



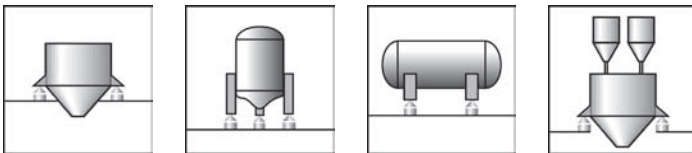
Z6...

Load cells

称重传感器

Special features 特点

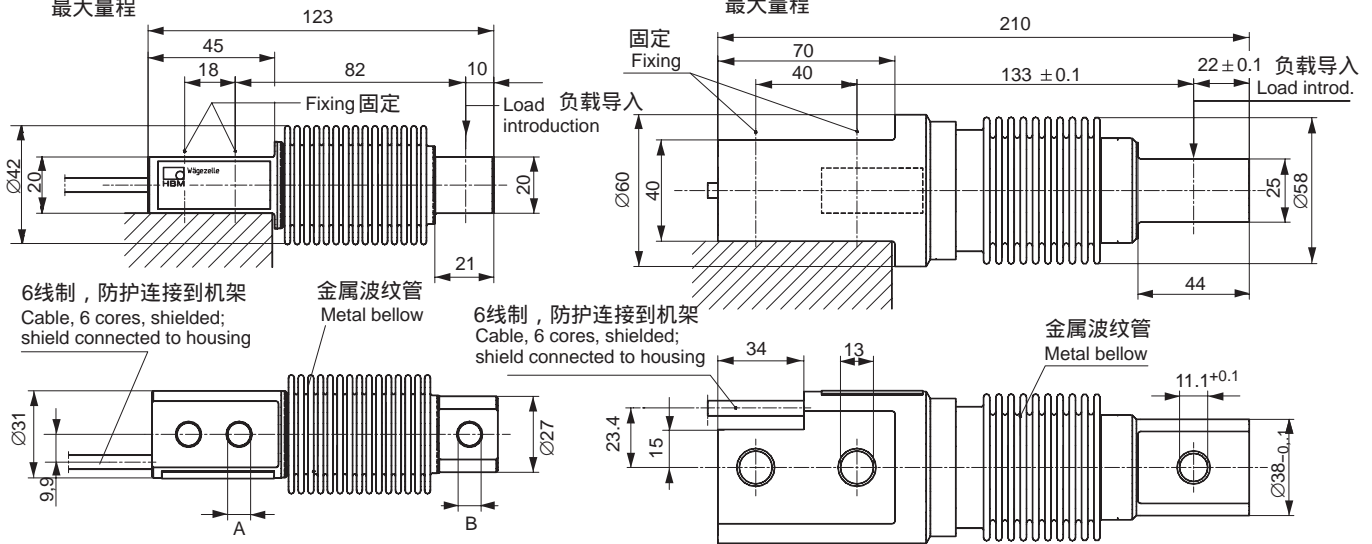
- Welded on metal bellow
- Max. capacities 5 kg...1 t
- Load cells and mounting aids entirely made from stainless material
- Complies with OIML R60 regulations up to 6000 d
- Six-wire circuit
- Optimized for parallel connection with corner-preadjustment
- Meets today EMC/ESD requirements according to EN 45501
- Explosion proof version acc. to ATEX 95 optional
- 波纹管激光焊封
- 最大量程 5kg...1t
- 传感器和安装附件不锈钢材料制成
- 按照OIMLR60 标准最大可达6000d
- 6线制
- 经过角差调整适合并联使用
- EMC/ESD 认证 (按照 EN 45501)
- 防爆型号达到 ATEX 95 标准 (可选)



Dimensions (in mm; 1 mm = 0.03937 inches) 尺寸 (单位 mm)

Z6; Max. capacities 5 kg...500 kg
最大量程

Z6; Max. capacity 1 t
最大量程



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

Specifications 规格

Type 型号		Z6FD1	Z6FC3	Z6FC3MI	Z6FC4	Z6FC6			
Accuracy class according to OIML R 60 精度等级		D1	C3	C3/MI7.5	C4	C6			
Maximal numbers of load cell verif. intervals (n _{LC}) 最大检定分度		1000	3000	3000	4000	6000			
Max. capacity (E _{max}) 额定量程	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}) 最小检定分度	% of E _{max}	0.0360	0.0090	0.0066					
Min. dead load output return (D _{DR}) 最小静负载输出恢复		-	-	0.5·E _{max} /7500	-	-			
Sensitivity (C _n) 灵敏度	mV/V	2							
Tolerance on sensitivity 灵敏度误差	%	+1; -0.1	±0.05 ¹⁾						
Temperature effect on sensitivity (TK _C) ²⁾ 温度对灵敏度影响	% of C _n /10 K	±0.0500	±0.0080	±0.0080	±0.0070	±0.0040			
Temperature effect on zero balance (TK ₀) 温度对零点影响		±0.0500	±0.0125	±0.0093	±0.0093	±0.0093			
Hysteresis error (d _{hy}) ²⁾ 滞后误差		±0.0500	±0.0170	±0.0066	±0.0130	±0.0080			
Linearity deviation (d _{lin}) ²⁾ 线性误差	% of C _n	±0.0500	±0.0180	±0.0180	±0.0150	±0.0110			
Creep (d _{DR}) in 30 min. 蠕变恢复		±0.0490	±0.0166	±0.0098	±0.0125	±0.0083			
Input resistance (R _{LC}) (black-blue) 输入电阻	Ω	350...480							
Output resistance (R _O) (red-white) 输出电阻		356 ± 0.2	356 ± 0.12						
Reference excitation voltage (U _{ref}) 参考激励电压	V	5							
Nominal range of excitation voltage (B _U) 额定激励电压		0.5...12							
Insulation resistance (R _{is}) 绝缘电阻	GΩ	> 5							
Nominal temperature range (B _T) 额定温度		-10...+40 [-15...+105]							
Service temperature range (B _{tu}) 工作温度	°C [°F]	-30...+70 [-20...+160]							
Storage temperature range (B _{st}) 存储温度		-50...+85 [-60...+185]							
Safe load limit (E _L) 安全负载		150							
Breaking load (E _d) 破坏负载	% of E _{max}	≥ 300							
Max. capacity 最大量程	kg	5	10	20	50	100	200	500	1000
Permissible dynamic load (F _{srel}) 允许动态负载	% of E _{max}	100	100	100	100	100	100	70	100
Deflection at max. load, (s _{nom}) approx. (± 15 %) 最大载荷下变形量	mm	0.24	0.3	0.29	0.27	0.31	0.39	0.6	0.55
Weight (G), approx. 重量	kg	0.5	0.5	0.5	0.5	0.5	0.5	0.5	2.3
Protection class (IP) acc. to EN60529 (IEC529) 保护等级		IP 68 (more rigorous test conditions: 100 h at 1 m water column)							
Material 材料	Measuring body 测量体 Metal below 金属波纹管 Cable entrance 电缆密封管 Cable sheath 电缆屏蔽	stainless steel stainless steel stainless steel / Viton® PVC							

1) With Z6FC3/10kg load cell: ≤ ±0.1 %. 使用 Z6FC3/10kg 称重传感器 : ≤ ±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. 非线性误差, 滞后误差和温度对灵敏度影响的数据是平均值, 这些值的总和达到OIML R60

Options: 选项

Explosion-proof versions according to ATEX 95: • II 2 G EEx ia IIC T4 resp. T6 (Zone 1) *)

防爆型号符合 ATEX 95 要求

• 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)

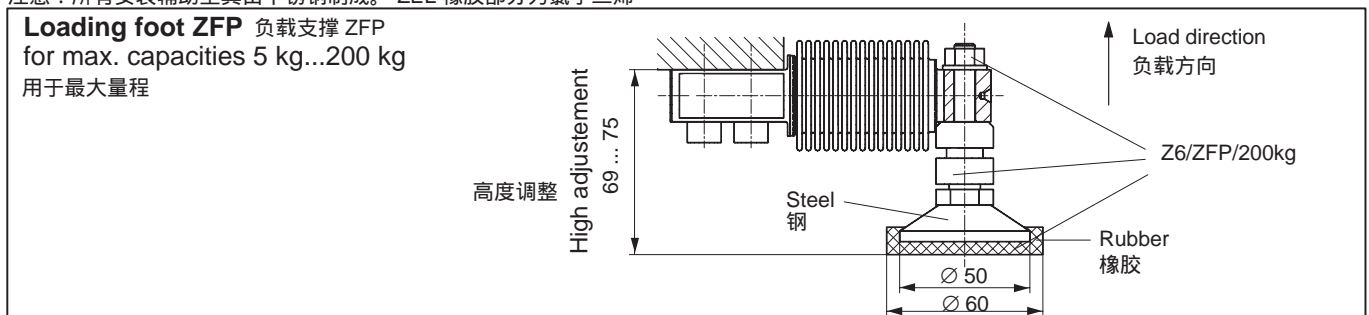
*) with EC-type examination certificate 带有EC-type 检定证书

安装附件 (不包含在产品内) 尺寸 mm

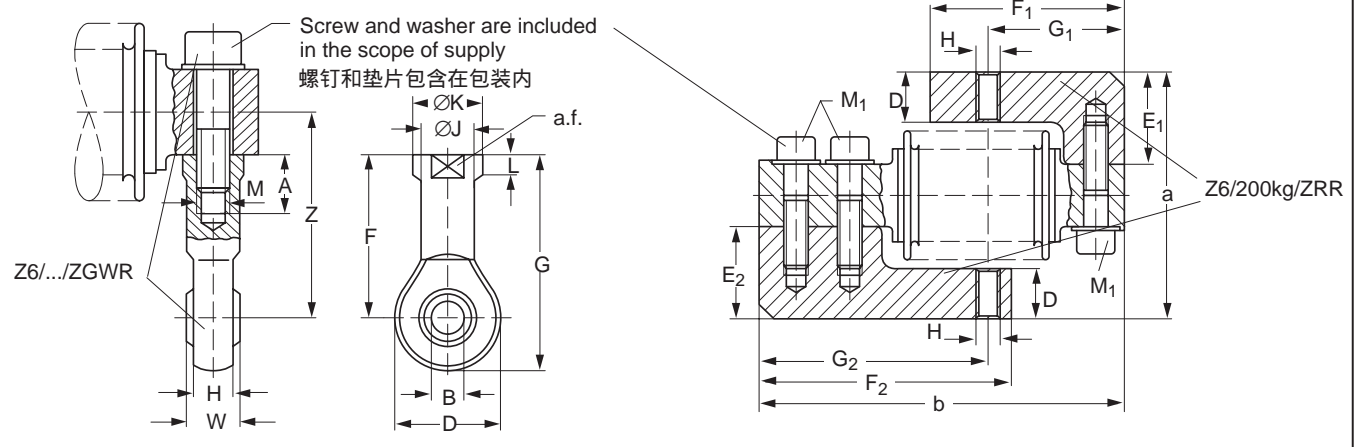
Mounting aids, not included in scope of supply (Dimensions in mm; 1 mm = 0.03937 inches)

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

注意: 所有安装辅助工具由不锈钢制成。ZEL 橡胶部分为氯丁二烯



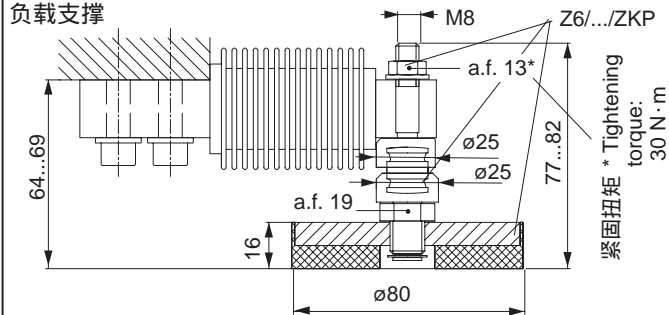
ZGWR Knuckle eye (maintenance-free) 膝眼(免维护) for max. capacities of 5 kg...1 t
ZRR Fold-back arm 折叠臂 for max. capacities of 5 kg...200 kg



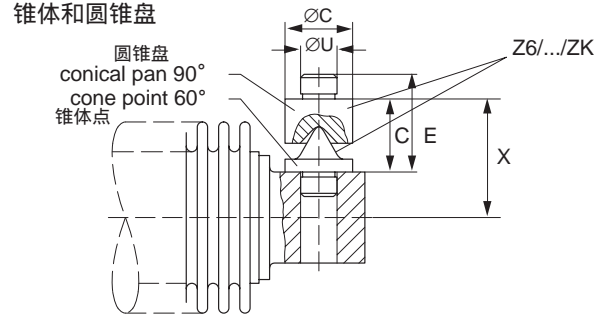
Max. capacity 最大量程	ZGWR Knuckle eye	A	B	D	F	G	H	∅ J	∅ K	L	M	a.f.	W	Z
5 kg...200 kg	Z6/200kg/ZGWR	16	8 ^{H7}	24	36	48	9	12.5	16	5	M8	14	12	46
500 kg/1 t	Z6/1t/ZGWR	20	10 ^{H7}	28	43	57	10.5	15	19	6.5	M10	17	14	53/55.5

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

Loading foot ZKP for max. capacities 5 kg...200 kg
 负载支撑



Cone and conical pan ZK for max. capacities 5 kg...1 t
 锥体和圆锥盘

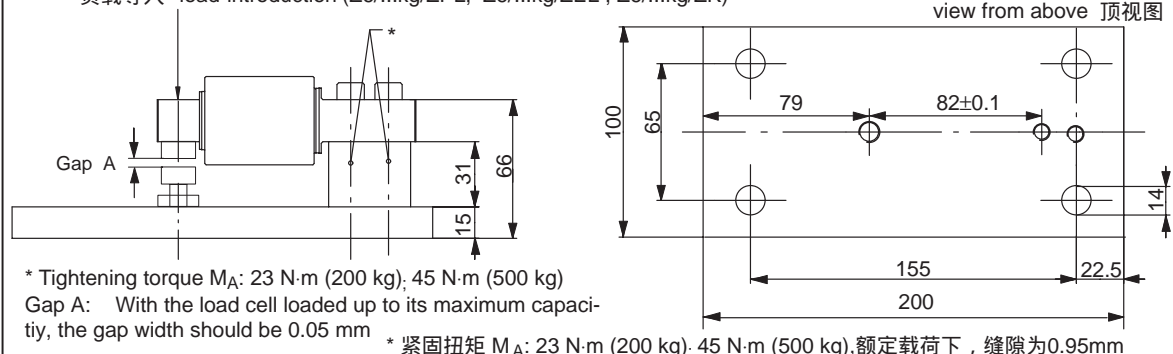


Max. capacity	Cone and conical pan ZK 锥体和圆锥盘	∅ C	D	E	∅ U	X
5...200 kg	Z6/200kg/ZK	15	16	21	8.1 _{-0.05}	26
500 kg	Z6/1t/ZK	18	24	32	11 _{-0.05}	34
1 t	Z6/1t/ZK	18	24	32	11 _{-0.05}	36.5

Base plate/ Mounting kit for max. capacities 5 kg (Z6/ZPU/200kg) ... 500 kg (Z6/ZPU/500kg)

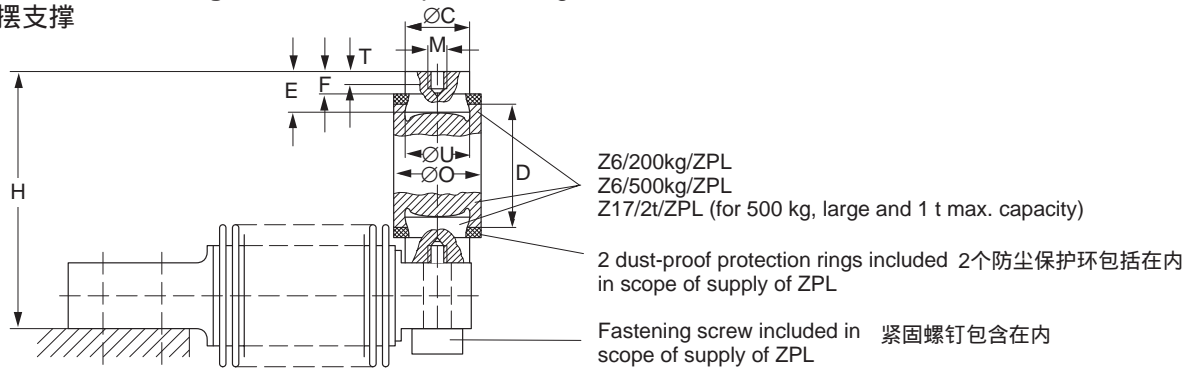
底座/安装用具用于最大量程

负载导入 load-introduction (Z6/...kg/ZPL; Z6/...kg/ZEL; Z6/...kg/ZK)



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

摆支撑

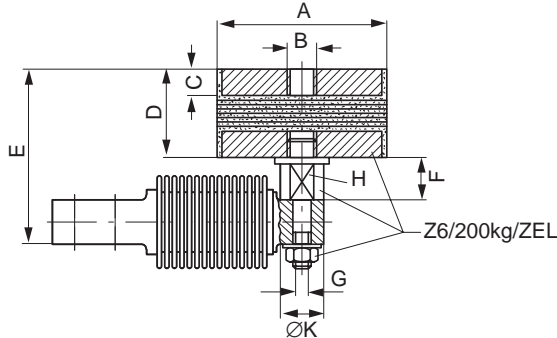


Max. capacity 最大量程	Pendulum bearing ZPL 摆支撑 ZPL	∅C	D	H	M	∅O	T	E	F	∅U	F _R * (% of applied load)	S _{max} ** (mm)
5...200 kg	Z6/200kg/ZPL	20 _{-0.2}	45	89 ^{+0.6} _{-0.8}	M8	30	6.5	17	9	20 ^{D10}	2.8	3.5
500 kg	Z6/1t/ZPL	20 _{-0.2}	45	89 ^{+0.6} _{-0.8}	M8	30	6.5	17	9	20 ^{D10}	2.8	3.5
1 t	Z6/1t/ZPL	30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

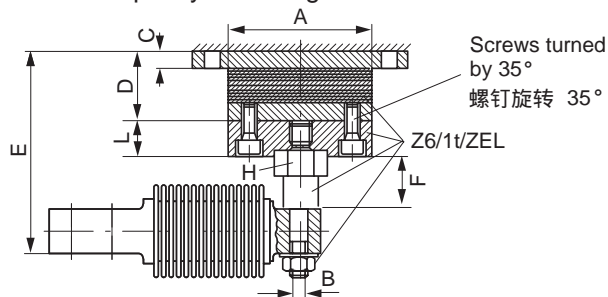
* F_R: restoring force in N for s = 1 mm 回复力

** S_{max}: max. lateral displacement of load introduction loaded with max. capacity 最大量程下负载导入的侧向最大位移

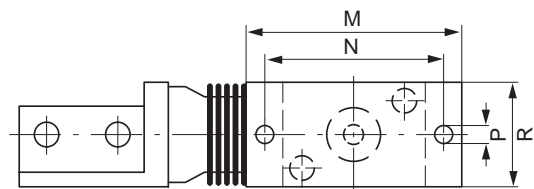
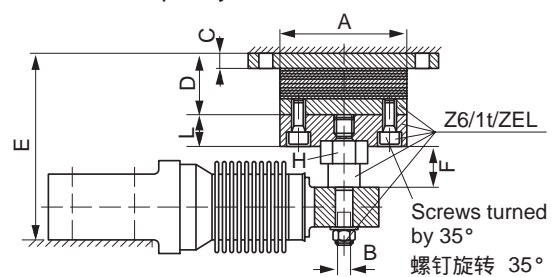
ZEL Rubber-metal bearing 塑钢支撑 for max. capacities of 5 kg...200 kg



for max. capacity of 500 kg



ZEL Rubber-metal bearing 塑钢支撑 for max. capacity 1 t



Correct mounting position of the rubber metal bearing
塑钢支撑正确的安装位置

Max. capacity 最大量程	ZEL Rubber-metal bearing 塑钢支撑	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 回复力

** S_{max}: = in mm, max. lateral displacement of load introduction loaded with max. capacity 最大量程下负载导入的侧向最大位移

Modifications reserved.

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