

PW16A...

Single point load cells

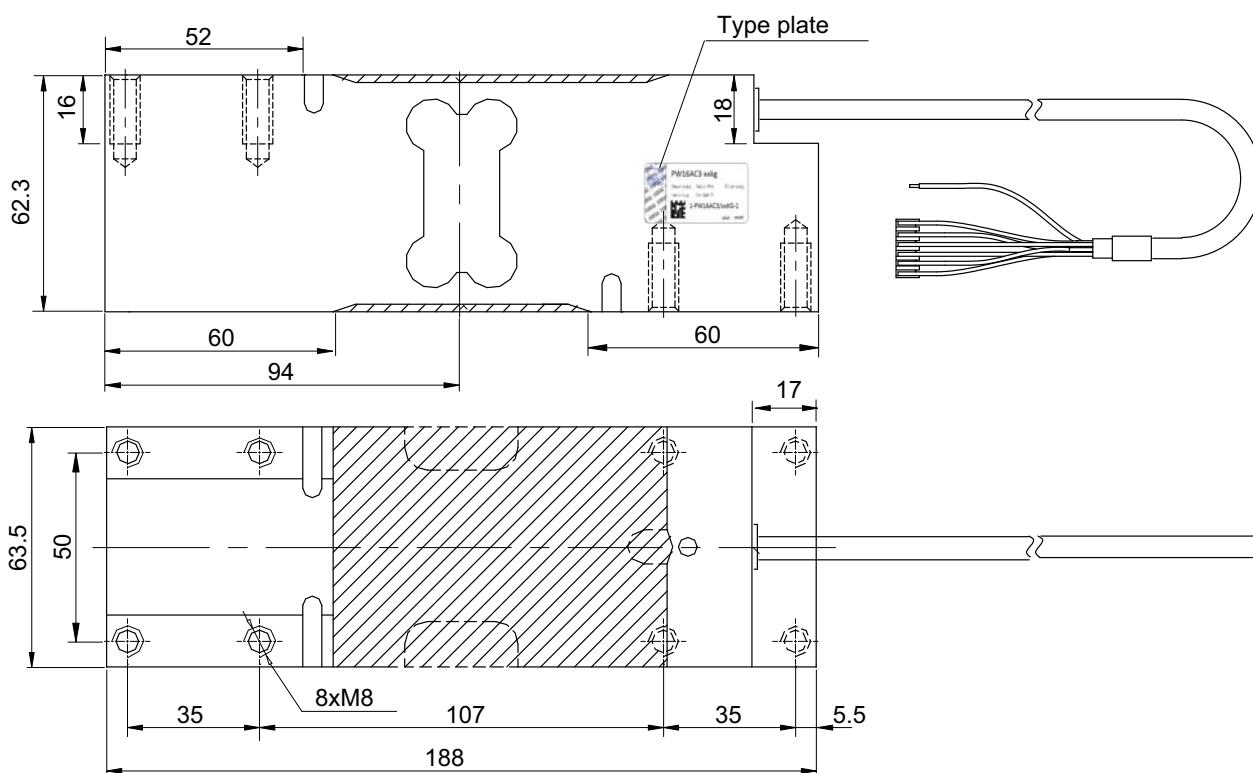
Special features

- Maximum capacities: 30kg ... 660kg
- Aluminum
- High ratio of minimum verification interval Y
- Off-center load compensation
- Complies with EMC directives
- Explosion protection and other options also available

Data sheet



Dimensions in mm (1 mm = 0.03937 inches)



Specifications

Type			PW16A...										
Accuracy class ¹⁾			C3 Multi Range (MR)										
Number of load cell verification intervals	n _{LC}		3000										
Maximum capacity	E _{max}	kg	30	50	75	100	150	200	250	300	500	660	
Minimum load cell verification interval	v _{min}	g	2	5	5	10	10	20	20	20	50	50	
Temperature coefficient of zero signal	TC ₀	% of C _n / 10 K	± 0.0093	± 0.0140	± 0.0093	± 0.0140	± 0.0093	± 0.0140	± 0.0112	± 0.0093	± 0.0140	± 0.0106	
Ratio of minimum verification interval Y	Y		15,000	10,000	15,000	10,000	15,000	10,000	12,500	15,000	10,000	13,200	
Maximum platform size		mm	600 x 600										
Nominal sensitivity	C _n	mV/V	2.0 ± 0.2										
Zero signal			0 ± 0.1										
Temperature coefficient of sensitivity ²⁾ Temperature range +20 ... +40 °C -10 ... +20 °C	TC _S	% of C _n / 10 K	± 0.0175 ± 0.0117										
Relative reversibility error ²⁾	d _{hy}	% of C _n	± 0.0166										
Non-linearity 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										
Reference excitation voltage	U _{ref}	V	5										
Nominal (rated) range of the excitation voltage	B _U		1 ... 12										
Max. excitation voltage			15										
Insulation resistance at 100 V _{DC}	R _{is}	GΩ	> 2										
Nominal (rated) range of the ambient temperature	B _T	°C	-10 ... +40										
Service temp. range	B _{tu}		-10 ... +50										
Storage temp. range	B _{tl}		-25 ... +70										
Limit load	E _L	% of E _{max}	150										
Limit lateral loading, static	E _{lq}		300										
Breaking load	E _d		300										
Rated displacement at E _{max} , approx.	s _{nom}	mm	< 0.5										
Weight, approx.	m	kg	1.8										
Degree of protection ⁴⁾			IP67										
Material: Measuring body Covering agent Cable sheath			Aluminum Silicone rubber PVC										

¹⁾ As per OIMLR60, with P_{LC} = 0.7

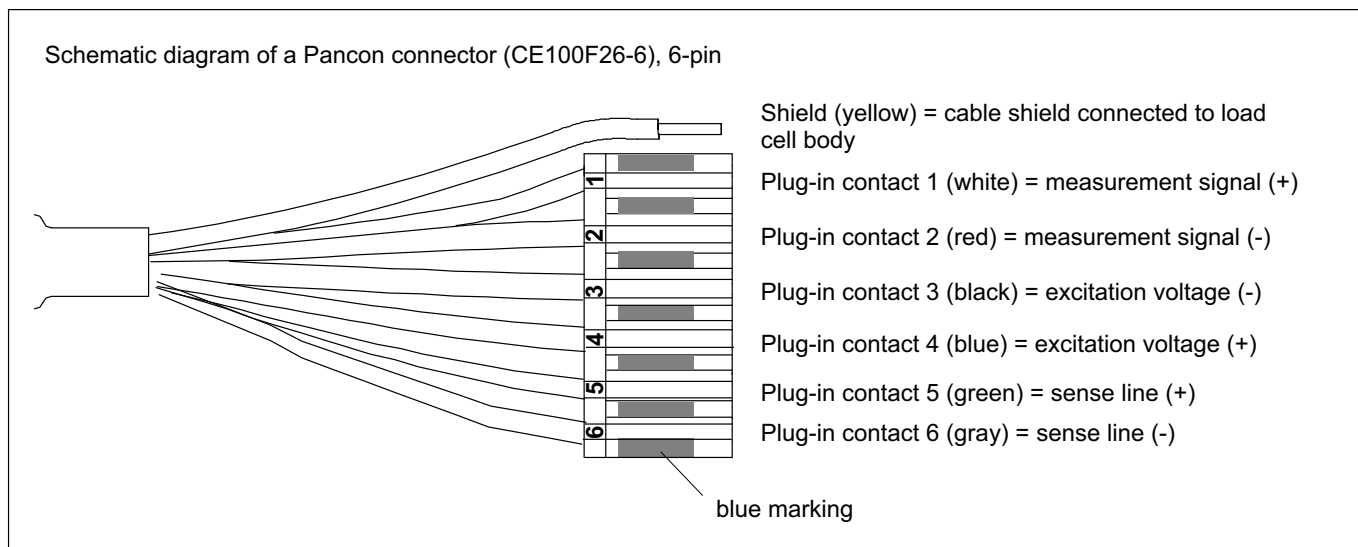
²⁾ If the values for non-linearity (d_{lin}), relative reversibility error (d_{hy}) and temperature coefficient of sensitivity (TC_C) are added together, they are within the cumulated error limit specified in OIML R60.

³⁾ Off-center load deviation per OIML R76.

⁴⁾ EN 60 529 (IEC 529)

Cable assignment

6-wire cable connection (available cable lengths: 1.5 m; 3 m; 6 m; 12 m)



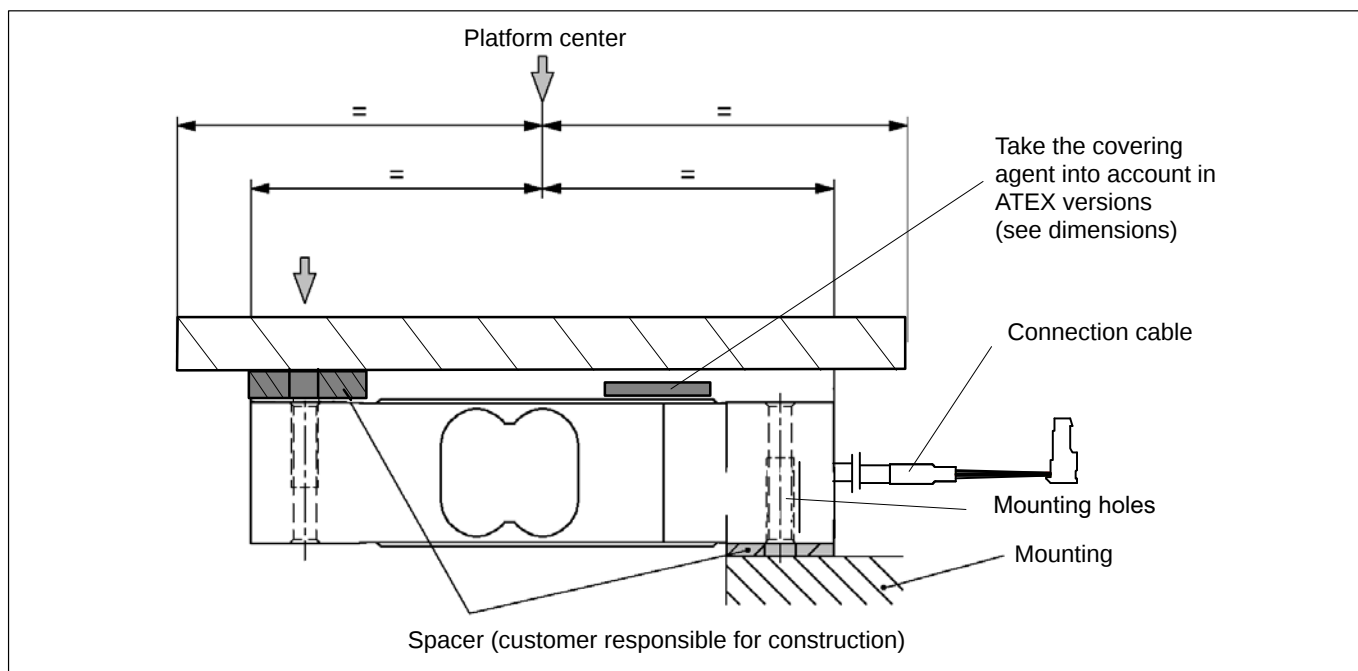
Mounting and load application

The load cells are attached at the mounting holes, the load is applied at the other end. The recommended screws and tightening torques can be found in the table below:

Maximum capacities	Thread	Min. property class	Tightening torque ¹⁾
30...500 kg	M8	10.9	32 N·m
660 kg	M8	12.9	39 N·m

¹⁾ Recommended value for the specified property class. Please comply with the screw manufacturer's instructions with regard to screw dimensions

Load must not be applied to the side where the cable connection is located, as this would cause a force shunt.



PW10A... (aluminum)

Maximum capacity	Ordering number	Maximum capacity	Ordering number
30 kg	1-PW16AC3/30KG-1	200 kg	1-PW16AC3/200KG-1
50 kg	1-PW16AC3/50KG-1	250 kg	1-PW16AC3/250KG-1
75 kg	1-PW16AC3/75KG-1	300 kg	1-PW16AC3/300KG-1
100 kg	1-PW16AC3/100KG-1	500 kg	1-PW16AC3/500KG-1
150 kg	1-PW16AC3/150KG-1	660 kg	1-PW16AC3/660KG-1

Ordering number
K-PW16A

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

Code	Option 4: Explosion protection
N	No explosion protection
A1/21	IECEx+ATEX Zone 1/21+FM, intrinsically safe II2G Ex ia IIC T6/T4 Gb/II2G Ex ia IIIC T125°C Db
A1/22	IECEx+ATEX Zone 2/22, not intrinsically safe II3G Ex nA IIC T6/T4 Gc/II3D Ex tc IIIC T125°C Dc

Code	Option 6: Other
N	Without
A	2mV/V $\pm 0.1\%$ / 410 $\Omega \pm 0.3 \Omega$ [only with option 4 = N] (adjusted output, suitable for parallel connection)

Not all codes can be combined with one another. Take note of the conditions in square brackets!

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