

Type SB14 Load Cell

SLB悬梁臂式称重传感器



Important Features

- Capacities: 500 lb to 10000 lb.
- High accuracy.
- Total stainless steel construction.
- Complete hermetic sealing.
- Protection IP 68.
- Low profile.
- High input resistance: 1100Ω.
- W&M certified for 3000 intervals(PTB: D09-97.15 Rev. 2).
- Unique “blind” loading hole.
- Calibration in mV/V/Ω.
- Factory Mutual approved.

Option

- Explosion protection zone 0, 1, 2 and 20, 21, 22 ATEX.
- C3 and C3 MI 6 with Y=23000.

选型

SB14	-量程	-防爆 (EX)
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主要特点

- 量程: 500lb到10000lb
- 高精度
- 不锈钢结构
- 全金属焊接密封
- 防护等级 IP68
- 较低外形
- 输入电阻高: 1100Ω, 替换方便。
- W&M认证, 3000分度。(PTB: D09-97.15 Rev. 2).
- 盲孔安装
- 数字标定, 标定精度0.05%
- FM、OIML、NTEP、CE、FM、Ex认证

选项

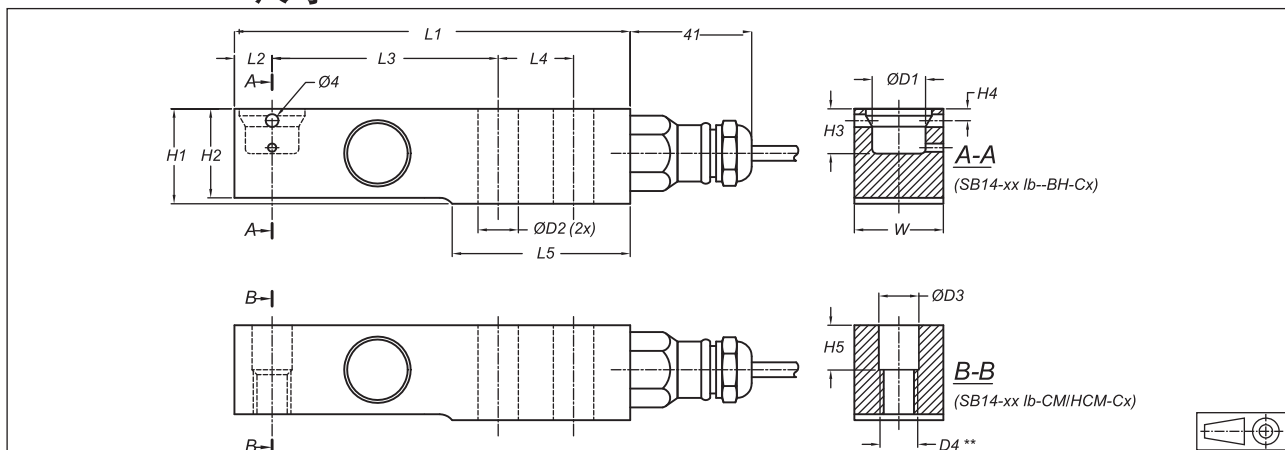
- 防爆保护区域0, 1, 2和20, 21, 22ATEX
- C3和C3 MI 6 (Y=23000)

SB14 Specifications 技术参数

Maximum capacity 量程 (Emax)	lb	500/1000/2500/5000/10000	500/1000/2500
Metric equivalent (1 lb=0.45359 kg)公制	kg	227/454/1134/2268/4536	227/454/1134
Rated Output 输出灵敏度 (Cn)	mV/V	2 ± 0.1%	
Calibration in mV/V/Ω 数字标定精度	%Cn	≤ ± 0.05 (≤ ± 0.005)	
Accuracy class according to OIML R 60 精度等级	(GP)	C3	C3 M16
Maximum number of verification intervals 最大检定分度数 (Nmax)	n.a.	3000	3000
Minimum load cell verification interval 最小检定分度 (Vmin)	n.a.	Emax/11500	
Temperature effect on sensitivity 灵敏度温度系数	%Cn/°C	≤ ± 0.040	≤ ± 0.0011
Option 选项 (500/1000/2500 lb)	Minimum load cell verification interval 最小检定分度 (Vmin)	n.a.	Emax/23000
	Temperature effect on minimum dead load output 零点温度系数	%Cn/°C	≤ ± 0.0006

Combined error 综合误差	%Cn	≤ ± 0.040	≤ ± 0.020	≤ ± 0.020
Creep error (30 minutes)/DR 蠕变	%Cn	≤ ± 0.060	≤ ± 0.016	≤ ± 0.008
Temperature effect on sensitivity 灵敏度温度系数	%/°C	≤ ± 0.0020	≤ ± 0.0011	≤ ± 0.0011
Excitation voltage 激励电压	V	5...15		
Zero balance 零点平衡	%Cn	≤ ± 5		
Input resistance 输入电阻	Ω	1100 ± 50		
Output resistance 输出电阻	Ω	1000 ± 2		
Insulation resistance 绝缘电阻 (100 V DC)	MΩ	≥ 5000		
Compensated temperature range 补偿温度范围	°C	-10...+40		
Operating temperature range 工作温度范围	°C	-40...+80		
Safe load limit 安全载荷限制 (Elim)	%E _{max}	200		
Ultimate load 极限载荷	%E _{max}	300		
Safe side load 安全侧载	%E _{max}	100		
Load cell material 材料		Stainless steel 17-4PH(1.4548) 不锈钢		
Sealing 密封		Complete hermetic sealing 全金属焊接密封		
Protection according DIN 40.050 防护等级		IP 68		

Dimensions 尺寸



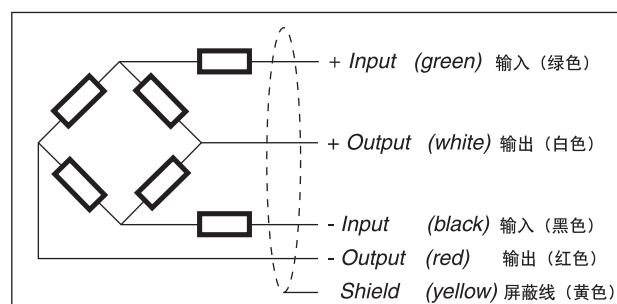
Type 型号	L1	L2	L3	L4	L5	H1	H2	H3	H4	H5	W	D1	D2	D3	D4	装配螺栓	力矩
SB14-500lb/1000 lb	133.4	12.7	76.2	25.4	59.9	31	28.8	15	4	15	30	18	13	13.5	M12	M12 8.8	90 Nm
SB14-2500lb	133.4	12.7	76.2	25.4	59.9	31	30.5	15	4	15	30	18	13	13.5	M12	M12 8.8	90 Nm
SB14-5000lb	133.4	12.7	76.2	25.4	59.9	31	30.5	15	4	15	30	18	13	13.5	M12	M12 10.9	120 Nm
SB14-10000lb	177.8	19.1	95.3	38.1	92.7	43.6	38.1	20.5	8	20.1	43	25	21	30.2	M20	M20 8.8	400 Nm

All dimensions in mm. 所有尺寸单位为: mm

* Torque values assume oiled threads. 力矩值是适用在油螺纹上

** Unified thread 1/2-20 UNF (500...5000 lb) and 3/4-16 UNF (10000 lb) is available. Type designation SB14-xx-CU. 采用英制螺纹1/2-20 UNF (500...5000 lb)和3/4-16 UNF (10000 lb)。型号为SB14-xx-CU。

接线图



Wiring

- The load cell is provided with a shielded, 4 conductor cable (AWG 24)). Cable jacket polyurethane.
- Cable length: 3 m for SB14-500 lb to 5000 lb, 4.5 m for SB14-10000 lb.
- Cable diameter: 5 mm.
- The shield is floating (On request the shield can be connected to the load cell body).

连线

- 称重传感器专用4芯屏蔽电缆线 (AWG 24)。
- 电缆长度：对于SB14-500 lb 到 5000 lb 为3m。对于SB14-10000 lb为4.5m。
- 电缆直径为：5 mm
- 屏蔽线悬浮（如果要求，屏蔽可与称重传感器本体相连）