



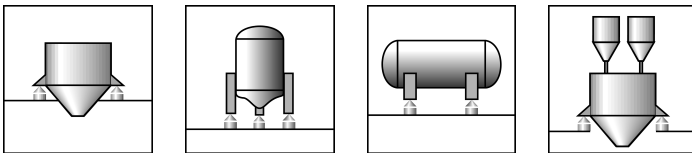
Z6...

Load cells



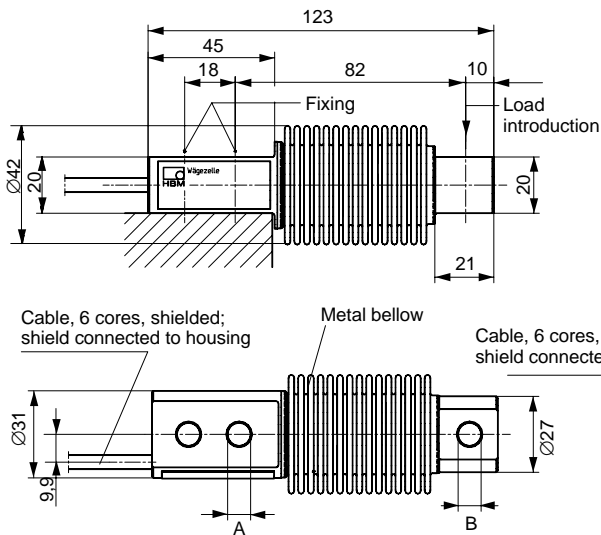
Special features

- 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



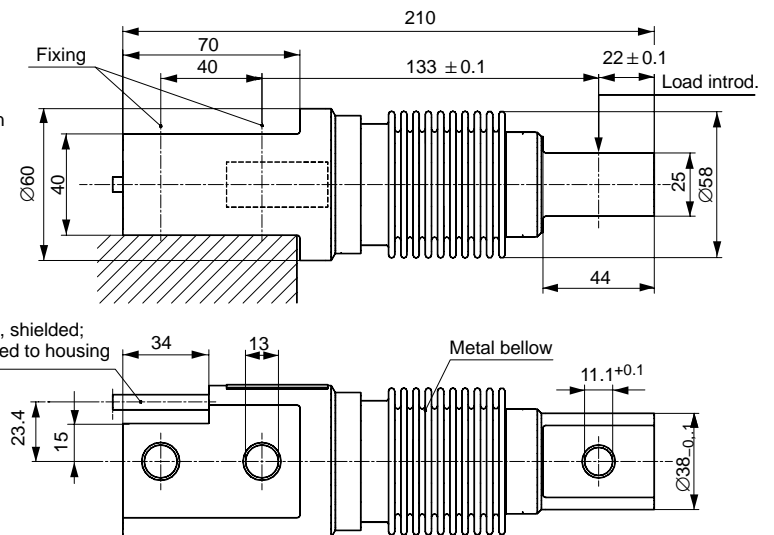
Dimensions (in mm; 1 mm = 0.03937 inches)

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



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

Z6; Max. capacity 1 t



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·E _{max} / 7500	-	-
Sensitivity (C_n)	mV/V	2				
Tolerance on sensitivity	%	< +1; -0.1	< ± 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 (TK₀)	% 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 (R₀) (red-white)	Ω	356 ± 0.2	356 ± 0.12			
Reference excitation voltage (U_{ref})	V	5				
Nominal range of excitation voltage (B_U)	V	0.5...12				
Insulation resistance (R_{is})	GΩ	> 5				
Nominal temperature range (B_T)	°C [°F]	-10...+40 [15...+105]				
Service temperature range (B_{tu})	°C [°F]	-30...+70 [-20...+160]				
Storage temperature range (B_{tl})	°C [°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: ≤ ± 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:

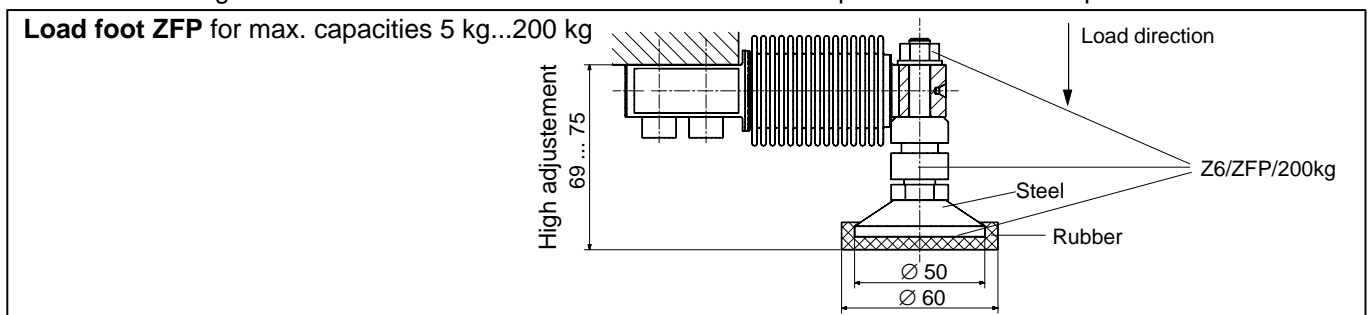
Explosion-proof versions according to ATEX 95:

- 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°C (Zone 21) *)
- II 3 D IP68 T80°C (Zone 22 for non-conductive dust)

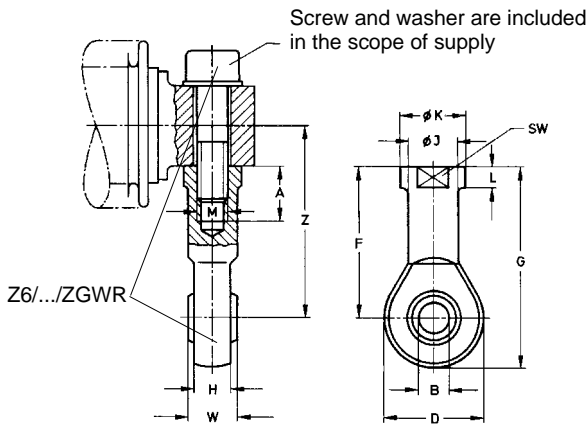
*) with EC-type examination certificate

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

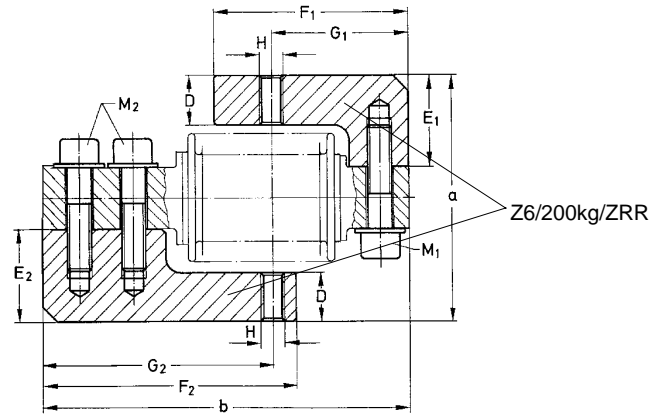
Note: All mounting aids are made from stainless mat. The ZEL rubber parts are from chloroprene caoutchouc.



ZGWR Knuckle eye (maintenance-free)
for max. capacities of 5 kg...1 t



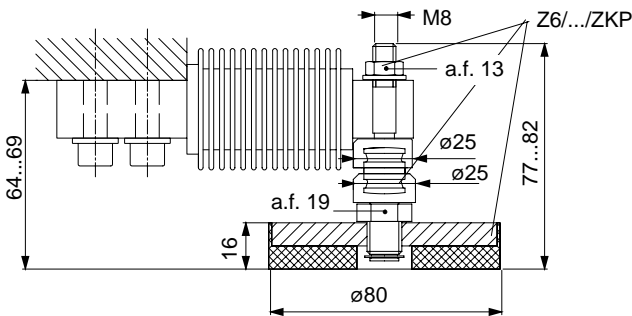
ZRR Fold-back arm for max. capacities of 5 kg...200 kg



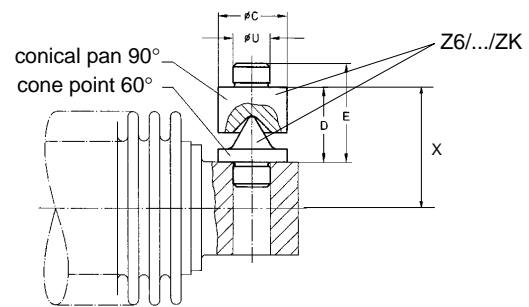
Max. capacity	ZGWR Knuckle eye	A	B	D	F	G	H	J	K	L	M	SW	W	Z
5 kg...200 kg	Z6/200kg/ZGWR	16	8 ^{H7}	24	36	48	9	12.5	16	5	M8	14	12	46
500 kg/1 t	Z6/1t/ZGWR	20	10 ^{H7}	28	43	57	10.5	15	19	6,5	M10	17	14	53/55,5

Max. capacity	ZRR Fold-back arm	D	E ₁	E ₂	F ₁	F ₂	G ₁	G ₂	H	M ₁	M ₂	a	b	Width
5 kg...200 kg	Z6/200kg/ZRR	16	30	30	65	85	46	77	M8	M8x30	M8x30	80 ± 1.1	123	15

Load foot ZKP for max. capacities 5 kg...200 kg

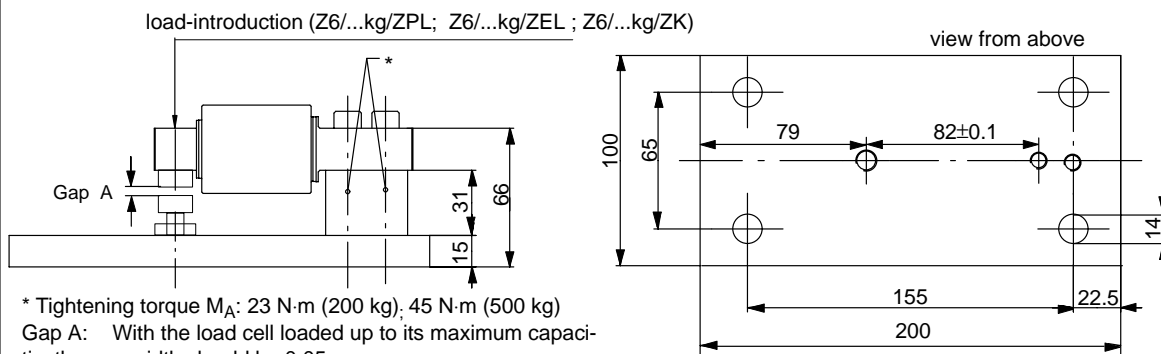


Cone and conical pan ZK for max. capacities 5 kg...1 t

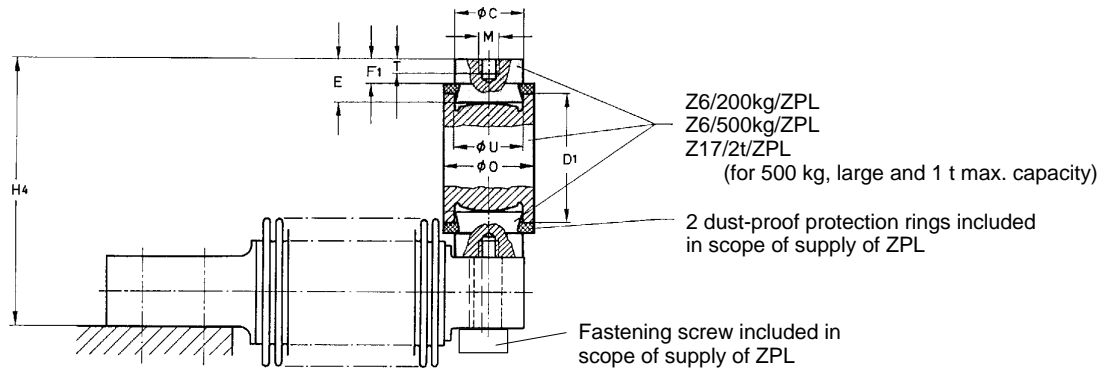


Max. capacity	Cone and conical pan ZK	C	D	E	U	X
5...200 kg	Z6/200kg/ZK	15	16	21	8.1 _{-0.05}	26
500 kg	Z6/1t/ZK	18	24	32	11 _{-0.05}	34
1 t	Z6/1t/ZK	18	24	32	11 _{-0.05}	36.5

Base / Assembly set for max. capacities 5 kg (Z6/ZPU/200kg) ... 500 kg (Z6/ZPU/500kg)



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

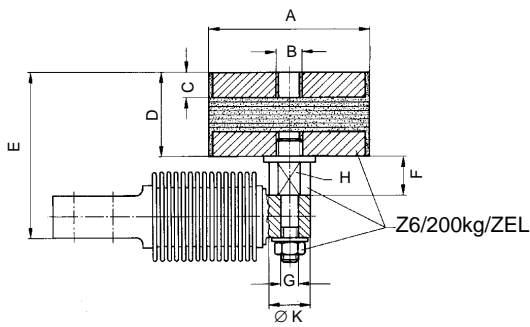


Max. capacity	Pendle bearing ZPL	C	D ₁	H ₄	M	O	T	E	F ₁	U	F _R * (% of applied load)	S _{max} ** (mm)
5...200 kg	Z6/200kg/ZPL	20 _{-0.2}	45	89 ^{+0.6} _{-0.8}	M8	30	6.5	17	9	20 ^{D10}	2.8	3.5
500 kg	Z6/1t/ZPL	20 _{-0.2}	45	89 ^{+0.6} _{-0.8}	M8	30	6.5	17	9	20 ^{D10}	2.8	3.5
1 t	Z6/1t/ZPL	30 _{-0.1}	60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

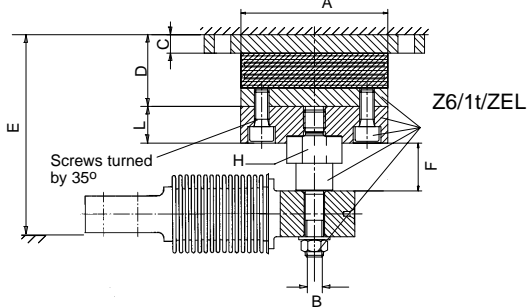
* F_R: restoring force in N for s = 1 mm

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

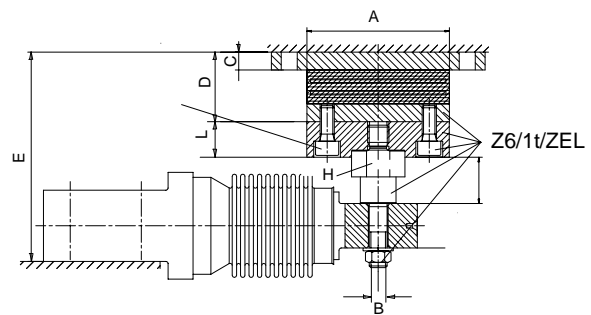
ZEL Elastomer bearing for max. capacities of 5 kg...200 kg



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.

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