

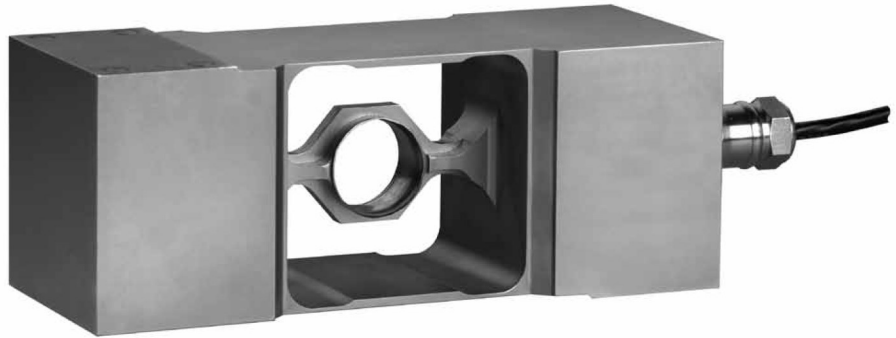


# PENKO Engineering BV

The Leading Experts In Weighing & Dosing

50kg-1000kg

# PCB



## Product Description

The type PCB is a stainless steel single point load cell with complete hermetic sealing. It is a perfect fit for use in harsh industrial environments.

## Application

- Bench and floor scales, packaging machines and conveyor scales

## Key Features

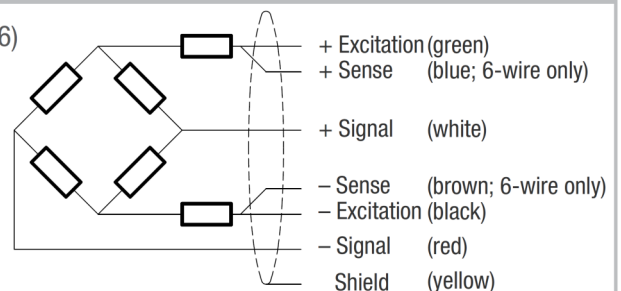
- Wide range of capacities from 50 kg to 1 000 kg
- Stainless steel construction
- Environmental Protection IP68 with complete hermetic sealing
- Maximum platform size up to 1 000 x 1 000 mm
- High input resistance
- Integral mounting spacer

## Options

- Y = 20 000 for C3 and C3 MI6
- Y = 25 000 for C3 and C3 MI6 (for 250 kg or higher capacities)

## Wiring

- The load cell is provided with a shielded, 6 conductor cable (AWG 26) or with a shielded, 4 conductor cable (AWG 24). Cable jacket polyurethane.
- Cable length: 3 m
- Cable diameter: 5 mm
- The shield is floating or connected to the load cell body



## Approvals

- OIML approval to C3 and C3 MI6 (Y = 12 500)
- NTEP approval to 5 000 intervals, Class III
- ATEX hazardous area approval for Zone 0, 1, 2, 20, 21 and 22
- FM hazardous area approval

## Packed Weight

■ Capacity (kg)	50	100	250	500	1 000
Weight (kg)	5.4	5.4	5.7	5.7	5.8

## Available Accessories

- Compatible range of electronics

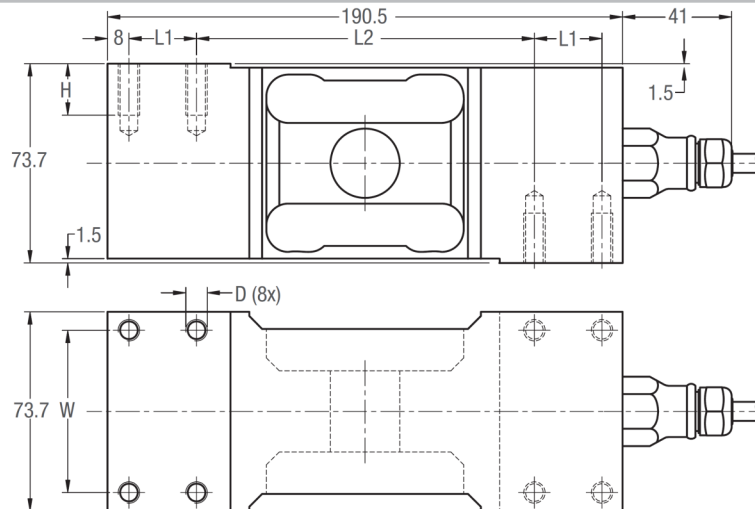
## Specifications

Maximum capacity	(E <sub>max</sub> )	kg	50 / 100 / 250 / 500 / 1 000		
Accuracy class according to OIML R60			(GP)	C3	C3 MI 6
Maximum number of verification intervals	(n <sub>LC</sub> )		n.a.	3 000	
Minimum load cell verification interval	(v <sub>min</sub> )		n.a.	E <sub>max</sub> / 12 500	
Temperature effect on minimum dead load output	(TC <sub>0</sub> )	%*RO/10°C	± 0.0400	± 0.0112	
Temperature effect on sensitivity	(TC <sub>RO</sub> )	%*RO/10°C	± 0.0200	± 0.0100	
Combined error		%*RO	± 0.0500	± 0.0200	± 0.0180
Non-linearity		%*RO	± 0.0400	± 0.0166	± 0.0166
Hysteresis		%*RO	± 0.0400	± 0.0166	± 0.0083
Creep error (30 minutes) / DR		%*RO	± 0.0600	± 0.0166	± 0.0083
Option	Min. load cell verification interval	(v <sub>min opt</sub> )	n.a.	E <sub>max</sub> / 20 000; 250 kg or higher: E <sub>max</sub> / 25 000	
	Temp. effect on min. dead load output	(TC <sub>0 opt</sub> )	n.a.	± 0.0070; 250 kg or higher: ± 0.0056	
Rated Output	(RO)	mV/V	2 ± 5%		
Zero balance		%*RO	± 5		
Excitation voltage		V	5...15		
Input resistance	(R <sub>LC</sub> )	Ω	1 100 ± 50		
Output resistance	(R <sub>out</sub> )	Ω	960 ± 50		
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		
Maximum platform size; loading acc. to OIML R76		mm	600 x 600 for 50 kg / 800 x 800 for 100...500 kg / 1 000 x 1 000 for 1 000 kg		
Maximum off centre distance at maximum capacity		mm	200 for 50 kg / 250 for 100...500 kg / 300 for 1 000 kg		
Compensated temperature range		°C	-10...+40		
Operating temperature range		°C	-40...+80 (ATEX -40...+60)		
Load cell material			stainless steel 17-4 PH (1.4548)		
Sealing			complete hermetic sealing; cable entry sealed by glass to metal header		
Protection according EN 60 529			IP68 (up to 2 m water depth) / IP69K		

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	L1	L2	H	W	D	Mounting bolts	Torque 1)
PCB-50/100/250/500/1 000 kg	25	125	19	60	M8 2)	M8 8.8 / PCB-1 000 kg: M8 12.9	25 Nm
PCBB-500/1 000 kg	35	104,5	25	57	M12	M12 8.8	90 Nm
PCBC-50/100/250/500/1 000 kg	35	107	19	50	M8 2) 3)	M8 8.8	25 Nm

1) Torque values assume oiled thread.

2) Unified thread 5/16-18 is available.

3) OIML approval only valid for M8 threads.

