# PCB single point load cell



#### product description

The PCB single point load cell is the high capacity end of the hermetically sealed load cell range from Flintec. Providing all of the high accuracy performance for trade approved weighing scales but available in a wide range of capacities from 50kg through to 1T – all in one sensor body size. Full stainless-steel construction ensure the PCB load cell is capable of surviving the tough environments in food and chemical processing applications.

## applications

Bench and platform scales, high-speed checkweighers, marine scales, multi-head weighers.

## key features

Stainless steel construction, hermetically sealed to IP68

For platforms sizes of up to 1,000 x 1,000mm

High accuracy, high input resistance

RoHS

compliant

Wide range of capacities from 50kg to 1,000kg

Integral mounting spacer







A52-Rev12-GB

FM



OIML approval to C3 and C3 MI6 (Y = 12,500)

NTEP approval to 5,000 intervals, Class III

ATEX hazardous area approval for zones 0, 1, 2, 20, 21 and 22

FM hazardous area approval

## accessories + options

Compatible range of electronics

Y = 20,000 for C3 and C3 MI6

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



# 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 ( $n_{LC}$ )		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 $_{0}$ )	%*RO/10°C	± 0.0400	± 0.0112		
Temperature effect on sensitivity ( $TC_{RO}$ )	%*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 ± 0.00		± 0.0083	
Creep error (30 minutes) / DR	%*RO	± 0.0600 ± 0.0166 ± 0		± 0.0083	
Optional: Min. load cell verification interval (v <sub>min</sub> opt)		E <sub>max</sub> /20,000; 250 kg or higher:			
Optional: Temp. effect on min. dead load output $(TC_0 \text{ opt})$	%*RO/10°C	± 0.0070; 250 kg or higher: ± n.a. 0.0056			
Rated Output (RO)	mV/V	2 ± 5%			
Zero balance	%*RO	± 5			
Excitation voltage	V	515			
Input resistance (RLC)	Ω	1100 ± 50			
Output resistance (R <sub>out</sub> )	Ω	960 ± 50			
Insulation resistance (100 V DC)	MΩ	≥ 5000			
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 kg / 1,000 x 1,000 for 2501,000 kg			
Maximum off centre distance at maximum capacity	mm	200 for 50 kg / 250 for 100500 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			
Packet weight	kg	5.4 (50-100kg), 5.7 (250-500kg), 5.8 (1,000kg)			

The limits for Non-Linearity, Hysteresis, and  $\mathsf{TC}_{\mathsf{RO}}$  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)



Туре	L1	L2	L3	Н	W	D	Mounting bolts	Torque 1)
PCB- 50/100/250/500/1,000 kg	25	125	8	19	60	M8 2)	M8 8.8 / PCB- 1,000 kg: M8 12.9	25 Nm
PCBB-500/1,000 kg	35	104,5	8	25	57	M12	M12 8.8	90 Nm
PCBC- 50/100/250/500/1,000 kg	35	107	6.75	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.

#### 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



Specifications and dimensions are subject to change without notice.