

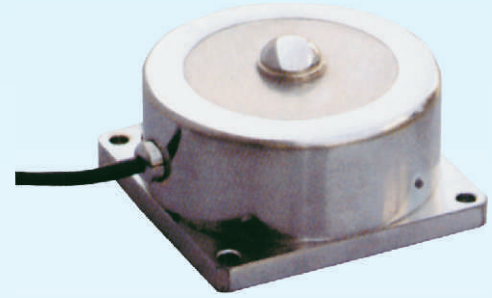
Model 1316/1396

Compression and Tension Load Cells



Features

- shear-web configuration
- capacity ranges from 0.3 t to 3 t
- accuracy up to 0.1 %fs
- mild steel construction with nickel plated treatment (1316)
17-4PH construction (1396)
- environment protection IP 66



Applications

- vehicle scales
- tank and hopper scales

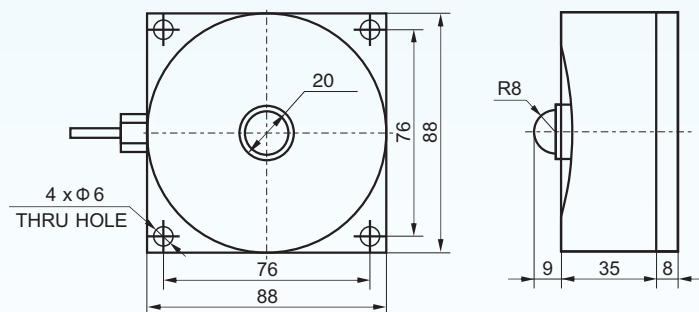
Description

Model 1316/1396 is load cell made of shear-web working principle, and is designed to measure compression loads. These load cells are relatively insensitive to the extraneous load and moments (torque).

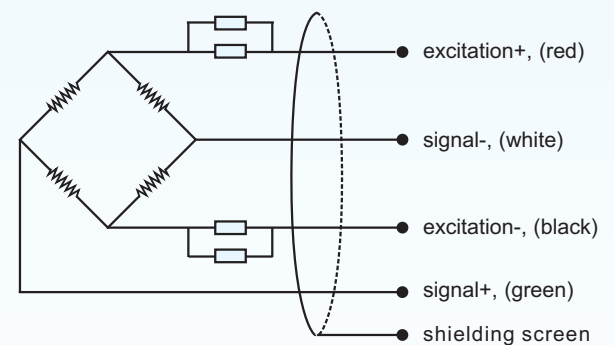
1316/1396 load cells have wide load capacities from 0.3 t to 3 t, and the measuring accuracy is up to 0.1%fs (fs = full scale).

1316/1396 load cells are low profile products suitable to be used in space restricted environment. 1316 load cells are made from mild steel, while 1396 load cells are made from 17-4PH stainless steel. These load cells are rugged in design and can be used in applications in harsh industrial environment. 1316/1396 load cells are widely used in vehicle scales, tank and hopper scales.

Dimensions



Electrical Connections



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Technical Data

| parameters | units | specifications |
|-----------------------------|--------|--|
| capacity | t | 0.3, 0.5, 0.7, 1, 2, 3 |
| safe load limit | %fs | 150 |
| ultimate overload | %fs | 200 |
| output sensitivity at fs | mV/V | 2.0 ± 0.01 |
| zero unbalance | %fso | ± 2 |
| non-linearity | %fs | ± 0.1 |
| hysteresis | %fs | ± 0.1 |
| repeatability | %fs | ± 0.1 |
| creep error (30 min.) | %fs | ± 0.1 |
| excitation (supply voltage) | Vdc | 10 (recommended), 9, ..., 12 |
| max. excitation voltage | Vdc | 12 |
| input resistance | Ω | 2000 ± 200 (standard), 700 ± 80 |
| output resistance | Ω | 2000 ± 50 (standard), 700 ± 20 |
| insulation resistance | MΩ | ≥ 5000@50 Vdc |
| storage temp. range | °C | -35 ~ +80 |
| operating temp. range | °C | -20 ~ +60 |
| compensated temp. range | °C | -10 ~ +50 |
| temp. coefficient of span | %fs/°C | ± 0.005 |
| temp. coefficient of zero | %fs/°C | ± 0.005 |
| load cell body material | | mild steel (1316), 17-4PH stainless steel (1396) |
| sealing | | potted |
| mechanical interface | | refer to the dimensions on the datasheets |
| electrical interface | | Φ 3.8 mm, 4-conductor shielded cable, PVC, 3 m |
| environment protection | | IP 66 |
| unit weight | kg | ~2.6 |

The listed specifications and dimensions are subject to change without prior notice.

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Model 1316/1396

Compression and Tension Load Cells



Ordering Information

| | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| position (pos.) 1: model | | | | | | | | | |
| 1316: made from mild steel 1396: made from 17-4PH stainless steel | | | | | | | | | |
| pos. 2: capacities | | | | | | | | | |
| 0.3 t 1 t 0.5 t 2 t 0.7 t 3 t | | | | | | | | | |
| pos. 3: output sensitivity | | | | | | | | | |
| 2 mV/V | | | | | | | | | |
| pos. 4: non-linearity or accuracy class | | | | | | | | | |
| 0.1 %fs | | | | | | | | | |
| pos. 5: bridge resistance | | | | | | | | | |
| 2000 Ω (Rin = 2000±200 Ω, Rout = 2000±50 Ω) 700 Ω (Rin = 700±80 Ω, Rout = 700±20 Ω) | | | | | | | | | |
| pos. 6: threads | | | | | | | | | |
| 4xΦ6 | | | | | | | | | |
| pos. 7: electrical interface | | | | | | | | | |
| cable, code = diameter(Φ)/number of conductors/cable jacket/cable length 3.8/4/PVC/L=Φ3.8mm,4-conductors shielded, PVC, 3*m | | | | | | | | | |
| pos. 8: environment protection | | | | | | | | | |
| IP 66 | | | | | | | | | |
| 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: 1316-3t-2mV/V-0.1%fs-700Ω-4xΦ6-3.8/4/PVC/3-IP66-C



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