



PENKO Engineering BV

The Leading Experts In Weighing & Dosing

20Kg-200Kg **ZLB**



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

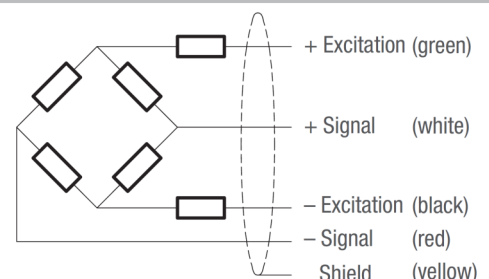
- Capacities from 20 kg to 200 kg
- Aluminium construction
- Environmental Protection IP67
- Very low profile design
- High input resistance
- Calibration in mV/V/Ω
- Mounting compatible to SB6 and SB8

Available Accessories

- Load mounts
- Compatible range of electronics

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)

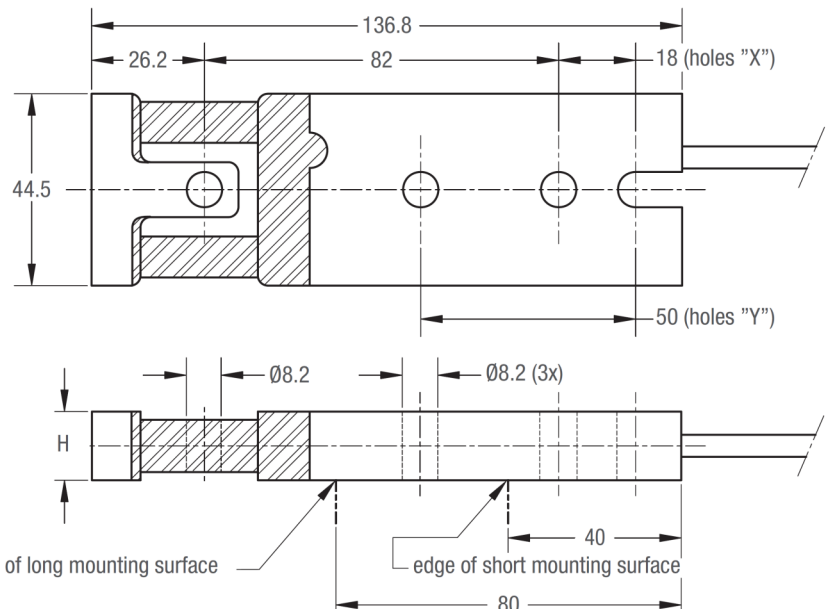


Specifications

Maximum capacity	(E _{max})	kg	20 / 50 / 100 / 200		
Accuracy class according to OIML R60			(GP)	C1	C3
Maximum number of verification intervals	(n _{max})		n.a.	1 000	3 000
Minimum load cell verification interval	(v _{min})		n.a.	E _{max} / 5 000	E _{max} / 10 000
Temperature effect on minimum dead load output	(TC ₀)	%*RO/10°C	≤ ± 0.0400	≤ ± 0.0280	≤ ± 0.0140
Temperature effect on sensitivity	(TC _{RO})	%*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 _{LC})	Ω	1 180 ± 50		
Output resistance	(R _{out})	Ω	1 000 ± 2		
Insulation resistance (100 V DC)		MΩ	≥ 5 000		
Safe load limit	(E _{lim})	%*E _{max}	200		
Ultimate load		%*E _{max}	300		
Safe side load		%*E _{max}	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_{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.

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.