

Model 1663 Single Point Load Cells

Features

- parallel bending beam
- capacity: 20, ..., 200 kg
- accuracy: 0.02 %fs
- recommended platform size: 350 X 400 mm
- aluminum construction with surface anodized
- environment protection class: IP 65

Applications

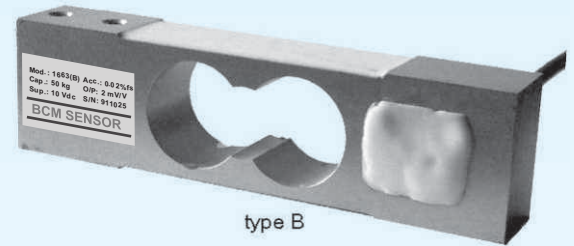
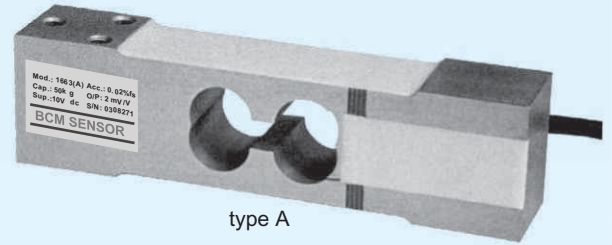
- retail scales
- bench scales
- counting scales

Description

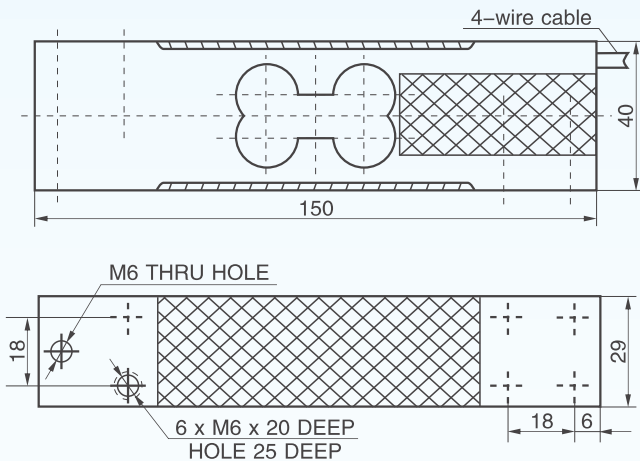
The "single point" load cells are made of parallel bending beam working principle. Only one unit is sufficient to build up a scale. These load cells are moment insensitive. That is, when installed in a platform scale, it reads the same regardless of the position of the load applied to the upper platform.

Model 1663 load cells are designed to this "single point" type and are manufactured from high quality aluminum alloy of aviation standard. 1663 load cells can be used to measure loads ranging from 20 kg to 200kg with the measuring accuracy of 0.02%fs (fs = full scale).

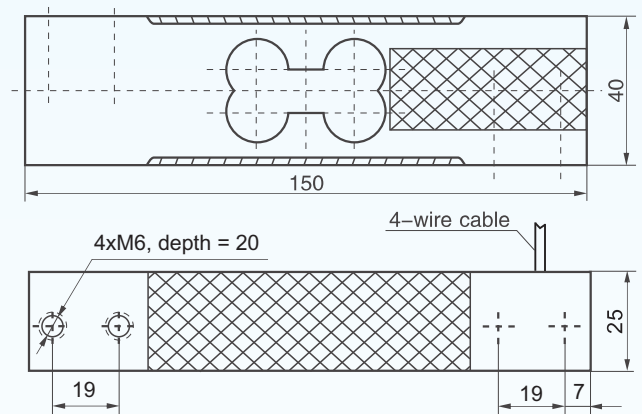
1663 load cells are widely used to manufacture retail, bench, and counting scales.



Dimensions



type A



type B

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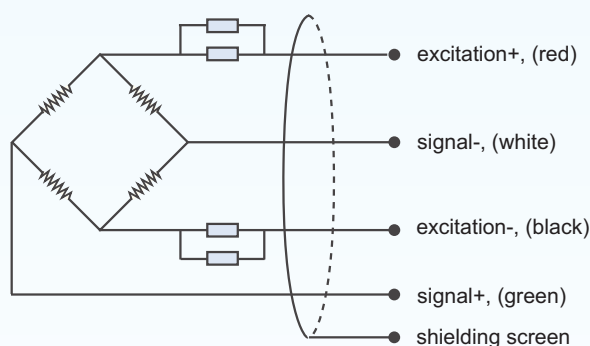
Single Point Load Cells

Technical Data

| parameters | | units | specifications |
|----------------------------------|--------|--------|---|
| capacity | type A | kg | 30, 50, 70, 100, 200 |
| | type B | kg | 20, 30, 50, 70, 100 |
| safe load limit | | %fs | 120 |
| ultimate overload | | %fs | 150 |
| output sensitivity at fs | | mV/V | 2.0 ± 0.2 |
| zero unbalance | | %fso | ± 1.5 |
| non-linearity | | %fs | ± 0.02 |
| hysteresis | | %fs | ± 0.02 |
| repeatability | | %fs | ± 0.02 |
| creep error (30 min.) | | %fs | ± 0.02 |
| excitation (supply voltage) | | Vdc | 10 (recommended), 9 ..., 12 |
| max. excitation voltage | | Vdc | 15 |
| input resistance | | Ω | 410 ± 10 |
| output resistance | | Ω | 350 ± 10 |
| insulation resistance | | MΩ | ≥ 5000@50 Vdc |
| storage temp. range | | °C | -35 ~ +80 |
| operating temp. range | | °C | -20 ~ +65 |
| compensated temp. range | | °C | -10 ~ +40 |
| temp. coefficient of sensitivity | | %fs/°C | ± 0.002 |
| temp. coefficient of zero | | %fs/°C | ± 0.003 |
| load cell body material | | | aluminum alloy |
| sealing | | | potted |
| mechanical interface | | | refer to the dimensions on the datasheets |
| electrical interface | | | Φ5 mm, 4-conductor shielded, PVC jacket, 1 m length |
| environment protection | | | IP 65 |
| unit weight | | g | ~ 400 |

The listed specifications are subject to change without prior notice.

Electrical Connection



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Model 1663

Single Point Load Cells



Ordering Information

| | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| position (pos.) 1: model | | | | | | | | | |
| 1663(A): made from aluminum alloy 1663(B): made from aluminum alloy | | | | | | | | | |
| pos. 2: capacities | | | | | | | | | |
| 20 kg (only for type B) 100 kg 30 kg 200 kg (only for type A) 50 kg 70 kg | | | | | | | | | |
| pos. 3: output sensitivity | | | | | | | | | |
| 2 mV/V | | | | | | | | | |
| pos. 4: non-linearity or accuracy class | | | | | | | | | |
| 0.02 %fs | | | | | | | | | |
| pos. 5: bridge resistance | | | | | | | | | |
| 350 Ω (R _{in} = 410±10Ω, R _{out} = 350±10 Ω) | | | | | | | | | |
| pos. 6: threads (live end/fixed end) | | | | | | | | | |
| 3xM6/4xM6 : for 1663(A), three M6 threads at the live end, four M6 threads at the fixed end 2xM6/2xM6 : for 1663(B), two M6 threads at the live end, two M6 threads at the fixed end | | | | | | | | | |
| pos. 7: electrical interface | | | | | | | | | |
| cable, code = diameter(Φ)/number of conductors/cable jacket/cable length 5/4/PVC/1 = Φ5 mm, 4-conductors shielded, PVC, length = 1*m | | | | | | | | | |
| pos. 8: environment protection | | | | | | | | | |
| IP 65 | | | | | | | | | |
| pos. 9: accessories for installation | | | | | | | | | |
| NA**. In case of "NA", pos.9 can be omitted. | | | | | | | | | |
| pos. 10: customized spec's | | | | | | | | | |
| When any customized spec's are required, the customer needs to add "C" as the last parameter in the ordering code, and specifies the wished spec's on his order clearly. The customized spec's needs to be confirmed in advance by BCM's sales representative. Code "C" can be omitted if no customized spec's are required. | | | | | | | | | |
| pos.1 | pos. 2 | pos. 3 | pos. 4 | pos. 5 | pos. 6 | pos. 7 | pos. 8 | pos. 9 | pos. 10 |

*: This value can also be a customized value.

** : NA = not available or not applicable

example: 1663(A)-50kg-2mV/V-0.02%fs-350Ω-3xM6/4xM6-5/4/PVC/1-IP65-C



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