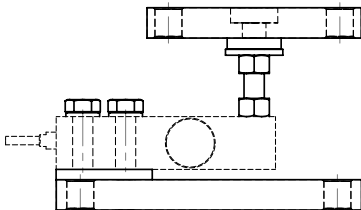
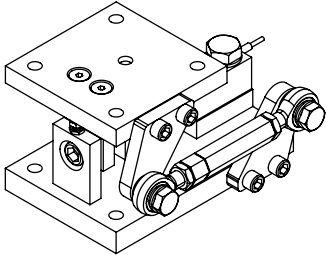
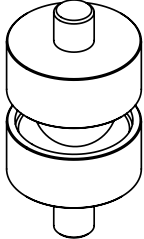
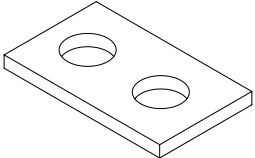
SECTION A-A

### Isometric View



Dimension Capacity	L	L1	L2	L3	L4	B	H	h	ØD	Ø D1	Ø d1	Ø d2	H2	H3	H4	M
0.15t - 0.3t	130	15.7	25.4	76.2	57.1	31.3	31.3	-	13.5	18	4	2	14.5	15.8	4.8	M12
0.5t	130	15.7	25.4	76.2	57.1	31.3	31.3	24.8	13.5	18	4	2	14.5	15.8	4.8	M12
1t	130	15.7	25.4	76.2	57.1	31.3	31.3	26.0	13.5	18	4	2	14.5	15.8	4.8	M12
1.5t - 2t	130	15.7	25.4	76.2	57.1	31.3	31.3	28.0	13.5	18	4	2	14.5	15.8	4.8	M12
2.5t - 5t	171	19	38.1	95.2	76.2	36.8	36.8	34.8	20.5	25	4	2	17.5	18.8	4.8	M20
7.5t - 10t	222	25.4	50.8	120.7	101.6	49.5	49.5	47.5	26.9	-	-	-	-	-	-	M24

## Available Accessories

<p><b>BJ-8-202-0.1t/2t &amp; 2.5t/5t &amp; 10t Foot</b></p> <ul style="list-style-type: none"> <li>• <math>\varnothing 60</math>-80-86mm and height 92-105-107 mm</li> <li>• Stainless Steel</li> <li>• Adjustable Height</li> <li>• Easy installation</li> </ul>	
<p><b>BJ-8-219-0.5t/2t Foot</b></p> <ul style="list-style-type: none"> <li>• <math>\varnothing 80</math> and height 61 mm</li> <li>• Stainless steel</li> <li>• Easy installation</li> <li>• Good ability of anti-side loading</li> <li>• Mainly used for platform scales, floor scales and other electronic weighing devices</li> </ul>	
<p><b>BM-8-404-0.5/2t &amp; 2.5/5t Mount</b></p> <ul style="list-style-type: none"> <li>• Hardened stainless steel components</li> <li>• Compact construction</li> <li>• Using under heavy static load or slight dynamic load</li> <li>• Good ability against corrosive environments</li> </ul>	
<p><b>BM-8-906-0.15-2t &amp; 2.5-5t Mounts</b></p> <ul style="list-style-type: none"> <li>• Hardened stainless steel components</li> <li>• Complete kit for easy mounting</li> <li>• Includes lift-off protection, loadcell dummy and transport plate</li> <li>• Optional rod-end available for horizontal forces &amp; movement protection</li> </ul>	
<p><b>BY-8-104-0.5t/2t &amp; 2.5t/5t Ball &amp; Socket System</b></p> <ul style="list-style-type: none"> <li>• Stainless steel</li> <li>• Easy installation</li> <li>• Automatically centralized with steel ball</li> <li>• Good self-alignment ability</li> <li>• Mainly used for platform scales, floor scales and other electronic weighing devices</li> </ul>	
<p><b>HD-8-301-0.1-2t/2.5-5t/10t Spacer Plate</b></p> <ul style="list-style-type: none"> <li>• Alloy Steel</li> <li>• Mainly used for platform scales, floor scales and other electronic weighing devices</li> </ul>	
<p><b>HJ-8-236-0.15-2t W6-option Foot</b></p> <ul style="list-style-type: none"> <li>• <math>\varnothing 60</math> and height 41 to 50 mm</li> <li>• Zinc plated alloy steel</li> <li>• Easy installation</li> <li>• T-end foot for W6 option load cells</li> </ul>	