

Type BM14C Load Cell



Short description



- Stainless steel IP68 compression load cell
- Hermetically sealed
- Suitable for vehicle and hopper scales and vehicle testing facilities
- Built in surge arrestors
- High accuracy
- Current calibrated (sc-option)



Test certificate no. D09-07.03 Revision 1

Available models

| Capacity | Accuracy | Full article description |
|----------|-----------------------|---------------------------|
| 0.5t | C3 Excluded from OIML | BM14C-C3-0.5t-15B-SC |
| 1t | C3 Excluded from OIML | BM14C-C3-1t-15B-SC |
| 2t | C3 Excluded from OIML | BM14C-C3-2t-15B-SC |
| 3t | C3 Excluded from OIML | BM14C-C3-3t-15B-SC |
| 5t | C3 Excluded from OIML | BM14C-C3-5t-15B-SC |
| 10t | C3/C4 | BM14C-C3/C4-10t-15B-SC |
| 20t | C3/C4 | BM14C-C3/C4-20t-15B-SC |
| 25t | C3/C4 | BM14C-C3/C4-25t-15B-SC |
| 30t | C3/C4 | BM14C-C3/C4-30t-15/18B-SC |
| 40t | C3/C4 | BM14C-C3/C4-40t-15/18B-SC |
| 50t | C3/C4 | BM14C-C3/C4-50t-15/18B-SC |

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

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Detailed specifications BM14C

| | | | | |
|--|-------------------------|----------------------|------------------------|--------------------------|
| Accuracy class | | C3 | OIML R60 C3 | OIML R60 C4 |
| Output sensitivity (= FS) | mV/V | 2.0 ± 0.002 | | |
| Maximum capacity (E _{max}) | t | 0.5, 1, 2, 3, 5 | 10, 20, 25, 30, 40, 50 | |
| Max. number of load cell intervals | n _{LC} | 3000 | | 4000 |
| Ratio of min. LC verification interval | $Y = E_{max} / v_{min}$ | 10000 | | 15000 |
| Combined Error | %FS | ≤± 0.023 | | ≤± 0.0174 |
| 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 | 700 ± 7 | | |
| Output resistance | Ω | 703 ± 4 | | |
| Insulation resistance | MΩ | ≥5000 (at 50VDC) | | |
| Compensated temperature | °C | -10 ~ +40 | | |
| Operating temperature | °C | -35 ~ +65 | | |
| Storage temperature | °C | -40 ~ +70 | | |
| Element material | | Stainless steel | | |
| Ingress Protection (acc. to EN 60529) | | IP68 | | |
| Recommended torque on fixation | Nm | - | | |
| ATEX classification (optional) | | II3G Ex nA IIC T4 Gc | | II3D Ex tc IIIC T73°C Dc |
| | | II1G Ex ia II1C T4 | | II1D Ex iaD 20 T73°C |

Wiring

Features:

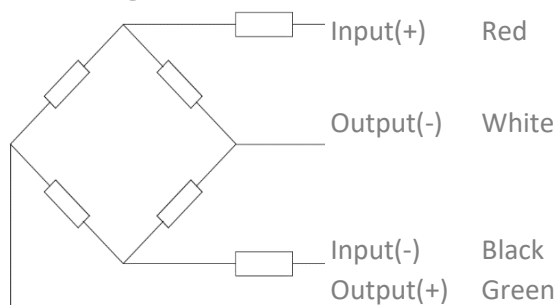
Shielded, 4 conductor cable

Cable diameter: Ø5mm

Standard cable length for all C3: 15m and for C4 above 30t: 18m

Shield not connected to element

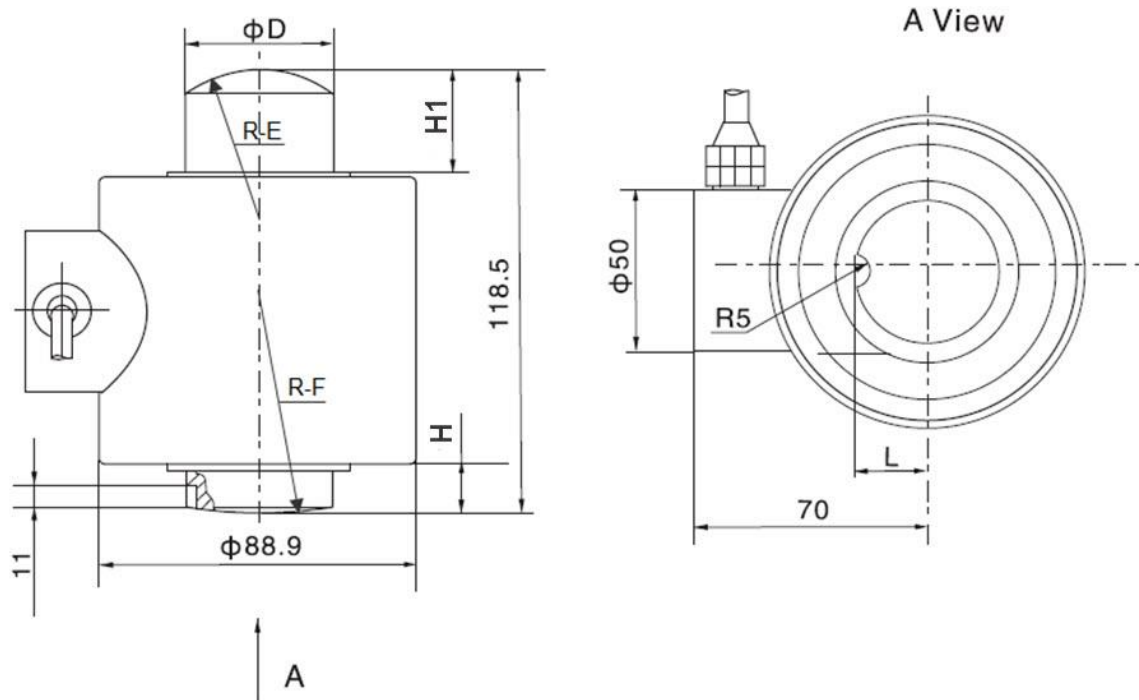
4-wire diagram



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Dimensions in mm

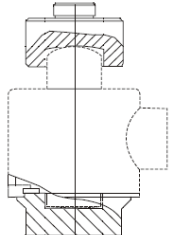
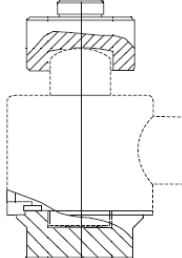
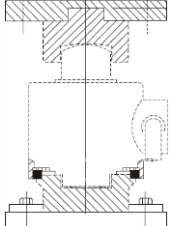
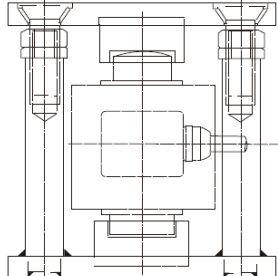
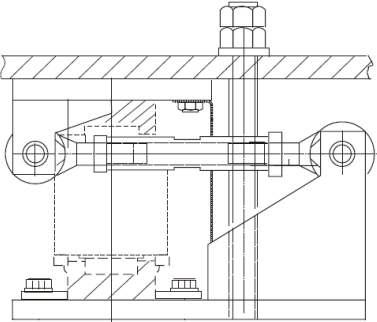
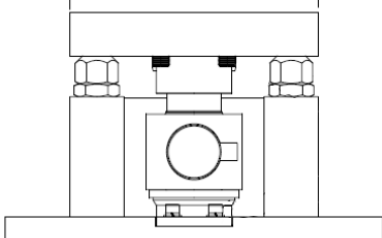


| Dimension Capacity | ϕD | L | R-E | R-F | H | H1 |
|--------------------|----------|----|------|-----|----|------|
| 0.5-30t | 40 | 22 | 37.5 | 150 | 14 | 31.5 |
| 40-50t | 50 | 27 | 200 | 200 | 21 | 24.5 |

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Available accessories

| | |
|---|--|
| <p>BY-14-103-10-50t</p> <ul style="list-style-type: none"> • Easy installation • Good self-aligning ability • Stainless steel • Anti-reversal ability • Can be used under hazardous environments |  |
| <p>HY-14-104-10-30t</p> <ul style="list-style-type: none"> • Easy installation • Good self-aligning ability • Nickel plated alloy steel • Anti-reversal ability |  |
| <p>HM-14-403-10-50t</p> <ul style="list-style-type: none"> • Compact construction • Easy installation • Self aligning construction • Nickel plated alloy steel |  |
| <p>BM-14-414-0.5-50t Mount</p> <ul style="list-style-type: none"> • Stainless steel mount • Easy load cell access • Lift-off protection • Controlled horizontal movement • Rocker support included with mount delivery |  |
| <p>HM-14-401-10-50t Mount</p> <ul style="list-style-type: none"> • Compact construction • Easy installation • Self aligning construction • Horizontal locating ability • Anti-reversal ability • Nickel plated alloy steel |  |
| <p>HM-14-434 10-50t Tank mount</p> <ul style="list-style-type: none"> • Nickel plated alloy steel • Easy load cell access • Lift-off protection • Controlled horizontal movement |  |

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