

# PW29...

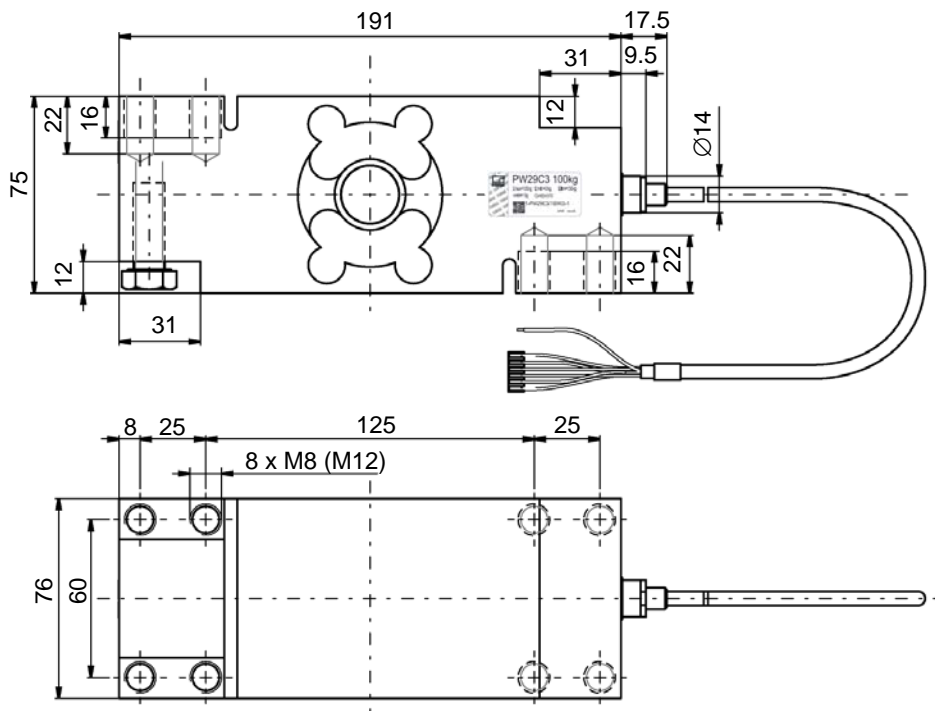
## Single point load cell

### Special features

- Nominal load 100 kg ... 1,000 kg
- Stainless steel
- Hermetically encapsulated (IP68; IP69K)
- Platform sizes 800 x 800 mm
- High ratio of minimum verification interval Y
- Different cable lengths and other options deliverable



Dimensions in mm (1 mm = 0.03937 inches)



## Specifications

| Type   |  |                | PW29...   |              |              |              |              |
|--|--|----------------|---|--------------|--------------|--------------|--------------|
| Accuracy class <sup>1)</sup>   |  |                | C3 Multi Range (MR)   |              |              |              |              |
| Number of load cell verification intervals   | $n_{LC}$   |                | 3000  |              |              |              |              |
| Maximum capacity   | $E_{max}$  | kg             | 100   | 250          | 500          | 750          | 1000         |
| Minimum load cell verification interval  | $v_{min}$  | g              | 10  | 20           | 50           | 100          | 100          |
| Ratio of minimum verification interval   | Y  |                | 10,000  | 12,500       | 10,000       | 7,500        | 10,000       |
| Temperature coefficient of the zero signal per 10 K  | $TK_0$   | % of $C_n$     | $\pm 0.0140$  | $\pm 0.0112$ | $\pm 0.0140$ | $\pm 0.0186$ | $\pm 0.0140$ |
| Maximum platform size  |  | mm             | 800 x 800   |              |              |              |              |
| Nominal (rated) sensitivity  | $C_n$  | mV/V           | $2.0 \pm 0.2$   |              |              |              |              |
| Zero signal error  |  |                | $\pm 0.1$   |              |              |              |              |
| Temperature coefficient of the sensitivity per 10 K <sup>2)</sup> in the temperature range<br>+20 to +40 °C<br>-10 to +20 °C | $TK_C$   | % of $C_n$     | $\pm 0.0175$<br>$\pm 0.0117$  |              |              |              |              |
| Non-linearity <sup>2)</sup>  | $d_{lin}$  |                | $\pm 0.0166$  |              |              |              |              |
| Relative reversibility error <sup>2)</sup>   | $d_{hy}$   |                | $\pm 0.0166$  |              |              |              |              |
| Minimum dead load output return  | MDLOR  |                | $\pm 0.0166$  |              |              |              |              |
| Off-center load error <sup>3)</sup>  |  | ppm            | $\leq 233$  |              |              |              |              |
| Input resistance   | $R_{LC}$   | $\Omega$       | $380 \pm 15$  |              |              |              |              |
| Output resistance  | $R_0$  |                | 300 ... 500   |              |              |              |              |
| Reference excitation voltage   | $U_{ref}$  | V              | 5   |              |              |              |              |
| Nominal (rated) range of the excitation voltage  | $B_U$  |                | 1 to 12   |              |              |              |              |
| Maximum excitation voltage   |  |                | 15  |              |              |              |              |
| Insulation resistance at 100 V <sub>DC</sub>   | $R_{is}$   | G $\Omega$     | $> 2$   |              |              |              |              |
| Nominal (rated) temperature range  | $B_T$  | °C             | -10 to +40  |              |              |              |              |
| Operating temperature range  | $B_{tu}$   |                | -10 to +50  |              |              |              |              |
| Storage temperature range  | $B_{tl}$   |                | -25 to +70  |              |              |              |              |
| Limit load at max. 100 mm eccentricity   | $E_L$  | % of $E_{max}$ | 150   |              |              |              |              |
| Limit lateral loading, static  | $E_{lq}$   |                | 300   |              |              |              |              |
| Breaking load  | $E_d$  |                | 300   |              |              |              |              |
| Nominal (rated) displacement <sup>4)</sup>   | $s_{nom}$  | mm             | $< 0.2$   | $< 0.2$      | $< 0.25$     | $< 0.25$     | $< 0.3$      |
| Displacement at $1/3 \cdot E_{max}$ and 283 mm eccentricity  | $s_{exz}$  |                | $< 0.1$   | $< 0.15$     | $< 0.2$      | $< 0.25$     | $< 0.3$      |
| Weight, approx.  | m  | kg             | 6.3   |              |              |              |              |
| Degree of protection <sup>7)</sup>   |  |                | IP68 (test conditions 1 m water column / 100 h);<br>IP69K (water at high pressure, steam cleaner) <sup>5)</sup> |              |              |              |              |
| Cable length (standard)  |  | m              | 3   |              |              |              |              |
| Material:  | Measuring body, cable entry<br>Cable sheath<br>Cover |                | Steel 1.4545 <sup>6)</sup><br>PVC<br>Steel 1.6908   |              |              |              |              |

<sup>1)</sup> As per OIML R60, with  $P_{LC} = 0.7$

<sup>2)</sup> The values for non-linearity ( $d_{lin}$ ), relative reversibility error ( $d_{hy}$ ) and temperature coefficient of sensitivity ( $TK_C$ ) are recommended values. The sum of these values is within the cumulated error limit according to OIML R60

<sup>3)</sup> As per OIML R76

<sup>4)</sup> Loading with  $E_{max}$  and center of gravity in center of load cell

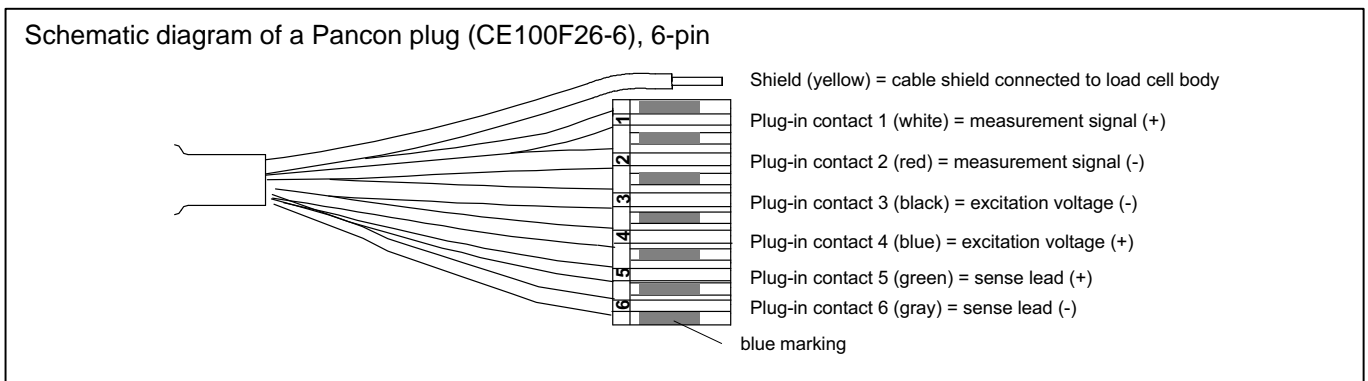
<sup>5)</sup> Based on DIN 40050, Part 9 specifications, for road vehicles

<sup>6)</sup> As per EN 10088-1

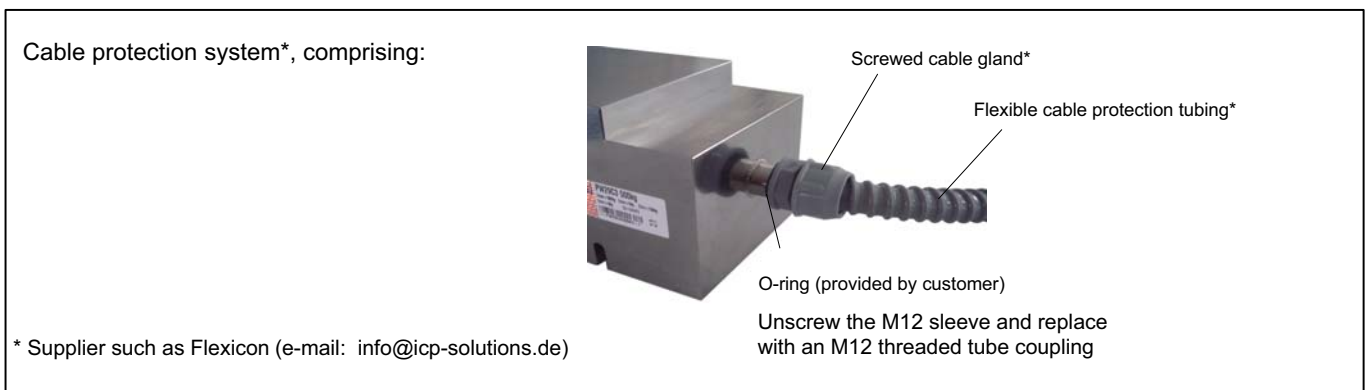
<sup>7)</sup> As per EN 60529 (IEC 529)

## Cable assignment

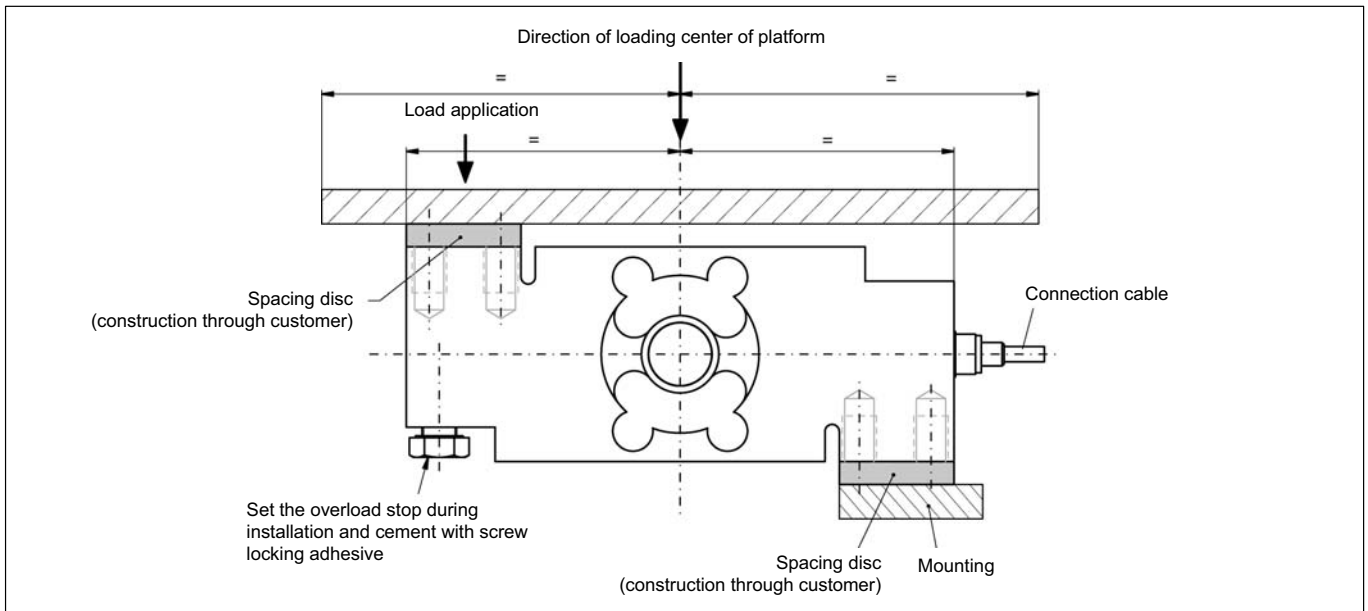
Connection with 6-wire cable (choice of cable lengths: 3 m, 6 m)



## Cable protection (provided by customer)



## Mounting instructions



| Maximum capacity   | Socket head cap screw | Maximum tightening torque |
|--------------------|-----------------------|---------------------------|
| 100 kg ... 250 kg  | M8 10.9               | 35 N·m                    |
| 500 kg ... 1000 kg | M12 10.9              | 110 N·m                   |

## Product numbers (overview)

PW29... (stainless steel, hermetically sealed)

| Type             | PW29...                                   |
|------------------|---|
| Accuracy class   | C3-MR (OIML)c                             |
| Comments         | Cable length 3 m (six-wire configuration) |
| Maximum capacity | Order number                              |
| 100 kg           | 1-PW29C3/100KG-1                          |
| 250 kg           | 1-PW29C3/250KG-1                          |
| 500 kg           | 1-PW29C3/500KG-1                          |
| 750 kg           | 1-PW29C3/750KG-1                          |
| 1000 kg          | 1-PW29C3/1T-1                             |

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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