

# 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)



RoHS  
compliant



 **flintec**  
quality + precision

## 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 ( $TC_0$ )      | $\%*RO/10^{\circ}C$ | $\pm 0.0400$  | $\pm 0.0140$       |              |              |
| Temperature effect on sensitivity ( $TC_{RO}$ )                | $\%*RO/10^{\circ}C$ | $\pm 0.0200$  | $\pm 0.0100$       |              | $\pm 0.0080$ |
| Combined error   | $\%*RO$             | $\pm 0.0500$  | $\pm 0.0200$       | $\pm 0.0180$ | $\pm 0.0180$ |
| Non-linearity  | $\%*RO$             | $\pm 0.0400$  | $\pm 0.0166$       | $\pm 0.0166$ | $\pm 0.0125$ |
| Hysteresis   | $\%*RO$             | $\pm 0.0400$  | $\pm 0.0166$       | $\pm 0.0083$ | $\pm 0.0125$ |
| Creep error (30 minutes) / DR                                  | $\%*RO$             | $\pm 0.0600$  | $\pm 0.0166$       | $\pm 0.0083$ | $\pm 0.0125$ |
| 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)   | $\%*RO/10^{\circ}C$ | n.a.  | $\pm 0.0093$       |              |              |
| Rated Output (RO)  | mV/V                | $2 \pm 5\%$   |                    |              |              |
| Zero balance   | $\%*RO$             | $\pm 5$   |                    |              |              |
| Excitation voltage   | V                   | 5...15  |                    |              |              |
| Input resistance ( $R_{LC}$ )                                  | $\Omega$            | $390 \pm 20$  |                    |              |              |
| Output resistance ( $R_{out}$ )                                | $\Omega$            | $330 \pm 25$  |                    |              |              |
| Insulation resistance (100 V DC)                               | M $\Omega$          | $\geq 5000$   |                    |              |              |
| 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                                  | $^{\circ}C$         | $-10...+40$   |                    |              |              |
| Operating temperature range                                    | $^{\circ}C$         | $-20...+65$ (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)  |                    |              |              |

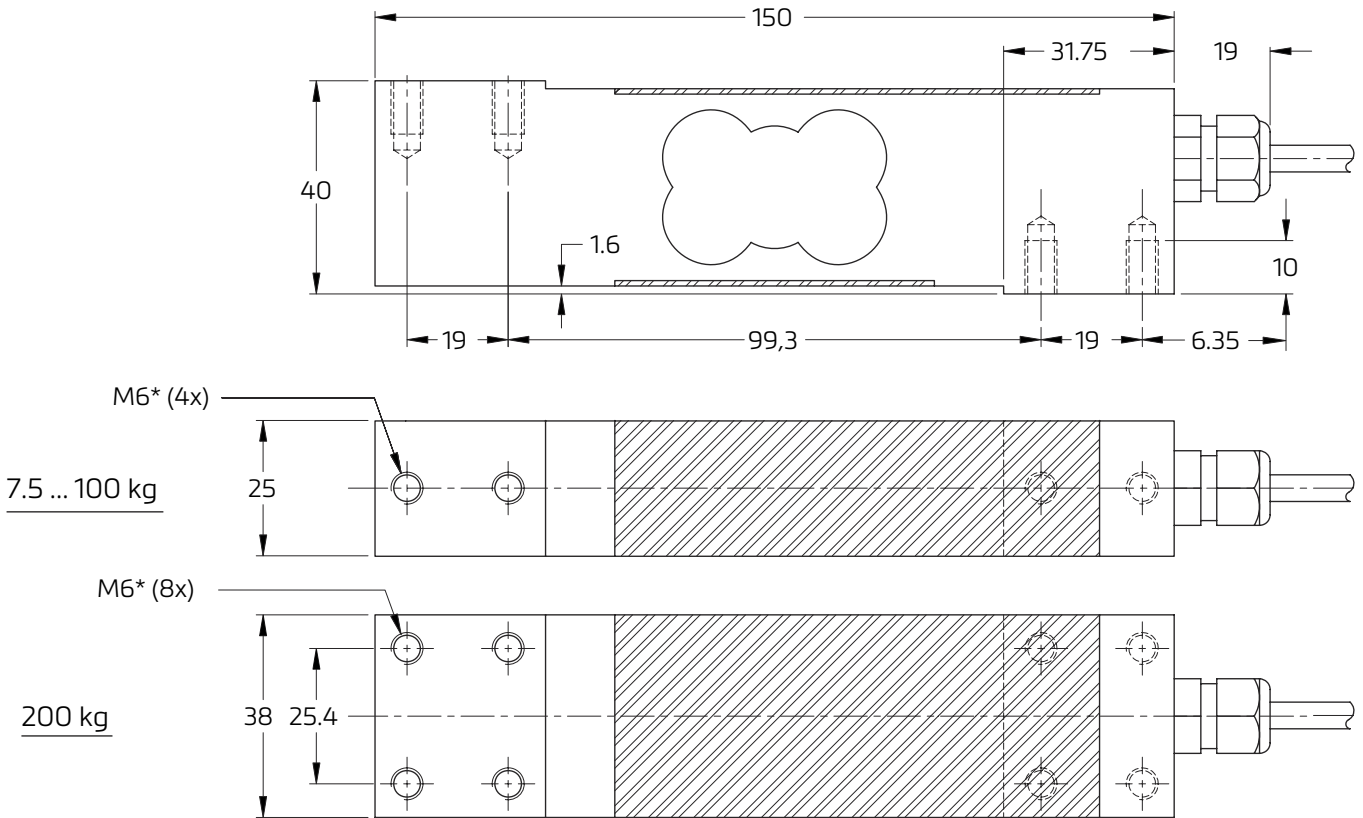
The limits for Non-Linearity, Hysteresis, and  $TC_{RO}$  are typical values.

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

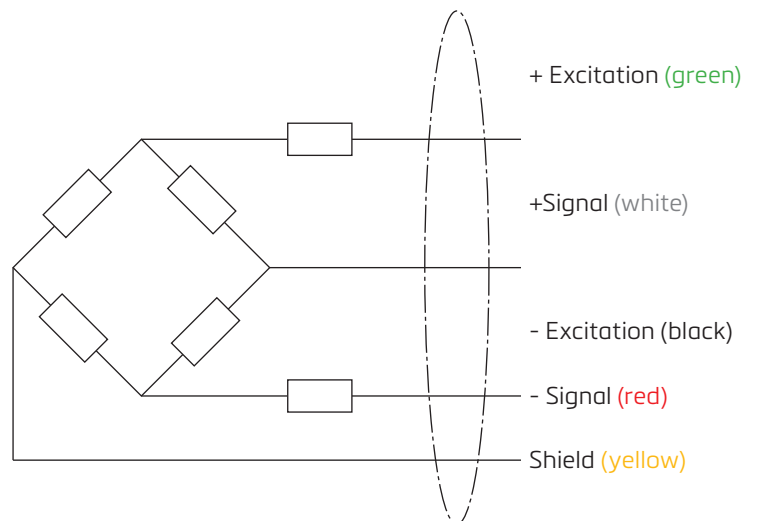
The load cell is provided with a shielded, 4 conductor cable (AWG 24).

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.