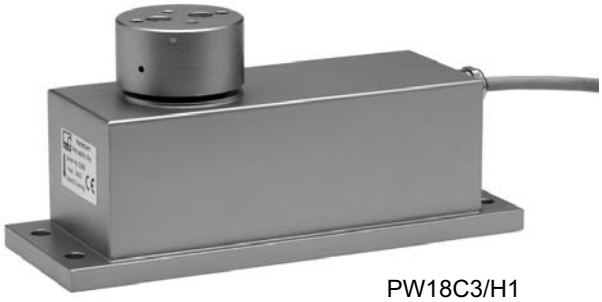
Data sheet

PW18C3
PW18C3/H1

Single point load cells for static and dynamic weighing

PW18C3



PW18C3/H1

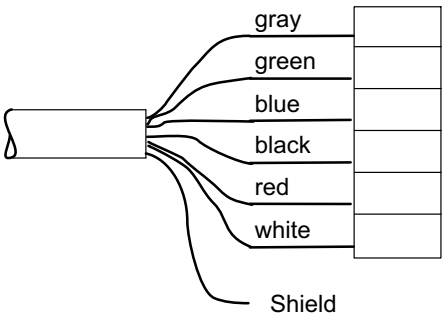
Special features

- **High accuracy**
- **High overload limits**
- **High torsion / bending stiffness**
- **Protection class IP 67**

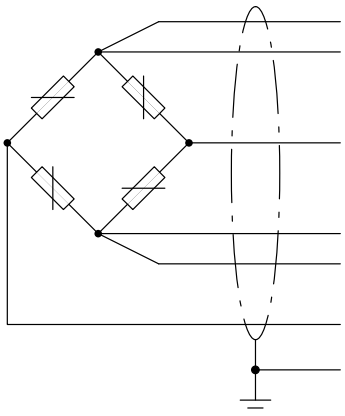
PW18C3/H1 version:

- **Integrated vertical overload stops, effective in positive and negative load direction**
- **Corrosion resistant, laser welded**
- **Barometric pressure balance**
- **Protection class IP 66**

Pancon CE 100F26-6 (6 terminals)



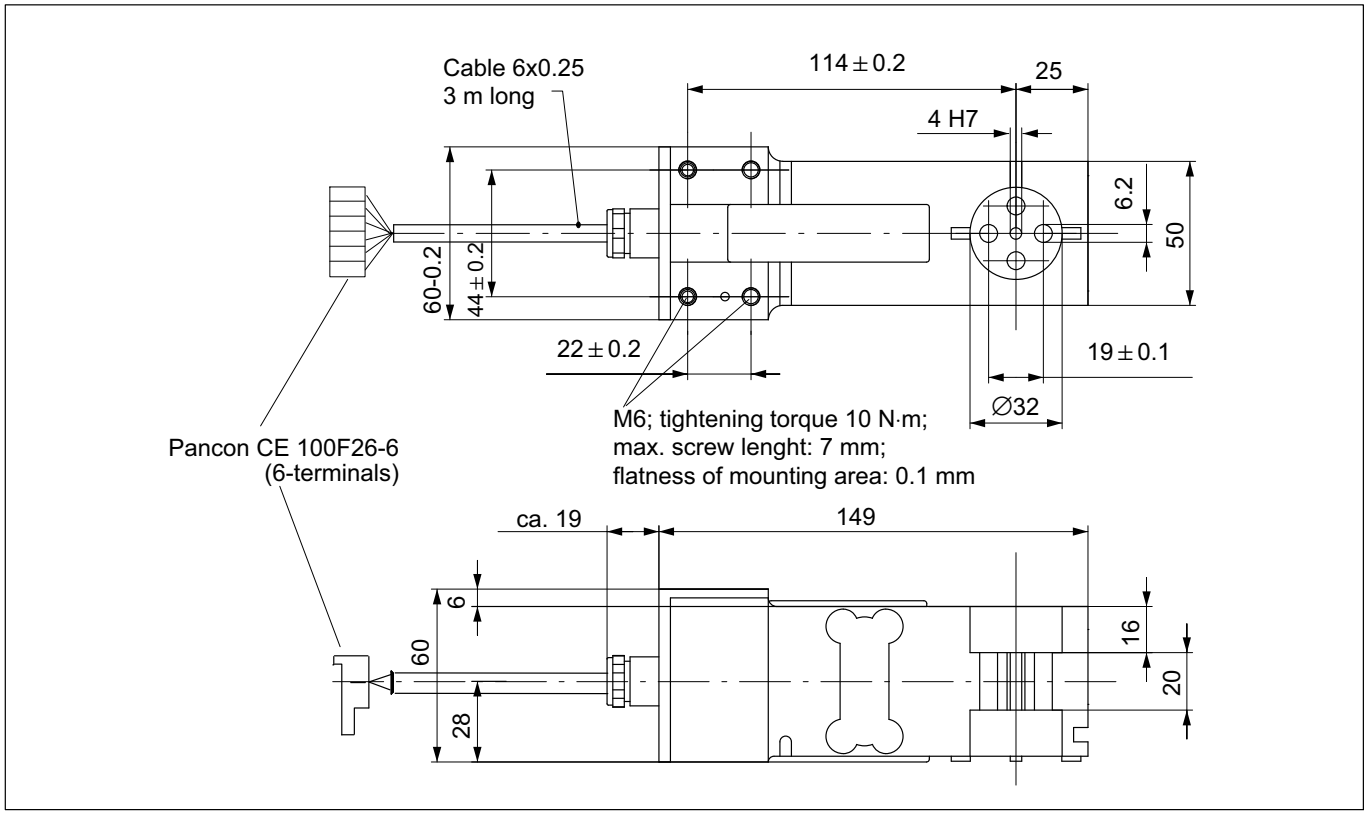
Wiring code (6-wire circuit)



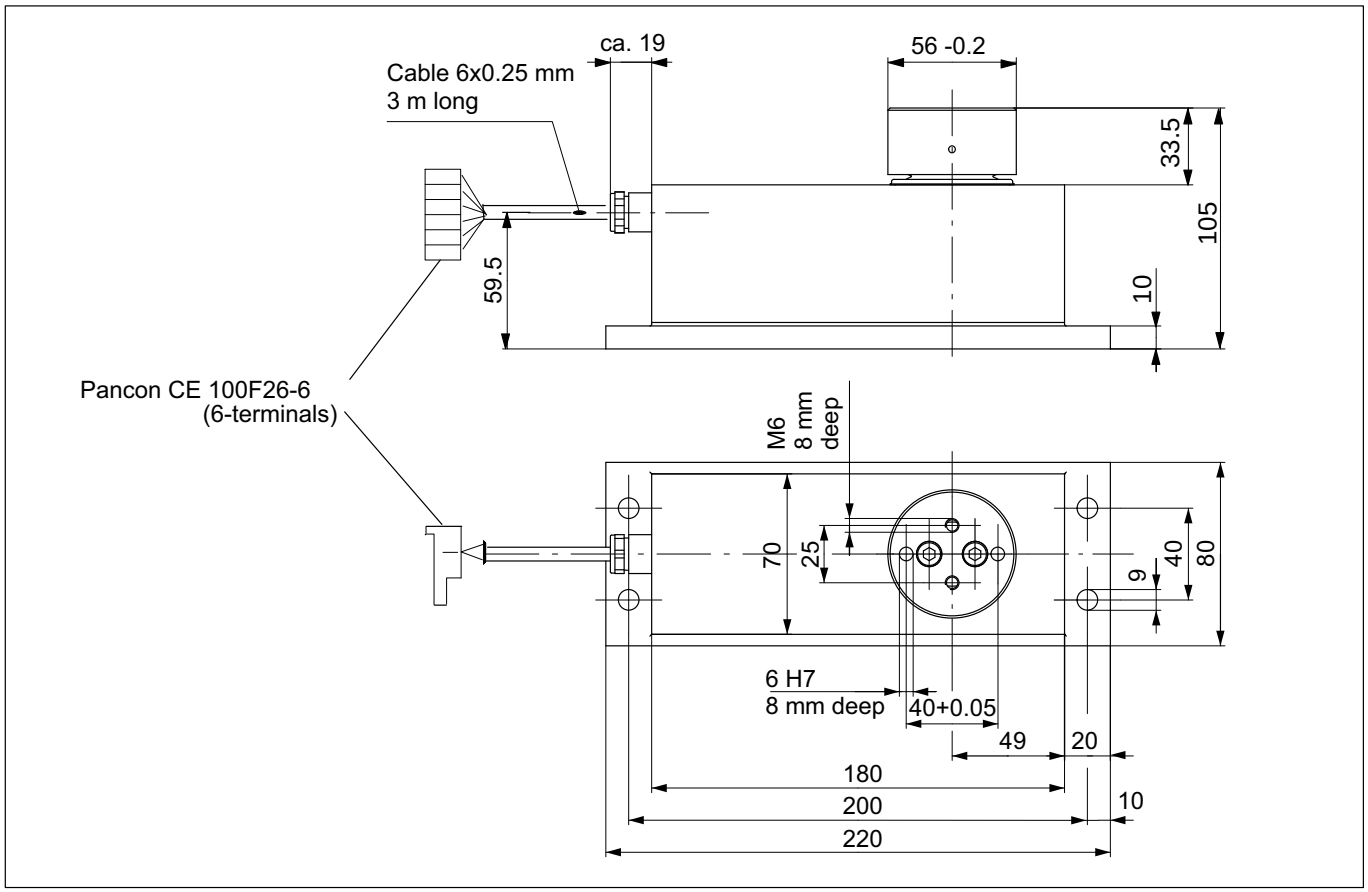
(grey)	Sense (-)
(black)	Excitation (-)
(white)	Signal (+)
(blue)	Excitation (+)
(green)	Sense (+)
(red)	Signal (-)

Shield / wire strand connected with housing

Dimensions of the single point load cell PW18C3 (in mm; 1 mm= 0.03937 inches)



Dimensions of the single point load cell PW18C3/H1 (in mm; 1 mm= 0.03937 inches)

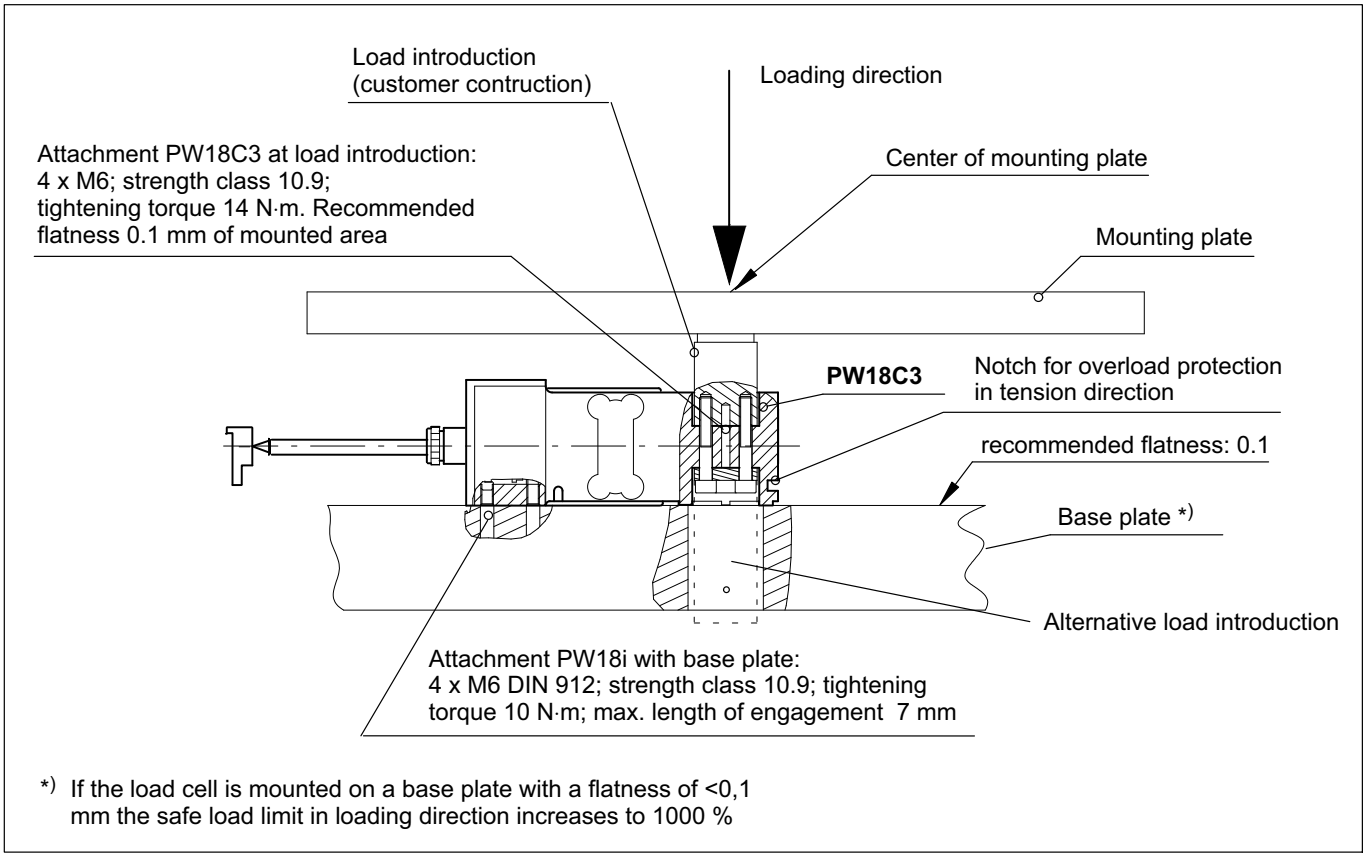


Specifications

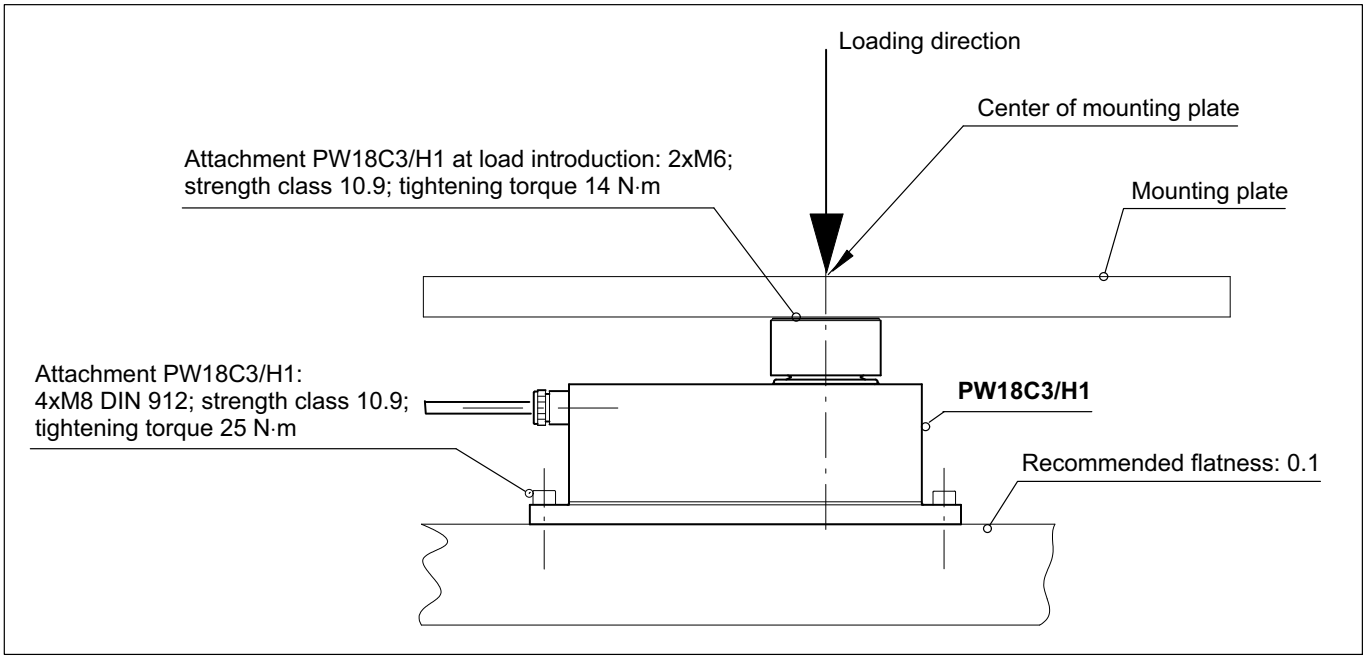
Type			PW18C3					PW18C3/H1				
Accuracy class			C3[1]					C3[1]				
Max. number of load cell intervals	n_{LC}		3000					3000				
Nominal (rated) Load	E_{max}	kg	5	10	20	50	75	5	10	20	50	75
Min. LC verification interval	v_{min}	g	0.5	1	2	5	10	0.5	1	2	5	10
Temperature effect on zero balance	TK_0	% from C_n / 10 K	±0.0140					±0.0140				
Max. Platform size		mm	400 x 400			600 x 500		400 x 400			600 x 500	
Sensitivity	C_n	mV/V	1.0 ±0.1					1.0 ±0.1				
Zero signal			0 ±0.1					0 ±0.1				
Temperature effect on sensitivity [2] +20 ... +40 °C [+68 ... 104°F] -10 ... +20 °C [+14 ... 68°F]	TK_C	% from C_n / 10 K	 ±0.0175 ±0.0117					 ±0.0175 ±0.0117				
Hysteresis error [2]	d_{hy}	% from C_n	±0.0166					±0.0166				
Non-Linearity [2]	d_{lin}		±0.0166					±0.0166				
Minimum dead load output return	DR		±0.0166					±0.0166				
Off center load error [3]			±0.0233					±0.0233				
Input resistance	R_{LC}	Ω	380 ... 500					380 ... 500				
Output resistance	R_0		350 ... 500					350 ... 500				
Reference excitation voltage	U_{ref}	V	5					5				
Nominal range of excitation voltage	B_U		1 ... 12					1 ... 12				
Max. excitation voltage			15					15				
Insulation resistance at 100 V_{DC}	R_{is}	GΩ	> 1					> 1				
Nominal temperature range	B_T	°C [°F]	-10 ... +40 [14 °F ... 104 °F]					-10 ... +40 [14 °F ... 104 °F]				
Service temperature range	B_{tu}		-10 ... +50 [14 °F ... 122 °F]					-10 ... +50 [14 °F ... 122 °F]				
Storage temperature range	B_{tl}		-25 ... +75 [-13 °F ... 167 °F]					-25 ... +75 [-13 °F ... 167 °F]				
Limit load at max. 20 mm eccentricity	E_L	% from E_{max}	300[4]					1000				
Lateral load limit, static	E_{lq}		800					800				
Breaking load	E_d		400					>1000				
Nominal displacement at E_{max}, approx.	s_{nom}	mm	< 0.15					< 0.15				
Weight, approx.	G	kg	0.8					3				
Protection class to EN60529 (IEC529)			IP67					IP66				
Material of the PW18C3 Measuring element Cover Cable sheath			 Aluminium Silicone rubber TPE									
Material of the PW18C3/H1 Housing Membrane Cable sheath								 Stainless steel Silicone caoutchouc R830 TPE				

1) According to OIML R60 with P_{LC} = 0.7
2) The data for Non-Linearity (d_{lin}), Hysteresis error (d_{hy}) and temperature effect on sensitivity (TK_C) are typical values. The sum of these data meets the requirements according to OIML R60.
3) According to OIML R76.
4) In combination with a grinded baseplate up to 1000% (details please see operating manual)

Mounting hints for single point load cells PW18C3 and PW18C3/H1



*) If the load cell is mounted on a base plate with a flatness of <0,1 mm the safe load limit in loading direction increases to 1000 %



Hottinger Baldwin Messtechnik GmbH
Im Tiefen See 45 · 64293 Darmstadt · Germany
Tel. +49 6151 803-0 · Fax +49 6151 803-9100
Email: info@hbm.com · www.hbm.com

B01127_02_E00_01 HBM: public