PW16A...

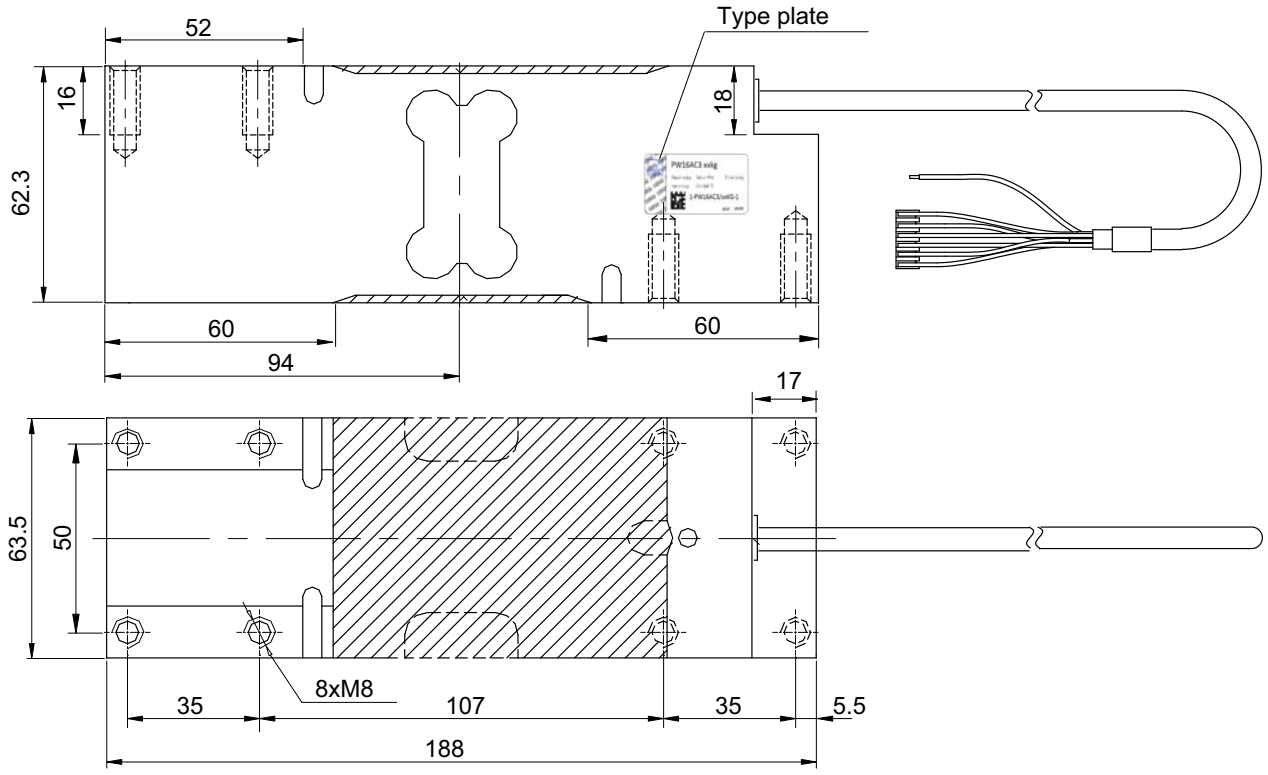
Single point load cells

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

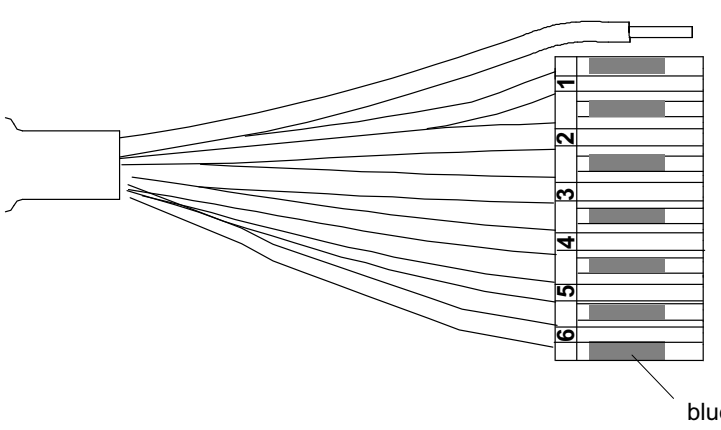
Type			**PW16A...**									
Accuracy class[1]			**C3 Multi Range (MR)**									
Number of load cell verification intervals	n_{LC}		3000									
Maximum capacity	E_{max}	kg	30	50	75	100	150	200	250	300	500	660
Minimum load cell verification interval	v_{min}	g	2	5	5	10	10	20	20	20	50	50
Temperature 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)

Schematic diagram of a Pancon connector (CE100F26-6), 6-pin



Shield (yellow) = cable shield connected to load cell body

Plug-in contact 1 (white) = measurement signal (+)

Plug-in contact 2 (red) = measurement signal (-)

Plug-in contact 3 (black) = excitation voltage (-)

Plug-in contact 4 (blue) = excitation voltage (+)

Plug-in contact 5 (green) = sense line (+)

Plug-in contact 6 (gray) = sense line (-)

blue marking

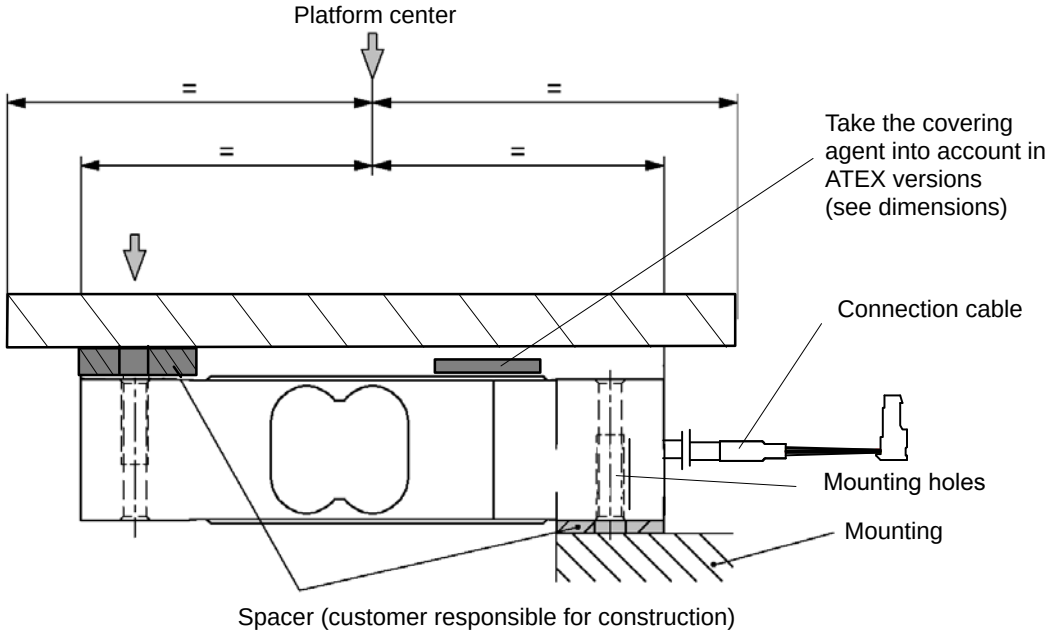
Mounting and load application

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.



Product numbers

PW10A… (aluminum)

Type	PW16A
Accuracy class	C3-MR (OIML) (Multi Range)
Comments	Cable length 3 m (6-wire)

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

K-PW16A… (aluminum), optional version

Ordering number
K-PW16A

Code	*Option 1: Mechanical design*
N	-

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

Code	*Option 3: Maximum capacity*
30	30 kg
50	50 kg
75	75 kg
100	100 kg
150	150 kg
200	200 kg
250	250 kg
300	300 kg
500	500 kg
660	660 kg

Code	*Option 4: Explosion protection*
N	No explosion protection
AI1/21	IECEx+ATEX Zone 1/21+FM, intrinsically safe II2G Ex ia IIC T6/T4 Gb/II2G Ex ia IIIC T125°C Db
AI2/22	IECEx+ATEX Zone 2/22, not intrinsically safe II3G Ex nA IIC T6/T4 Gc/II3D Ex tc IIIC T125°C Dc

Code	*Option 5: Cable length*
1.5	1.5 m
3	3 m (standard)
6	6 m
12	12 m

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

K-PW16A	-	N	-			-				-							-				-	

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

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