

Model 3417/3497

Single-ended Shear Beam Load Cells

Features

- single-ended shear-beam
- low profile
- capacity from 0.5t to 2t
- accuracy of 0.02%fs
- mild steel construction with nickel plated treatment (3417)
17-4PH construction (3497)
- environment protection up to IP 66



Applications

- tank and hopper scales
- platform scales

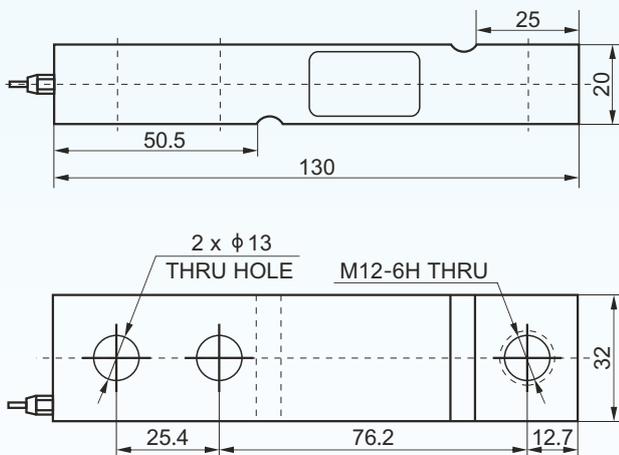
Description

Based on BCM advanced metal foil strain gauge technology, model 3417/3497 load cells are made of shear-beam working principle in low profile. These load cells are of good side load resistance and relatively insensitive to the point of loading.

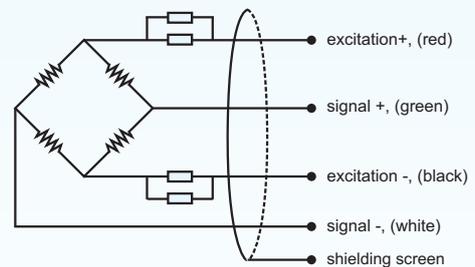
The capacities of 3417/3497 load cells ranges from 0.5t to 2t with an accuracy of 0.02%fs (fs = full scale). Thanks to BCM leading technology in sealing, 3417/3497 load cells can be made to a protection grade of IP66, and fit to harsh industrial conditions.

Featuring simple construction and excellent performance, 3417/3497 load cells are widely used in applications of platform-scales, hopper-scales weighing systems, or applications need to measure beam bending loads.

Dimensions



Electrical Connection



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Technical Data

Parameter	Units	Specifications	Notes
capacity	t	0.5, 0.7, 1, 2	
safe load limit	%fs	150	1
ultimate overload	%fs	200	
output sensitivity at full scale	mV/V	2.0 ±0.02	
zero unbalance	%fso	≤ ±1	
non-linearity	%fs	≤ ±0.02	
hysteresis	%fs	≤ ±0.02	
repeatability	%fs	≤ ±0.01	
creep error (30 min.)	%fs	≤ ±0.02	
excitation (supply voltage)	Vdc	10	
max. excitation voltage	Vdc	15	
input resistance	Ω	360 ±10	
output resistance	Ω	350 ±10	
insulation resistance	MΩ	≥ 5000 @50Vdc	
storage temp. range	°C	-35 ~ +80	
operating temp. range	°C	-35 ~ +80	
compensated temp. range	°C	-10 ~ +40	
temp. coefficient of sensitivity	%fs/°C	≤ ±0.002	2
temp. coefficient of zero	%fs/°C	≤ ±0.004	2
load cell body material		mild steel (3417), 17-4PH stainless steel (3497)	
sealing		potted	
mechanical interface		refer to the dimensions on the datasheets	
electrical interface		Φ5.7mm, 4-conductor shielded PVC cable, 3.5m	
environment protection		IP66	
unit weight	kg	~1	

- Notes: 1. "fs" refers to full scale pressure.
 2. Calculated as a rate of output change between -10°C and +40°C, and normalized by the output at room temperature (25°C).

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Ordering Information

position (pos.) 1: model									
3417									
3497									
pos. 2: capacities									
0.5t 1t									
0.7t 2t									
pos. 3: output sensitivity									
2mV/V									
pos. 4: non-linearity or accuracy class									
0.02%fs									
pos. 5: bridge resistance									
350Ω (R _{in} = 360±10Ω, R _{out} = 350±10Ω)									
pos. 6: threads (live end/fixed end)									
1xM12 / 2xΦ13									
pos. 7: electrical interface									
5.7/4/PVC/L = Φ5.7 mm, 4-conductor shielded PVC cable, length = 3.5m(#). #: Cable length can be customized on request.									
pos. 8: environment protection									
IP66									
pos. 9: accessories for installation									
NA: no accessory (standard) loadFoot: one load foot									
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

example: 3417-1t-2mV/V-0.02%fs-350Ω-1xM12/2xΦ13-5.7/4/PVC/3.5-IP66-loadFoot

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

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