

# PW6D

## Single point load cells

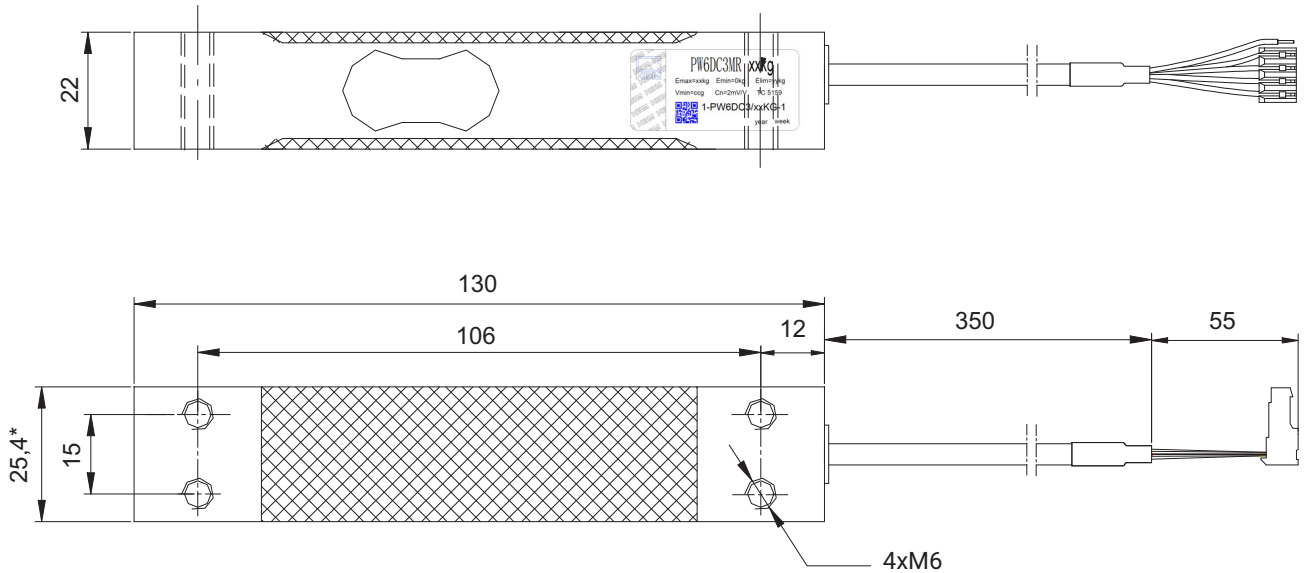
with  **IO-Link**  
option

### SPECIAL FEATURES

- Max. capacities: 3 kg ... 40 kg
- Aluminum
- High ratio of minimum verification interval Y
- Optimized for dynamic weighing applications
- Different cable length and other options deliverable
- Available as LCMC measurement chain with smart option (IO-Link), with digital option (CANopen or RS-485), with analog option (4 ... 20 mA or 0 ... 10 V)



### DIMENSIONS



\* PW6DC3MR/40 kg: 30

Dimensions in mm (1 mm = 0.03937 inches)

## SPECIFICATIONS

Type			PW6D...						
Accuracy class <sup>1)</sup>			C3 Multi Range (MR)						
Maximum number of load cell intervals	$n_{LC}$		3000						
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	$\pm 0.0093$	$\pm 0.0140$	$\pm 0.0140$	$\pm 0.0093$	$\pm 0.0140$	$\pm 0.0093$	$\pm 0.0175$
Ratio of minimum verification interval	Y		15,000	10,000	10,000	15,000	10,000	15,000	8,000
Accuracy class according to NTEP <sup>2)</sup>			III S						
Max. number of load cell intervals	$n_{LC}$		3000						
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
Ratio of minimum verification interval	Y		15,000	10,000	10,000	15,000	10,000	15,000	8,000
General specifications									
Max. platform size		mm	300 x 300						
Sensitivity	$C_n$	mV/V	$2.0 \pm 0.2$						
Zero signal			$0 \pm 0.1$						
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	$\pm 0.0175$ $\pm 0.0117$						
Relative reversibility error <sup>3)</sup>	$d_{hy}$	% of $C_n$	$\pm 0.0166$						
Non-linearity <sup>3)</sup>	$d_{lin}$		$\pm 0.0166$						
Ratio of minimum dead load output return	DR		$\pm 0.0166$						
Off-center load error <sup>4)</sup>			$\pm 0.0233$						
Input resistance	$R_{LC}$	$\Omega$	$380 \pm 38$						
Output resistance	$R_0$		$380 \pm 38$						
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>	$R_{is}$		G $\Omega$	> 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. 100 mm eccentricity	$E_L$	% of $E_{max}$	150						
Lateral load limit, static	$E_{lq}$		300						
Breaking load	$E_d$		300						
Nominal (rated) displacement at $E_{max}$ , approx.	$s_{nom}$	mm	< 0.18	< 0.18	< 0.19	< 0.21	< 0.23	< 0.28	< 0.29
Natural frequency, approx.		Hz	270	390	500	600	675	760	790
Weight, approx.	m	kg	0.25						

Type			PW6D...
Degree of protection <sup>5)</sup>			IP67
Material			Aluminum
Measuring body			Silicone caoutchouc
Application protection			PVC
Cable sheath			

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

2) Only applies to 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.

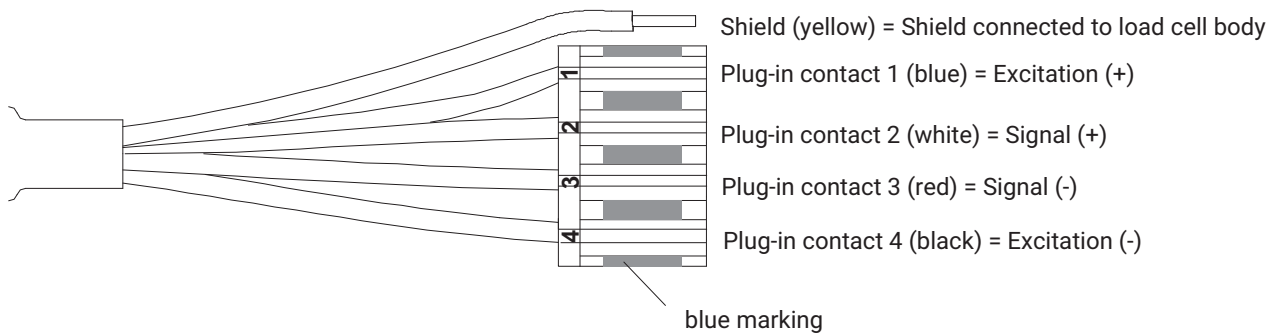
4) According to OIML R76

5) According to EN 60 529 (IEC 529)

## WIRING CODE

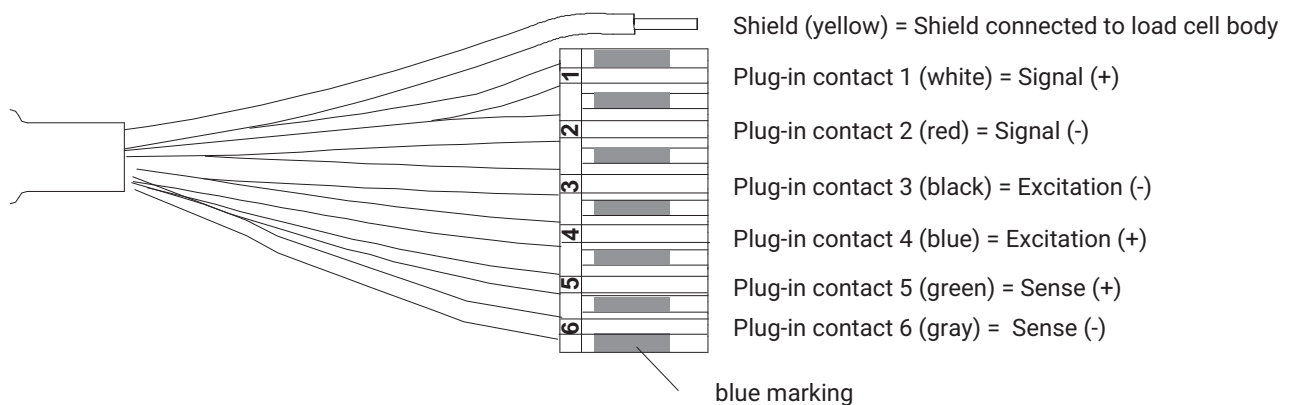
### Connection with 4 wire cable (cable length: 0.35 m)

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



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

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



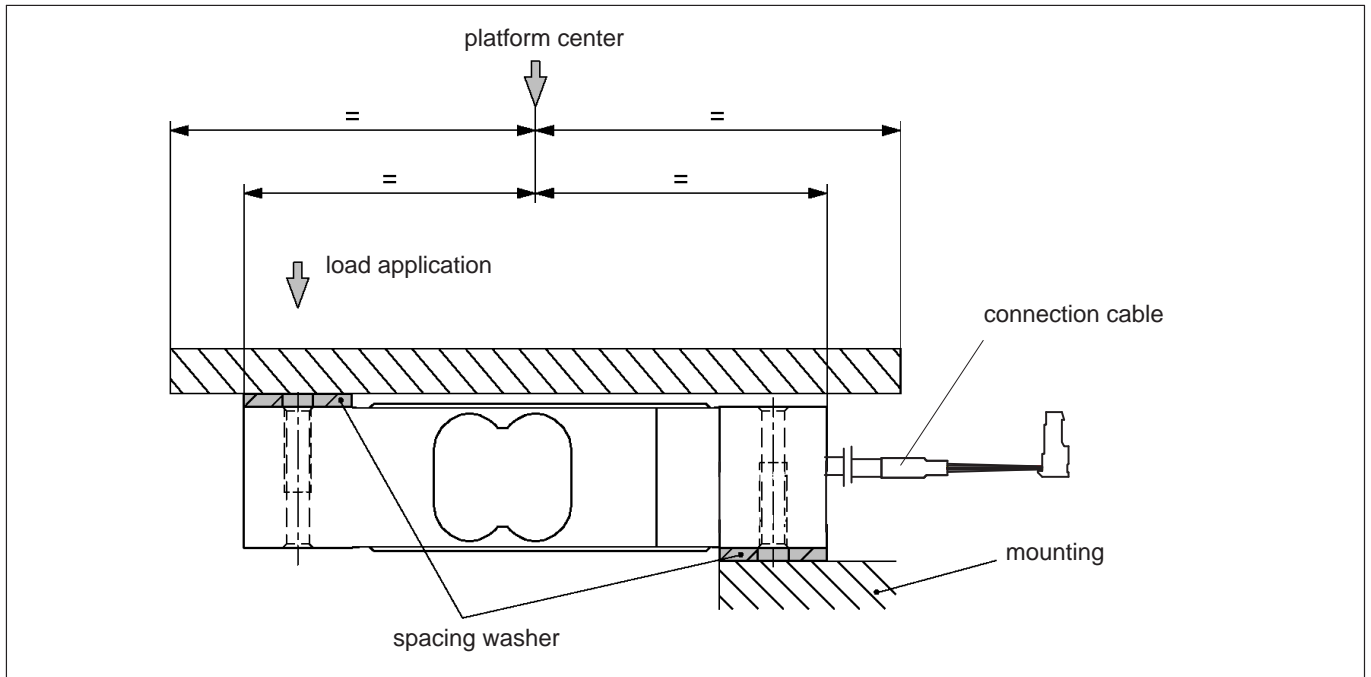
## MOUNTING AND LOAD APPLICATION

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 <sup>1)</sup>
3...40 kg	M6	8.8	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 (OVERVIEW)

### PW6D... (Aluminum)

<b>Type</b>	PW6D
<b>Accuracy</b>	OIML R60 C3MR / NTEP III S 3000
<b>Note</b>	Cable length 0.35 m (4 wire)

Capacity [kg]	Order no.
3	1-PW6DC3/3KG-1
5	1-PW6DC3/5KG-1
10	1-PW6DC3/10KG-1
15	1-PW6DC3/15KG-1
20	1-PW6DC3/20KG-1
30	1-PW6DC3/30KG-1
40	1-PW6DC3/40KG-1

### K-PW6D-... (Aluminum), optional versions

K-PW6D		
1	<b>Code</b>	<b>Option 1: Mechanical design</b>
	<b>N</b>	-
2	<b>Code</b>	<b>Option 2: Accuracy class</b>
	<b>MR</b>	C3-MR (OIML) (Multi Range)
3	<b>Code</b>	<b>Option 3: Capacity</b>
	<b>3</b>	3 kg
	<b>5</b>	5 kg
	<b>10</b>	10 kg
	<b>15</b>	15 kg
	<b>20</b>	20 kg
	<b>30</b>	30 kg
<b>40</b>	40 kg	
4	<b>Code</b>	<b>Option 4: NN</b>
	<b>N</b>	-
5	<b>Code</b>	<b>Option 5: Cable length</b>
	<b>4_0.35</b>	0.35 m (4 wire) (standard)
	<b>6_0.35</b>	0.35 m (6 wire)
	<b>6_1.5</b>	1.5 m (6 wire)
	<b>6_3</b>	3 m (6 wire)
<b>6_6</b>	6 m (6 wire)	
6	<b>Code</b>	<b>Option 6: Other</b>
	<b>N</b>	Without
	<b>A</b>	2 mV/V ±0.1% / 410 Ω ± 0.3 Ω (adjusted output, suitable for parallel connection)

K-PW6D - 

N
---

 - 

M	R
---	---

 - 

--	--

 - 

N
---

 - 

--	--	--	--	--	--

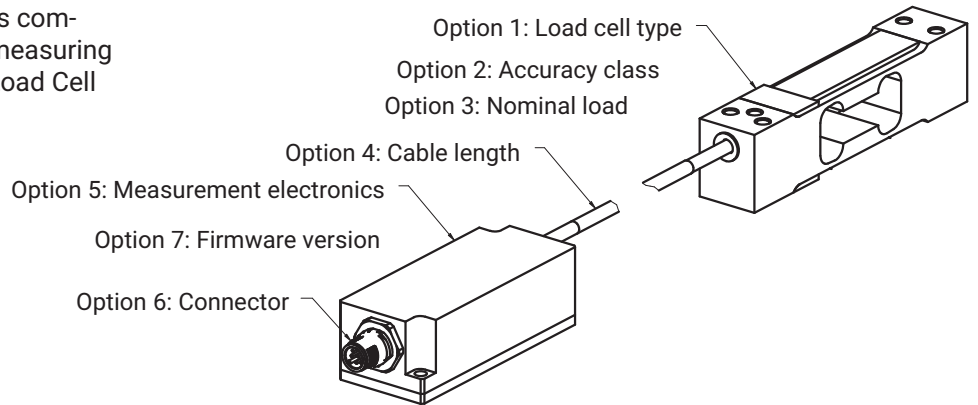
 - 

--

1            2            3            4            5            6

## LCMC - LOAD CELL MEASURING CHAIN

A wide range of famous load cells combined with a choice of excellent measuring electronics makes your tailored Load Cell Measuring Chain.



### K-LCMC-PW6D ordering options

K-LCMC		
1	Code	Option 1: Load cell type
	PW6D	PW6D
2	Code	Option 2: Accuracy class
	MR	C3 MR (OIML)
3	Code	Option 3: Nominal load
	3K00	3 kg
	5K00	5 kg
	10K0	10 kg
	15K0	15 kg
	20K0	20 kg
	30K0	30 kg
40K0	40 kg	
4	Code	Option 4: Cable length
	0M3	0.3 m
	0M5	0.5 m
	1M0	1.0 m
	3M0	3.0 m
5	Code	Option 5: Measurement electronics
	105C	CAN (200 S/s)
	105R	RS485 (200 S/s) 2-wire
	112C	CAN (1,200 S/s)
	112R	RS485 (1,200 S/s) 4-wire
	RM42	Analog 4 ... 20 mA
	RM43	Analog 0 .. 10 V
RMIO	IO-link	
6	Code	Option 6: Connector
	M12A8	M12 A-coded, male, 8-pin
	M12A4	M12 A-coded, male, 4-pin
7	Code	Option 7: FW version
	N	NA
	01	WTIO 1.03.00

K-LCMC - 

P	W	6	D
---	---	---	---

 - 

M	R
---	---

 - 

--	--	--	--

 - 

--	--

 - 

--	--	--	--

 - 

--	--	--	--	--	--

 - 

--	--

1                      2                      3                      4                      5                      6                      7

**Hottinger Brüel & Kjaer GmbH**

Im Tiefen See 45 · 64293 Darmstadt · Germany  
Tel. +49 6151 803-0 · Fax +49 6151 803-9100  
[www.hbkworld.com](http://www.hbkworld.com) · [info@hbkworl.com](mailto:info@hbkworl.com)

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