



PW6C

Single point load cells

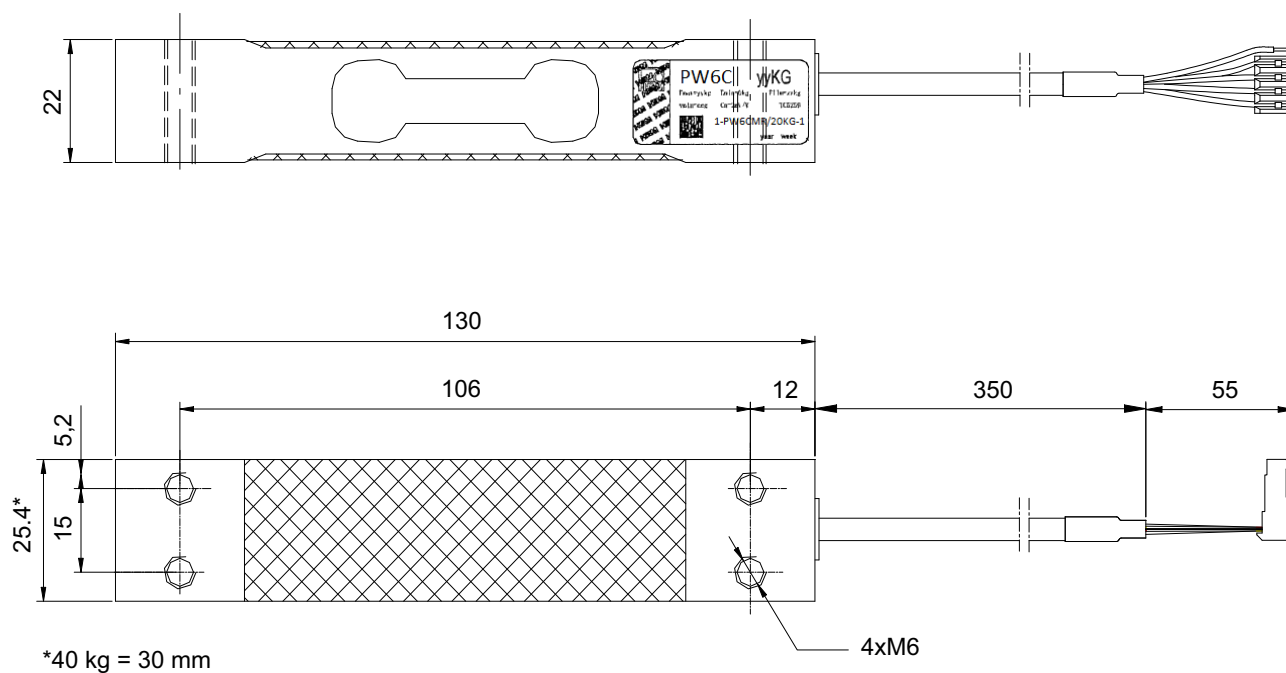
Special features

- Max. capacities: 1.5 kg ... 40 kg
- Aluminum
- Accuracy class C3MR & C6
- Off center load compensated
- Shielded connection cable
- Different cable lengths and other options deliverable

Data sheet



Dimensions (in mm; 1 mm = 0.03937 inches)



Specifications

| Type | | | PW6C... | | | | | | | |
|---|------------------|---------------------------|------------------------------------|-----|---------|----|---------|---------|---------|---------|
| Accuracy class ¹⁾ | | | C3 Multi Range (MR) | | | | | | | |
| Number of load cell verification intervals | n _{LC} | | 3000 | | | | | | | |
| Maximum capacity | E _{max} | kg | 1.5 | 3 | 5 | 10 | 15 | 20 | 30 | 40 |
| Minimum load cell verification interval | v _{min} | g | 0.1 | 0.2 | 0.5 | 1 | | 2 | | 5 |
| Temperature coefficient of zero signal | TK ₀ | % of C _n /10K | ±0.0093 | | ±0.0140 | | ±0.0093 | ±0.0140 | ±0.0093 | ±0.0175 |
| Ratio of minimum verification interval | Y | | 15,000 | | 10,000 | | 15,000 | 10,000 | 15,000 | 8,000 |
| Max. platform size | | mm | 300 x 300 | | | | | | | |
| Sensitivity | C _n | mV/V | 2.2 ±0.2 | | | | | | | |
| Zero signal | | | 0 ±0.12 | | | | | | | |
| Temperature effect on sensitivity ²⁾ in the temperature range +20 ... +40 °C [+68 ... +104 °F] -10 ... +20 °C [+14 ... +68 °F] | TK _C | % of C _n /10 K | ±0.0175 ±0.0117 | | | | | | | |
| Relative reversibility error ²⁾ | d _{hy} | % of C _n | ±0.0166 | | | | | | | |
| Non-linearity ²⁾ | d _{lin} | | ±0.0166 | | | | | | | |
| Ratio of minimum dead load output return | MDLOR | | ±0.0166 | | | | | | | |
| Off-center load error ³⁾ | | | ±0.0233 | | | | | | | |
| Input resistance | R _{LC} | Ω | 300...500 | | | | | | | |
| Output resistance | R ₀ | | 300...500 | | | | | | | |
| Reference excitation voltage | U _{ref} | V | 5 | | | | | | | |
| Nom. range of excitation voltage | B _U | | 1 ... 12 | | | | | | | |
| Max. excitation voltage | | V | 15 | | | | | | | |
| Isolation resistance at 100 V _{DC} | R _{is} | GΩ | > 2 | | | | | | | |
| Nominal (rated) range of ambient temperature | B _T | °C [°F] | -10 ... +40 [+14 ... +104] | | | | | | | |
| Operating temperature range | B _{tu} | | -10 ... +50 [+14 ... +122] | | | | | | | |
| Storage temperature range | B _{tl} | | -25 ... +70 [-13 ... +158] | | | | | | | |
| Limit load | E _L | % of E _{max} | 150 | | | | | | | |
| at max. eccentricity | | mm | 100 | | | | | | | |
| Lateral load limit, static | E _{lq} | % of E _{max} | 300 | | | | | | | |
| Breaking load | E _d | | 300 | | | | | | | |
| Nominal (rated) displacement at E _{max} , approx. | s _{nom} | mm | < 0.5 | | | | | | | |
| Weight, approx. | m | kg | 0.25 | | | | | | | |
| Degree of protection ⁴⁾ | | | IP67 | | | | | | | |
| Material Measuring body Application protection Cable sheath | | | Aluminum Silicone rubber PVC | | | | | | | |

¹⁾ According to OIMLR60 with P_{LC} = 0.7

²⁾ The values for linearity deviation (d_{lin}), relative reversibility error (d_{hy}) and temperature effect on sensitivity (TK_C) are recommended values. The sum of these values remain within the cumulated error limit acc. to OIML R60.

³⁾ According to OIML R76.

⁴⁾ According to EN60529 (IEC529)

Specifications (continuation)

| Type | | | PW6C... | | | | | | |
|---|-----------|----------------------|------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Accuracy class ¹⁾ | | | C6 | | | | | | |
| Maximum number of load cell intervals | n_{LC} | | 6000 | | | | | | |
| Maximum capacity | E_{max} | kg | 3 | 5 | 10 | 15 | 20 | 30 | 40 |
| Minimum LC verification interval | v_{min} | g | 0.2 | 0.5 | 1 | 1 | 2 | 2 | 5 |
| Temperature effect on zero balance | TK_0 | % of C_n / 10 K | ± 0.0093 | ± 0.0140 | ± 0.0140 | ± 0.0093 | ± 0.0140 | ± 0.0093 | ± 0.0175 |
| Max. platform size | | mm | 300 x 300 | | | | | | |
| Sensitivity | C_n | mV/V | 2.2 ± 0.2 | | | | | | |
| Zero signal | | | 0 ± 0.10 | | | | | | |
| Temperature effect on sensitivity ²⁾ in the temperature range +20 ... +40 °C [+68 ... +104 °F] -10 ... +20 °C [+14 ... +68 °F] | TK_C | % of C_n / 10 K | ± 0.0087 ± 0.0058 | | | | | | |
| Relative reversibility error ²⁾ | d_{hy} | % of C_n | ± 0.0083 | | | | | | |
| Non-linearity ²⁾ | d_{lin} | | ± 0.0083 | | | | | | |
| Ratio of minimum dead load output return | DR | | ± 0.0083 | | | | | | |
| Off-center load error ³⁾ | | | ± 0.0116 | | | | | | |

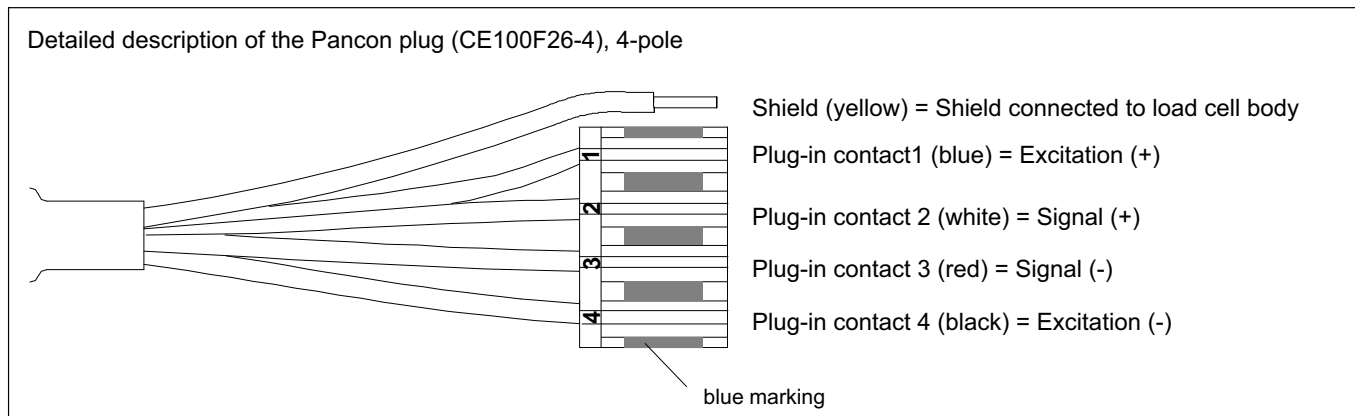
1) According to OIMLR60 with $P_{LC} = 0.7$

2) The values for linearity deviation (d_{lin}), relative reversibility error (d_{hy}) and temperature effect on sensitivity (TK_C) are recommended values. The sum of these values remain within the cumulated error limit acc. to OIML R60.

3) According to OIML R76.

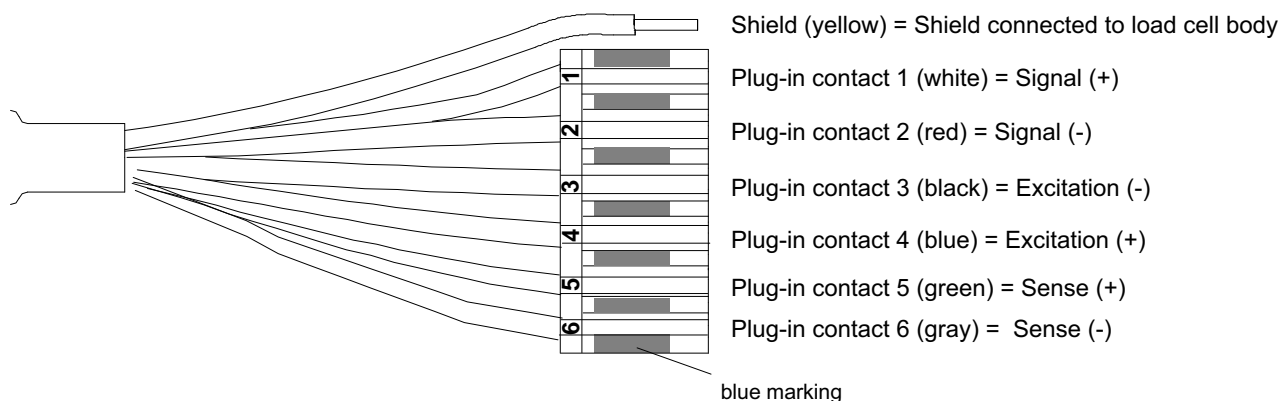
Wiring code

Connection with 4 wire cable (cable length: 0.35 m)



Connection with 6 wire cable (cable length, selectable: 0.35 m; 1.5 m; 3 m; 6 m)

Detailed description of the Pancon plug (CE100F26-6), 6-pole



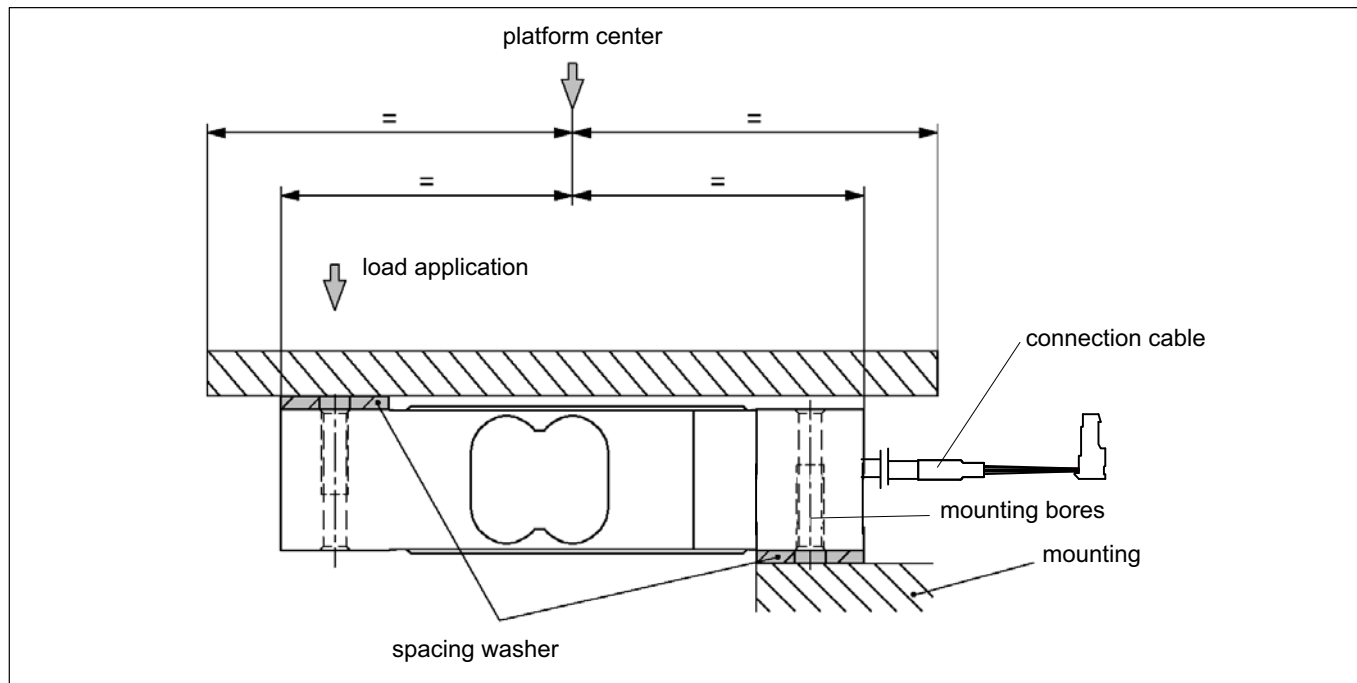
Mounting and Load application

The load cells are fixed at the mounting bores. For the recommended screws and tightening torques refer to the table below:

| Max. capacity | Thread | Min. property class | Tightening torque ¹⁾ |
|---------------|--------|---------------------|---------------------------------|
| 1.5...40 kg | M6 | 8.8 | 10 N·m |

¹⁾ Recommended value for the stated property class. For screw dimensioning please refer to the appropriate information given by the screw manufacturers.

Load must not be applied to the side where the cable connection is located, as this would cause a force shunt.



Ordering codes

PW6C... (Aluminum)

| | |
|---------------|------------------------------|
| Type | PW6C |
| Accuracy | C3-MR (OIML) (Multi Range) |
| Note | Cable length 0.35 m (4 wire) |
| Capacity [kg] | Order no. |
| 1.5 | 1-PW6CMR/1.5KG-1 |
| 3 | 1-PW6CMR/3KG-1 |
| 5 | 1-PW6CMR/5KG-1 |
| 10 | 1-PW6CMR/10KG-1 |
| 15 | 1-PW6CMR/15KG-1 |
| 20 | 1-PW6CMR/20KG-1 |
| 30 | 1-PW6CMR/30KG-1 |
| 40 | 1-PW6CMR/40KG-1 |

K-PW6C-... (Aluminum), optional versions

| | |
|----------------------------------|--|
| Order no. | |
| K-PW6C | |
| Code | Option 1: Mechanical version |
| N | - |
| Code | Option 2: Accuracy |
| MR | C3-MR (OIML) (Multi Range) |
| C6 | C6 (OIML) |
| Code | Option 3: Capacity |
| 1.5 | 1.5 kg [only with option 2 = MR] |
| 3 | 3 kg |
| 5 | 5 kg |
| 10 | 10 kg |
| 15 | 15 kg |
| 20 | 20 kg |
| 30 | 30 kg |
| 40 | 40 kg |
| Code | Option 4: NN |
| N | - |
| Code | Option 5: cable length |
| 4_0.35 | 0,35 m (4 wire), (Standard) |
| 6_0.35 | 0,35 m (6 wire) |
| 6_1.5 | 1,5 m (6 wire) |
| 6_3 | 3 m (6 wire) |
| 6_6 | 6 m (6 wire) |
| Code | Option 6: Miscellaneous |
| N | without |
| A | 2mV/V $\pm 0,1\%$ / 410 Ω $\pm 0,2 \Omega$ (aligned output, suitable for connection in parallel) |
| K-PW6C - N - - - - - N - - - - - | |

Subject to modifications.
All product descriptions are for general information
only. They are not to be understood as a guarantee
of quality or durability.

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