



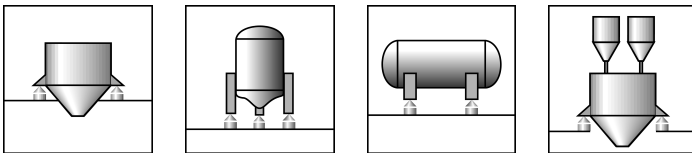
Z6...

Load cells



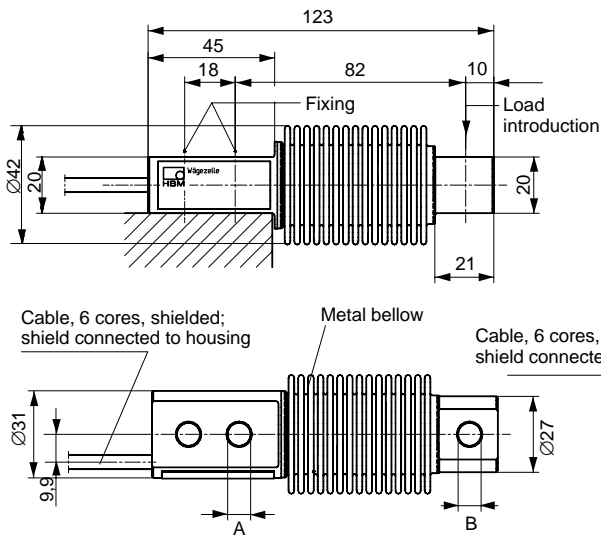
Special features

- Welded on metal bellow
- Max. capacities 5 kg...1 t
- Load cells and mounting aids entirely made from stainless material
- Complies with OIML R60 regulations up to 6000 d
- Six-wire circuit
- Optimized for parallel connection with corner-pretadjustment
- Meets today EMC/ESD requirements according to EN 45501
- Explosion proof version acc. to ATEX 95 optional

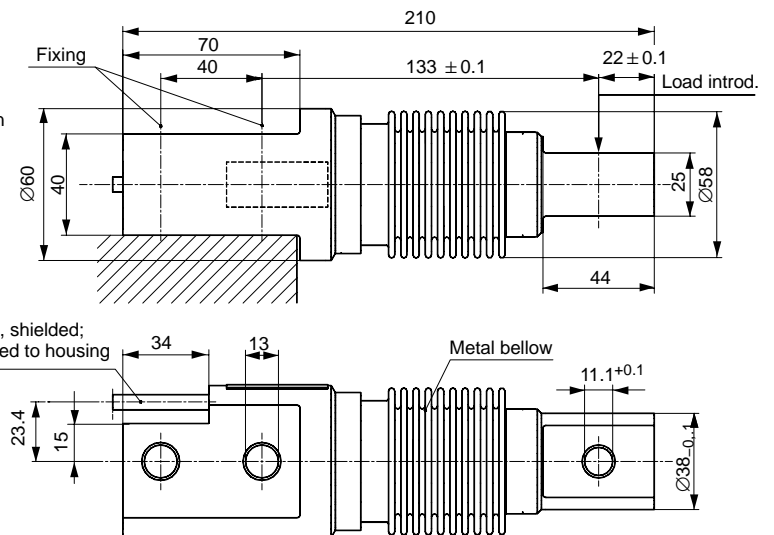


Dimensions (in mm; 1 mm = 0.03937 inches)

Z6; Max. capacities 5 kg...500 kg



Z6; Max. capacity 1 t



	A	B
5...200 kg	8.2	8.2
500 kg	10.5	11.1

Specifications

Type		Z6FD1	Z6FC3	Z6FC3MI	Z6FC4	Z6FC6
Accuracy class according to OIML R 60		D1	C3	C3/MI7.5	C4	C6
Maximal numbers of load cell verif. intervals (n_{LC})		1000	3000	3000	4000	6000
Max. capacity (E_{max})	kg	5; 10; 20; 50; 100; 200; 500	10; 20; 50; 100; 200; 500	50; 100; 200	20; 50; 100; 200; 500	50; 100; 200;
	t	1	1	-	-	-
Minimum load cell verification interval (v_{min})	% of E_{max}	0.0360	0.0090	0.0066		
Min. dead load output return (D_{DR})		-	-	$0.5 \cdot E_{max} / 7500$	-	-
Sensitivity (C_n)	mV/V	2				
Tolerance on sensitivity	%	< +1; -0.1	< $\pm 0.05^1$			
Temperature effect on sensitivity (TK_C) ²	% of $C_n/10$ K	< ± 0.0500	< ± 0.0080	< ± 0.0080	< ± 0.0070	< ± 0.0040
Temperature effect on zero balance (TK_0)	% of $C_n/10$ K	< ± 0.0500	< ± 0.0125	< ± 0.0093	< ± 0.0093	< ± 0.0093
Hysteresis error (d_{hy}) ²	%	< ± 0.0500	< ± 0.0170	< ± 0.0066	< ± 0.0130	< ± 0.0080
Linearity deviation (d_{lin}) ²	%	< ± 0.0500	< ± 0.0180	< ± 0.0180	< ± 0.0150	< ± 0.0110
Creep (d_{DR}) in 30 min.	%	< ± 0.0490	< ± 0.0166	< ± 0.0098	< ± 0.0125	< ± 0.0083
Input resistance (R_{LC}) (black-blue)	Ω	350...480				
Output resistance (R_0) (red-white)	Ω	356 \pm 0.2	356 \pm 0.12			
Reference excitation voltage (U_{ref})	V	5				
Nominal range of excitation voltage (B_U)	V	0.5...12				
Insulation resistance (R_{is})	G Ω	> 5				
Nominal temperature range (B_T)	$^{\circ}C$ [$^{\circ}F$]	-10...+40 [15...+105]				
Service temperature range (B_{tu})	$^{\circ}C$ [$^{\circ}F$]	-30...+70 [-20...+160]				
Storage temperature range (B_{tl})	$^{\circ}C$ [$^{\circ}F$]	-50...+85 [-60...+185]				
Safe load limit (E_L)	% of E_{max}	150				
Breaking load (E_d)	% of E_{max}	≥ 300				

Max. capacity	kg	5	10	20	50	100	200	500	1000
Permissible dynamic load (F_{srel})	% of E_{max}	100	100	100	100	100	100	70	100
Deflection at max. load, (s_{nom}) approx. (± 15 %)	mm	0.24	0.3	0.29	0.27	0.31	0.39	0.6	0.55
Weight (G), approx.	kg	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2.3
Protection class (IP) acc. to EN60529 (IEC529)		IP 68 (more rigorous test conditions: 100 h at 1 m water column)							
Material	Measuring body Metal below Cable entrance Cable sheath	stainless steel stainless steel stainless steel / Viton [®] PVC							

1) With Z6FC3/10kg load cell: $\leq \pm 0.1$ %.

2) The data for deviation of linearity, hysteresis and temperature effect on sensitivity are typical values. The sum of these data meets the requirements according to OIML R60.

Options for Z6FC3:

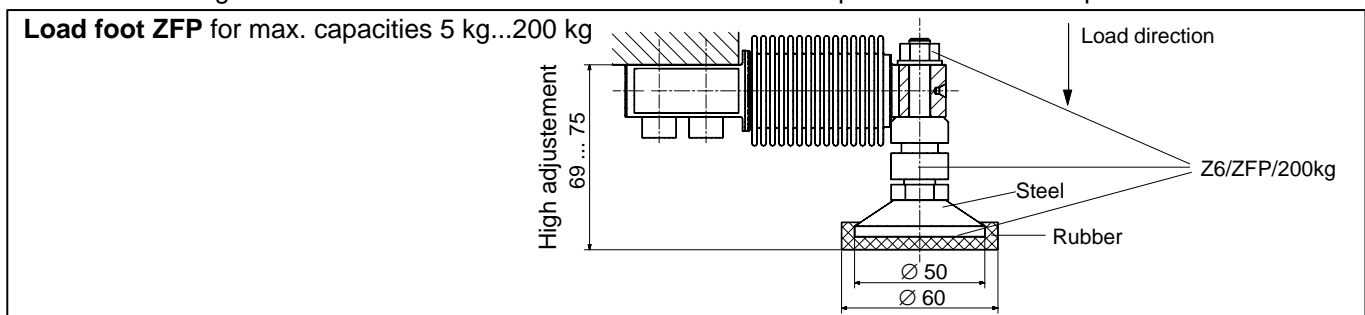
Explosion-proof versions according to ATEX 95:

- II 2 G EEx ia IIC T4 resp. T6 (Zone 1) *)
- II 3 G EEx nA II T6 (Zone 2)
- II 2 D IP68 T80 $^{\circ}C$ (Zone 21) *)
- II 3 D IP68 T80 $^{\circ}C$ (Zone 22 for non-conductive dust)

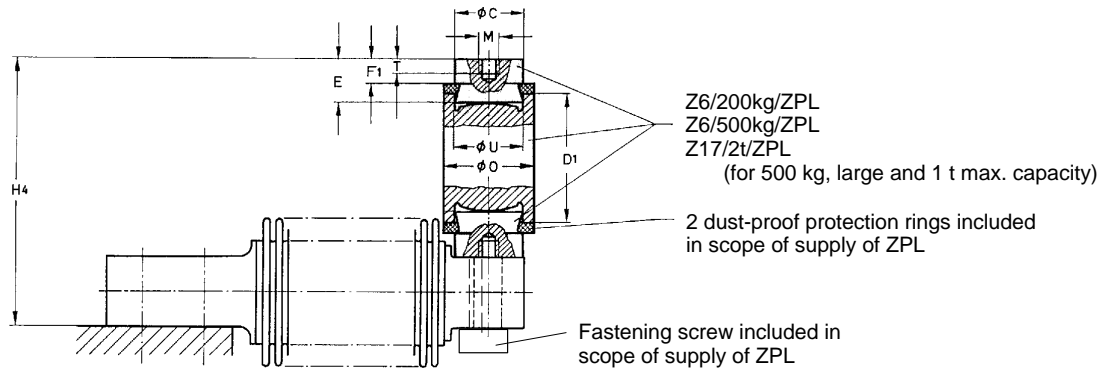
*) with EC-type examination certificate

Mounting aids, not included in scope of supply (Dimensions in mm; 1 mm = 0.03937 inches)

Note: All mounting aids are made from stainless mat. The ZEL rubber parts are from chloroprene caoutchouc.



Pendle bearing ZPL for max. capacities 5 kg...1 t

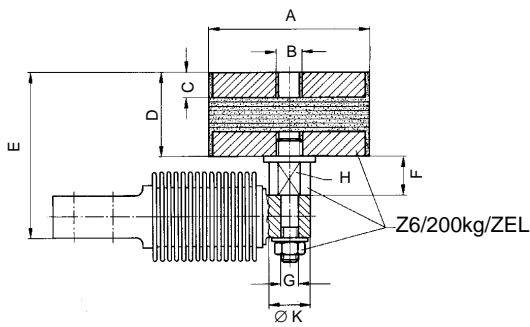


Max. capacity	Pendle bearing ZPL	C	D ₁	H ₄	M	O	T	E	F ₁	U	F _R * (% of applied load)	S _{max} ** (mm)
5...200 kg	Z6/200kg/ZPL	20 _{-0.2}	45	89 ^{+0.6} _{-0.8}	M8	30	6.5	17	9	20 ^{D10}	2.8	3.5
500 kg	Z6/1t/ZPL	20 _{-0.2}	45	89 ^{+0.6} _{-0.8}	M8	30	6.5	17	9	20 ^{D10}	2.8	3.5
1 t	Z6/1t/ZPL	30 _{-0.1}	60	126.5	M10	46	8	22	14	20 ^{D10}	2	7.5

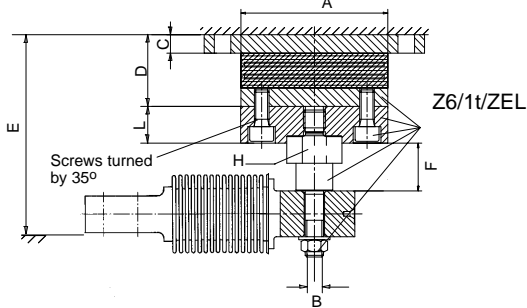
* F_R: restoring force in N for s = 1 mm

** S_{max}: max. lateral displacement of load introduction loaded with max. capacity

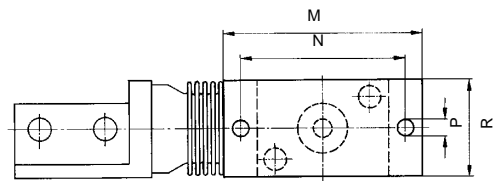
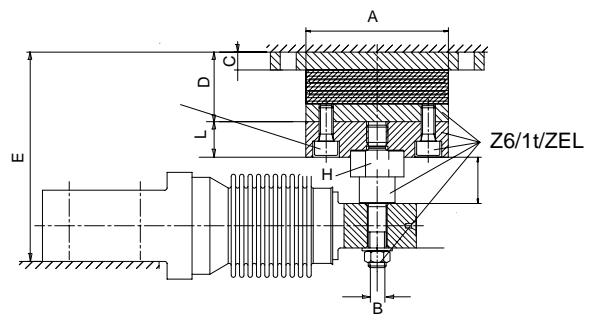
ZEL Elastomer bearing for max. capacities of 5 kg...200 kg



for max. capacity of 500 kg



ZEL Elastomer bearing for max. capacity 1 t



Correct mounting position of the elastomer bearing

Max. capacity	ZEL Elastomer-bearing	A	B	C	D	E	F	G	H	K	L	M	N	P	R	F _R * (N)	S _{max} ** (mm)
5 kg...200 kg	Z6/200kg/ZEL	75	M12	12	40	79 ± 1.3	18.5	M8	a.f. 17	19	-	-	-	-	-	163	3
500 kg	Z6/1t/ZEL	80	M10	10	39	105 ^{+2.1} _{-2.2}	26	-	a.f. 27	-	20	120	100	9	60	400	4.5
1 t	Z6/1t/ZEL	80	M10	10	39	117 ^{+2.1} _{-2.2}	26	-	a.f. 27	-	20	120	100	9	60	400	4.5

* F_R = restoring force in N for 1 mm lateral displacement

** S_{max}: = in mm, max. lateral displacement of load introduction loaded with max. capacity

Modifications reserved.

All details describe our products in general form only. They are not to be understood as express warranty and do not constitute any liability whatsoever.



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