

Model 1661 Single Point Load Cells



Features

- parallel bending beam
- capacity: 3kg, ..., 50kg
- accuracy: 0.03%fs; option: OIML C3
- recommended platform size: 250mm x 350mm
- aluminum construction with surface anodized
- environment protection class: IP65



Applications

- retail scales
- bench scales
- counting scales

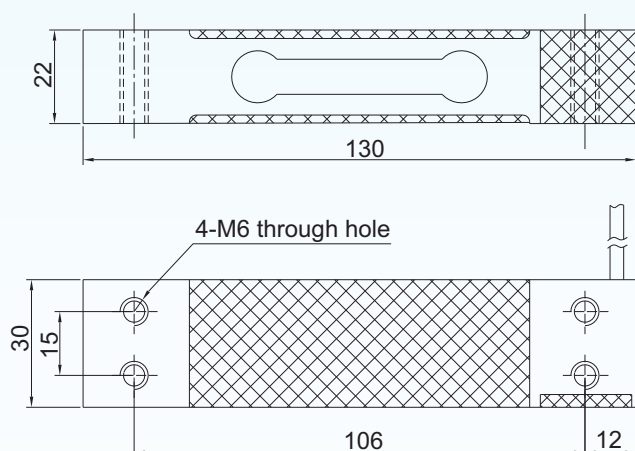
Description

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.

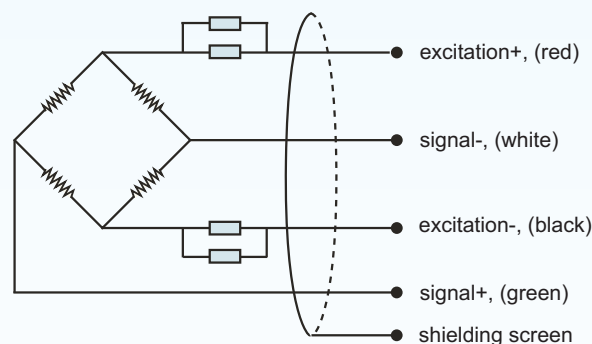
Model 1661 load cells are designed to this "single point" type and are manufactured from high quality aluminum alloy of aviation standard. 1661 load cells can be used to measure loads ranging from 3kg to 50kg with the measuring accuracy of 0.03%fs (fs = full scale). On request, 1661 load cells can be supplied with OIML C3 certificate.

1661 load cells are widely used to manufacture retail, bench, and counting scales.

Dimensions



Electrical Connection



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Model 1661

Single Point Load Cells



Technical Data

Parameters	Units	Specifications
capacity	kg	3, 5, 10, 20, 30, 40, 50
safe load limit	%fs	120
ultimate overload	%fs	150
output sensitivity at fs	mV/V	2.0 ±0.1
zero unbalance	%fso	≤ ±1
accuracy class according to OIML R60		C3 (available on request)
max. number of verification interval (n _{max})		3000
min. load cell verification interval (V _{min})		7500
combined error	%fs	≤ ±0.03 (standard)
non-linearity	%fs	≤ ±0.02
hysteresis	%fs	≤ ±0.02
repeatability	%fs	≤ ±0.02
creep error (10 min.)	%fs	≤ ±0.02
excitation (supply voltage)	Vdc	5, ..., 10
max. excitation voltage	Vdc	15
input resistance	Ω	405 ±6 (standard), 1060 ±10
output resistance	Ω	350 ±5 (standard), 1000 ±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 span	%fso/°C	≤ ±0.002
temp. coefficient of zero	%fso/°C	≤ ±0.002
load cell body material		aluminum alloy
sealing		rubber seal
mechanical interface		refer to the dimensions on the datasheets
electrical interface		Φ4mm, 4-core shielded, PVC jacket, 0.4m length
environment protection		IP65
unit weight	g	~170

The listed specifications are subject to change without prior notice.

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Ordering Information

position (pos.) 1: model									
1661									
pos. 2: capacities									
3kg 20kg 5kg 30kg 10kg 40kg 50kg									
pos. 3: output sensitivity									
2mV/V									
pos. 4: non-linearity or accuracy class									
0.03%fs (standard) OIMLC3									
pos. 5: bridge resistance									
350Ω (Rin = 405±6Ω, Rout = 350±5Ω), standard 1000Ω (Rin = 1060±10Ω, Rout = 1000±10Ω)									
pos. 6: threads (live end/fixed end)									
2xM3/2xM3 : two M6 threads at the live end, two M6 threads at the fixed end									
pos. 7: electrical interface									
4/4/PVC/0.4 = Φ4 mm, 4-conductors shielded, PVC, length = 0.4* m									
pos. 8: environment protection									
IP65									
pos. 9: accessories for installation									
NA**. In case of "NA", pos.9 can be omitted.									
pos. 10: customized spec's									
"(*)" is necessary only if any customized parameter is required, otherwise it is neglectable.									
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: 1661-10kg-2mV/V-0.03%fs-350Ω-2xM6/2xM6-4/4/PVC/0.4-IP65

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