

Model 1310/1390

Shear-web Load Cells



Features

- low profile
- capacity from 1t to 10t
- accuracy up to 0.1%fs
- sensor material: mild steel (1310) or 17-4PH stainless steel (1390)
- IP 66 environment protection

Applications

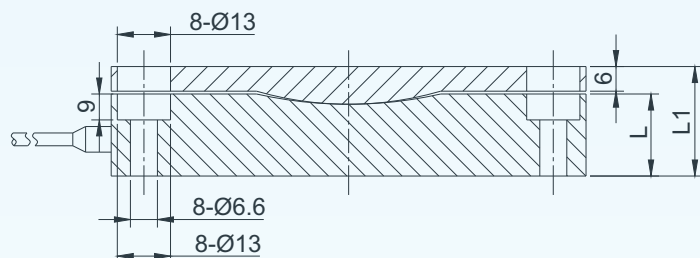
- truck scales
- batching plant weighing scales

Description

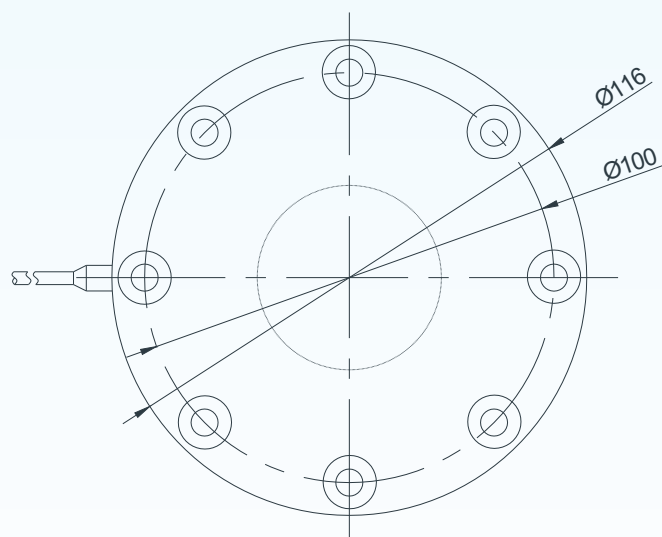
Model 1310/1390 is designed to be rugged and to work in harsh environment. The load cell is consist of two parts. One is the base which functions as a sensor and the other is a cap which functions as a loading platform. Thanks to this split structure, the 1310/1390 has excellent resistance to the eccentric load. Both models are widely used in truck scales, track, tank and hopper scales.

The shear-web working principle is applied on the 1310/1390 so that the load cell can have its measuring accuracy is up to 0.1%fs (fs = full scale) while having its capacities from 1t to 10t. The 1310 is made from mild steel, and the 1390 is made from 17-4PH stainless steel.

Dimensions



	L (mm)	L1 (mm)
1,2,3,5 t	20	28
7.5,10 t	25	33

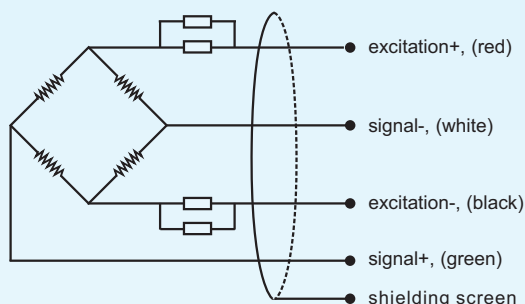


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Electrical Connections



Technical Data

parameters	units	specifications		
capacity	t	1, 2, 3, 5, 7, 10		
safe load limit	%fs	120		
ultimate overload	%fs	150		
output sensitivity at fs	mV/V	2.0 ± 0.2		
zero unbalance	%fso	± 2		
non-linearity	%fs	± 0.1	± 0.25	± 0.5
hysteresis	%fs	± 0.1	± 0.25	± 0.5
repeatability	%fs	± 0.05	± 0.1	± 0.2
creep error (30 min.)	%fs	± 0.1	± 0.2	± 0.5
excitation (supply voltage)	Vdc	10 (recommended), 9, ..., 12		
max. excitation voltage	Vdc	18		
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	-35 ~ +65		
compensated temp. range	°C	-10 ~ +55		
temp. coefficient of span	%fs/°C	± 0.003		
temp. coefficient of zero	%fs/°C	± 0.005		
load cell body material		mild steel (1310), 17-4PH (1390)		
sealing		potted		
mechanical interface		refer to the dimensions on the datasheets		
electrical interface		Φ5mm, 4-conductor shielded cable, PVC jacket, 3m (5m for cap.>5t)		
environment protection		IP 66		
unit weight	kg	~ 2		

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

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Ordering Information

position (pos.) 1: model									
1310: made from mild steel 1390: made from 17-4PH stainless steel									
pos. 2: capacities									
1 t 10 t 2 t 3 t 5 t 7 t									
pos. 3: output sensitivity									
2 mV/V									
pos. 4: non-linearity or accuracy class									
0.1 %fs 0.25 %fs 0.5 %fs									
pos. 5: bridge resistance									
2000Ω (Rin = 2000±200 Ω, Rout = 2000±50 Ω) 700 Ω (Rin = 700±80 Ω, Rout = 700±20 Ω)									
pos. 6: threads									
8hole (refer to the dimensions on the datasheets)									
pos. 7: electrical interface									
cable, code = diameter(Φ)/number of conductors/cable jacket/cable length 5/4/PVC/L = Φ5mm,4-conductors shielded, PVC, length = 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 be a customized value.

**: NA = not available or not applicable

example: 1310-10t-2mV/V-0.5%fs-2000Ω-8hole-5/4/PVC/5-IP66-C

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