

## Product Description

The type PB is a very low profile planar beam load cell. Its unique Flintec design allows for an extremely low scale construction. Using 3 or 4 type PB load cells is an alternative to a single point load cell configuration with the additional benefit of a practical unlimited platform size.

## Application

- Compact scales, bench and floor scales, retail and counting scales, special applications in medical and other areas

## Key Features

- Capacities from 3.75 kg to 375 kg
- Scale capacities from 6 kg to 600 kg
- Aluminium construction
- Environmental Protection IP65
- Very low profile design
- High input resistance
- Calibration in mV/V/Ω for accuracy class C3

## Approvals

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

## Weight

■ Capacity (kg)	3.75	7.5	15	37.5
Weight (g)	23	26	36	52
■ Capacity (kg)	75	150	375	
Weight (g)	85	157	281	

## Available Accessories

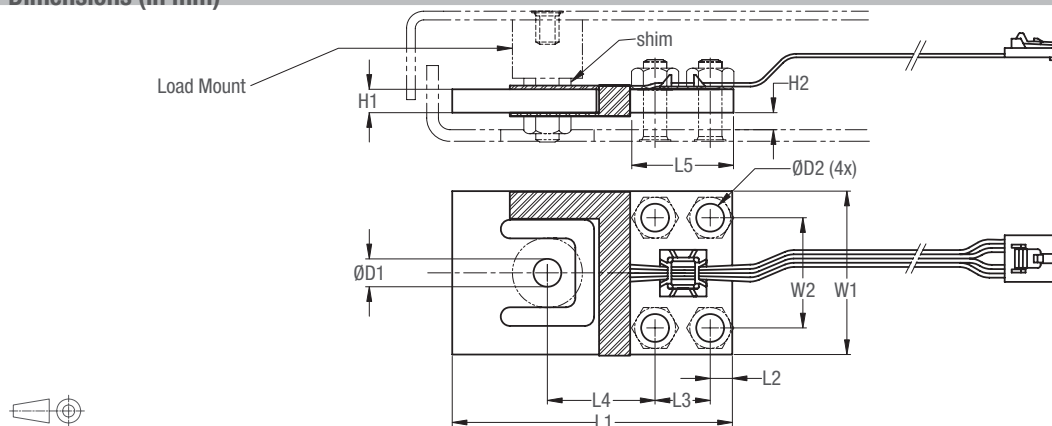
- Load mounts
- Compatible range of electronics

## Specifications

		kg	3.75 / 7.5 / 15 / 37.5 / 75 / 150 / 375	3.75 / 7.5 / 15 / 37.5 / 75 / 150	375
Maximum capacity					
Accuracy class according to OIML R60			(GP)		C3
Maximum number of verification intervals	(n <sub>max</sub> )		n.a.		3 000
Minimum load cell verification interval	(v <sub>min</sub> )		n.a.	E <sub>max</sub> / 7 500	E <sub>max</sub> / 6 500
Temperature effect on minimum dead load output	(TC <sub>0</sub> )	%*R0/10°C	± 0.0400		± 0.0187
Temperature effect on sensitivity	(TC <sub>R0</sub> )	%*R0/10°C	± 0.0200		± 0.0100
Combined error		%*R0	± 0.0500		± 0.0200
Non-linearity		%*R0	± 0.0400		± 0.0166
Hysteresis		%*R0	± 0.0400		± 0.0166
Creep error (30 minutes) / DR		%*R0	± 0.0600		± 0.0166
Rated Output	(R0)	mV/V	1 ± 10%		0.9 ± 0.1%
Calibration in mV/V/Ω		%	n.a.		± 0.05
Zero balance		%*R0			± 5
Excitation voltage		V			5...15
Input resistance	(R <sub>LC</sub> )	Ω			1 180 ± 50
Output resistance	(R <sub>out</sub> )	Ω			1 000 ± 10
Insulation resistance (100 V DC)		MΩ			≥ 5 000
Safe load limit	(E <sub>lim</sub> )	%*E <sub>max</sub>			300
Ultimate load		%*E <sub>max</sub>			400
Safe side load		%*E <sub>max</sub>			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

The limits for Non-Linearity, Hysteresis, and TC<sub>R0</sub> are typical values.  
The sum of Non-linearity, Hysteresis and TC<sub>R0</sub> meets the requirements according to OIML R60 with p<sub>LC</sub>=0.7.

## Dimensions (in mm)



Type	L1	L2	L3	L4	L5	W1	W2	H1	H2(min)	D1		D2	Deflection (mm) at E <sub>max</sub>
										TH*	RH**		
PB-3.75 kg	70	4.9	14	28	23.7	39	27.8	2	3	4.2	5.1	5.1	0.46
PB-7.5 kg								2.5					0.40
PB-15 kg								4.1					4.5
PB-37.5 kg	76.2	6	15	29.3	27	44.5	30	4.8	5	6.2	7.6	6.6	0.36
PB-75 kg	84.4	6.4		34	27.7	54.8		6.4					0.35
PB-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
PB-375 kg	119.4	9.1	25.4	52.6	43.7	76.1	50.8	12.7					9.8

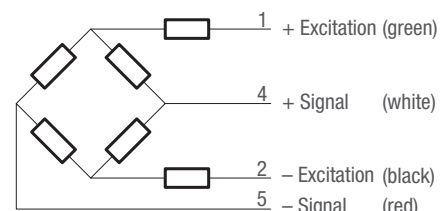
\*Loading hole diameters with fit to metric load mounts.

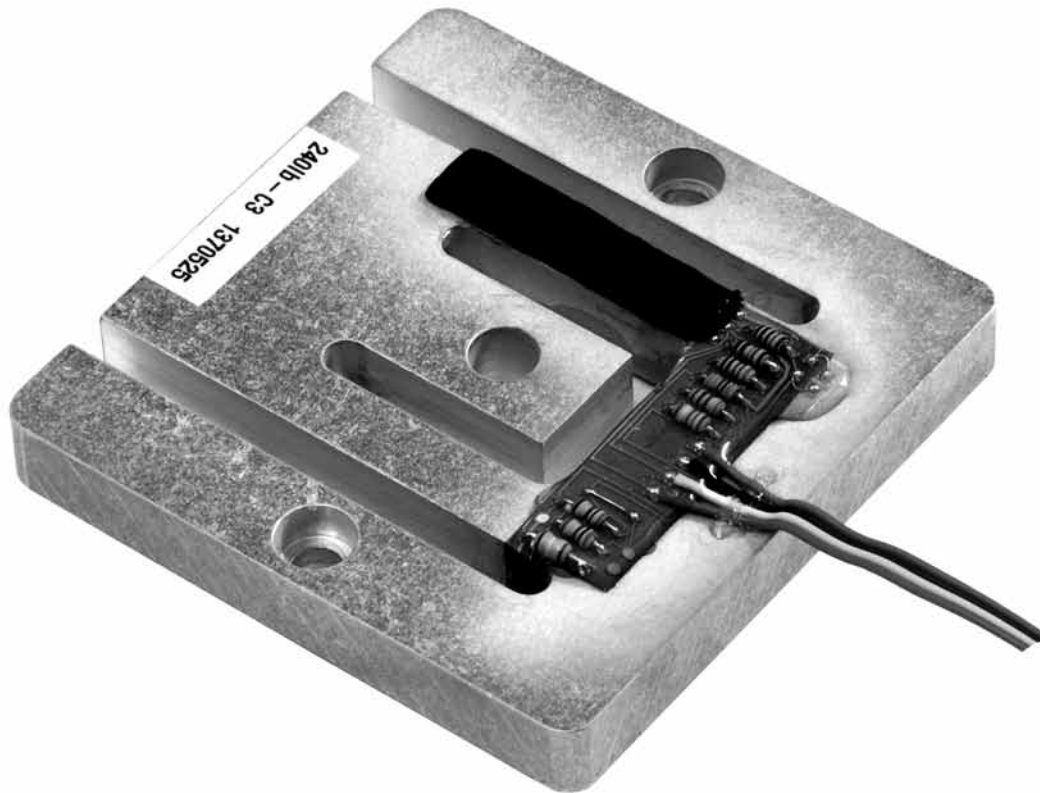
\*\*Loading hole diameters with fit to unified load mounts.

## 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





## Product Description

The type PBW is a very low profile planar beam load cell. Load cell installation is simplified by the winged mounting arms providing optimum load cell performance in all types of scale structures.

## Application

- Compact scales, bench and floor scales, retail and counting scales, special applications in medical and other areas

## Key Features

- Capacities from 12.5 lb to 240 lb
- Aluminium construction
- Environmental Protection IP65
- Very low profile design
- High input resistance
- Calibration in mV/V/Ω for accuracy class C3

## Approvals

- OIML approval to C3 (Y = 7 500)

## Weight

■ Capacity (lb)	12.5	18.75	25	37.5
Weight (g)	35	45	41	50
■ Capacity (lb)	50	100	240	
Weight (g)	50	70	88	

## Available Accessories

- Load mounts
- Compatible range of electronics

## Specifications

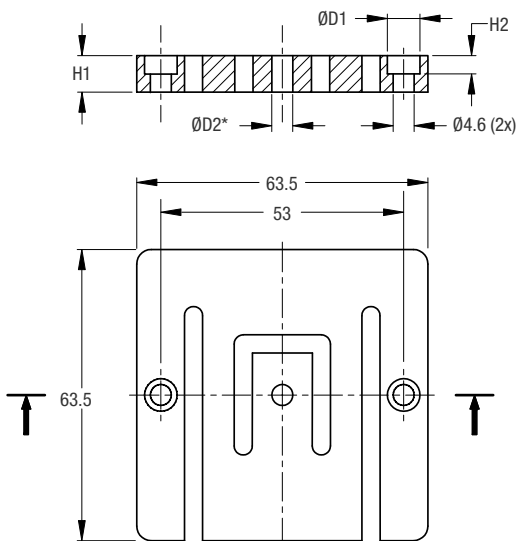
Maximum capacity	(E <sub>max</sub> )	lb	12.5 / 18,75 / 25 / 37.5 / 50 / 100 / 240*	
Metric equivalent (1 lb=0.45359 kg)		kg	5.7 / 8.5 / 11.3 / 17 / 22.7 / 45.4 / 109*	
Accuracy class according to OIML R60			(GP)	C3
Maximum number of verification intervals	(n <sub>max</sub> )		n.a.	3000
Minimum load cell verification interval	(V <sub>min</sub> )		n.a.	E <sub>max</sub> / 7500
Temperature effect on minimum dead load output	(TC <sub>0</sub> )	%*RO/10°C	± 0.0400	± 0.0187
Temperature effect on sensitivity	(TC <sub>RO</sub> )	%*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% / 1.2* ± 10%	0.9 ± 0.1% / 1.09* ± 0.1%
Calibration in mV/V/Ω		%	n.a.	± 0.05
Zero balance		%*RO		± 5
Excitation voltage		V		5...15
Input resistance	(R <sub>LC</sub> )	Ω		1 180 ± 50
Output resistance	(R <sub>out</sub> )	Ω		1 000 ± 10
Insulation resistance (100 V DC)		MΩ		≥ 5000
Safe load limit	(E <sub>lim</sub> )	%*E <sub>max</sub>		300 / 250*
Ultimate load		%*E <sub>max</sub>		400
Safe side load		%*E <sub>max</sub>		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

The limits for Non-Linearity, Hysteresis, and TC<sub>RO</sub> are typical values.  
The sum of Non-linearity, Hysteresis and TC<sub>RO</sub> meets the requirements according to OIML R60 with p<sub>LC</sub>=0.7.

## Dimensions (in mm)

Type	H1	H2	ØD1	ØD2*	Deflection (mm) at E <sub>max</sub>
PBW-12.5 lb	2.5	--	--	4.2	0.42
PBW-18.75 lb	4	--	--	4.2	
PBW-25 lb	3.2	--	--	4.2	0.49
PBW-37.5 lb	4	--	--	6.2	0.38
PBW-50 lb	4	--	--	6.2	0.48
PBW-100 lb	6.4	--	--	6.2	
PBW-240 lb	8	3.2	7.4	8.2	0.46

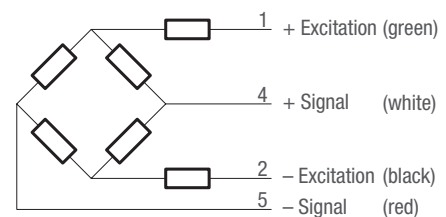
\*Attention: Other loading holes on request



## Wiring

- The load cell is provided with a 4 conductor ribbon cable and with AMP #103957-4 connector
- Cable length: 1.0 m for 12.5...50 lb  
1.5 m for 100...240 lb

A special Junction Box type KPB-4 is available





## Product Description

The type ZLB is a very low profile Planar Beam load cell. Its unique Flintec design allows for an extremely low scale construction. Type ZLB offers an aluminium construction with industrial potting making it suitable for use in industrial environments.

## Approvals

- OIML approval to C3 (Y = 10 000)
- ATEX hazardous area approval for Zone 0, 1, 2, 20, 21 and 22
- FM hazardous area approval

## Application

- Compact scales, bench and floor scales, counting scales as well as other special applications

## Packed Weight

Capacity (kg)	20	50	100	200
Weight (kg)	0.46	0.49	0.49	0.53

## Key Features

- Capacities from 20 kg to 200 kg
- Aluminium construction
- Environmental Protection IP67
- Very low profile design
- High input resistance
- Calibration in mV/V/Ω
- Mounting compatible to SB6 and SB8

## Available Accessories

- Load mounts
- Compatible range of electronics

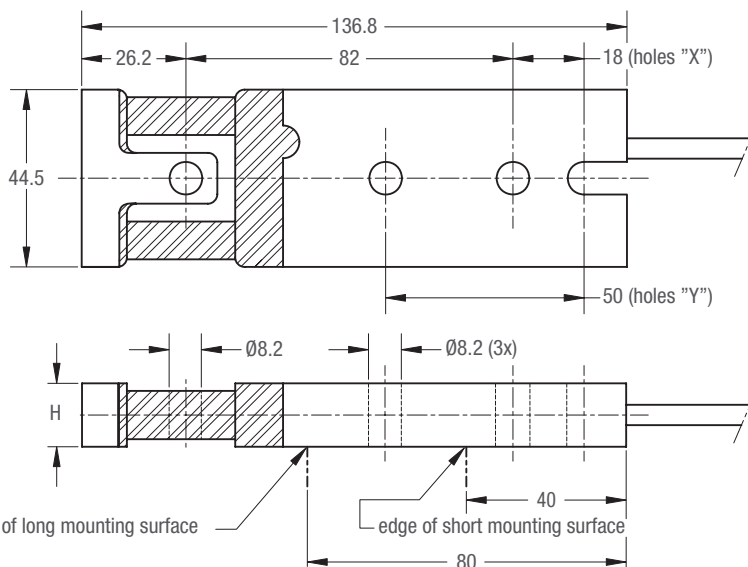
## Specifications

	(E <sub>max</sub> )	kg	20 / 50 / 100 / 200		
			(GP)	C1	C3
Maximum capacity					
Accuracy class according to OIML R60					
Maximum number of verification intervals	(n <sub>max</sub> )		n.a.	1 000	3 000
Minimum load cell verification interval	(v <sub>min</sub> )		n.a.	E <sub>max</sub> /5 000	E <sub>max</sub> /10 000
Temperature effect on minimum dead load output	(TC <sub>0</sub> )	%*RO/10°C	≤ ± 0.0400	≤ ± 0.0280	≤ ± 0.0140
Temperature effect on sensitivity	(TC <sub>RO</sub> )	%*RO/10°C	≤ ± 0.0200	≤ ± 0.0160	≤ ± 0.0100
Combined error		%*RO	≤ ± 0.0500	≤ ± 0.0300	≤ ± 0.0200
Non linearity		%*RO	≤ ± 0.0400	≤ ± 0.0300	≤ ± 0.0166
Hysteresis		%*RO	≤ ± 0.0400	≤ ± 0.0300	≤ ± 0.0166
Creep error (30 minutes) / DR		%*RO	≤ ± 0.0600	≤ ± 0.0490	≤ ± 0.0166
Rated Output	(RO)	mV/V		2 ± 0.1%	
Calibration in mV/V/Ω		%		≤ ± 0.05	
Zero balance		%*RO		≤ ± 5	
Excitation voltage		V		5...15	
Input resistance	(R <sub>LC</sub> )	Ω		1 180 ± 50	
Output resistance	(R <sub>out</sub> )	Ω		1 000 ± 2	
Insulation resistance (100 V DC)		MΩ		≥ 5 000	
Safe load limit	(E <sub>lim</sub> )	%*E <sub>max</sub>		200	
Ultimate load		%*E <sub>max</sub>		300	
Safe side load		%*E <sub>max</sub>		100	
Compensated temperature range		°C		-10...+40	
Operating temperature range		°C		-20...+65 (ATEX -20...+60)	
Load cell material				aluminium	
Sealing				potting	
Protection according EN 60 529				IP67	

The limits for Non-Linearity, Hysteresis, and TC<sub>RO</sub> are typical values.

The sum of Non-linearity, Hysteresis and TC<sub>RO</sub> meets the requirements according to OIML R60 with p<sub>LC</sub>=0.7.

## Dimensions (in mm)



Type	H	Mounting bolts	Torque *
ZLB-20 kg	9.5	M8 8.8	25 Nm
ZLB-50/100 kg	12.7	M8 8.8	25 Nm
ZLB-200 kg	15.9	M8 8.8	25 Nm

\* Torque values assume oiled threads.



### Note:

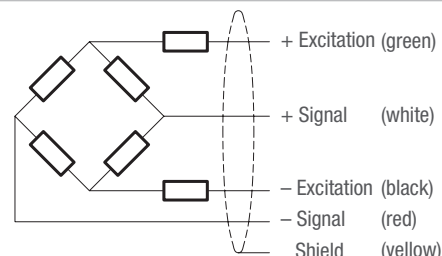
It is recommended to use mounting holes "Y" on an 80 mm mounting surface.

Mounting holes "X" can be used on a short (40 mm) mounting surface.

If so, a steel spacer (80 mm long and 10 mm thick) is required for the 200 kg load cell.

## Wiring

- The load cell is provided with a shielded, 4 conductor cable (AWG 24).  
Cable jacket polyurethane
- Cable length: 3 m
- Cable diameter: 5 mm
- The shield is floating  
(On request the shield can be connected to the load cell body)





## Product Description

The type ZLS is a very low profile Planar Beam load cell. Its unique Flintec design allows for an extremely low scale construction. Type ZLS offers a stainless steel construction with industrial potting making it suitable for use in industrial environments.

## Application

- Compact scales, bench and floor scales, counting scales as well as other special applications

## Key Features

- Capacities from 20 kg to 200 kg
- Stainless steel construction
- Environmental Protection IP67
- Very low profile design
- High input resistance

## Packed Weight

- Approx. 0.8 kg

## Available Accessories

- Load mounts
- Compatible range of electronics

## Specifications

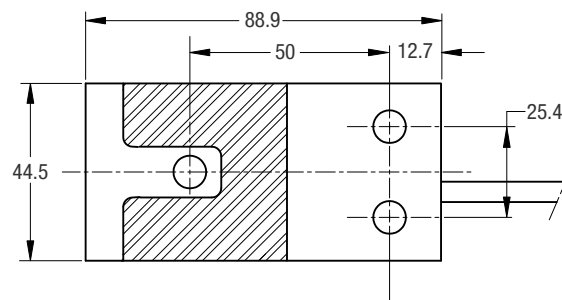
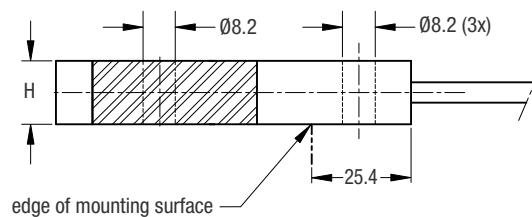
	(E <sub>max</sub> )	kg	20 / 50 / 100 / 200	
Maximum capacity			(GP)	G3*
Accuracy class			n.a.	3 000
Maximum number of verification intervals	(n <sub>max</sub> )		n.a.	E <sub>max</sub> / 5 000
Minimum load cell verification interval	(v <sub>min</sub> )		n.a.	
Temperature effect on minimum dead load output	(TC <sub>0</sub> )	%*RO/10°C	± 0.0400	± 0.0140
Temperature effect on sensitivity	(TC <sub>RO</sub> )	%*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	2 ± 0.1%	
Zero balance		%*RO	≤ ± 5	
Excitation voltage		V	5...15	
Input resistance	(R <sub>LC</sub> )	Ω	1 106 ± 50	
Output resistance	(R <sub>out</sub> )	Ω	1 000 ± 2	
Insulation resistance (100 V DC)		MΩ	≥ 5 000	
Safe load limit	(E <sub>lim</sub> )	%*E <sub>max</sub>	200	
Ultimate load		%*E <sub>max</sub>	300	
Safe side load		%*E <sub>max</sub>	100	
Compensated temperature range		°C	-10...+40	
Operating temperature range		°C	-20...+65	
Load cell material			stainless steel	
Sealing			potting	
Protection according EN 60 529			IP67	

\* Fulfills the corresponding accuracy class C3 according OIML R60, but no OIML test certificate is available.  
The limits for Non-Linearity, Hysteresis, and TC<sub>RO</sub> are typical values.

## Dimensions (in mm)

Type	H	Mounting bolts	Torque *
ZLS-20....100 kg	9.5	M8 8.8	25 Nm
ZLS-200 kg	12.7	M8 8.8	25 Nm

\* Torque values assume oiled threads.



## Wiring

- The load cell is provided with a shielded, 4 conductor cable (AWG 24).  
Cable jacket polyurethane
- Cable length: 3 m
- Cable diameter: 5 mm
- The shield is floating  
(On request the shield can be connected to the load cell body)

