

# 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

1,000 $\Omega$  strain gauge bridge for battery powered devices

Aluminium construction

Environmentally sealed by potting

High accuracy

High input resistance

Calibration in mV/V/ $\Omega$  for accuracy class C3



RoHS  
compliant



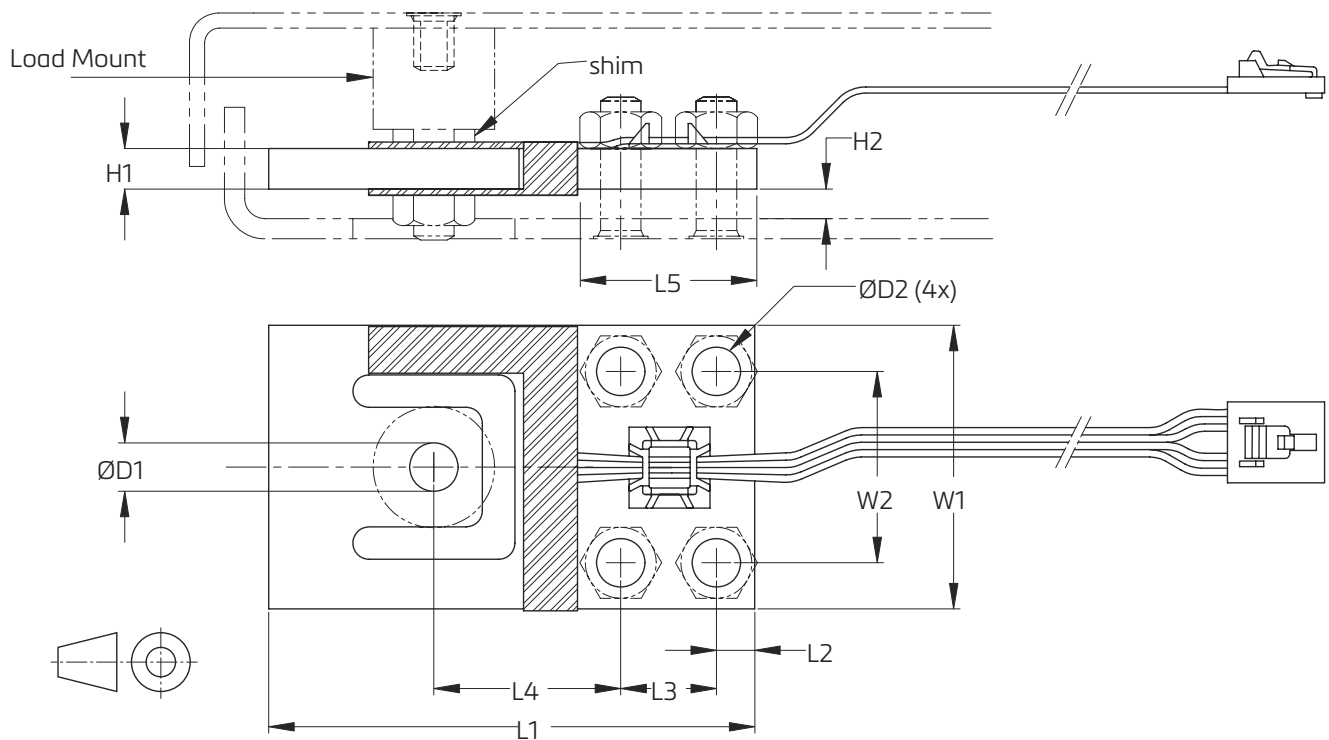
## specifications

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					0.4
15 kg								4.1					0.27
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					0.35
150 kg	107.3	7.8		45.9	38.4	69.9		7.9					0.56
375 kg	119.4	9.1	25.4	52.6	43.7	76.1	50.8	12.7	6	8.2	9.1	9.8	0.68

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

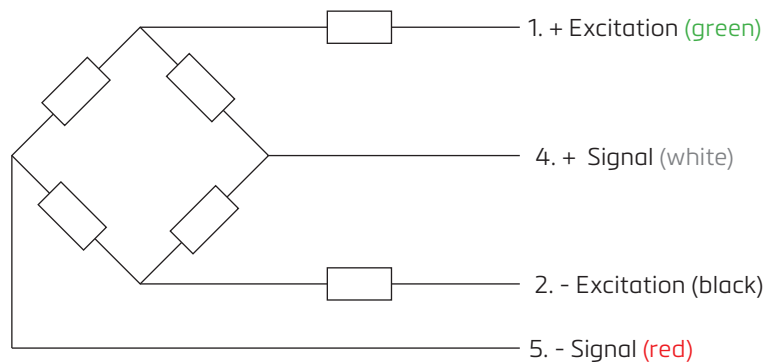
## wiring

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.