

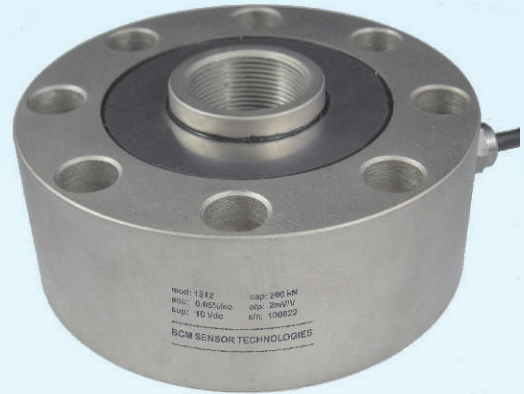
Model 1312/1392

Shear-web Compression and Tension Load Cells



Features

- shear-web configuration
- capacity ranges from 2t to 300 t
- accuracy up to 0.05 %fs
- mild steel construction with nickel plated treatment (1312)
17-4PH construction (1392)
- environment protection up to IP 67



Applications

- vehicle scales
- tank and hopper scales

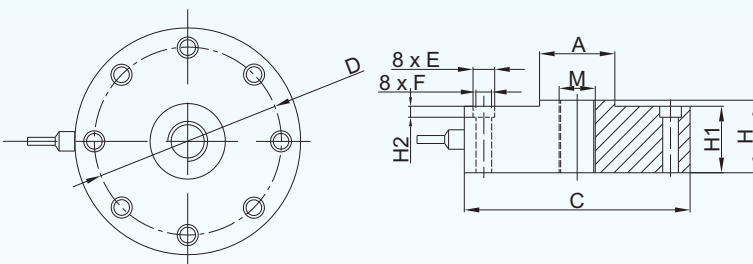
Description

Model 1312/1392 is load cell made of shear-web working principle, and is designed to measure compression loads. Featuring a thread thru hole at the center, 1312/1392 load cells can be used to measure tension force as well. These load cells are relatively insensitive to the extraneous load and moments (torque).

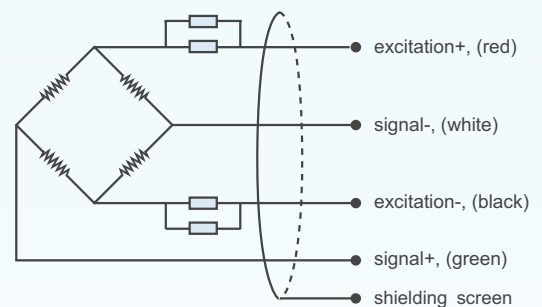
1312/1392 load cells have wide load capacities from 2 t to 300 t, and the measuring accuracy is up to 0.05%fs (fs = full scale).

1312 load cells are made from mild steel, while 1392 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. 1312/1392 load cells are widely used in vehicle scales, tank and hopper scales.

Dimensions



Electrical Connections



Capacity (t)	ΦA	ΦC	H	H1	H2	ΦD	ΦE	ΦF	M
2, 3, 5, 7	34	106	46	32	9.2	88.9	10.5	7.5	M16 x 1.5
10, 20, 30	41	122	53	47	10.5	101.7	14	9	M32 x 1.5
50, 70	51	143	57.6	51	16	117	17	10.5	M40 x 1.5
100	76	200	83	70	18	162.6	20	18	M64 x 3
200	120	306	125	120	26	264	32	22	M90 x 3
300	150	350	185	180	32	296	38	26	M120 x 3

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Technical data:

parameters	units	specifications	
capacity	t	2, 3, 5, 7, 10, 20, 30, 50, 70, 100, 200, 300	
safe load limit	%fs	150	
ultimate overload	%fs	200	
output sensitivity at fs	mV/V	2.0 ± 0.04	4.0 ± 0.04
zero unbalance	%fso	± 1	
non-linearity	%fs	± 0.05	± 0.1
hysteresis	%fs	± 0.05	± 0.1
repeatability	%fs	± 0.02	± 0.05
creep error (30 min.)	%fs	± 0.03	± 0.05
excitation (supply voltage)	Vdc	10 (recommended), 9, ..., 12	
max. excitation voltage	Vdc	18	
input resistance	Ω	725 ± 10	
output resistance	Ω	700 ± 10	
insulation resistance	MΩ	≥5000@50 Vdc	
storage temp. range	°C	-35 ~ +80	
operating temp. range	°C	-35 ~ +80	
compensated temp. range	°C	-10 ~ +55	
temp. coefficient of span	%fs/°C	± 0.002	
temp. coefficient of zero	%fs/°C	± 0.005	
load cell body material		mild steel (1312), 17-4PH stainless steel (1392)	
sealing		potted	
mechanical interface		refer to the dimensions on the datasheets	
electrical interface		Φ 5.7 mm, 4-conductor shielded cable, PVC, 8 m (13 m for cap.>30t)	
environment protection		IP 66 (standard), IP 67	
unit weight	kg	to be confirmed when order	

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

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Shear-web Compression and Tension Load Cells



Ordering Information

position (pos.) 1: model									
1312: made from mild steel 1392: made from 17-4PH stainless steel									
pos. 2: capacities									
2 t 10 t 100 t 3 t 20 t 200 t 5 t 30 t 300 t 7 t 50 t 70 t									
pos. 3: output sensitivity									
2 mV/V 4 mV/V									
pos. 4: non-linearity or accuracy class									
0.05 %fs (only available for 2 mV/V o/p) 0.1 %fs									
pos. 5: bridge resistance									
700 Ω (Rin = 725±10 Ω, Rout = 700±10 Ω)									
pos. 6: threads									
8xΦF (for value F, refer to the dimensions on datasheets)									
pos. 7: electrical interface									
cable, code = diameter(Φ)/number of conductors/cable jacket/cable length 5.7/4/PVC/L=Φ5.7mm,4-conductors shielded, PVC, 8*m (13m for cap.>30t)									
pos. 8: environment protection									
IP 66 IP 67 IP 68 (only for 1392)									
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: 1312-10t-2mV/V-0.05%fs-700Ω-8xΦ9-5.7/4/PVC/8-IP66-C



ISO9001 Certified Company

BCM SENSOR TECHNOLOGIES BVBA

Industriepark Zone 4, Brechtsebaan 2
B-2900 Schoten - Antwerpen, BELGIUM

Tel.: +32-3-238 6469
Fax: +32-3-238 4171

website: www.bcmsensor.com
email: sales@bcmsensor.com