

# PW2D...

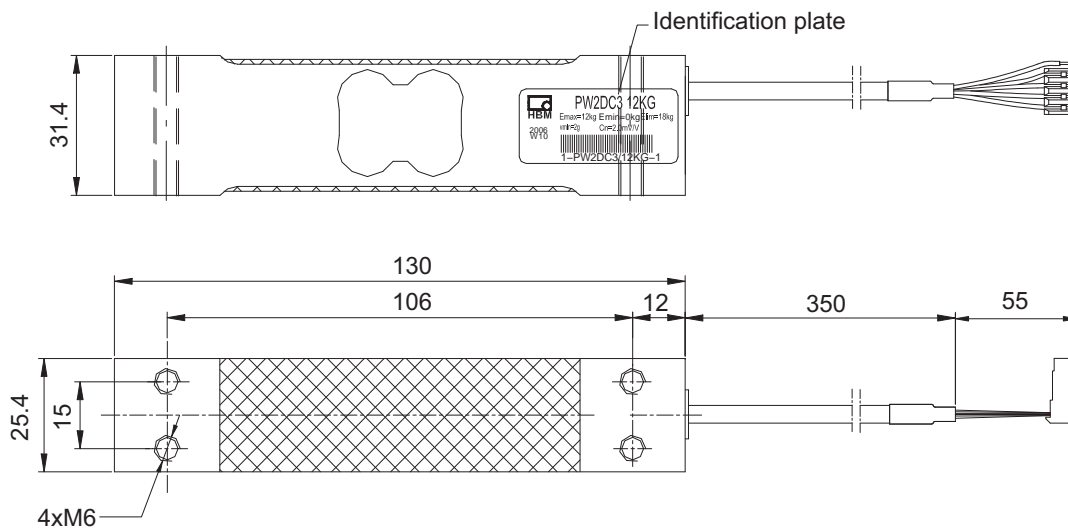
## Single point load cells



### 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

Dimensions (in mm; 1 mm= 0.03937 inches)



# Specifications

Type			PW2D...				
Accuracy class according to OIML R60 <sup>1)</sup>			C3 Multi Range (MR)				
Maximum number of load cell intervals	$n_{LC}$		3000				
Maximum capacity	$E_{max}$	kg	7.2	12	18	36	72
Minimum LC verification interval	$v_{min}$	g	0.5	1	2	5	10
Temperature effect on zero balance	$TK_0$	% of $C_n$ / 10 K	±0.0097	±0.0116	±0.0155	±0.0194	±0.0194
Ratio of minimum verification interval	Y		14,400	12,000	9,000	7,200	
Accuracy class according to NTEP <sup>2)</sup>			III S				
Maximum number of load cell intervals	$n_{LC}$		3000				
Maximum capacity	$E_{max}$	kg	7.2	12	18	36	72
Minimum LC verification interval	$v_{min}$	g	0.5	1	2	5	10
Ratio of minimum verification interval	Y		14,400	12,000	9,000	7,200	
<b>General specifications</b>							
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 <sup>3)</sup> 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 <sup>3)</sup>	$d_{hy}$	% of $C_n$				±0.0166	
Linearity deviation <sup>3)</sup>	$d_{lin}$					±0.0166	
Minimum dead load output return	DR					±0.0166	
Off-center load error <sup>4)</sup>						±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 <sub>DC</sub>	$R_{is}$	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 at max. 160 mm eccentricity	$E_L$	% of $E_{max}$	150				
Lateral load limit, static	$E_{lq}$		300				
Service load at max. 100 mm eccentricity	$E_U$		150				
Breaking load at max. 20 mm eccentricity	$E_d$		300				
Relative permissible oscillation stress at max. 20 mm eccentricity	$F_{srel}$		70				
Nominal (rated) displacement at $E_{max}$ , approx.	$s_{nom}$		mm	0.15	0.13	0.12	0.12
Natural frequency, approx.		Hz	340	460	600	840	1140
Weight, approx.	m	kg	0.25				
Degree of protection <sup>5)</sup>			IP67				
Material Measuring body Application protection Cable sheath			Aluminum Silicone caoutchouc PVC				

1) With  $P_{LC} = 0.7$

2) Only with 4 wire cable

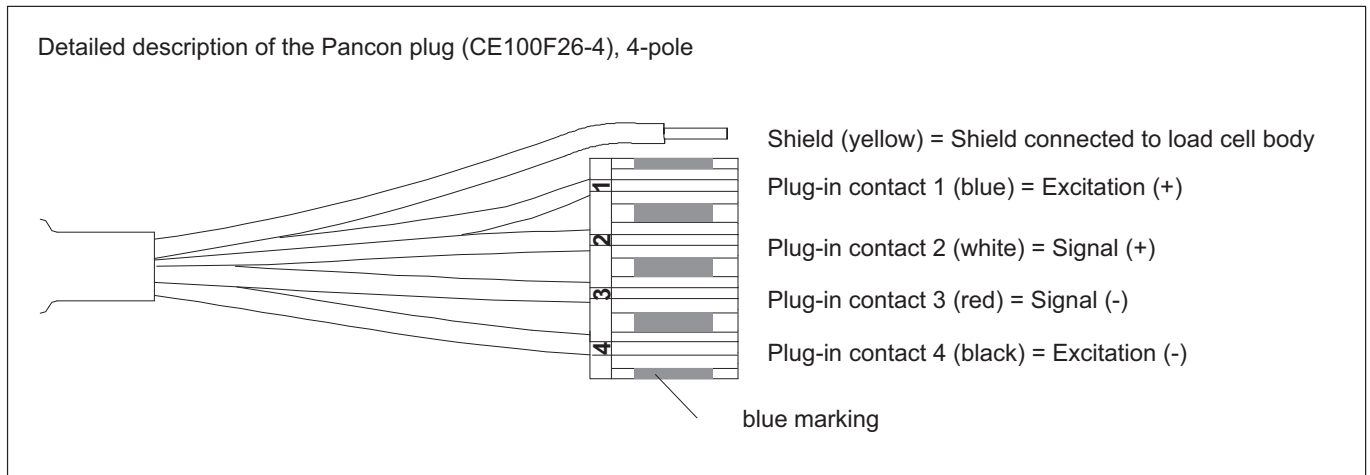
3) The values for linearity deviation ( $d_{lin}$ ), relative reversibility error ( $d_{hy}$ ) and temperature effect on sensitivity ( $TK_C$ ) are recommended values. The sum of these values remain within the cumulated error limit according to OIML R60.

4) According to OIML R76

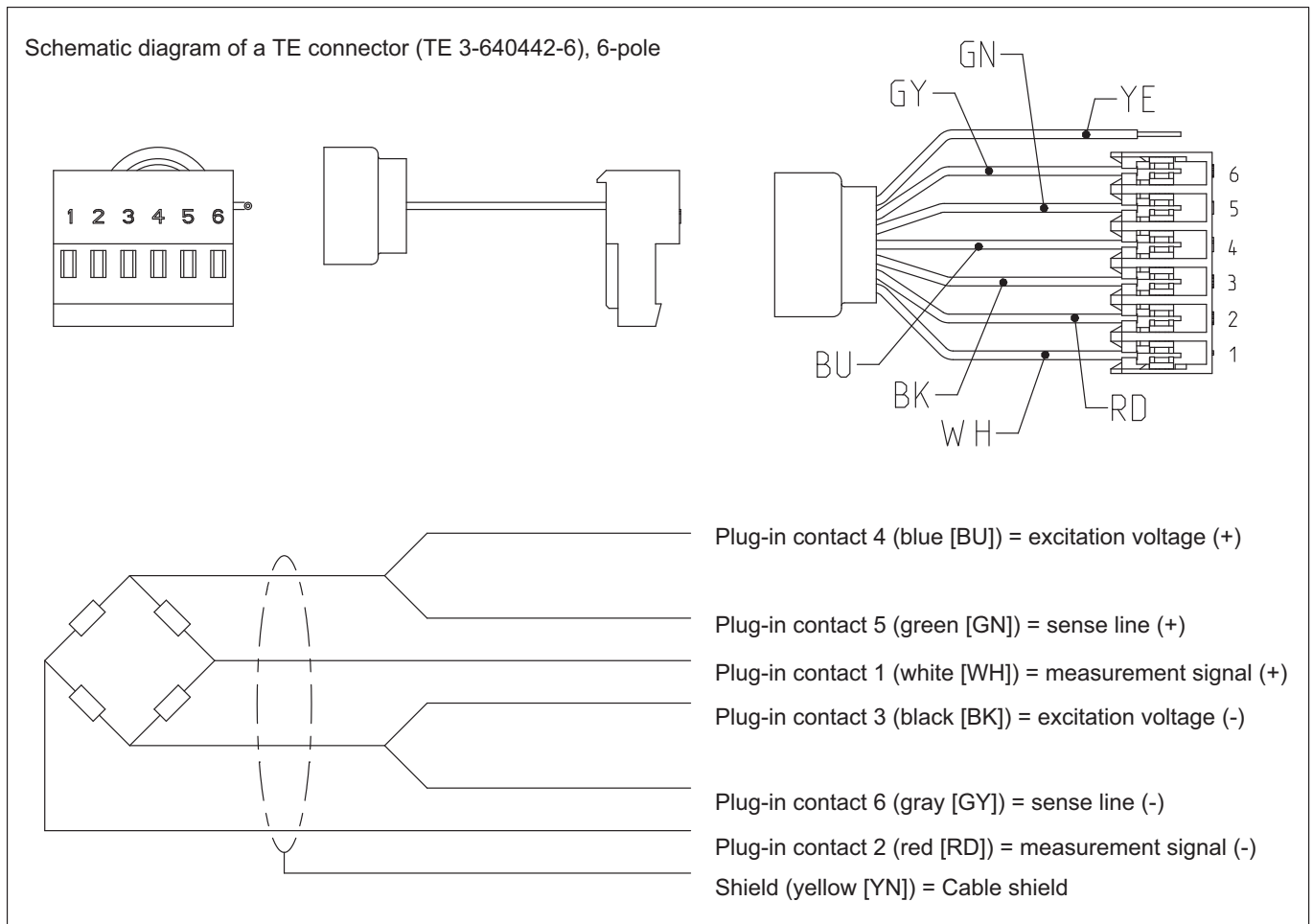
5) According to EN 60 529 (IEC 529)

## Wiring code

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



Connection with 6 wire cable, 6 x 0.14 mm<sup>2</sup>/AWG 26 (cable length, selectable: 0.35 m; 1.5 m; 3 m; 6 m)



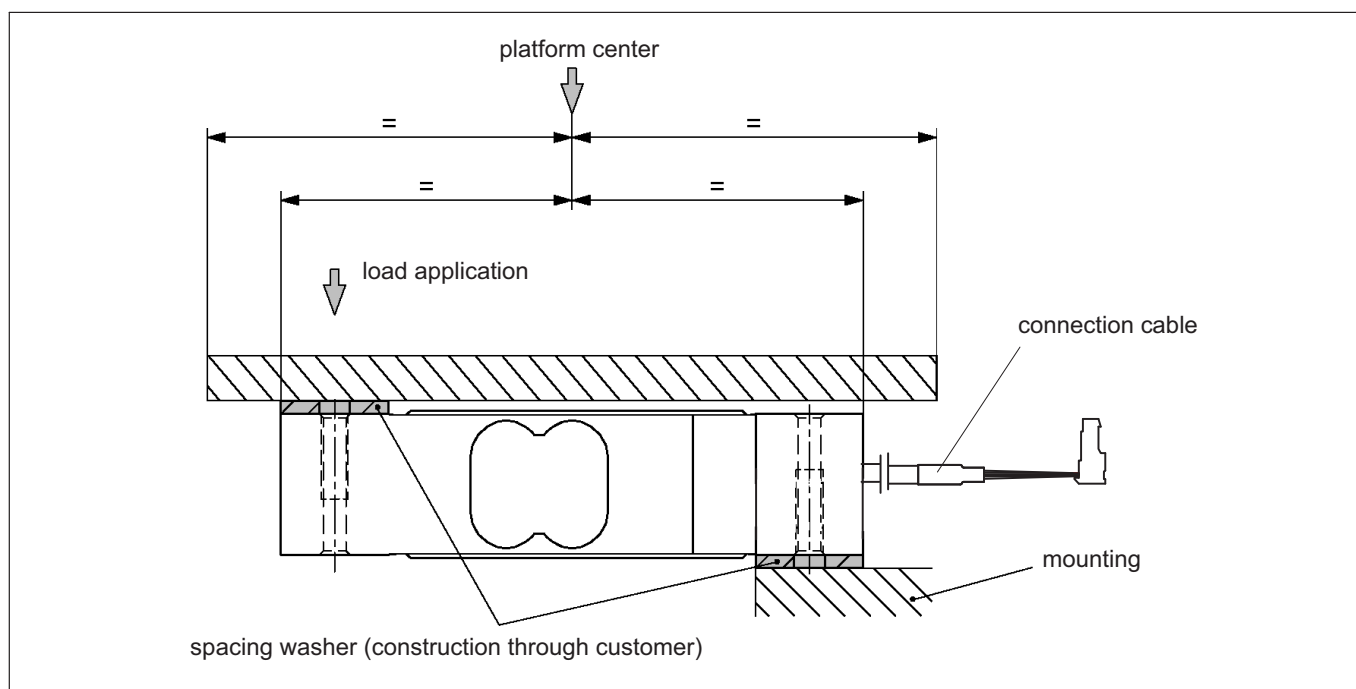
## Mounting and load application

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 <sup>1)</sup>
7.2...36 kg	M6	8.8	6 N·m
72 kg	M6	10.9	10 N·m

<sup>1)</sup> 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	OIML R60 C3MR / NTEP III S 3000
Note	Cable length 0.35 m (4 wire)

Capacity	Order no.
7,2 kg	1-PW2DC3/7.2KG-1
12 kg	1-PW2DC3/12KG-1
18 kg	1-PW2DC3/18KG-1
36 kg	1-PW2DC3/36KG-1
72 kg	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 $\pm 0.1\%$ / 410 Ohms $\pm 0.2$ Ohms (aligned output, suitable for connection in parallel)

K-PW2D	-	N	-	-	-	-	-	-	N	-	-	-	-	-	-	-	-	-
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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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