

PW25P...

Single point load cell
for harsh environments

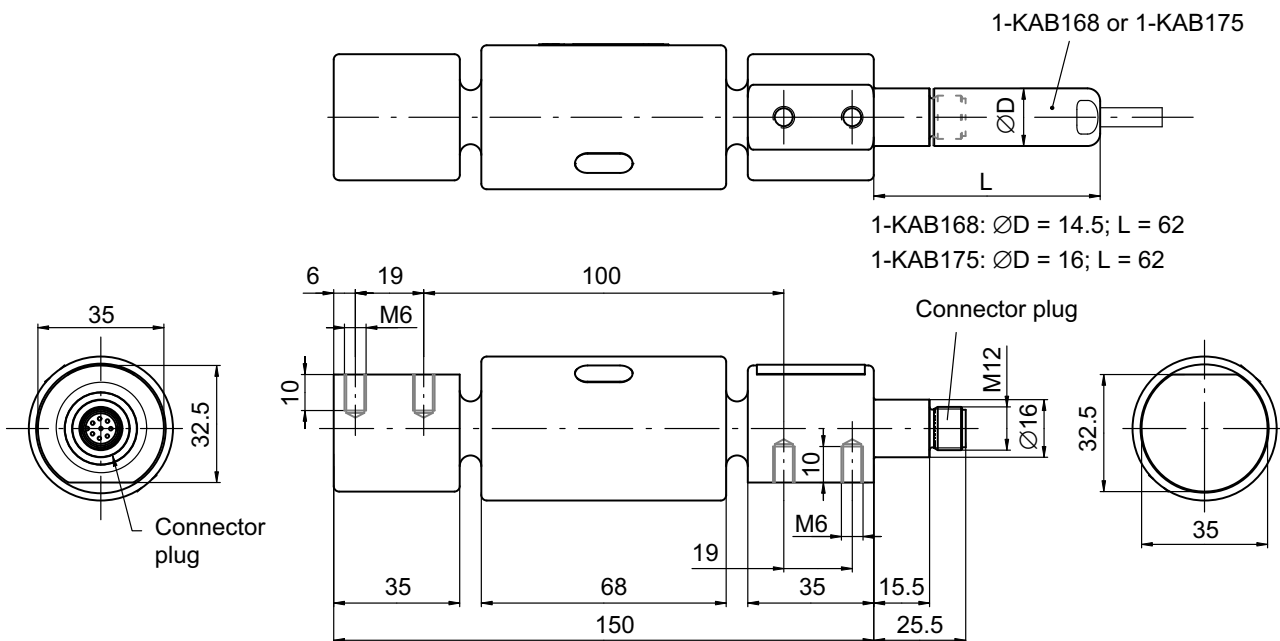
Special features

- Nominal load 10 kg, 20 kg
- Stainless steel
- High ratio of minimum verification interval Y
- Industry Footprint (SP4M)
- Degree of protection IP68; IP69k
- Connection cable and other accessories deliverable

Data sheet



Dimensions in mm (1 mm = 0.03937 inches)



Specifications

Type			PW25P...	
Accuracy class ¹⁾			C3 Multi Range (MR)	
Number of load cell verification intervals	n_{LC}		3000	
Maximum capacity	E_{max}	kg	10	20
Minimum load cell verification interval	v_{min}	g	1	2
Ratio of minimum verification interval	Y		10000	
Temperature coefficient of the zero signal per 10 K	TK_0	% of C_n	± 0.0140	
Maximum platform size		mm	400 x 400	
Nominal (rated) sensitivity	C_n	mV/V	2.0 ± 0.2	
Zero signal error			0 ± 0.1	
Temperature coefficient of the sensitivity per 10 K ²⁾ in the temperature range +20 ... +40°C -10 ... +20°C	TK_C	% of C_n	± 0.0175	
			± 0.0117	
Non-linearity ²⁾	d_{lin}		± 0.0166	
Relative reversibility error ²⁾	d_{hy}		± 0.0166	
Minimum dead load output return	MDLOR		± 0.0166	
Off-center load error ³⁾		ppm	≤ 233	
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	
Maximum excitation voltage			15	
Insulation resistance at 100 V _{DC}	R_{is}	G Ω	>1	
Nominal (rated) ambient temperature range	B_T	°C	-10 ... +40	
Operating temperature range	B_{tu}		-10 ... +50	
Storage temperature range	B_{tl}		-25 ... +85	
Cleaning temperature			max. 120 for max. 10 minutes	
Limit load at 20 mm eccentricity	E_L	% of E_{max}	1000	
Service load at max. 120 mm eccentricity			150	
Limit lateral loading, static	E_{lq}		200	
Breaking load	E_d		>1500	
Permissible vibrational stress at max. 50 mm eccentricity	F_{rb}		70	
Resonance frequency, approx.	f_G	Hz	210	315
Nominal (rated) displacement ⁴⁾	s_{nom}	mm	0.19	0.18
Weight, approx.	m	kg	0.8	
Degree of protection ⁷⁾			IP68 (test conditions: 1 m water column / 100 h); IP69K (water at high pressure, steam cleaner) ⁵⁾	
Material: measuring body			steel 1.4545 ⁶⁾	

¹⁾ As per OIML R60, with $P_{LC} = 0.7$.

²⁾ The values for non-linearity (d_{lin}), relative reversibility error (d_{hy}) and temperature coefficient of sensitivity (TK_C) are recommended values. The sum of these values is within the cumulated error limit laid down by OIML R60.

³⁾ As per OIML R76.

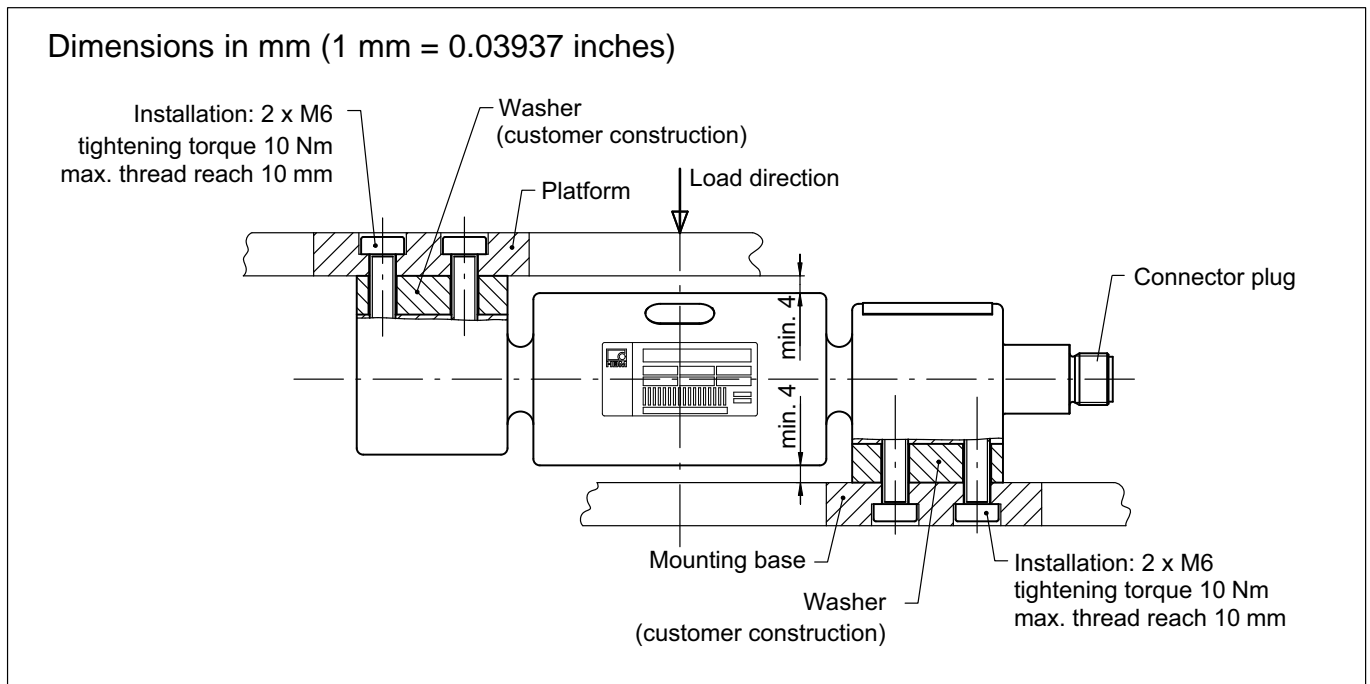
⁴⁾ Loading with E_{max} and center of gravity in center of load cell.

⁵⁾ Based on DIN 40050, Part 9 specifications, for road vehicles.

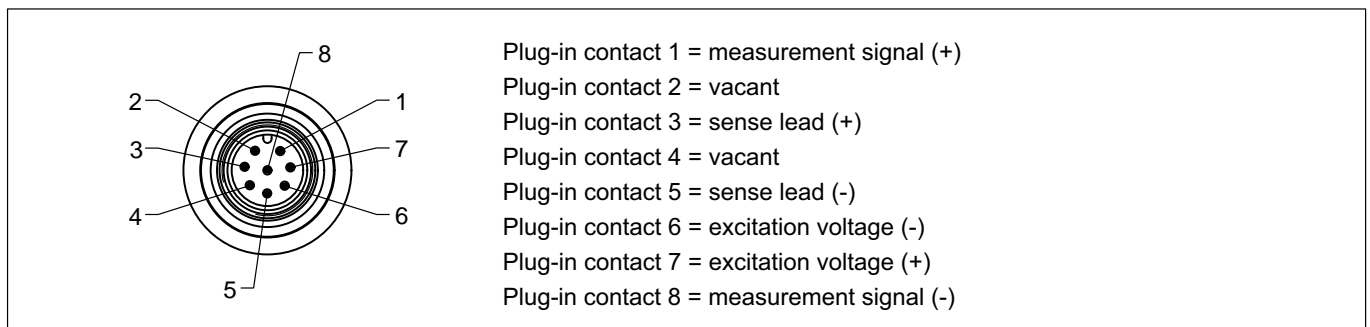
⁶⁾ As per EN 10088-1

⁷⁾ As per DIN EN 60529 (IEC 529)

Mounting instructions



Connector pin assignment



Product numbers (overview)

PW25P0 (stainless steel, hermetically sealed)

Type	PW25P
Accuracy class	C3-MR (OIML) (Multi Range)
Maximum capacity	Ordering number
10 kg	1-PW25PC3/10KG-1
20 kg	1-PW25PC3/20KG-1

Accessories:



Connection cable	
Connection cable with M12 F connector, 8-pin, TPU IP67, PUR cable sheath, 5 m long	1-KAB168-5
Connection cable with M12 F connector, 8-pin, TPU IP67, PUR cable sheath, 20 m long	1-KAB168-20
Connection cable with M12 F connector, 8-pin, stainless steel IP68/IP69K, hygiene design, 3 m long	1-KAB175-3-1
Connection cable with M12 F connector, 8-pin, stainless steel IP68/IP69K, hygiene design, 6 m long	1-KAB175-6-1

Pin assignment 1-KAB168

Color code	Connection
White	Measurement signal (+)
Red	Measurement signal (-)
Blue	Excitation voltage (+)
Pink	Excitation voltage (-)
Green	Sense lead (+)
Gray	Sense lead (-)
Yellow	Not in use
Brown	Not in use

Pin assignment 1-KAB175

Color code	Connection
White	Measurement signal (+)
Red	Measurement signal (-)
Blue	Excitation voltage (+)
Black	Excitation voltage (-)
Green	Sense lead (+)
Gray	Sense lead (-)

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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