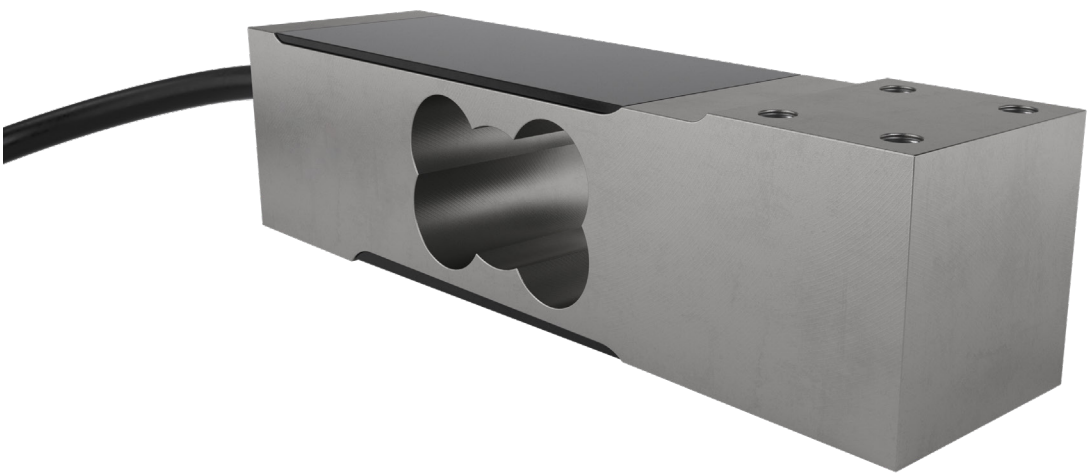
PC1 single point load cell



product description

High accuracy, single point load cell ideal for a wide variety of weighing tasks. The PC1 is constructed out of stainless steel and is environmentally protected with durable potting material. With capacities ranging from 7.5kg through to 200kg and accuracy classes to C4 OIML, the PC1 lends itself to many types of certified weighing equipment.

applications

Bench scales, packaging and grading machines, bag filling equipment, bottle filling machinery.

key features

- Stainless steel construction
- Environmentally sealed by potting to IP67 (IP65 only for the 7.5 and 10kg models)
- Wide range of capacities from 7.5kg to 200kg
- High accuracy
- For platform sizes of up to 600 x 600mm
- Integral mounting spacer

approvals

- OIML approval to C3, C3 MI6 and C4 (Y = 10,000)
- NTEP approval to 4,500 intervals, Class III (for 7.5kg to 75kg)
- ATEX hazardous area approval for zones 0, 1, 2, 20, 21 and 22
- FM hazardous area approval

accessories + options

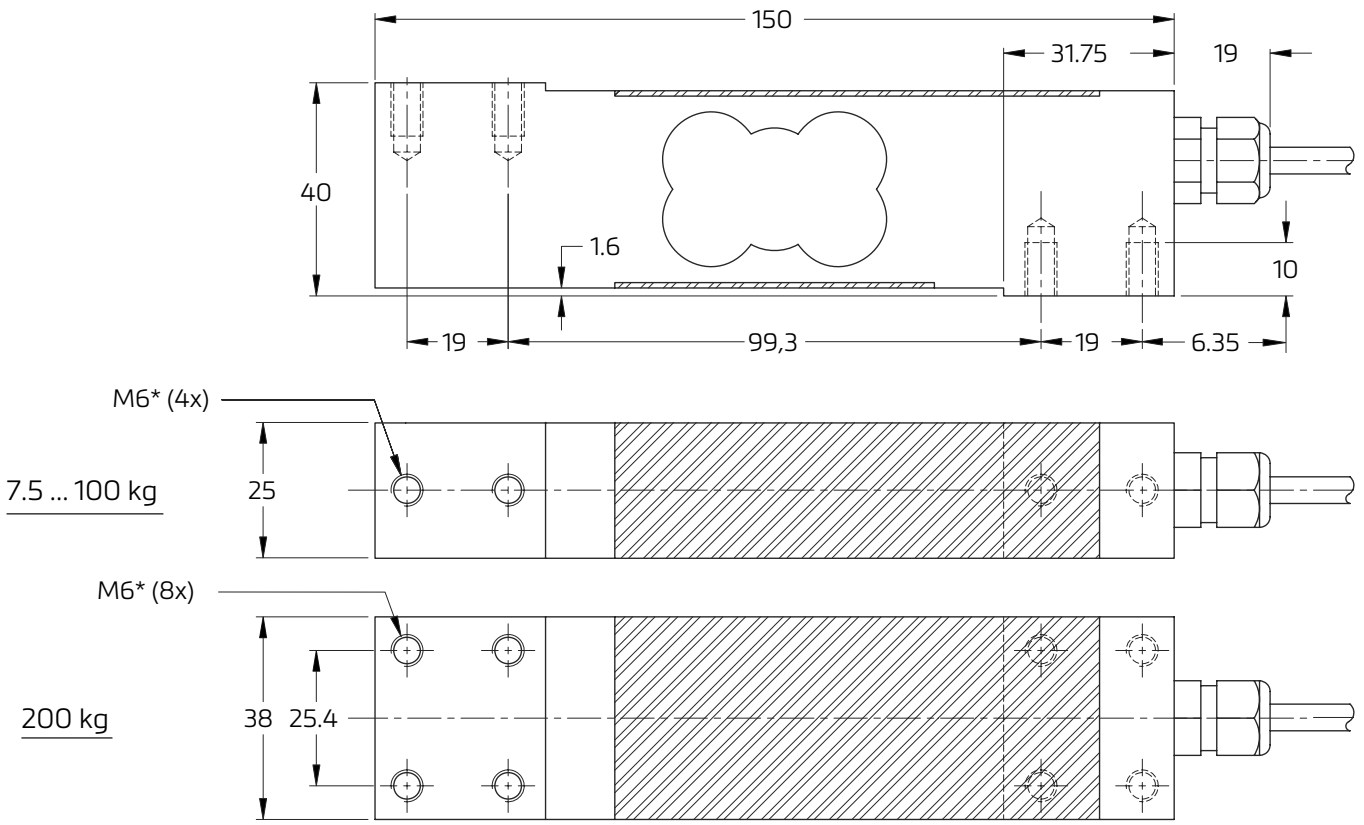
- Compatible range of electronics
- Y = 15,000 for C3, C3 MI6 and C4
- M10 mounting threads available (only for 50kg, 75kg and 100kg)

specifications

Maximum capacity (E_{max})	kg	7.5 / 10 / 15 / 30 / 50 / 75 / 100 / 200			
Accuracy class according to OIML R60	-	(GP)	C3	C3 MI 6	C4
Maximum number of verification intervals (n_{LC})	-	n.a.	3,000		4,000
Minimum load cell verification interval (v_{min})	-	n.a.	E_{max} /10,000		
Temperature effect on minimum dead load output (TC_0)	%*RO/10°C	± 0.0400	± 0.0140		
Temperature effect on sensitivity (TC_{RO})	%*RO/10°C	± 0.0200	± 0.0100		± 0.0080
Combined error	%*RO	± 0.0500	± 0.0200	± 0.0180	± 0.0180
Non-linearity	%*RO	± 0.0400	± 0.0166	± 0.0166	± 0.0125
Hysteresis	%*RO	± 0.0400	± 0.0166	± 0.0083	± 0.0125
Creep error (30 minutes) / DR	%*RO	± 0.0600	± 0.0166	± 0.0083	± 0.0125
Optional min. load cell verification interval (v_{min} opt)	-	n.a.	E_{max} /15000		
Optional temp. effect on min. dead load output (TC_0 opt)	%*RO/10°C	n.a.	± 0.0093		
Rated Output (RO)	mV/V	2 ± 5%			
Zero balance	%*RO	± 5			
Excitation voltage	V	5...15			
Input resistance (R_{LC})	Ω	390 ± 20			
Output resistance (R_{out})	Ω	330 ± 25			
Insulation resistance (100 V DC)	MΩ	≥ 5000			
Safe load limit (E_{lim})	%*E_{max}	200			
Ultimate load	%*E_{max}	300			
Safe side load	%*E_{max}	100			
Maximum platform size; loading according to OIML R76	mm	350x350 for 7.5...15 kg / 450x450 for 30...75 kg / 600x600 for 100...200 kg			
Maximum off centre distance at maximum capacity	mm	115 for 7.5...15 kg / 150 for 30...75 kg / 200 for 100...200 kg			
Compensated temperature range	°C	–10...+40			
Operating temperature range	°C	–20...+65 (ATEX –20...+60)			
Load cell material	-	stainless steel 17-4 PH (1.4548)			
Sealing	-	plastic covered			
Protection according to EN 60 529	-	IP67*			
Packet weight	kg	1.2 (7.5-100kg), 1.6 (200kg)			

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 pLC=0.7.
* Attention: IP65 for 7.5 kg and 10 kg

product dimensions (mm)



PC1: Mounting bolts M6 8.8; torque 10 Nm. Torque value assumes oiled threads.
* Unified thread 1/4-20 UNC is available.
PC1B: Mounting bolts M10 8.8; torque 50 Nm (50/75/100 kg). Torque value assumes oiled threads.
If countersunk mounting screws are used, ask for a detailed drawing.

wiring

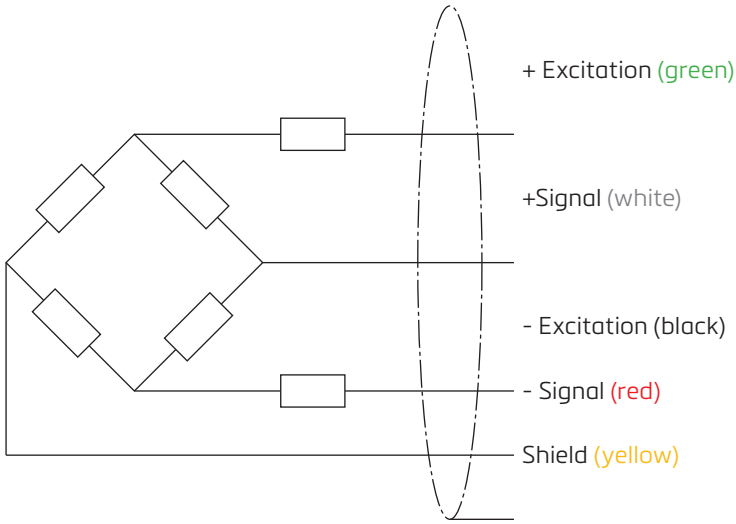
The load cell is provided with a shielded, 4 conductor cable (AWG 24).

Cable jacket: polyurethane

Cable length: 3 m

Cable diameter: 5 mm

The shield is connected to the load cell body



Specifications and dimensions are subject to change without notice.