



## 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-15B-SC   |
| 40t      | C3/C4                 | BM14C-C3/C4-40t-15B-SC   |
| 50t      | C3/C4                 | BM14C-C3/C4-50t-15B-SC   |

## Technical Specifications BM14C

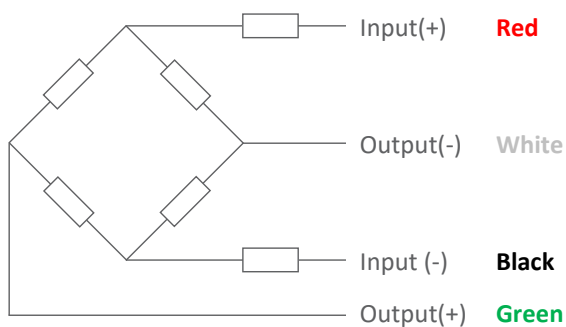
|                                         |                         |                       |                                            |                       |
|-----------------------------------------|-------------------------|-----------------------|--------------------------------------------|-----------------------|
| Accuracy Class                          |                         | C3                    | OIML R60 C3                                | OIML R60 C4           |
| Output Sensitivity (= FS)               | mV/V                    | 2.0 ± 0.002           |                                            |                       |
| Maximum Capacity ( E <sub>max</sub> )   | t                       | 0.5, 1, 2, 3, 5       | 10, 20, 25, 30, 40, 50                     |                       |
| Max. Number of Load Cell Intervals      | n <sub>LC</sub>         | 3000                  |                                            | 4000                  |
| Ratio of min. LC Verification Interval  | $Y = E_{max} / V_{min}$ | 10000                 |                                            | 15000                 |
| Combined Error                          | %FS                     | ≤ ± 0.023             |                                            | ≤ ± 0.0174            |
| Creep Error (30 minutes)                | %FS                     | ≤ ± 0.016             |                                            | ≤ ± 0.012             |
| Temperature Effect on Zero (ZTC)        | %FS/10°C                | ≤ ± 0.015             |                                            | ≤ ± 0.010             |
| Temperature Effect on Sensitivity (STC) | %FS/10°C                | ≤ ± 0.011             |                                            | ≤ ± 0.009             |
| Zero Balance                            | %FS                     | ≤ ± 1.0               |                                            |                       |
| Safe Overload                           | %FS                     | 150                   |                                            |                       |
| Ultimate Overload                       | %FS                     | 300                   |                                            |                       |
| Excitation, Recommended Voltage         | V                       | 5 ~ 12                |                                            |                       |
| Excitation, Maximum Voltage             | V                       | 18                    |                                            |                       |
| Input Resistance                        | Ω                       | 700 ± 7               |                                            |                       |
| Output Resistance                       | Ω                       | 703 ± 4               |                                            |                       |
| Insulation Resistance (50V)             | MΩ                      | ≥ 5000                |                                            |                       |
| Compensated Temperature                 | °C                      | -10 ~ +40             |                                            |                       |
| Operating Temperature                   | °C                      | -35 ~ +65             |                                            |                       |
| Storage Temperature                     | °C                      | -40 ~ +70             |                                            |                       |
| Package Weight                          | kg                      | 0.5t – 5t: 2.4        | 10t – 25t: 2.9                             | 30t – 50t: 3.4        |
| Element Material                        |                         | Stainless steel       |                                            |                       |
| Ingress Protection (acc. to EN 60529)   |                         | IP68                  |                                            |                       |
| 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:

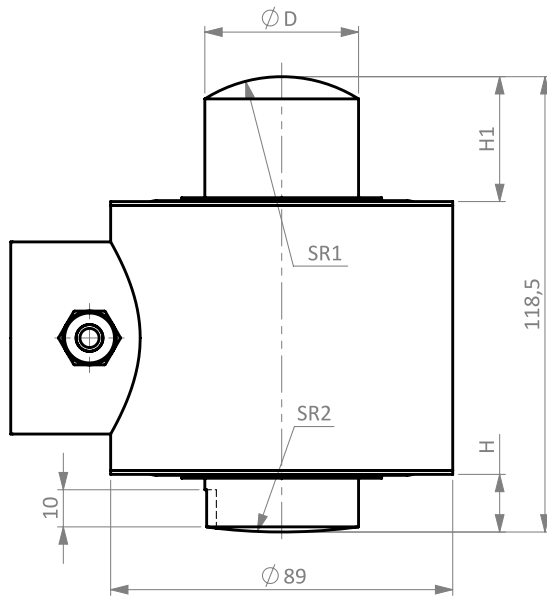
Cable type: Shielded, 4 conductor cable, conductor AWG 22  
 Cable diameter: Ø 5mm  
 Cable length: 15m for C3 / 18m for C4 above 30t  
 Cable jacket: Polyurethane  
 Shield not connected to element

### 4-Wire Connection Diagram

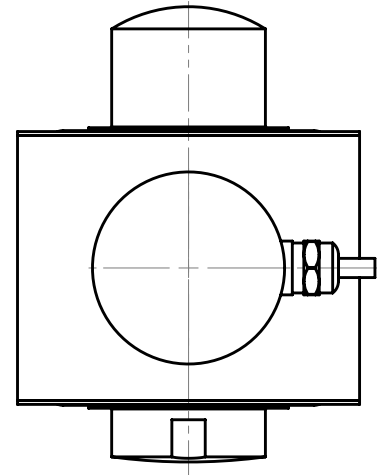


## Dimensions in mm

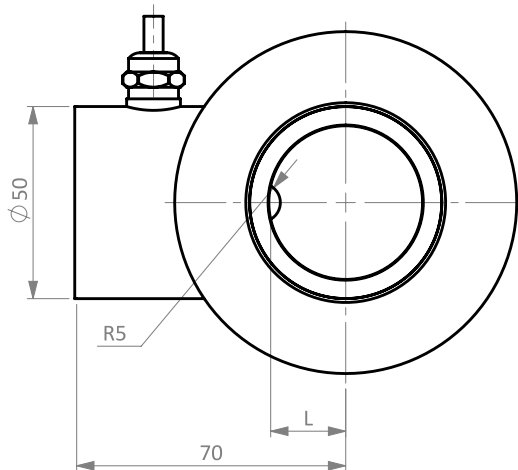
Front View



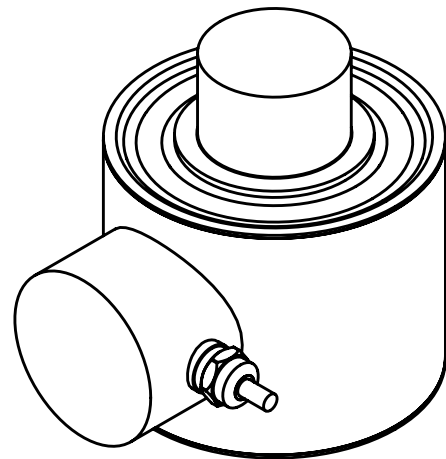
Side View



Bottom View



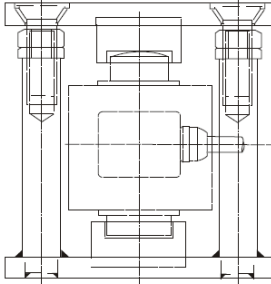
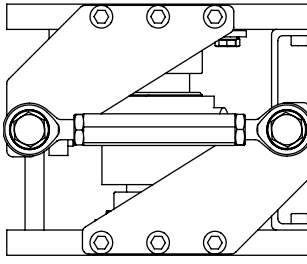
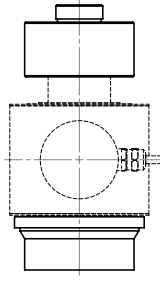
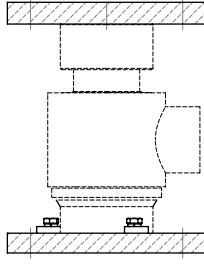
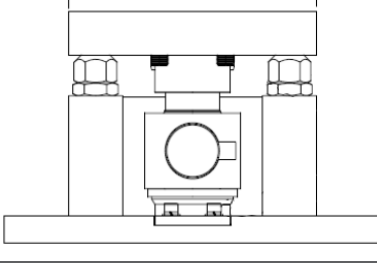
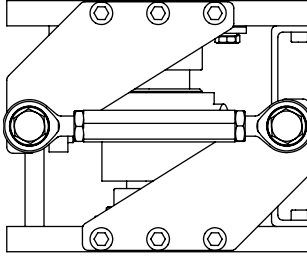
Isometric View



| Dimension<br>Capacity | ØD | L  | SR1  | SR2 | H  | H1   |
|-----------------------|----|----|------|-----|----|------|
| 0.5 – 5t              | 40 | 20 | 25   | 150 | 14 | 31.5 |
| 10 – 30t              | 40 | 20 | 37.5 | 150 | 14 | 31.5 |
| 40 – 50t              | 50 | 25 | 200  | 200 | 22 | 24.5 |

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

## Available Accessories

|                                                                                                                                                                                                                                                                                                                                                         |                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <p><b>BM-14-414-0.5-50t Mount</b></p> <ul style="list-style-type: none"> <li>• Stainless steel mount</li> <li>• Easy load cell access</li> <li>• Lift-off protection</li> <li>• Controlled horizontal movement</li> <li>• Rocker support included with mount delivery</li> </ul>                                                                        |     |
| <p><b>BM-14-910-0.5t-30t Mounting Set</b></p> <ul style="list-style-type: none"> <li>• Complete mounting set with LC dummy</li> <li>• Stainless steel</li> <li>• Easy installation due to transport plate</li> <li>• Self-aligning construction</li> <li>• Lift-off protection</li> <li>• Optional stay-rod available</li> </ul>                        |     |
| <p><b>BY-14-103-10-50t Rocker Support Set</b></p> <ul style="list-style-type: none"> <li>• Easy installation</li> <li>• Good self-aligning ability</li> <li>• Stainless steel</li> <li>• Anti-reversal ability</li> <li>• Can be used under hazardous environments</li> <li>• Also available in alloy steel version (part: HY-14-104-10-30t)</li> </ul> |   |
| <p><b>HM-14-403-10-50t Support Plates</b></p> <ul style="list-style-type: none"> <li>• Compact construction</li> <li>• Easy installation</li> <li>• Self-aligning construction</li> <li>• Nickel plated alloy steel</li> <li>• To be used with BY-14-103 &amp; HY-14-104 Rocker Support sets</li> </ul>                                                 |  |
| <p><b>HM-14-434 10-50t Tank Mount</b></p> <ul style="list-style-type: none"> <li>• Nickel plated alloy steel</li> <li>• Easy load cell access</li> <li>• Lift-off protection</li> <li>• Controlled horizontal movement</li> </ul>                                                                                                                       |   |
| <p><b>HM-14-911-0.5t-30t Mounting Set</b></p> <ul style="list-style-type: none"> <li>• Complete mounting set with LC dummy</li> <li>• Nickel plated alloy steel</li> <li>• Easy installation due to transport plate</li> <li>• Self-aligning construction</li> <li>• Optional stay-rod available</li> <li>• Lift-off protection</li> </ul>              |   |