



Z6...

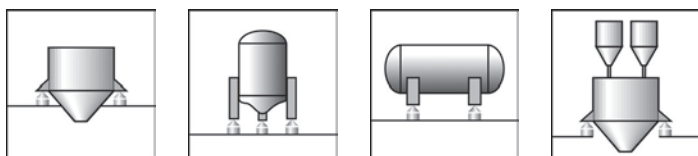
Load cell

称重传感器



Special features 特点

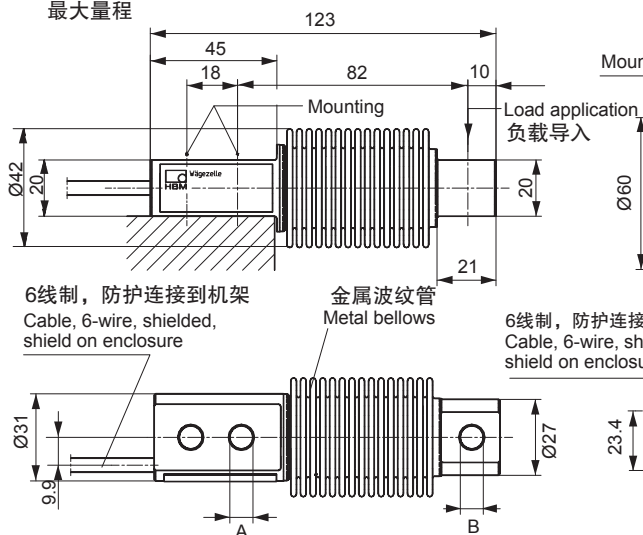
- Welded-on metal bellows
- Nominal (rated) loads: 5 kg ... 1 t
- Load cells and installation aids made of rust-resistant materials
- Verifiable up to 6000 divisions, test report as per OIML R60
- Six-wire circuit
- Optimized for parallel connection by off-center load compensation
- Meets EMC requirements as per DIN EN 45501
- Options:
 - Ex-protection designs as per ATEX 95
 - 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)

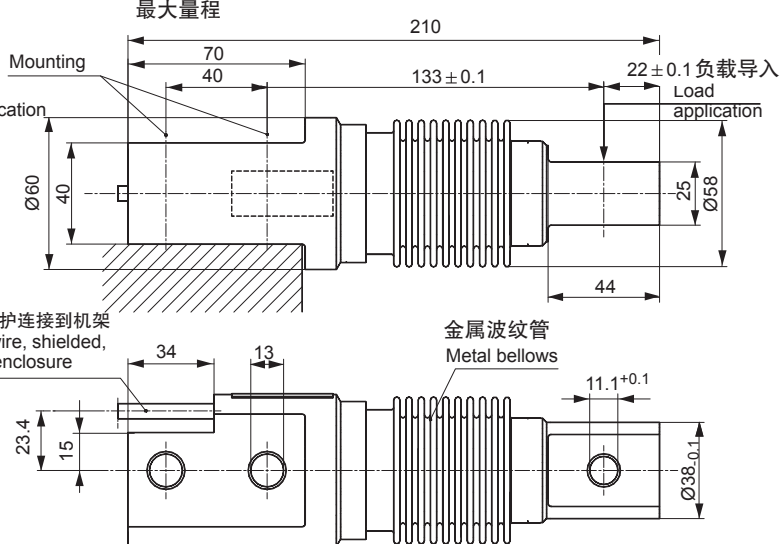
Z6; Nominal (rated) loads 5 kg...500 kg

最大量程



Z6; Nominal (rated) load 1 t

最大量程



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

Cable Ø5.4; 3 m long (standard version)

Specifications 规格

Type 型号		Z6FD1	Z6FC3	Z6FC3MI	Z6FC4	Z6FC6			
Accuracy class to OIML R 60 精度等级		D1	C3	C3/MI7.5	C4	C6			
Number of scale intervals (n_{LC}) 最大检定分度		1000	3000	3000	4000	6000			
Nominal (rated) load (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 scale division (v_{min}) 最小检定分度	% of E_{max}	0.0360	0.0090	0.0066					
Return of minimum dead load signal (D_{DR}) 最小静负载输出恢复		-	-	0.5· E_{max} / 7500	-	-			
Nominal (rated) sensitivity (C_n) 灵敏度	mV/V	2							
Sensitivity tolerance with load appl. in spec. direction 灵敏度误差	%	+(1;-0.1)	±0.05 ¹⁾						
Temperature coefficient of sensitivity (TC_S) 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 coefficient of zero signal (TK_0) 温度对零点影响		±0.0500	±0.0125	±0.0093	±0.0093	±0.0093			
Relative reversibility error (d_{hy}) ²⁾ 滞后误差		±0.0500	±0.0170	±0.0066	±0.0130	±0.0080			
Non linearity (d_{lin}) ²⁾ 线性误差	% of C_n	±0.0500	±0.0180	±0.0180	±0.0150	±0.0110			
Load creep (d_{DR}) in 30 min. 蠕变恢复		±0.0490	±0.0166	±0.0098	±0.0125	±0.0083			
Input resistance (R_{LC}) 输入电阻	Ω	350...480							
Output resistance (R_0) 输出电阻		356 ±0.2	356 ±0.12						
Reference voltage (U_{ref}) 参考激励电压	V	5							
Nominal supply voltage range (B_U) 额定激励电压		0.5...12							
Insulation resistance (R_{is}) 绝缘电阻	GΩ	> 5							
Nominal ambient temperature range (B_T) 额定温度	°C	-10...+40							
Operating temperature range (B_{tu}) 工作温度		-30...+70							
Storage temperature range (B_{tl}) 存储温度		-50...+85							
Limit load (E_L) 安全负载	% of E_{max}	150							
Breaking load (E_d) 破坏负载		≥ 300							
Nominal (rated) load 最大量程	kg	5	10	20	50	100	200	500	1000
Relative permissible oscillatory stress 允许动态负载	% of E_{max}	100	100	100	100	100	100	70	100
Nominal (rated) displacement (s_{nom}) approx. 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
Degree of protection (IP) as per EN60529 保护等级 (IEC529)		IP 68 (tougher test conditions: 1 m water column; 100 h) IP 68 (测试条件: 1 m 水下; 100小时)							
Material: 材料	Measuring body 测量体 Bellows 金属波纹管 Cable inlet gland 电缆密封管 Cable sheath 电缆屏蔽	Stainless steel ³⁾ Stainless steel ³⁾ Stainless steel / Viton® PVC							

1) For load cell Z6FC3/10kg: ≤ ±0.1 %. 使用 Z6FC3/10kg 称重传感器:

2) The values for linearity deviation, relative reversibility error and temperature effect on sensitivity are typical values. The sum of these values is within the cumulative error limits laid down by 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

3) As per EN 10088-1

Options: 选项

Ex-protection designs as per ATEX 95:

防爆型号符合 ATEX 95 要求

• II 2 G EEx ia IIC T4 or T6 (Zone 1) *)

• II 3 G EEx nA II T6 (Zone 2)

• II 2 D IP68 T80°C (Zone 21) *)

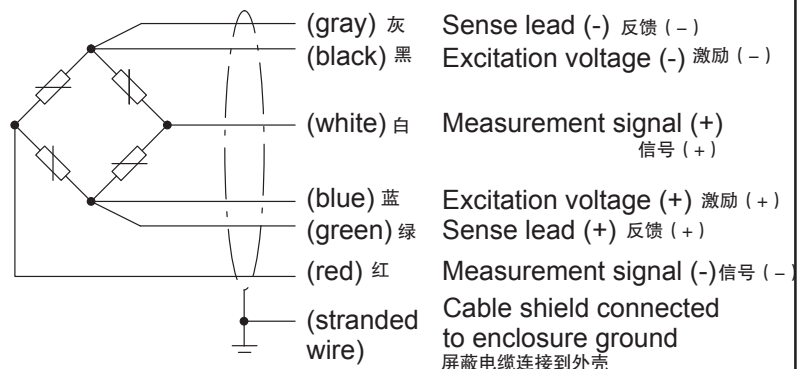
• II 3 D IP68 T80°C (Zone 22 for non-conductive dust)

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

Cable assignment 接线 (6线) (6-wire configuration)

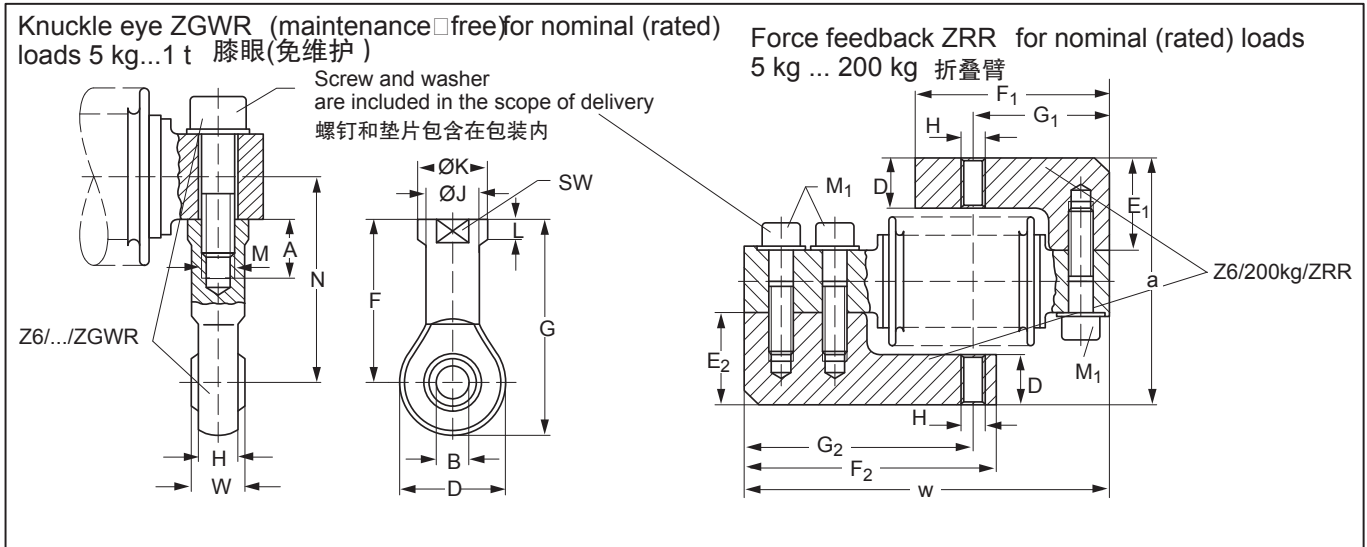
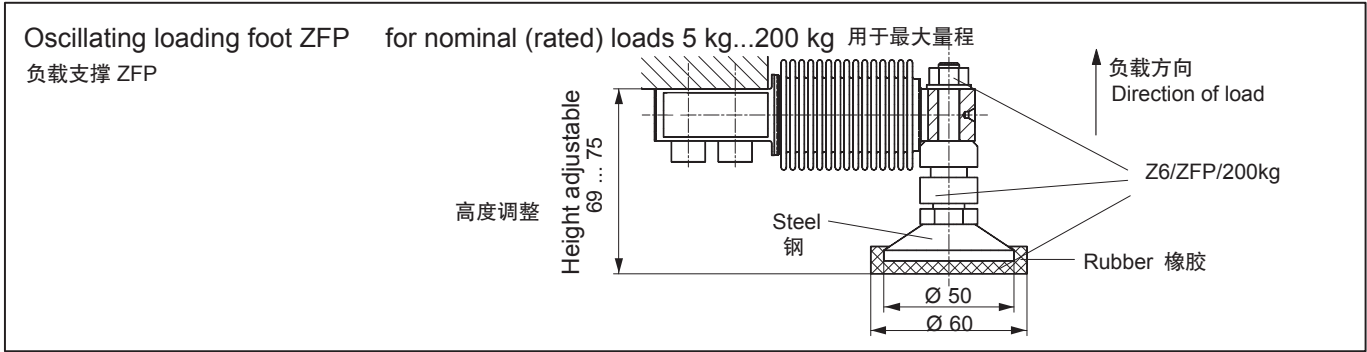
With this cable assignment, the output voltage at the measuring amplifier is positive when the transducer is loaded.

采用这种接线, 当加载时, 测量放大器的输出电压为正。



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

Note: All installation aids are made of non-rusting material. The rubber parts of the ZEL are made of chloroprene rubber. 注意：所有安装辅助工具由防锈蚀材料制成。ZEL 橡胶部分为氯丁二烯



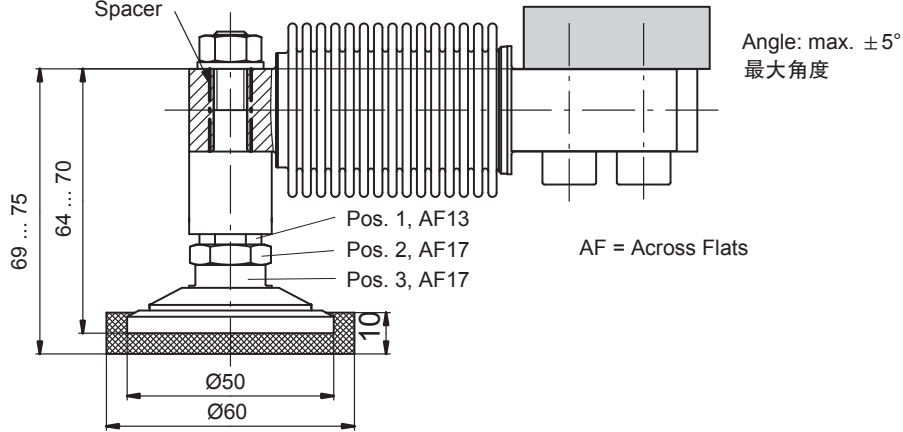
Nominal (rated) load 最大量程	ZGWR	A	B	D	F	G	H	Ø J	Ø K	L	M	SW	W	N
5...200 kg	Z6/200kg/ZGWR	16	8 ^{H7}	24	36	48	9	12.5	16	5	M8	14	12	46
500 kg	Z6/1t/ZGWR	20	10 ^{H7}	28	43	57	10.5	15	19	6.5	M10	17	14	53
1 t	Z6/1t/ZGWR	20	10 ^{H7}	28	43	57	10.5	15	19	6.5	M10	17	14	55.5

Nominal (rated) load 最大量程	ZRR	D	E ₁	E ₂	F ₁	F ₂	G ₁	G ₂	H	M ₁	a	w	Depth 宽
5...200 kg	Z6/200kg/ZRR	16	30	30	65	85	46	77	M8	M8x30	80 ± 1.1	123	15

Nominal (rated) load 最大量程	Cone, conical pan ZK	Ø C	D	E	Ø 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

Oscillating loading foot PCX for nominal (rated) loads 5 kg... 500 kg (Z6/PCX/500kg); 摆脚支撑
 1 set comprising 4 pieces Z6/PCX/500kg

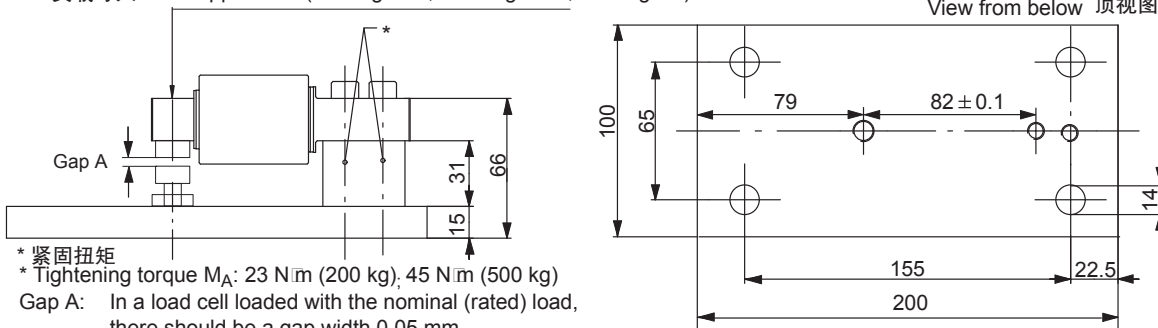
一套包括4个 Z6/PCX/500kg
 Spacer



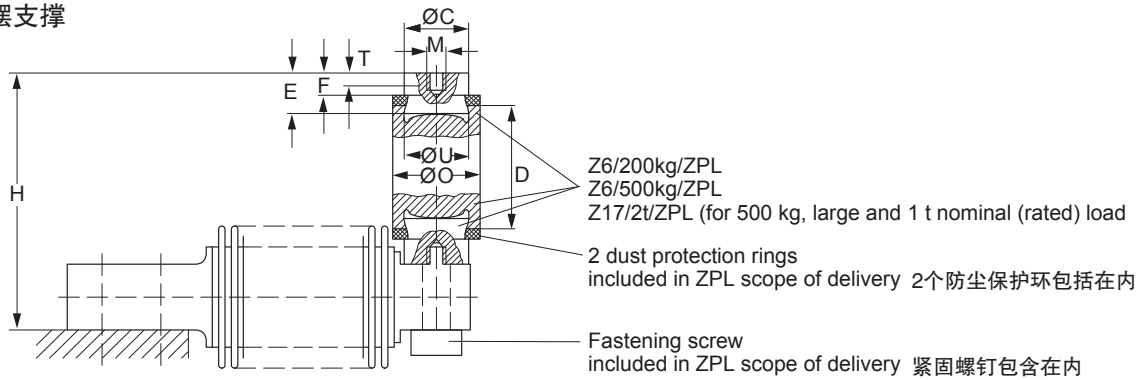
Base plate / Mounting set for nominal (rated) loads 5 kg (Z6/ZPU/200kg) ... 500 kg (Z6/ZPU/500kg)

负载导入 Load application (Z6/...kg/ZPL; Z6/...kg/ZEL; Z6/...kg/ZK) 底盘/安装用具用于最大量程

View from below 顶视图



Pendulum bearing ZPL for nominal (rated) loads 5 kg...1 t
 摆支撑



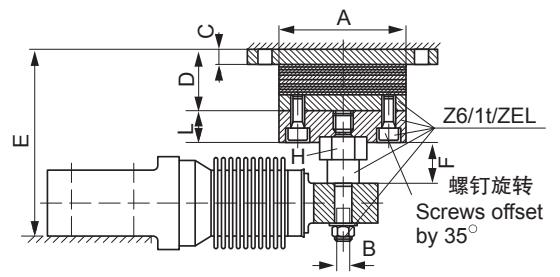
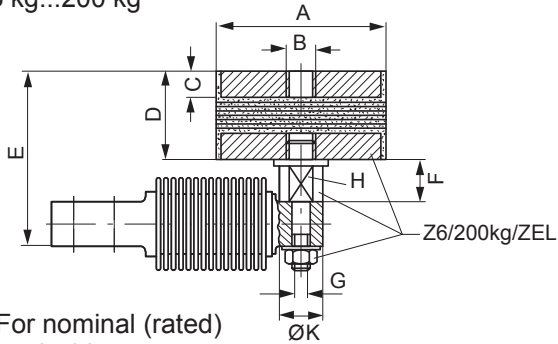
Nominal (rated) load 最大量程	Pendulum bearing ZPL 摆支撑 ZPL	Ø C	D	H	M	Ø O	T	E	F	Ø U	F _R * (% of the load)	s _{max} ** (mm)
5...200 kg	Z6/200kg/ZPL	20 _{-0.2}	45	89 ^{+0.6} _{-0.8}	M8	30	6.5	17	9	20 ^{D10}	2.8	3.5
500 kg	Z6/500kg/ZPL	20 _{-0.2}	45	89 ^{+0.6} _{-0.8}	M8	30	6.5	17	9	20 ^{D10}	2.8	3.5
1 t	Z17/2t/ZPL	30 _{-0.1}	60	126.5	M10	46	8	22	14	30 ^{D10}	2	7.5

* F_R: Force feedback in N, with 1 mm lateral displacement 回复力单位N, 带有1mm的侧向位移

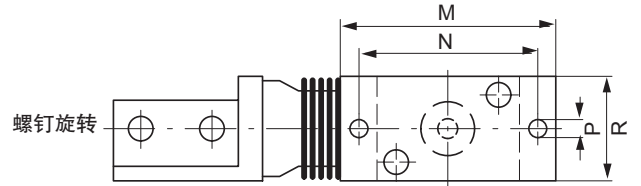
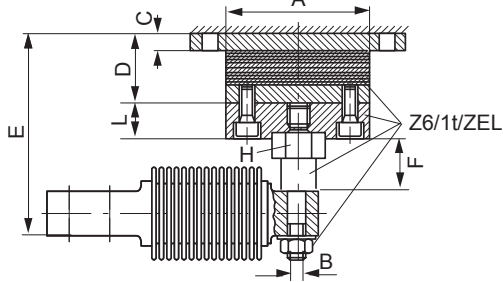
** s_{max}: Maximum perm. lat. displacement with nominal (rated) loading 最大量程下负载导入的侧向最大位移

Rubber-metal bearing ZEL for nominal (rated) loads 塑钢支撑
5 kg...200 kg

For nominal (rated) loads 1 t



For nominal (rated) load 500 t



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

Nominal (rated) load 最大量程	ZEL	A	B	C	D	E	F	G	H	K	L	M	N	P	R	F_R^*	s_{max}^{**}
5...200 kg	Z6/200kg/ZEL	75	M12	12	40	79 ± 1.3	18.5	M8	SW17	19	-	-	-	-	-	163	3
500 kg	Z6/1t/ZEL	80	M10	10	39	$105^{+2.1}_{-2.2}$	26	-	SW27	-	20	120	100	9	60	400	4.5
1 t	Z6/1t/ZEL	80	M10	10	39	$117^{+2.1}_{-2.2}$	26	-	SW27	-	20	120	100	9	60	400	4.5

* F_R : Force feedback in N, with 1 mm lateral displacement 回复力

** s_{max} : in mm, Maximum perm. lat. displacement with nominal (rated) loading 最大量程下负载导入的侧向最大位移

