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# PB planar beam load cell



## product description

The PB planar beam is an OIML certified load cell for use in ultra-low profile weighing equipment.

The planar beam is designed to be used as an alternative to a single point load cell – hence 3 or 4 units are required for each application. Constructed from aluminium and environmentally protected using potting material. The PB is available in a wide range of capacities from 3.75kg through to 375kg.

## applications

Retail scales, bench scales, medical equipment, test & measurement applications.

## approvals

OIML approval to C3 (Y = 7,500; Y = 6,500 for 375kg capacity)

## accessories

Load mounts

Compatible range of electronics

## key features

Ultra-low profile

Wide range of capacities from 3.75kg to 375kg

Scale capacities from 6kg to 600kg

1,000Ω strain gauge bridge for battery powered devices

Aluminium construction

Environmentally sealed by potting

High accuracy

High input resistance

Calibration in mV/V/Ω for accuracy class C3



RoHS  
compliant



 **flintec**  
quality + precision

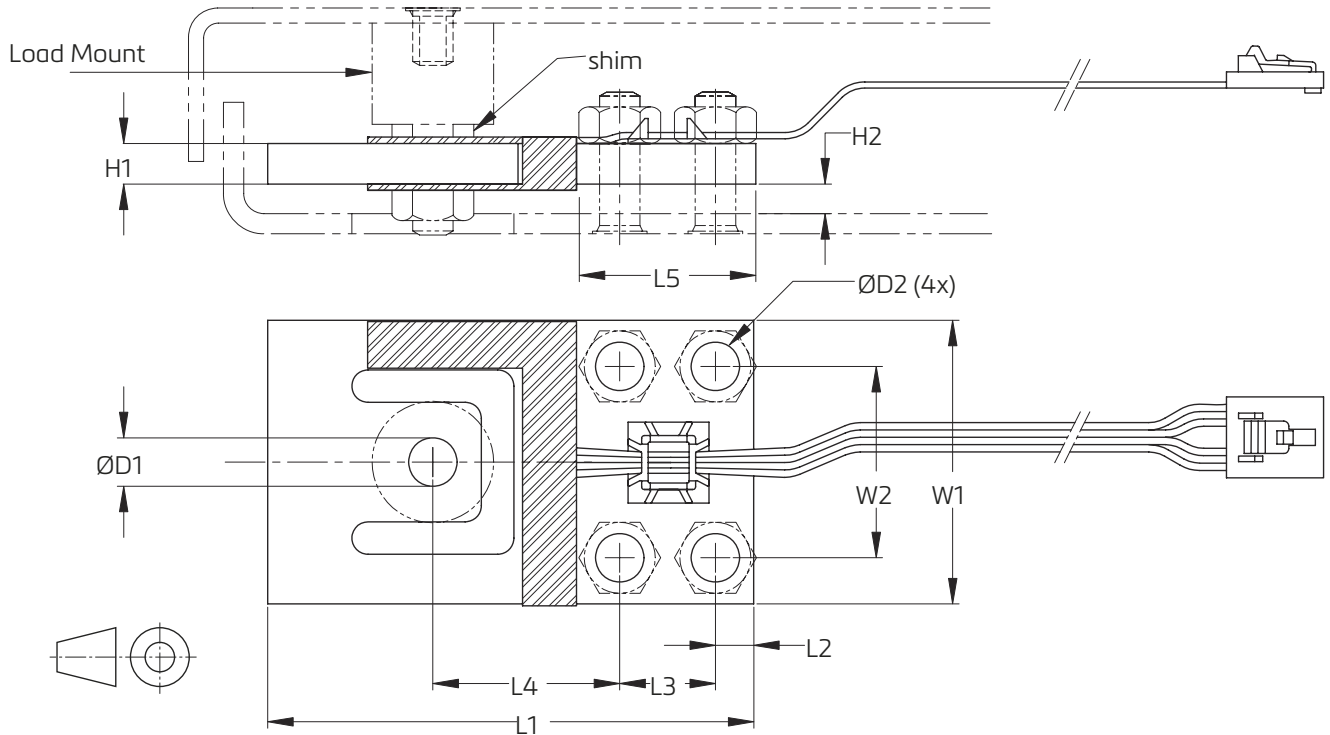
## specifications

Maximum capacity	kg	3.75 / 7.5 / 15 / 37.5 / 75 / 150 / 375	3.75 / 7.5 / 15 / 37.5 / 75 / 150	375
Accuracy class according to OIML R60		(GP)	C3	
Maximum number of verification intervals ( $n_{max}$ )		n.a.	3,000	
Minimum load cell verification interval ( $v_{min}$ )		n.a.	$E_{max} / 7,500$	$E_{max} / 6,500$
Temperature effect on minimum dead load output ( $TC_0$ )	%*RO/10°C	± 0.0400	± 0.0187	
Temperature effect on sensitivity ( $TC_{RO}$ )	%*RO/10°C	± 0.0200	± 0.0100	
Combined error	%*RO	± 0.0500	± 0.0200	
Non-linearity	%*RO	± 0.0400	± 0.0166	
Hysteresis	%*RO	± 0.0400	± 0.0166	
Creep error (30 minutes) / DR	%*RO	± 0.0600	± 0.0166	
Rated Output (RO)	mV/V	1 ± 10%	0.9 ± 0.1%	
Calibration in mV/V/Ω	%	n.a.	± 0.05	
Zero balance	%*RO	± 5		
Excitation voltage	V	5...15		
Input resistance ( $R_{LC}$ )	Ω	1,180 ± 50		
Output resistance ( $R_{out}$ )	Ω	1,000 ± 10		
Insulation resistance (100 V DC)	MΩ	≥ 5,000		
Safe load limit ( $E_{lim}$ )	%* $E_{max}$	300		
Ultimate load	%* $E_{max}$	400		
Safe side load	%* $E_{max}$	200		
Compensated temperature range	°C	-10...+40		
Operating temperature range	°C	-10...+65		
Load cell material		aluminium		
Sealing		environmentally sealed		
Protection according EN 60 529		IP65		
Packet weight	g	23 (3.75kg), 26 (7.5kg), 36 (15kg), 52 (37.5kg), 85 (75kg), 157 (150kg), 281 (375kg)		

The limits for Non-Linearity, Hysteresis, and  $TC_{RO}$  are typical values.

The sum of Non-linearity, Hysteresis and  $TC_{RO}$  meets the requirements according to OIML R60 with  $p_{LC}=0.7$ .

## product dimensions (mm)



Type	L1	L2	L3	L4	L5	W1	W2	H1	H2(min)	D1		D2	Deflection (mm) at E <sub>max</sub>
										TH*	RH**		
3.75 kg	70	4.9	14	28	23.7	39	27.8	2	3	4.2	5.1	5.1	0.46
7.5 kg								2.5					
15 kg								4.1					
37.5 kg	76.2	6	15	29.3	27	44.5	30	4.8	5	6.2	7.6	6.6	0.36
75 kg	84.4	6.4		34	27.7	54.8		6.4					
150 kg	107.3	7.8	22.9	45.9	38.4	69.9	44.5	7.9	6	8.2	9.1	8.1	0.56
375 kg	119.4	9.1	25.4	52.6	43.7	76.1	50.8	12.7					

\*Loading hole diameters with fit to metric load mounts. \*\*Loading hole diameters with fit to unified load mounts.

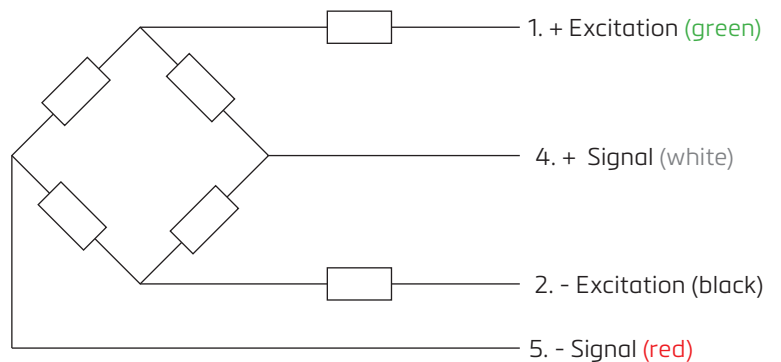
## wiring

The load cell is provided with a 4 conductor ribbon cable and with AMP #103957-4 connector

Cable length: 1.0 m for 3.75/7.5/15 kg

1.5 m for 37.5/75/150/375 kg

A special Junction Box, type KPB-4 is available



Specifications and dimensions are subject to change without notice.