

# Model 3418(I)/3498(I)

## Single-ended Shear-beam Load Cells for Industrial Application



### Features

- single-ended shear-beam
- low profile
- capacity from 0.5 to 10 t
- accuracy of 0.02 %fs
- mild steel construction with nickel plated treatment (3418(I))  
17-4PH construction (3498(I))
- environment protection up to IP 68 (3498(I))



loading button (option)

### Applications

- tank and hopper scales
- platform scales

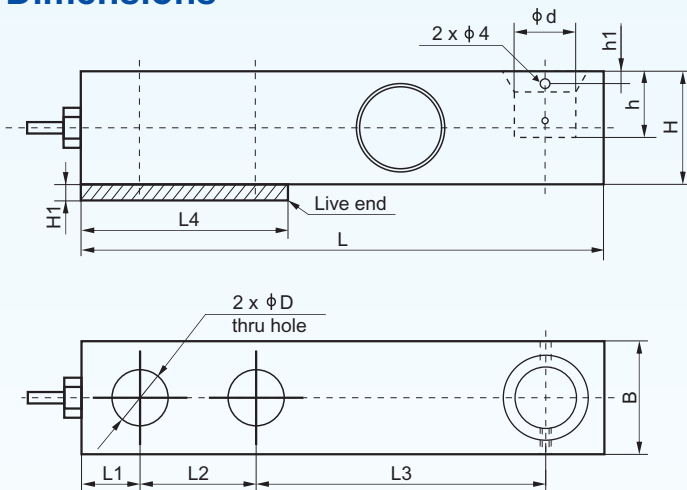
### Description

Based on BCM advanced metal foil strain gauge technology, model 3418(I)/3498(I) 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.

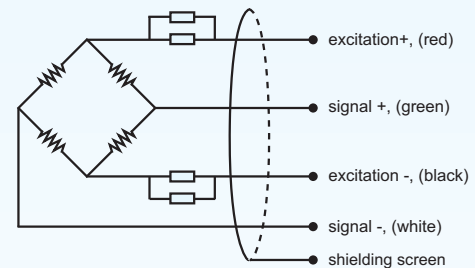
The capacities of 3418(I)/3498(I) load cells ranges from 0.5 t to 10 t with an accuracy of 0.02%fs (fs = full scale). Thanks to BCM leading technology in sealing, 3418(I)/3498(I) load cells can be made to a higher protection grade of IP68, and fit to harsh industrial conditions.

3418(I)/3498(I) load cells are designed for industrial applications. Featuring simple construction and excellent performance, these 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



capacity	L	L1	L2	L3	L4	H1(min)	H	B	D	d	h	h1
0.25~2 t	130.0	15.8	25.4	76.2	57	4	31.8	31.8	13.5	18	15.9	4.9
2.5~5 t	171.5	19.1	38.1	95.3	76	6	38.1	38.1	19.8	25	19	4.5
7.5~10 t	222.2	25.4	50.8	120.6	108	6	50.8	50.8	26.2	30	25.4	3

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### Technical Data

parameters	units	specifications
capacity	t	0.5, 0.7, 1, 2, 3, 5, 7, 10
safe load limit	%fs	150
ultimate overload	%fs	200
output sensitivity at fs	mV/V	3.0 ± 0.03
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@50 Vdc
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
temp. coefficient of zero	%fs/°C	± 0.002
load cell body material		mild steel (3418(I)), 17-4PH stainless steel (3498(I))
sealing		potted
mechanical interface		refer to the dimensions on the datasheets
electrical interface		Φ 5.7 mm, 4-conductor shielded PVC cable, 3.5 m (6 m for cap.> 3 t)
environment protection		IP 66 (standard), IP 67, IP 68 (only for 3498(I))
unit weight	kg	1.2, ..., 3.9 (capacity dependent, to be confirmed in case of order)

The listed specifications are subject to change without prior notice.

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### Ordering Information

<b>position (pos.) 1: model</b>									
3418(I): made from mild steel 3498(I): made from 17-4PH stainless steel									
<b>pos. 2: capacities</b>									
0.5 t    1 t    10 t 0.7 t    2 t 3 t 5 t 7 t									
<b>pos. 3: output sensitivity</b>									
3 mV/V									
<b>pos. 4: non-linearity or accuracy class</b>									
0.02 %fs									
<b>pos. 5: bridge resistance</b>									
350 Ω (R <sub>in</sub> = 360±10 Ω, R <sub>out</sub> = 350±10 Ω)									
<b>pos. 6: threads (live end/fixed end)</b>									
1xΦd <sup>l</sup> / 2xΦD *									
<b>pos. 7: electrical interface</b>									
cable, code = diameter(Φ)/number of conductors/cable jacket/cable length 5.7/4/PVC/L = Φ5.7 mm,4-conductors shielded, PVC, 3.5m (6m for cap.>3t)									
<b>pos. 8: environment protection</b>									
IP 66 IP 67 IP 68 (only for 3498(I))									
<b>pos. 9: accessories for installation</b>									
N = NA**. In case of "NA", pos.9 can be omitted. cNut = compression nut									
<b>pos. 10: customized spec's</b>									
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

\*: Refer to the dimensions on the datasheet for values of M and D.

\*\* : This value can also be a customized value.

\*\*\*: NA = not available or not applicable

**example:** 3418(I)-2t-3mV/V-0.02%fs-350Ω-1xΦ18/2xΦ13.5-5/4/PVC/4-IP66-cNut-C



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