


Type BM8D Load Cell



Short description



- Stainless steel shear beam load cell (150kg and 300 kg are bending beam load cells)
- Hermetically sealed IP68
- Suitable for floor scales, vehicle-test line, hopper scales and other electronic weighing devices
- 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 |

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Detailed specifications BM8D

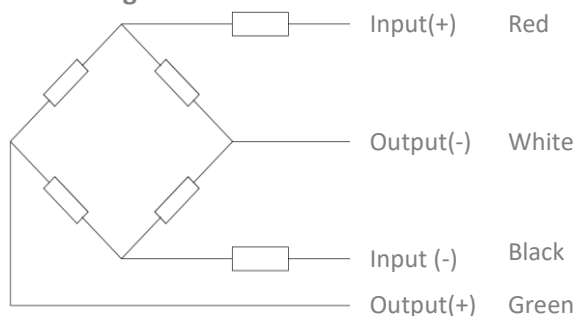
| | | | | | |
|--|---|--|------------------------------------|----------------|------------------------|
| Accuracy class | | OIML R60 C3 | OIML R60 C4 | OIML R60 C5 | OIML R60 C6 |
| Output sensitivity (= FS) | mV/V | 2.0 ± 0.04 | | 3.0 ± 0.08 | |
| Maximum capacity (E _{max}) | t | 0.15, 0.3, 0.5, 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 _{LC} | 3000 | 4000 | 5000 | 6000 |
| Ratio of min. LC verification interval | Y = E _{max} / V _{min} | 10000 | 15000 | 20000 | 20000 |
| Combined Error | %FS | ≤± 0.0230 | ≤± 0.0175 | ≤± 0.0140 | ≤± 0.0116 |
| Minimum dead load | Of E _{max} | 0% | | | |
| Safe overload | of E _{max} | 150 % | | | |
| Ultimate overload | of E _{max} | 300 % | | | |
| Zero balance | of FS | < ± 1.0 % | | | |
| Excitation, recommended voltage | V | 5 ~ 12 | | | |
| Excitation maximum | V | 18 | | | |
| Input resistance | Ω | 350 ± 3.5 | | | |
| Output resistance | Ω | 350 ± 3.5 | | | |
| Insulation resistance | MΩ | ≥5000 (at 50VDC) | | | |
| Compensated temperature | °C | -10 ~ +40 | | | |
| Operating temperature | °C | -35 ~ +65 | | | |
| Storage temperature | °C | -40 ~ +75 | | | |
| 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) | | II1G Ex ia II1C T4 | II1D Ex iaD 20 T73°C | II3G nL IIC T4 | |

Wiring

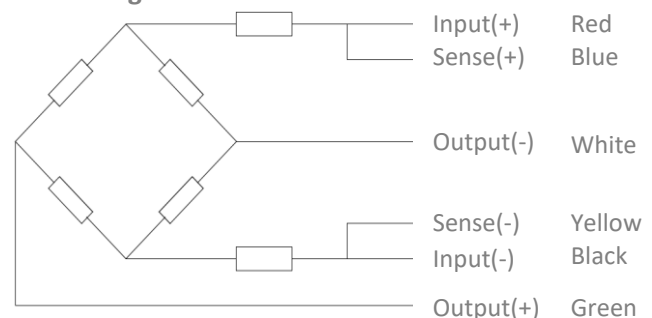
Wiring:

shielded, 4 conductor cable.
Cable diameter: Ø 5mm.
Standard cable length: 6m.
Shield not connected to element.

4-wire diagram



6-wire diagram



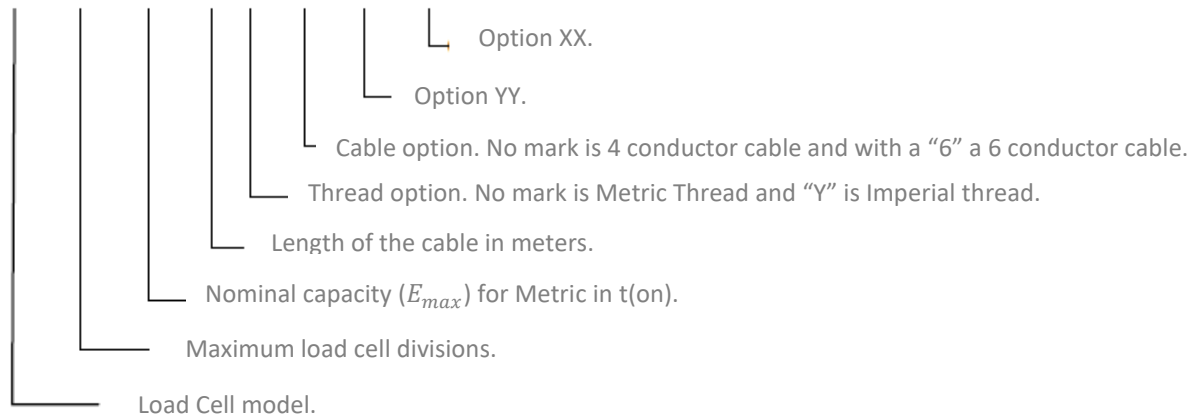
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Ordering Info:

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

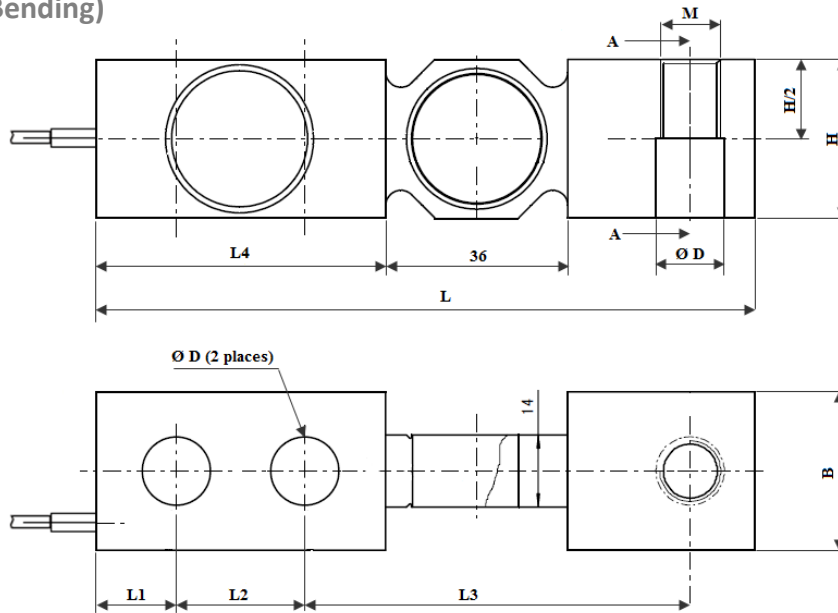


| Options Capacity | YY | | | XX |
|---------------------|---------------|---------------|---------------|---|
| | G1 (2mV/V-SC) | SC (3mV/V-SC) | None(3mV/V) | W6("T"end) |
| 0.15t | Standard | Not available | Not available | Option only available in combination with G1 option |
| 0.3t | | | | |
| 0.5t | Option | Option | Standard | |
| 1t | | Standard | Option | |
| 1.5t | | Option | Standard | |
| 2t | | Standard | Option | |
| 2.5t | | Option | Option | |
| 3t | | | | |
| 5t | | | | |
| 7.5t | Option | Option | Standard | |
| 10t | | | | |

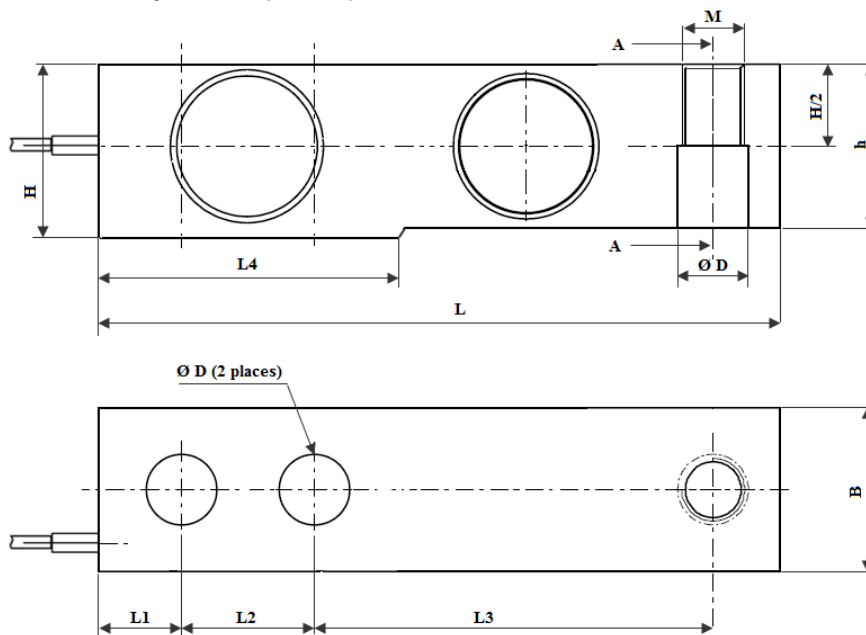
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Dimensions in mm

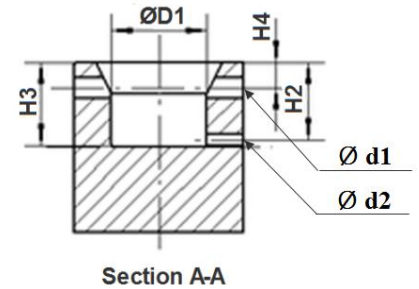
150 – 300kg (Bending)



Other capacities (Shear)



Option W6 dimensions loading hole

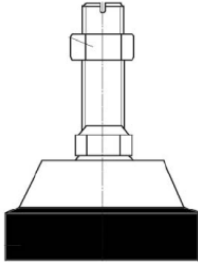
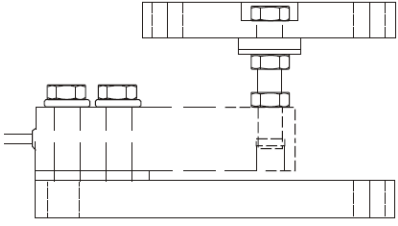
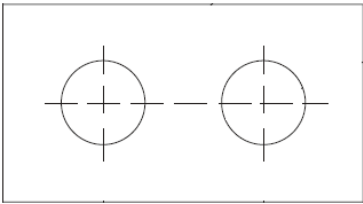
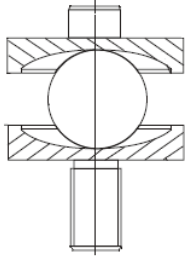
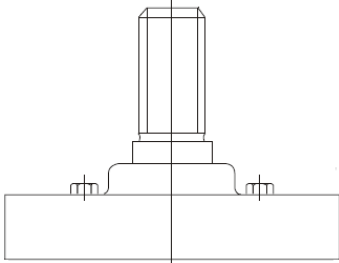
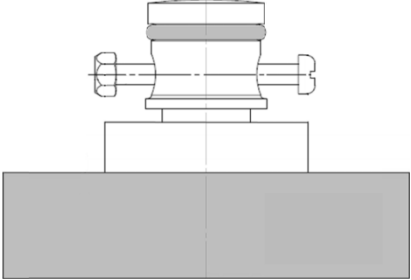


| Dimension Capacity | L | L1 | L2 | L3 | L4 | B | H | h | ØD | Ø D1 | Ø d1 | Ø d2 | H2 | H3 | H4 | M |
|--------------------|-----|------|------|-------|-------|------|------|------|------|------|------|------|------|------|-----|-----|
| 0.15t - 0.3t | 130 | 15.7 | 25.4 | 76.2 | 57.1 | 31.3 | 31.3 | - | 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 |

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Available accessories

| | |
|---|---|
| <p>BJ-8-202-0.5-5t foot</p> <ul style="list-style-type: none"> • $\varnothing 60-80$ and height 92-105 mm • Stainless Steel • Adjustable height |  |
| <p>BM-8-404-0.5-5t mount</p> <ul style="list-style-type: none"> • Hardened stainless steel components • Compact construction • Using under heavy static load or slight dynamic load • Good ability against corrosive environments |  |
| <p>HD-8-301-0.5-5t spacer plate</p> <ul style="list-style-type: none"> • Alloy Steel • Mainly used for platform scales, floor scales and other electronic weighing devices |  |
| <p>HY-8-102-0.5-5t</p> <ul style="list-style-type: none"> • Nickel plated alloy steel • Easy installation • Automatically centralized with steel ball • Good self-alignment ability • Mainly used for platform scales, floor scales and other electronic weighing devices |  |
| <p>BJ-8-219-0.5-2t foot</p> <ul style="list-style-type: none"> • $\varnothing 80$ and height 61 mm • Stainless steel • Easy installation • Automatically centralized inside • Good ability of anti-side loading • Mainly used for platform scales, floor scales and other electronic weighing devices |  |
| <p>HJ-8-236-0.15-2t W6-option foot</p> <ul style="list-style-type: none"> • $\varnothing 60$ and height 41 to 50 mm • Zinc plated alloy steel • Easy installation • T-end foot for W6 option load cells |  |

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