PW2D…

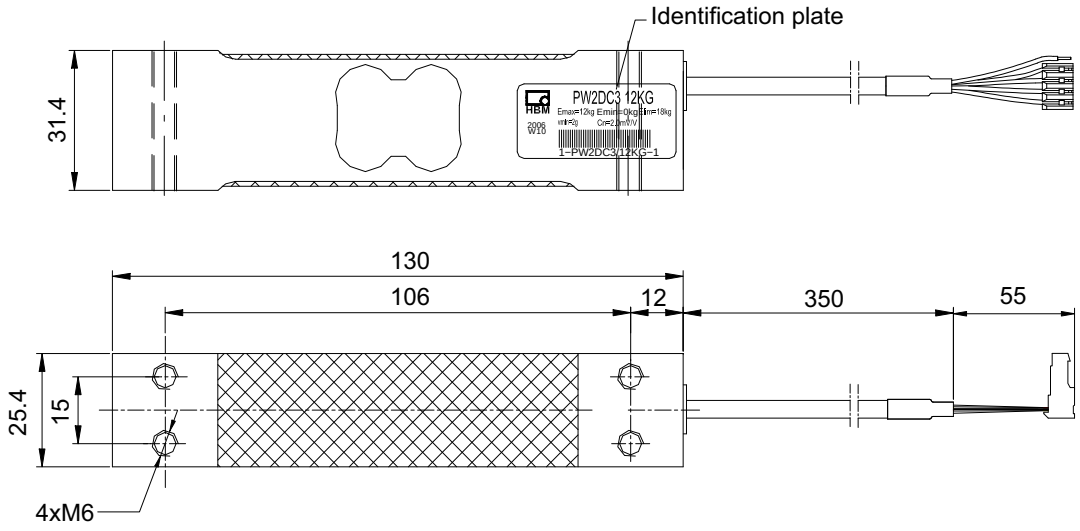
Single point load cells

Special features

- **Max. capacities: 7.2 kg ... 72 kg**
- **Aluminum**
- **High ratio of minimum verification interval Y**
- **Optimized for dynamic weighing applications**
- **Shielded connection cable**
- **Different cable lengths and other options available**

Data sheet

Dimensions (in mm; 1 mm= 0.03937 inches)



Specifications

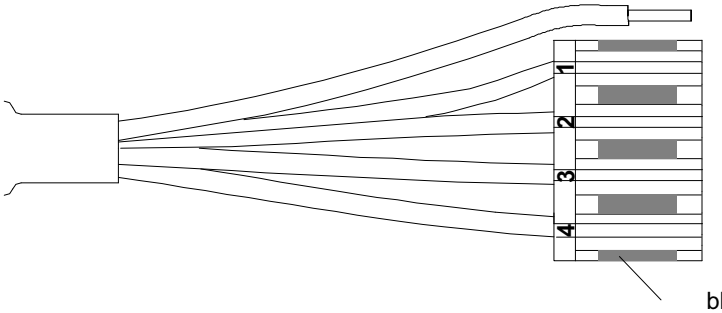
Type			**PW2D...**				
Accuracy class[1]			C3, C3MR				
Maximum number of load cell intervals	n_{LC}		3000				
Maximum capacity	E_{max}	kg	7.2	12	18	36	72
Minimum LC verification interval (Accuracy class C3MR)	v_{min}	g	0.5	1	2	5	10
Temperature effect on zero balance (Accuracy class C3MR)	TK_0	% of C_n/ 10 K	± 0.0097	± 0.0116	± 0.0155	± 0.0194	± 0.0194
Ratio of minimum verification interval	Y		14,000	12,000	9,000	7,200	
Max. platform size		mm	380 x 380				
Sensitivity	C_n	mV/V	2.0 ±0.2 (Option 6: A = 2mV/V ±0.1%)				
Zero signal		mV/V	0 ±0.1				
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				
Linearity deviation[2]	d_{lin}		±0.0166				
Minimum dead load output return	DR		±0.0166				
Off-center load error [3]			±0.0233				
Input resistance	R_{LC}	Ω	300...500				
Output resistance	R_0		300...500 (Option 6: A = 410 Ω ±0.2 Ω)				
Reference excitation voltage	U_{ref}	V	5				
Nominal range of excitation voltage	B_u		1 ... 12				
Maximum excitation voltage			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	160				
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	0.15	0.13	0.12	0.12	0.13
Natural frequency, approx.		Hz	340	460	600	840	1140
Weight, approx.	m	kg	0.25				
Degree of protection[4]			IP67				
Material Measuring body Application protection Cable sheath			 Aluminum Silicone caoutchouc 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 according to OIML R60.
3) According to OIML R76.
4) According to EN 60 529 (IEC 529)

Wiring code

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

Detailed description of the Pancon plug (CE100F26-4), 4-pole



Shield (yellow) = Shield connected to load cell body

Plug-in contact 1 (blue) = Excitation (+)

Plug-in contact 2 (white) = Signal (+)

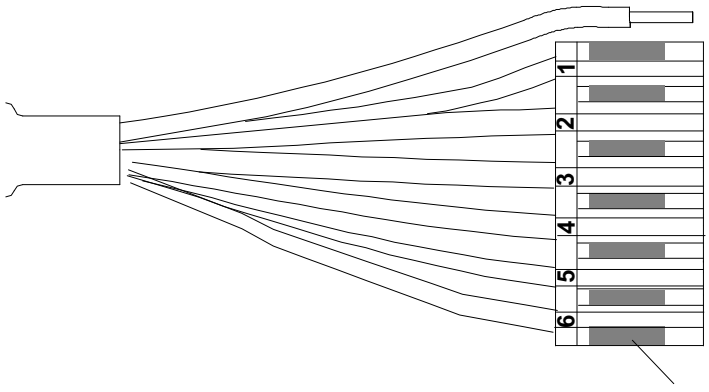
Plug-in contact 3 (red) = Signal (-)

Plug-in contact 4 (black) = Excitation (-)

blue marking

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



Shield (yellow) = Shield connected to load cell body

Plug-in contact 1 (white) = Signal (+)

Plug-in contact 2 (red) = Signal (-)

Plug-in contact 3 (black) = Excitation (-)

Plug-in contact 4 (blue) = Excitation (+)

Plug-in contact 5 (green) = Sense (+)

Plug-in contact 6 (gray) = Sense (-)

blue marking

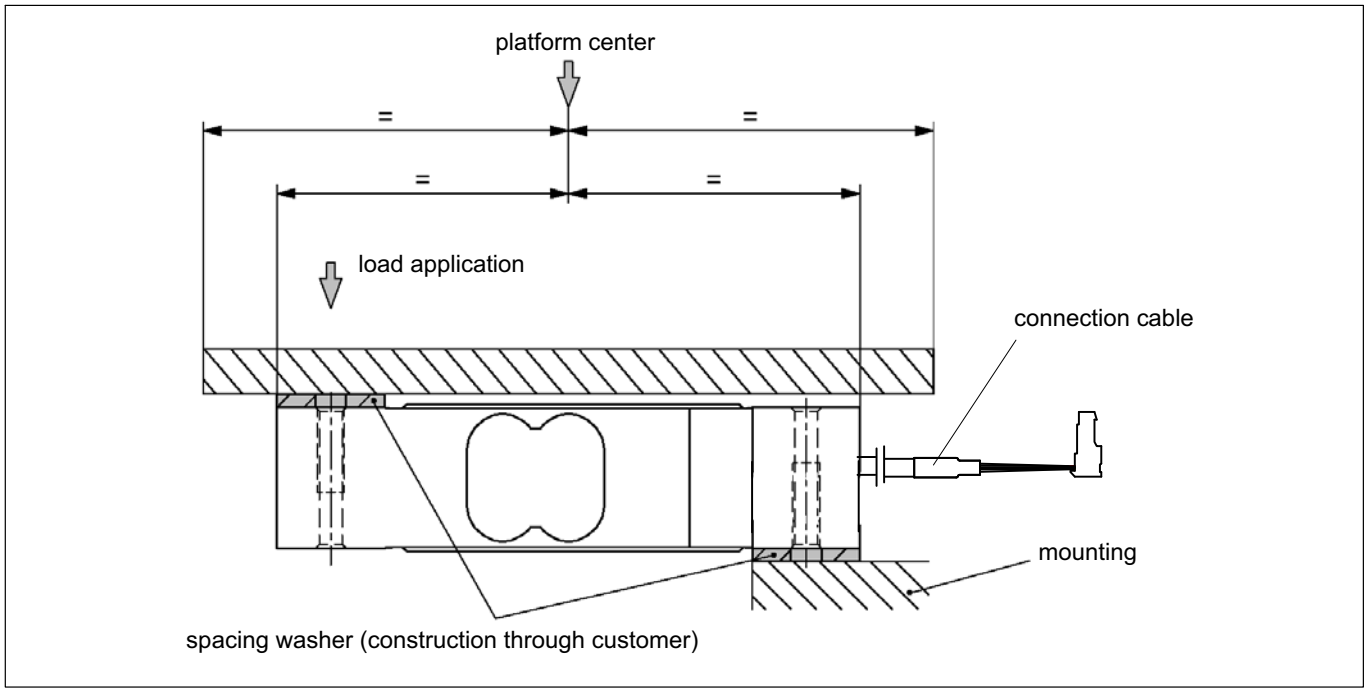
Mounting and load application

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)]
7.2...36 kg	M6	8.8	6 N·m
72 kg	M6	10.9	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 designations

PW2D… / K-PW2D-…
Optimized for dynamic applications

PW2D… (Aluminium)

Type	PW2D
Accuracy	C3-MR (OIML) (Multi Range)
Note	Cable length 0.35 m (4 wire)

Capacity	**Order no.**
7,2 kg 12 kg 18 kg	1-PW2DC3/7.2KG-1 1-PW2DC3/12KG-1 1-PW2DC3/18KG-1
36 kg 72 kg	1-PW2DC3/36KG-1 1-PW2DC3/72KG-1

K-PW2D… (Aluminum), optional versions

Order no.
K-PW2D

Code	*Option 1: Mechanical version*
N	-

Code	*Option 2: Accuracy*
C3MR	C3-MR (OIML) (Multi Range)

Code	*Option 3: Capacity*
7.2	7.2 kg
12	12 kg
18	18 kg
36	36 kg
72	72 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 ±0.1% / 410 Ohms ±0.2 Ohms (aligned output, suitable for connection in parallel)

K-PW2D	-	N	-					-				-	N	-							-	

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